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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Hilcorp Energy	OGRID 372171
Contact Name Kate Kaufman	Contact Telephone 346-237-2275
Contact email kkaufman@hilcorp.com	Incident # *(assigned by OCD)*
Contact mailing address 382 CR 3100 Aztec NM 87410	

Location of Release Source

Latitude 36.5982819 Longitude -107.5212479
(NAD 83 in decimal degrees to 5 decimal places)

Site Name San Juan 28-7 Unit 183M	Site Type Well Site
Date Release Discovered 01/15/2019	API# *(if applicable)* 30-039-25660

Unit Letter	Section	Township	Range	County
O	01	27N	07W	Rio Arriba

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 150	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 7	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Leak in bottom of tank due to corrosion. Visible signs of the leak on surface are estimated to be 10 feet wide and 25 -30 feet across. Had visited location 1-11-19 and saw no signs of the leak. When operator returned on the 15th noticed

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☐ Description of remediation activities

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

Printed Name: Jim Foster Title: Consultant

Signature: Date: 11/14/23

email: jim@teamtimberwolf.com Telephone: 979 324-2139

OCD Only

Received by: Date:

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

Closure Approved by: Nelson Velez Date: 03/04/2024

Printed Name: Nelson Velez Title: Environmental Specialist - Adv

TIMBERWOLF ENVIRONMENTAL

1115 Welsh Ave, Ste. B
College Station, Texas 77840
979.485.9094
teamtimberwolf.com

November 13, 2023

Mr. Nelson Velez
Environmental Specialist – Advanced
New Mexico Oil Conservation Division – District 3
1000 Rio Brazos Road
Aztec, New Mexico 87410

Re: Closure Report
San Juan 28-7 Unit 183M
Hilcorp Energy Company
Rio Arriba County, New Mexico
Incident ID No.: NCS1901627746

Dear Mr. Velez:

On behalf of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this closure report to document remediation activities conducted at the San Juan 28-7 Unit 183M (Site) and to present confirmation sample methodology and laboratory results which confirm Site soils have met regulatory closure criteria. The Site is located approximately 27 miles east-southeast of Bloomfield, in Rio Arriba County, New Mexico (Figures 1 – 3), on federal land managed by the Bureau of Land Management (BLM).

Site Background

On January 15, 2019, Hilcorp personnel discovered a release at the Site; corrosion near the base of a former oil tank resulted in the release of approximately 150 barrels (bbls) of oil and 7 bbls of produced water. All released fluid was contained by the berm. Standing fluid was recovered; the tank was removed from service and disposed of off-site. The initial investigation identified the area of the former tank battery as the primary area of concern (AOC).

Hilcorp constructed a new tank battery northeast of the original tank battery. Tanks and interconnective piping were removed from the original tank battery.

Site Investigation

In March 2019, a soil investigation revealed that the constituents of concern (COC) were: total BTEX (i.e., benzene, toluene, ethylbenzene, and xylenes) and total petroleum hydrocarbons (TPH). Impacted soil was horizontally and vertically delineated; the vertical extent of impacted soil was approximately 27 feet (ft) below ground surface (bgs). Additionally, the soil investigation revealed that subsurface soil is unconsolidated to a depth of approximately 10 ft bgs which is underlain by sandstone. Findings of

the investigation are documented in Timberwolf's report entitled: *Site Characterization Report and Remedial Action Plan*, dated 05/21/19.

Corrective Actions

To remediate hydrocarbon-impacted soil, a soil vapor extraction (SVE) system was designed, constructed, and installed at the Site. The SVE system is comprised of eleven SVE wells, four vent wells, and an SVE trailer. Four SVE wells were completed in the unconsolidated zone (i.e., 0-9.5 ft); seven SVE wells were completed in the consolidated zone (i.e., 9.5-30 ft). The four vents were additionally completed in the consolidated zone. SVE well construction is detailed in Timberwolf's report entitled: *Status Report – 4th Quarter 2019*, dated 01/31/20. The SVE wells and vent locations are shown in Figure 4.

The SVE trailer is comprised of a regenerative blower (i.e., vacuum pump), hour meter, moisture separator and filter, sampling port, and a manifold with three independent legs. Two legs (Legs 1 and 3) operated the deep SVE wells, and one leg (Leg 2) operated the shallow wells. Additionally, the SVE trailer is equipped with a programmable automation panel to control valves for each manifold leg. A natural gas generator provided electrical power to the trailer.

The SVE system created a treatment field of approximately 0.15 acres and treated soil to a depth of approximately 30 ft bgs. The system start-up date was 12/18/19. The SVE system was operated until 07/24/23.

Prior Reports and Assessments

Prior assessment reports, corrective action reports, and status reports pertaining to the Site are listed below:

- *Site Characterization Plan*, dated 03/05/19
- *Site Characterization and Remedial Action Plan*, dated 05/21/19
- *Status Report – 4th Quarter 2019*, dated 01/31/20
- *Status Report – 1st Quarter 2020*, dated 04/30/20
- *Status Report – 2nd Quarter 2020*, dated 09/03/20
- *Status Report – 3rd Quarter 2020*, dated 11/25/20
- *Status Report – 4th Quarter 2020*, dated 01/28/21
- *Status Report – 1st Quarter 2021*, dated 05/05/21
- *Status Report – 2nd Quarter 2021*, dated 07/28/21
- *Status Report – 3rd Quarter 2021*, dated 10/29/22
- *Status Report – 4th Quarter 2021*, dated 01/28/22
- *Status Report – 1st Quarter 2022*, dated 04/13/22
- *Status Report – 2nd Quarter 2022*, dated 07/14/22
- *Status Report – 3rd Quarter 2022*, dated 10/14/22
- *Status Report – 4th Quarter 2022*, dated 01/12/23
- *Status Report – 1st Quarter 2023*, dated 04/10/23
- *Soil Monitoring Results and In-Situ Remediation Proposal*, dated 06/27/23
- *Status Report – 2nd Quarter 2023*, dated 07/13/23.

Regulatory Closure Criteria

The New Mexico Oil Conservation Division (NMOCD) established remediation action levels for soil impacted by oilfield products or wastes, which are documented under the New Mexico Administrative Code (NMAC) Rule 19.15.29. The Rule was officially promulgated by Oil Conservation Division Order No.: R-14751, dated June 21, 2018.

Under Rule 19.15.29, soil cleanup criteria are determined based on the depth to usable groundwater and distances to surface water resources and sensitive features. Regulated groundwater intervals, required laboratory methodology, and soil closure criteria are presented in Table 1 below.

Table 1. Closure Criteria for Soil Impacted by a Release

Depth to Groundwater[1]	Constituent	Method[2]	Regulatory Criteria[3] (mg/kg)
≤ 50 feet	Chloride[4]	EPA 300.0	600
	TPH	EPA SW-846 Method 8015M	100
	Total BTEX	EPA SW-846 Method 8021B or 8260B	50
	Benzene	EPA SW-846 Method 8021B or 8015M	10
51 feet-100 feet	Chloride[4]	EPA 300.0	10,000
	TPH	EPA SW-846 Method 8015M	2,500
	GRO+DRO	EPA SW-846 Method 8015M	1,000
	Total BTEX	EPA SW-846 Method 8021B or 8260B	50
	Benzene	EPA SW-846 Method 8021B or 8260B	10
> 100 feet	Chloride[4]	EPA 300.0	20,000
	TPH	EPA SW-846 Method 8015M	2,500
	GRO+DRO	EPA SW-846 Method 8015M	1,000
	Total BTEX	EPA SW-846 Method 8021B or 8260B	50
	Benzene	EPA SW-846 Method 8021B or 8015M	10

[1] From surface to useable groundwater (i.e., less than 10,000 milligrams per liter (mg/L) total dissolved solids (TDS))
[2] Or other test methods approved by the division
[3] Regulatory limits or background level, whichever is greater
[4] Applies to produced water and fluids containing chloride
TPH – Total Petroleum Hydrocarbons (GRO + DRO + MRO)
GRO – Gasoline Range Organics
DRO – Diesel Range Organics
MRO – Motor Oil Range Organics
mg/kg – milligrams per kilogram

Additionally, the most stringent closure criteria as presented in Table 1 (i.e., ≤ 50 feet) are applicable for releases within a municipal boundary, 100-year floodplain, overlying a mine or unstable area, or within the specified protective distances from sensitive features as shown in Table 2 below.

Table 2. Protective Distances for Sensitive Features

Sensitive Feature	Protective Distance (feet)
Continuously flowing watercourse and its first-order tributaries	300
Lakebed, sinkhole, or playa lake	200
Residence, school, hospital, or church	300
Spring or water well for private domestic/livestock water source	500
Any spring or fresh water well	1,000
Wetland	300

A review of well records maintained by the New Mexico Office of the State Engineer (NMOSE) revealed the closest water well is 1.36 miles west of the Site adjacent to Carrizo Creek. The differential elevation between the Site and the depth-to-water in the referenced water well provides a depth-to-groundwater for the Site to be 385 ft. The Site is not situated within a municipal boundary, floodplain, mine or unstable area, or within 1,000 ft of any sensitive feature; therefore, soil closure criteria at the Site are as follows:

- Chloride < 20,000 mg/kg
- Total petroleum hydrocarbons (TPH) < 2,500 mg/kg
- GRO + DRO < 1,000 mg/kg
- Total BTEX < 50 mg/kg
- Benzene < 10 mg/kg.

2023 Soil Monitoring

On May 8, 2023, Timberwolf collected twelve (12) soil samples from four (4) soil monitoring borings (i.e., SM1 – SM4) to evaluate the SVE system's effectiveness and to evaluate remedial progress at the Site. Soil samples were collected from the surface to 30 ft bgs. Soil from each boring (i.e., SM1 – SM4) was field screened for volatile organic compounds (VOC) using a photoionization detector (PID). Samples selected for laboratory analysis included the highest PID readings from the unconsolidated zone (0-9.5 ft), consolidated zone (9.5-30 ft), and boring terminus (29-30 ft). Soil monitoring boring locations and laboratory results are shown in Figure 5, and in Timberwolf's report, *Soil Monitoring Results and In-Situ Remediation Proposal,* dated 06/27/23.

The soil samples revealed two (2) samples from the unconsolidated zone exceeded regulatory criteria for certain COCs (i.e., Total BTEX and/or GRO + DRO). All samples were in compliance except for identified impacted soil in two borings:

- SM1 6.5 – 8.5 ft
- SM3 8.5 – 9.5 ft

Field texture analysis additionally identified the 6.0 to 9.5 ft interval in SM1 and SM3 to be silty clay. SVE technology is less efficient on clayey soils; therefore, Timberwolf proposed an in-situ treatment to bring the remaining impacted soil into regulatory compliance.

On 07/11/23, the NMOCD approved the remediation proposal in Timberwolf's *Soil Monitoring Results and In-Situ Remediation Proposal* report with the following conditions:

1) Hilcorp must obtain NMOCD's pre-approval of any biosurfactant application if the Division had not previously approved its use,
2) Any amendments used should include Material Data Sheet for pre-approval, if applicable, or in the final closure report, and
3) Hilcorp has until 12/08/23 to submit the final closure report or a time extension request with an up-to-date status of the remedial activities conducted.

NMOCD approval of the biosurfactant Petro-Clean is attached.

2023 In-Situ Remediation

During the week of 07/24/23, Timberwolf personnel were on-site to: 1) plug and abandon SVE wells and vents, 2) define the horizontal extent of the impacted clay layer, 3) remove the unimpacted overburden soil, comprised of sand, which overlaid silty clay, 4) collect confirmation samples from the excavation base, sidewall, and stockpiled soil (i.e., overburden), and 5) conduct in-situ soil remediation of the impacted soil.

SVE wells and vents were removed with a backhoe and plugged with hydrated bentonite. The horizontal extent of impacted soil was delineated as 20 ft x 28 ft, a footprint of 560 square feet (ft^2) with perimeter of 96 linear feet. Approximately 125 cubic yards (yd^3) of clean overburden soil was excavated and stockpiled adjacent to the excavation as shown in Figure 6. The impacted soil from the 6.0 to 9.5 ft depth interval was treated in place. A fence was erected surrounding the excavation and stockpiles and the excavation was sloped to allow an escape route for wildlife.

Confirmation Sampling – Excavation Base, Sidewalls, and Overburden

Prior to in-situ treatment, excavation confirmation samples were collected to ensure that: 1) the horizontal extent of impacted soil was identified; 2) the vertical extent of impacted soil was identified; and 3) the stockpiled overburden soil was in compliance within regulatory closure criteria.

Each excavation confirmation sample was a composite comprised of five (5) sample points. Sample points were collected using a hand auger or spade. All sample points used to form a composite sample were placed into a sealable plastic bag and homogenized. Excavation base samples were collected from the base of the unconsolidated/in-situ treatment zone. A summary of confirmation sample types, nomenclature, number of sample points per composite, total number of confirmation samples by type, and sampling frequency are provided in Table 3 below.

Table 3. Summary of Confirmation Samples

Confirmation Sample Type	Nomenclature	Number of Sample Points*	Number of Samples	Sample Frequency
Excavation sidewall	ESW	5	5	200 ft^2
Excavation base	EB	5	3	200 ft^2
Stockpiled overburden soil	STOCKPILE	5	3	50 yd^3

ft^2 – square feet yd^3 – cubic yards * Number of sample points per composite

Composite samples were placed in laboratory-provided sample containers, stored on ice, and transported under proper chain-of-custody protocol to Hall Environmental & Analytical Laboratory (HEAL) of Albuquerque, New Mexico for chemical analysis. Samples were analyzed for the following constituents:

- BTEX by EPA SW-846 Method 8021B
- GRO, DRO, and MRO by EPA SW-846 Method 8015M
- Chloride by EPA Method 300.0.

The analytical results from excavation sidewalls, excavation bases, and overburden stockpiles confirmation samples are summarized in Tables 4, 5, and 6 below. Confirmation sample locations are shown in Figure 6.

Table 4. Analytical Results – 07/25/23 Confirmation Samples – Excavation Sidewall

Sample ID	Volatile Organic Compounds (mg/kg)		GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO + DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
	Benzene	Total BTEX						
ESW1	< 0.025	< 0.221	< 4.9	16	< 47	16	16	< 60
ESW2	< 0.024	< 0.215	< 4.8	23	< 48	23	23	< 60
ESW3	< 0.025	< 0.221	< 4.9	< 9.6	< 48	< 9.6	< 48	< 60
ESW4	< 0.024	< 0.220	< 4.9	10	< 44	10	10	< 60
ESW5	< 0.023	< 0.211	< 4.7	< 9.7	< 48	< 9.7	< 48	< 61
Closure Criteria	**10**	**50**	**--**	**--**	**--**	**1,000**	**2,500**	**20,000**

BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
GRO – Gasoline Range Organics
DRO – Diesel Range Organics
MRO – Motor Range Organics
TPH – Total Petroleum Hydrocarbons (GRO + DRO + MRO)

– exceeds regulatory criteria
-- – no applicable regulatory criteria
mg/kg – milligrams per kilogram

Table 5. Analytical Results – 07/25/23 Confirmation Samples – Excavation Base

Sample ID	Volatile Organic Compounds (mg/kg)		GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO + DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
	Benzene	Total BTEX						
EB1	< 0.024	< 0.527	22	13	< 49	35	35	< 60
EB2	< 0.025	< 1.666	47	< 9.5	< 47	47	47	62
EB3	< 0.024	< 5.484	120	62	< 46	182	182	< 60
Closure Criteria	**10**	**50**	**--**	**--**	**--**	**1,000**	**2,500**	**20,000**

BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
GRO – Gasoline Range Organics
DRO – Diesel Range Organics
MRO – Motor Range Organics
TPH – Total Petroleum Hydrocarbons (GRO + DRO + MRO)

– exceeds regulatory criteria
-- – no applicable regulatory criteria
mg/kg – milligrams per kilogram

Table 6. Analytical Results – 07/25/23 Confirmation Samples – Stockpiles

Sample ID	Volatile Organic Compounds (mg/kg)		GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO + DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
	Benzene	Total BTEX						
STOCKPILE1	< 0.023	< 0.211	6.2	44	< 49	50.2	50.2	< 59
STOCKPILE2	< 0.024	< 0.220	7.3	16	< 46	23.3	23.3	< 60
STOCKPILE3	< 0.023	< 0.839	53	80	< 50	133	133	< 60
Closure Criteria	**10**	**50**	**--**	**--**	**--**	**1,000**	**2,500**	**20,000**

BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
GRO – Gasoline Range Organics
DRO – Diesel Range Organics
MRO – Motor Range Organics
TPH – Total Petroleum Hydrocarbons (GRO + DRO + MRO)

– exceeds regulatory criteria
-- – no applicable regulatory criteria
mg/kg – milligrams per kilogram

All samples were collected in accordance with 19.15.29 NMAC. Laboratory results revealed that all sidewall, excavation base, and overburden soil samples were below regulatory closure criteria for the Site. Laboratory methods, analytical results, and chain-of-custody documents are provided in the attached laboratory report.

In-Situ Treatment

Impacted soil was treated in-situ by incorporating 40 pounds (lbs.) of Sta-Green™ 13-13-13 All-Purpose Fertilizer and 36 lbs. of Sta-Green™ 22-0-4 Lawn Fertilizer. In addition, 20 gallons of Petro-Clean biosurfactant was added to 500 gallons of fresh water and incorporated into the impacted soil.

The soil was mixed using an excavator to: 1) incorporate amendments, 2) promote volatilization of the most volatile hydrocarbon fraction (i.e., GRO), and 3) aerate the soil to promote biodegradation. Approximately 73 yd^3 of soil was treated in-situ. The final size of the excavation measured approximately 28 ft by 20 ft (approximately 560 ft^2), with an average depth of 9.5 ft bgs. Corrective actions are documented in the attached photographic log.

Post In-Situ Treatment Confirmation Sampling

On October 26, 2023, Timberwolf collected three (3) post-treatment confirmation samples to determine if the in-situ treatment sufficiently degraded petroleum hydrocarbons and if soil regulatory closure criteria had been met. Each treatment confirmation sample was a composite comprised of five (5) sample points. Sample points were collected using a hand auger. All sample points used to form a composite sample were placed into a sealable plastic bag and homogenized. Samples were collected from the base of the unconsolidated treatment area (i.e., approximately 9.5 ft bgs).

Composite samples were placed in laboratory-provided sample containers, stored on ice, and transported under proper chain-of-custody protocol to Hall Environmental & Analytical Laboratory (HEAL) of Albuquerque, New Mexico for chemical analysis. Samples were analyzed for the following constituents:

- BTEX by EPA SW-846 Method 8021B
- GRO, DRO, and MRO by EPA SW-846 Method 8015M.

The analytical results from the treatment area confirmation samples are summarized in Table 7 below. Confirmation sample (CS) locations are shown in Figure 7.

Table 7. Analytical Results – Post In-situ Treatment Confirmation Samples – 10/26/23

Sample ID	Volatile Organic Compounds (mg/kg)		GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO + DRO (mg/kg)	TPH (mg/kg)
	Benzene	Total BTEX					
CS1	< 0.024	< 0.212	8.1	12	< 47	20.1	20.1
CS2	< 0.023	< 0.207	< 4.6	< 9.4	< 47	< 9.4	< 47
CS3	< 0.023	< 0.211	15	< 9.6	< 48	15	15
Closure Criteria	**10**	**50**	**--**	**--**	**--**	**1,000**	**2,500**

BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
GRO – Gasoline Range Organics
DRO – Diesel Range Organics
MRO – Motor Range Organics
TPH – Total Petroleum Hydrocarbons (GRO + DRO + MRO)

– exceeds regulatory criteria
-- – no applicable regulatory criteria
mg/kg – milligrams per kilogram

Laboratory results revealed that all confirmation samples were below regulatory closure criteria for the Site and that the in-situ remediation efforts were successful. Laboratory methods, analytical results, and chain-of-custody documents are provided in the attached laboratory report.

Conclusions

Remedial work performed at the Site included soil vapor extraction (SVE) and in-situ soil remediation. The corrective actions yielded the following results:

- SVE system was operated between 12/18/19 and 07/24/23 and successfully treated:
  - Approximately 622 yd^3 of unconsolidated soil (i.e., sand and silty clay) and 1,500 yd^3 of consolidated soil (i.e., sandstone)
  - Based on SVE air sample analysis and measured flow rates, and condensate recovery, the SVE system removed:
    - 29.1 bbls of GRO
    - 0.59 bbls of recovered condensate liquids
    - 84.9 lbs of benzene
    - 326.8 lbs of toluene
    - 14.6 lbs of ethylbenzene
    - 137.2 lbs of xylenes
- The in-situ remediation of the silty clay lens observed near the center and southern portions of Site successfully treated:
  - Approximately 73 yd^3 of soil impacted by GRO and/or total BTEX was treated
  - Laboratory analysis of soil samples collected from the excavation base (EB1 – SB3), sidewall (SW1 – SW5), overburden (i.e., Stockpile 1 – Stockpile 3) revealed that the impacted soil was horizontally and vertically delineated
  - Confirmation samples of the in-situ treated soil (i.e., CS1 – CS3) revealed that the in-situ treatment successfully brought impacted soil into regulatory compliance
  - All samples were collected in accordance with 19.15.29 NMAC.

Further Action

Upon NMOCD approval, Hilcorp will backfill overburden soil to close the excavation and return the Site to grade. Additionally, Hilcorp will provide notice to the NMOCD upon completion of Site reclamation activities.

If you have any questions regarding this report or need further assistance, do not hesitate to contact us.

Sincerely,
Timberwolf Environmental, LLC

Kevin Cole
Project Manager

Jim Foster
President

Attachments: Figures
Photographic Log
NMOCD Correspondence
Laboratory Reports and Chain-of-Custody Documents

cc: Kate Kaufman, Hilcorp
Abiodun Adeloye (Emmanuel), Bureau of Land Management

Figures

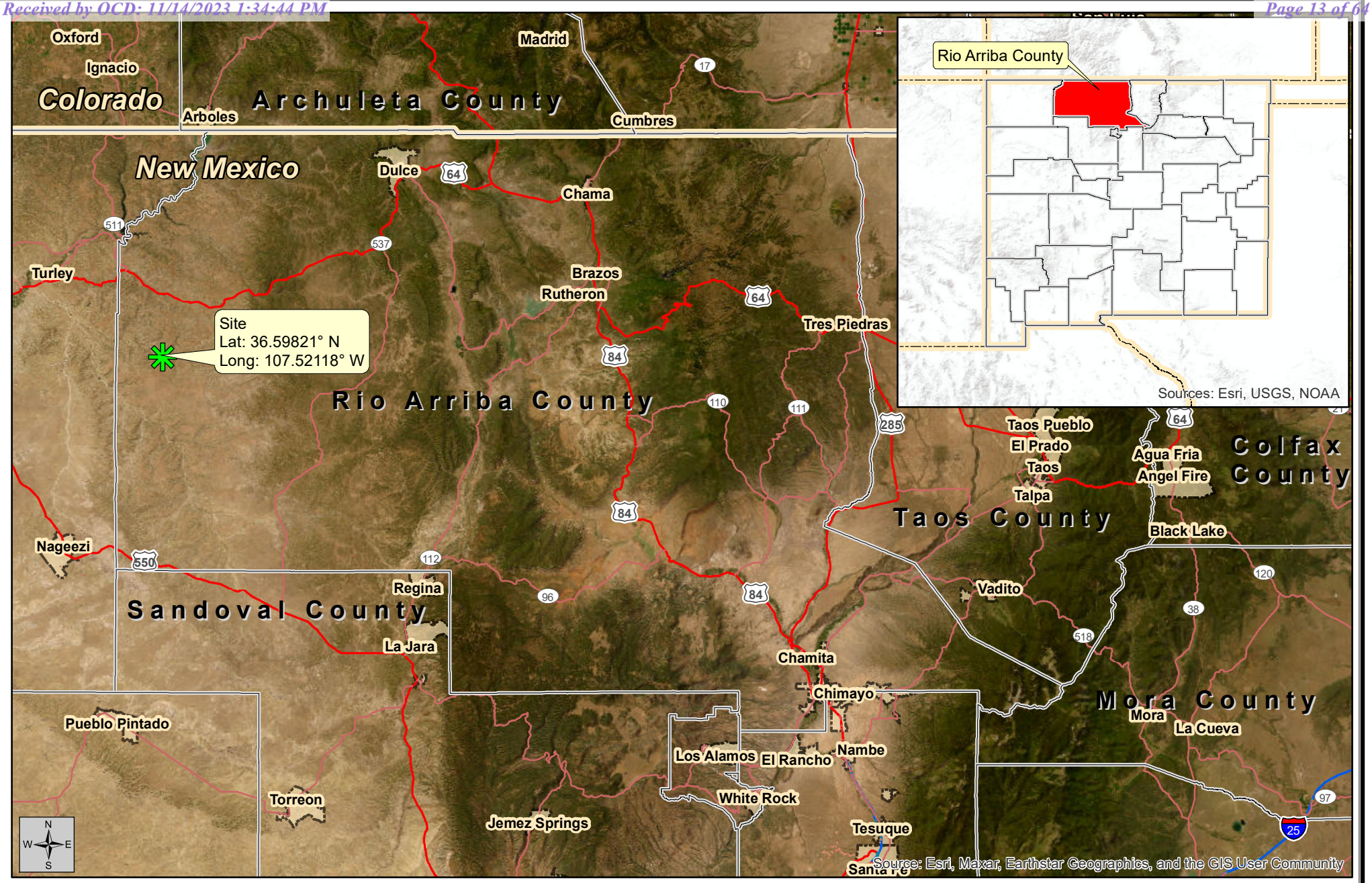


Figure 1 **Site Location Map**	**Closure Report**	**November 13, 2023**
TIMBERWOLF ENVIRONMENTAL	1:1,250,000 0 20 40 60 80 100 120 Miles **San Juan 28-7 Unit 183M (OCD Incident No. NCS1901627746)** **Hilcorp Energy Company** **Rio Arriba County, New Mexico**	Site
Created By: Brandon Wiesinger TE Project No.: HEC-190007	Datum: NAD83 Imagery Source: ESRI Vector Source: ESRI and TE	

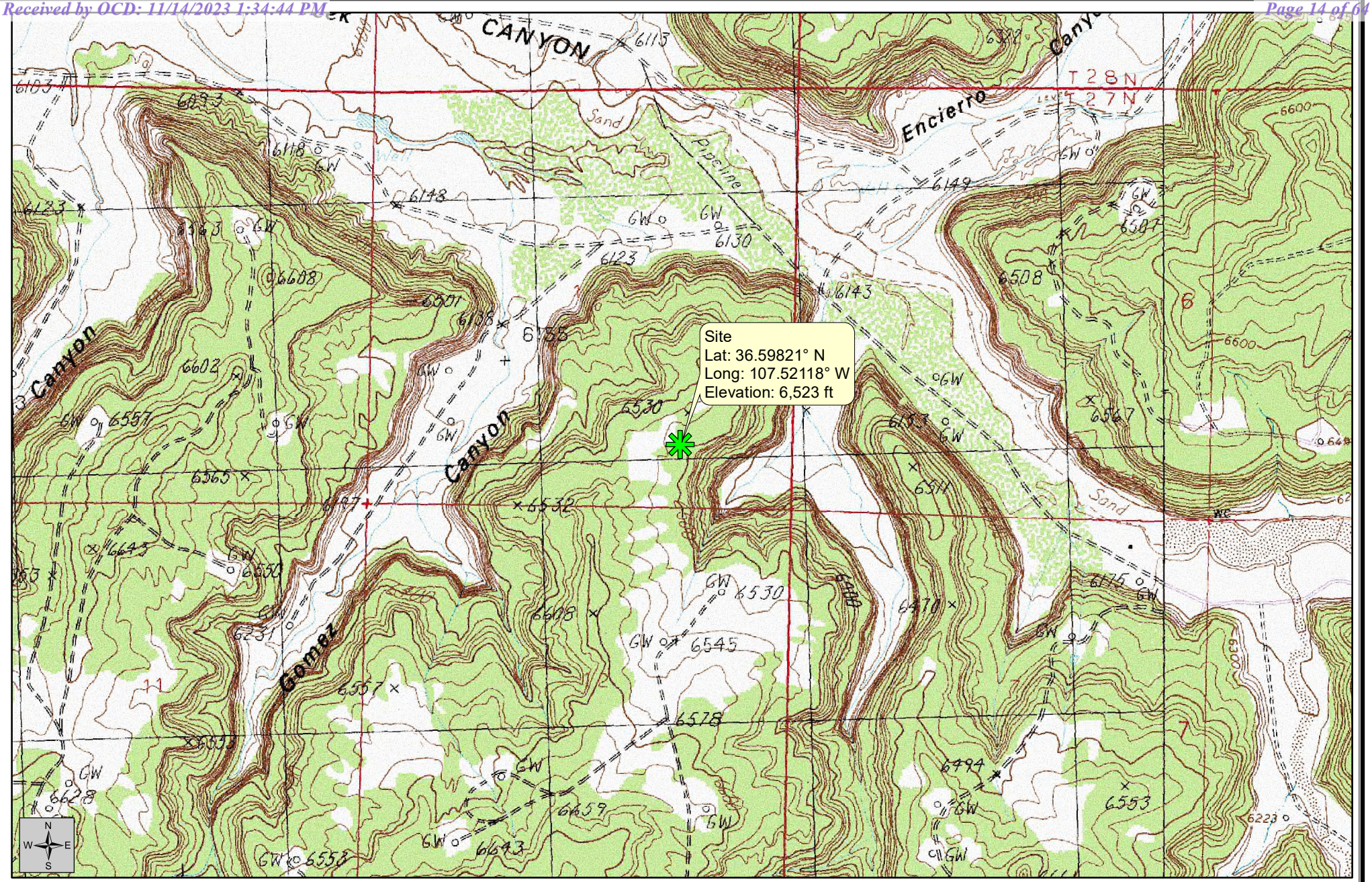


Figure 2 **Topographic Map**	**Closure Report**	**November 13, 2023**

TIMBERWOLF ENVIRONMENTAL

1:24,000

0 0.5 1 1.5 2 Miles

San Juan 28-7 Unit 183M (OCD Incident No. NCS1901627746)
Hilcorp Energy Company
Rio Arriba County, New Mexico

Created By:
Brandon Wiesinger
TE Project No.: HEC-190007

Datum: NAD83
Imagery Source: USGS
Quads: Gould Pass and Santos Peak
Vector Source: TE

Site

Figure 3 **Aerial Map**	**Closure Report**	**November 13, 2023**
TIMBERWOLF ENVIRONMENTAL	1:10,000 0 0.25 0.5 0.75 1 Miles **San Juan 28-7 Unit 183M (OCD Incident No. NCS1901627746)** **Hilcorp Energy Company** **Rio Arriba County, New Mexico**	Site
Created By: Brandon Wiesinger TE Project No.: HEC-190007	Datum: NAD83 Imagery Source: ESRI Vector Source: TE	

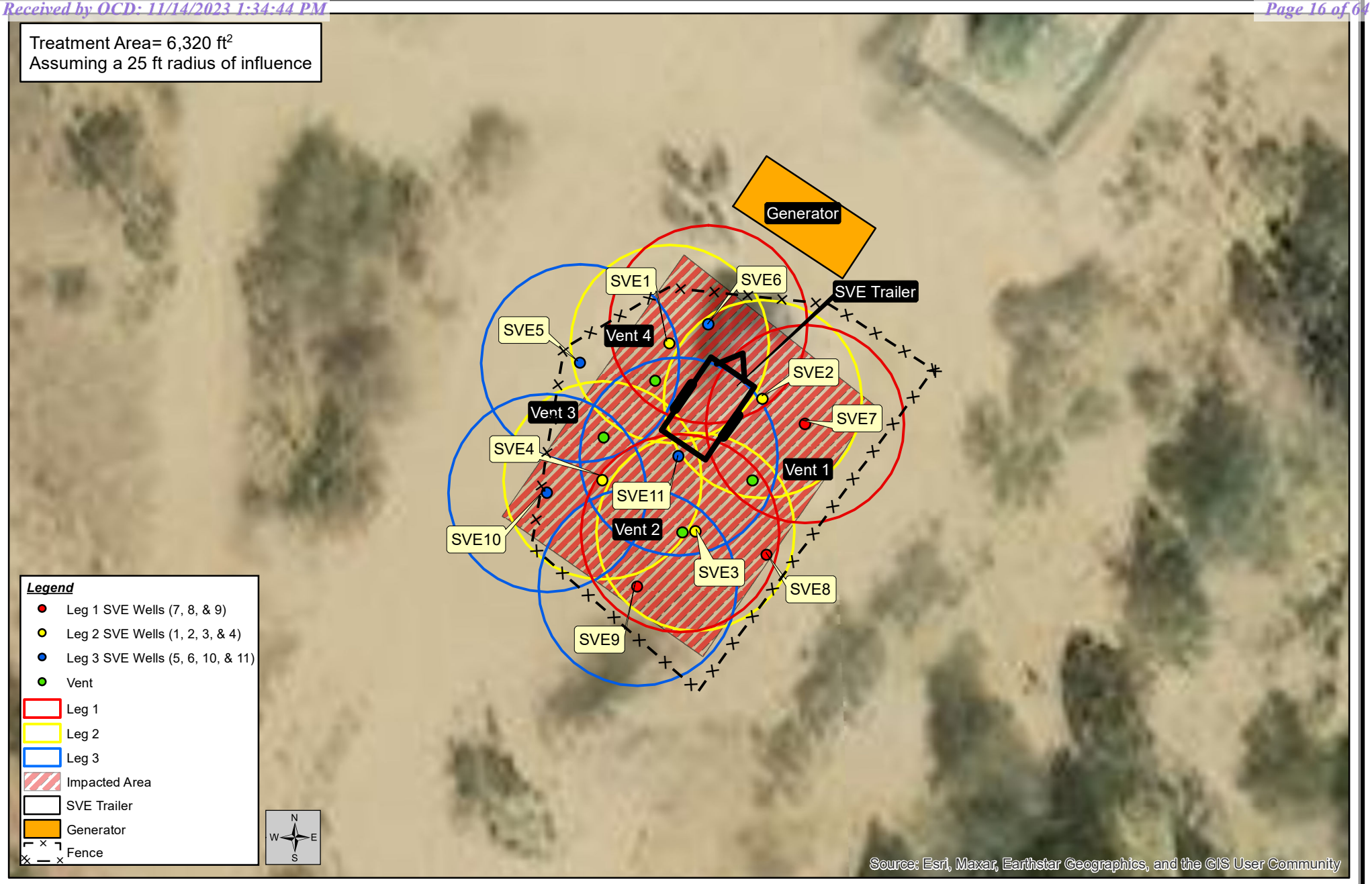


Figure 4 **SVE System Overview**	**Closure Report**	**November 13, 2023**
TIMBERWOLF ENVIRONMENTAL	1:250 0 25 50 75 100 125 Feet **San Juan 28-7 Unit 183M (OCD Incident No. NCS1901627746)** **Hilcorp Energy Company** **Rio Arriba County, New Mexico**	Datum: NAD83 Imagery Source: ESRI Vector Source: TE
	Created By: Brandon Wiesinger TE Project No.: HEC-190007	

Sample ID	Sample Date	Volatile Organic Compounds (mg/kg)				Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO + DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
		B	T	E	X							
SM1 6.5-8.5'	05/08/23	< 0.12	16	4.4	51	71.4	740	380	< 50	1,120	1,120	< 60
SM1 15-16'	05/08/23	< 0.12	< 0.24	< 0.24	< 0.48	< 0.48	100	230	< 48	330	330	< 60
SM1 29-30'	05/08/23	< 0.12	< 0.24	0.48	4.4	4.88	84	44	< 47	128	128	< 60
SM2 7-8'	05/08/23	< 0.024	< 0.048	< 0.048	< 0.097	< 0.097	< 4.8	< 9.6	< 48	0	0	< 60
SM2 25-26'	05/08/23	< 0.050	< 0.10	0.55	5.5	6.05	67	< 9.1	< 46	67	67	< 60
SM2 29-30'	05/08/23	< 0.049	< 0.097	< 0.097	< 0.19	< 0.097	< 9.7	29	< 50	29	29	< 60
SM3 8.5-9.5'	05/08/23	< 0.049	< 0.097	2.2	8.8	11	1,200	610	< 50	1,810	1,810	< 59
SM3 25-26'	05/08/23	< 0.024	0.18	0.13	1.2	1.51	22	14	< 49	36	36	< 60
SM3 29-30'	05/08/23	< 0.049	1.8	1.7	14	17.5	250	17	< 50	267	267	< 60
SM4 2-3'	05/08/23	< 0.025	< 0.050	< 0.050	< 0.10	< 0.050	< 5.0	< 10	< 50	0	0	< 60
SM4 20-21'	05/08/23	< 0.025	0.091	0.11	0.79	0.991	23	19	< 50	42	42	< 60
SM4 29-30'	05/08/23	< 0.023	< 0.047	< 0.047	< 0.093	< 0.093	< 4.7	< 9.5	< 48	0	0	< 60
Regulatory Criteria		10	--	--	--	50	--	--	--	1,000	2,500	600

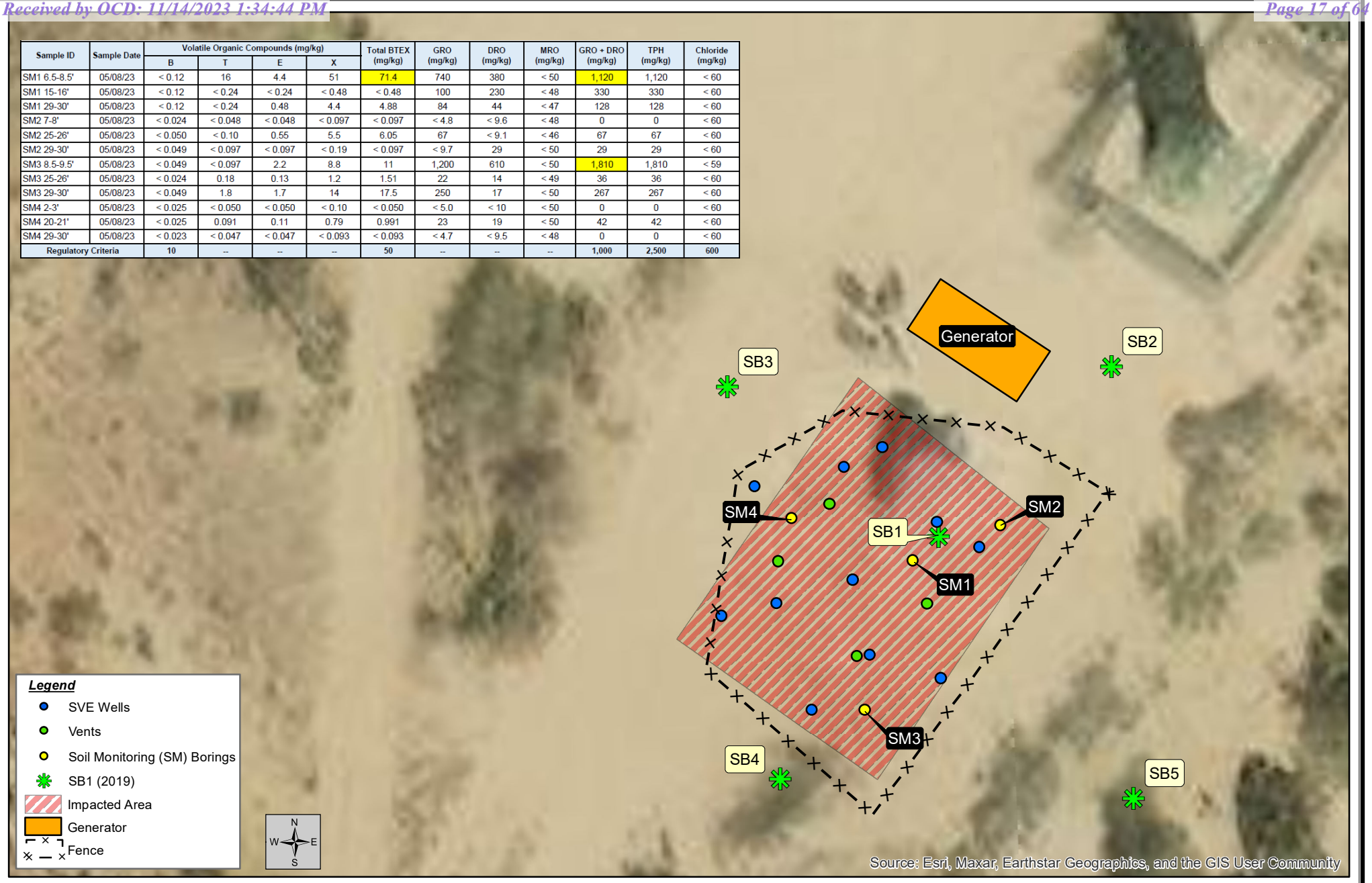


Figure 5
Soil Boring Location Map

Closure Report

November 13, 2023

1:250

0 25 50 75 100 125 Feet

San Juan 28-7 Unit 183M (OCD Incident No. NCS1901627746)
Hilcorp Energy Company
Rio Arriba County, New Mexico

Created By:
Brandon Wiesinger
TE Project No.: HEC-190007

Datum: NAD83
Imagery Source: ESRI
Vector Source: TE

TIMBERWOLF ENVIRONMENTAL

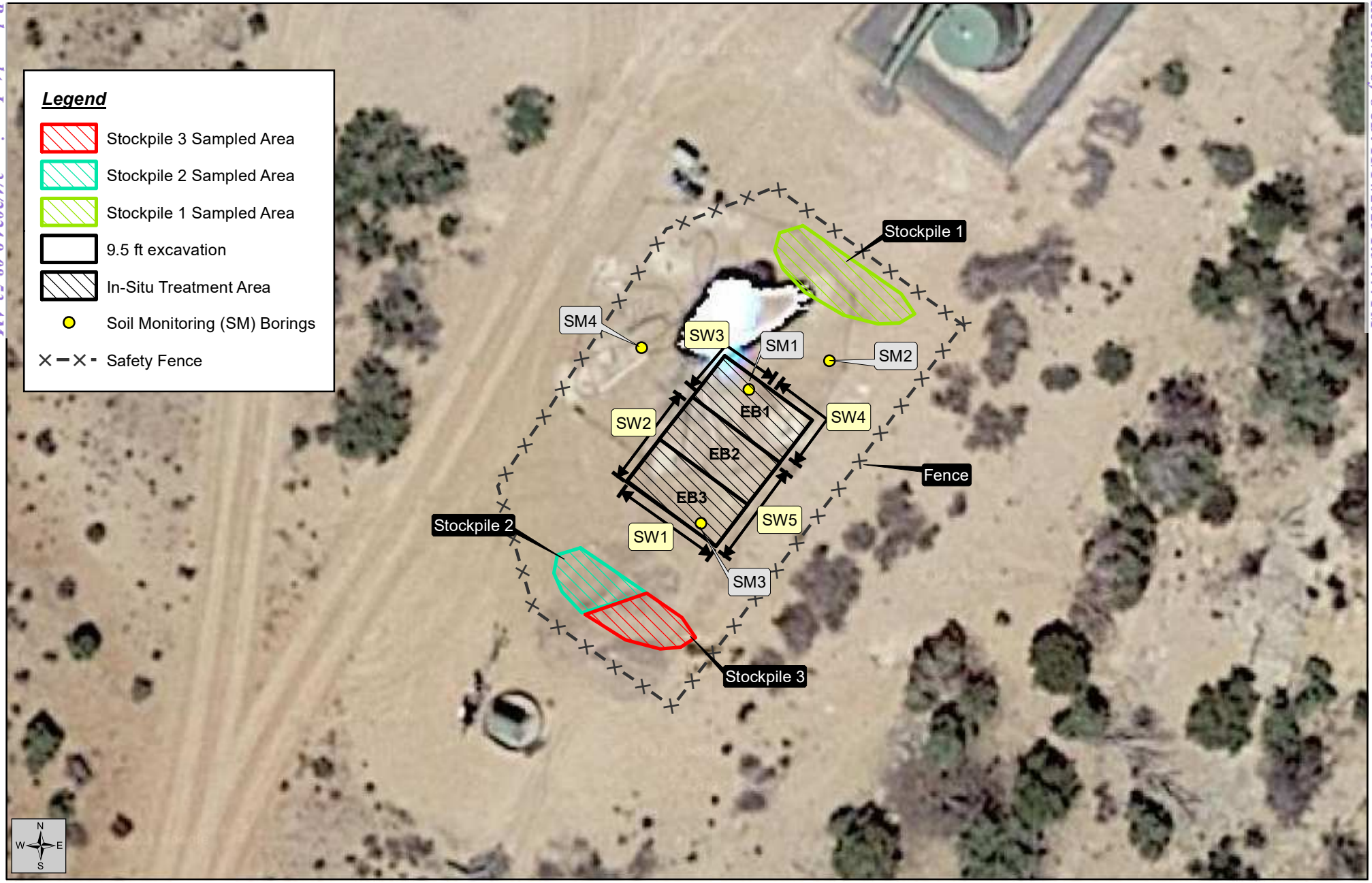


Figure 6
Confirmation Sample Location Map - Excavation

Closure Report

Sample Date:
July 25, 2023

1:350

0 50 100 150 Feet

TIMBERWOLF ENVIRONMENTAL

Created By:
Brandon Wiesinger
November 10, 2023
TE Project No.: HEC-190007

San Juan 28-7 Unit 183M (OCD Incident No. NCS1901627746)
Hilcorp Energy Company
Rio Arriba County, New Mexico

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

Sample ID	Volatile Organic Compounds (mg/kg)		GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO + DRO (mg/kg)	TPH (mg/kg)
	Benzene	Total BTEX					
CS1	< 0.024	< 0.212	8.1	12	< 47	20.1	20.1
CS2	< 0.023	< 0.207	< 4.6	< 9.4	< 47	< 9.4	< 47
CS3	< 0.023	< 0.211	15	< 9.6	< 48	15	15
Regulatory Criteria	**10**	**50**	**--**	**--**	**--**	**1,000**	**2,500**

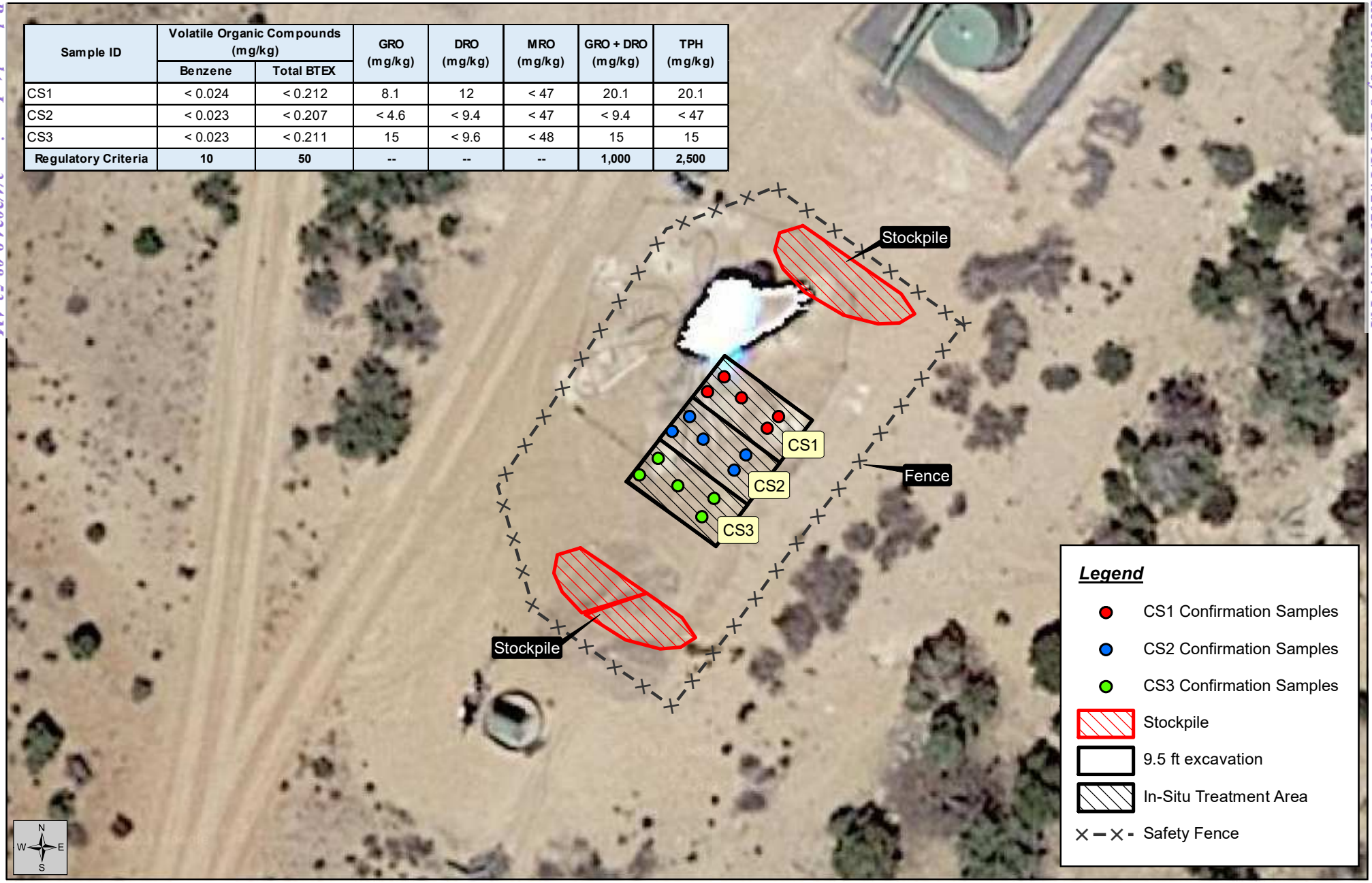


Figure 7
Confirmation Sample Location Map - In-Situ Treatment

Closure Report

Sample Date:
October 26, 2023

TIMBERWOLF ENVIRONMENTAL

1:350

0 50 100 150 Feet

Created By:
Brandon Wiesinger
November 10, 2023
TE Project No.: HEC-190007

San Juan 28-7 Unit 183M (OCD Incident No. NCS1901627746)
Hilcorp Energy Company
Rio Arriba County, New Mexico

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

Photographic Log

TIMBERWOLF ENVIRONMENTAL
1115 Welsh Ave., Suite B
College Station, TX 77840
979.324.2139
www.teamtimberwolf.com

PHOTOGRAPHIC LOG

Project No.:	HEC-190007	**Client:**	Hilcorp Energy Company
Project Name:	San Juan 28-7 Unit 183M	**Site Location:**	Rio Arriba County, New Mexico
Task Description:	Closure Report	**Date:**	October – November 2019

Photo No.: 1

Direction: Northeast

Comments: Overview of SVE system. SVE vents are identified by map tags. SVE wells are connected to vacuum hoses, which connect to the SVE trailer's manifold system located on the left side of the trailer.

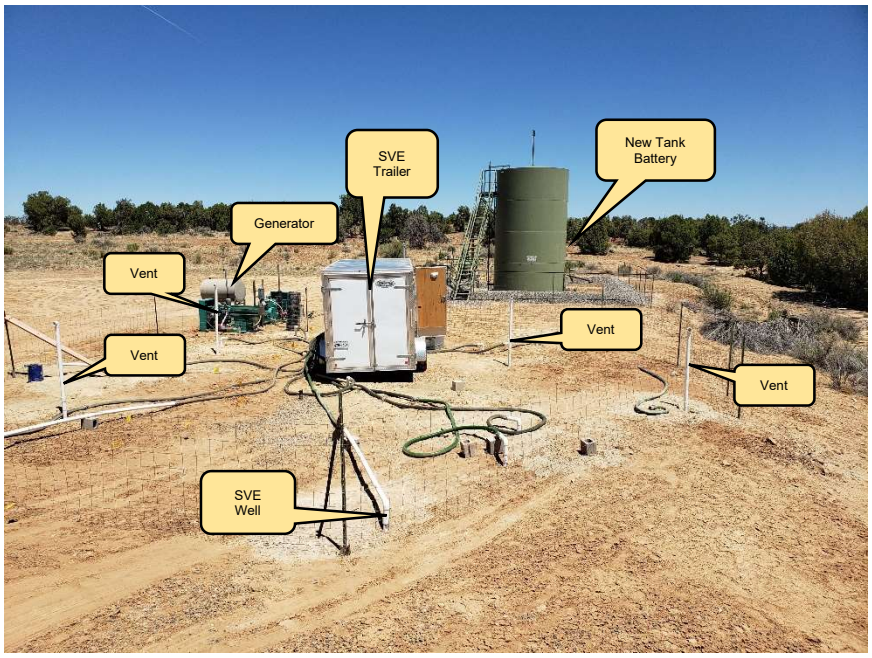
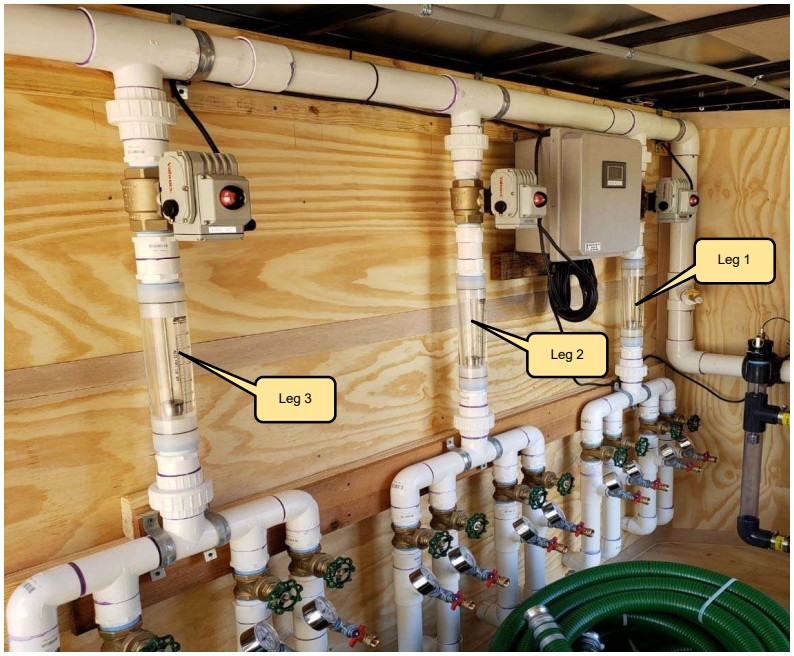


Photo No.: 2

Direction: N/A

Comments: View of 3-leg manifold system inside SVE trailer. Each leg is capable of running up to four SVE wells. Each well can be isolated or regulated using a dedicated gate valve and vacuum gauge. Each leg is equipped with a flow meter. The legs are controlled with an automation system and three electronic ball valves.



TIMBERWOLF ENVIRONMENTAL
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979.324.2139
www.teamtimberwolf.com

PHOTOGRAPHIC LOG

Project No.:	HEC-190007	**Client:**	Hilcorp Energy Company
Project Name:	San Juan 28-7 Unit 183M	**Site Location:**	Rio Arriba County, New Mexico
Task Description:	Closure Report	**Date:**	October – November 2019

Photo No.: 3

Direction: N/A

Comments: View of moisture separator, filter, and regenerative pump.

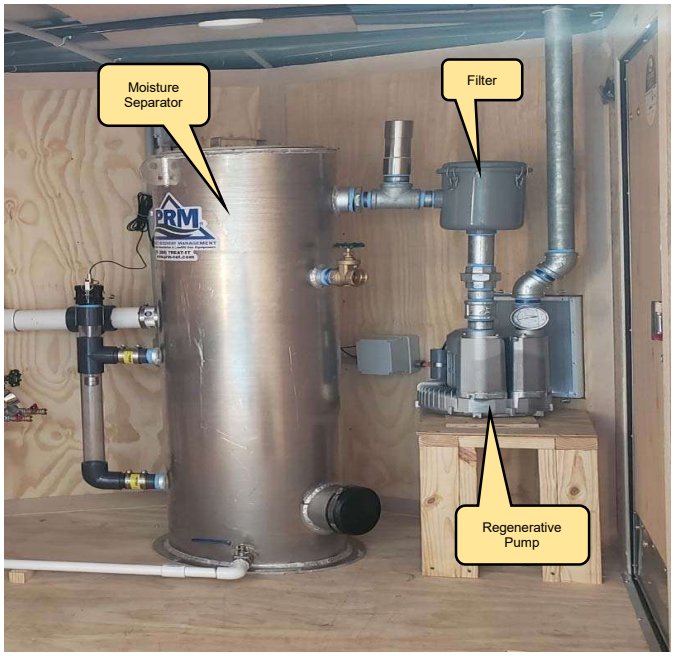
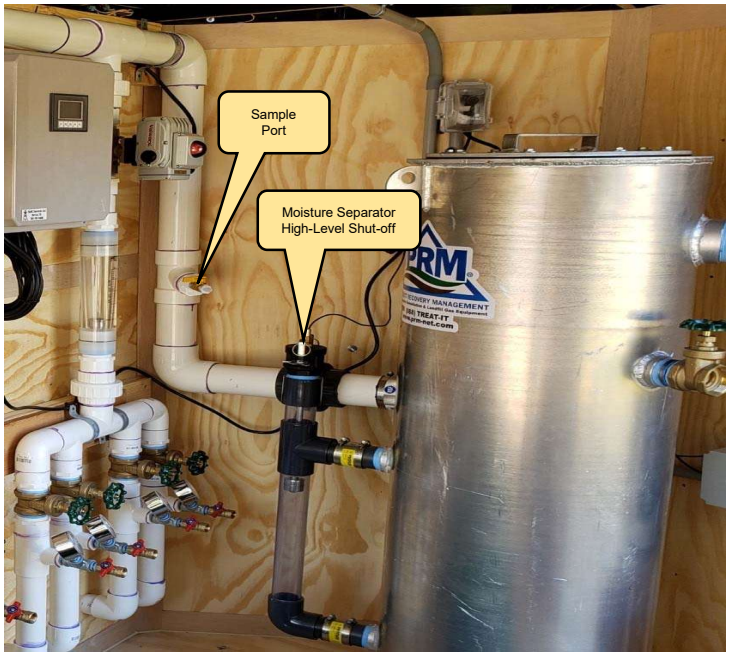


Photo No.: 4

Direction: N/A

Comments: View of leg 1 of the manifold and automation system, trunk line, moisture separator high-level shut-off, and gas sample port.



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979.324.2139
www.teamtimberwolf.com

PHOTOGRAPHIC LOG

Project No.:	HEC-190007	**Client:**	Hilcorp Energy Company
Project Name:	San Juan 28-7 Unit 183M	**Site Location:**	Rio Arriba County, New Mexico
Task Description:	Closure Report	**Date:**	May 2023

Photo No.: 5

Direction: N/A

Comments: View of open-top water/condensate storage tank fitted with bird netting.

Photo No.: 6

Direction: East

Comments: View of drilling rig during soil monitoring event, location is SM4.

Note: SVE trailer in background.

TIMBERWOLF ENVIRONMENTAL

1115 Welsh Ave., Suite B
College Station, TX 77840
979.324.2139
www.teamtimberwolf.com

PHOTOGRAPHIC LOG

Project No.:	HEC-190007	**Client:**	Hilcorp Energy Company
Project Name:	San Juan 28-7 Unit 183M	**Site Location:**	Rio Arriba County, New Mexico
Task Description:	Closure Report	**Date:**	July 2023

Photo No.:
7

Direction:
North

Comments:
SVE well and vent plugging and abandonment.

Note: All wells were sealed with hydrated bentonite.

Photo No.:
8

Direction:
N/A

Comments:
View of hour meter reading at system shut down on 07/24/23 at 11:00.

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979.324.2139
www.teamtimberwolf.com

PHOTOGRAPHIC LOG

Project No.:	HEC-190007	**Client:**	Hilcorp Energy Company
Project Name:	San Juan 28-7 Unit 183M	**Site Location:**	Rio Arriba County, New Mexico
Task Description:	Closure Report	**Date:**	July 2023

Photo No.: 7

Direction: Northeast

Comments: View of stockpiled overburden soil, earthen vehicle barricade, and fence.

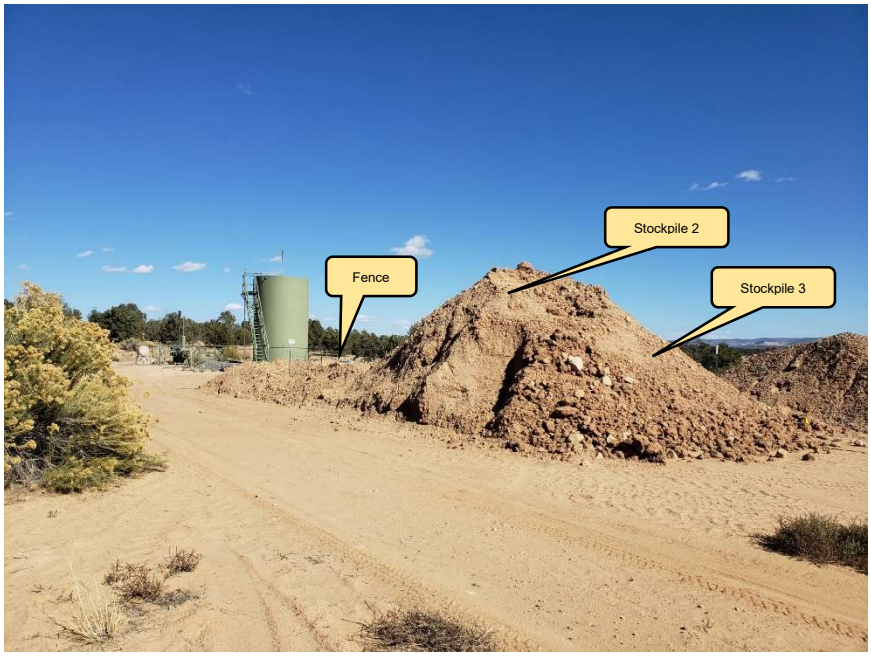

Photo No.: 8

Direction: South

Comments: View of in-situ treated soils.

Note: sidewalls sloped to allow escape route for wildlife and perimeter fencing.

NMOCD Correspondence

Berenice Marquez

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Wednesday, July 19, 2023 1:23 PM
To: Jim Foster
Cc: Kate Kaufman; Kevin Cole
Subject: Re: [EXTERNAL] RE: The Oil Conservation Division (OCD) has approved the application, Application ID: 236046

Jim,

Thank you for the additional information. Your request to apply Petro-clean as an amendment is approved.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

Regards,

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Jim Foster <jim@teamtimberwolf.com>
Sent: Tuesday, July 18, 2023 7:04 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Kate Kaufman <kkaufman@hilcorp.com>; Kevin Cole <kevin@teamtimberwolf.com>
Subject: [EXTERNAL] RE: The Oil Conservation Division (OCD) has approved the application, Application ID: 236046

Nelson,

To follow-up on our phone call this afternoon, Petro-clean has the following advantages over MicroBlaze:

- Petro-clean is a similar product to Micro-Blaze, but has a higher microbial count
- Petro-clean additionally is a biosurfactant, which increase surface area, which increases biodegradation rates
- Prior use of both products by Timberwolf indicates that Petro-clean is more effective

Both are EPA approved.

Thanks,

Jim Foster

TIMBERWOLF ENVIRONMENTAL

1115 Welsh Ave, Suite L
College Station, TX 77840
C: 979-324-2139
teamtimberwolf.com

From: Jim Foster
Sent: Friday, July 14, 2023 3:43 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Cc: Kate Kaufman <kkaufman@hilcorp.com>; Kevin Cole <kevin@teamtimberwolf.com>
Subject: RE: The Oil Conservation Division (OCD) has approved the application, Application ID: 236046

Nelson,

Our preference for biosurfactant for the SJ 28-7 No. 183M is Petro-Clean; attached is the material data sheet. The EPA also has a link to this product, provided below:
https://www.epa.gov/emergency-response/petro-clean

We plan to be on-site beginning Monday, July 24th, 2023. Work to begin at 8:30 am.

Thank you for your consideration of this product.

Jim Foster

TIMBERWOLF ENVIRONMENTAL

1115 Welsh Ave, Suite L
College Station, TX 77840
C: 979-324-2139
teamtimberwolf.com

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Tuesday, July 11, 2023 4:35 PM
To: Jim Foster <jim@teamtimberwolf.com>
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 236046

To whom it may concern (c/o Jim Foster for HILCORP ENERGY COMPANY),
The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nCS1901627746,
with the following conditions:

- **Remediation Plan is approved under the following conditions; 1. Hilcorp must obtain OCD's pre-approval of any biosurfactant application if the Division had not previously approved it use. 2. Any amendments used should include Material Data Sheet for pre-approval, if applicable, or in the final closure report. 3. Hilcorp has until December 8, 2023 to submit the final closure report or a time extension request with an up-to-date status of the remedial activities conducted.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.
Thank you,
Nelson Velez
Environmental Specialist – Advanced
505-469-6146
Nelson.Velez@emnrd.nm.gov
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

ALABASTER CORPORATION
6921 Olson, Pasadena, TX. 77505
281-487-5482 or 1-800-609-2728
www.alabastercorp.com

MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Trade Name	Petro Clean
Manufacturer	Alabaster Corporation 6921 Olson Pasadena, TX 77505
Telephone Numbers	
24 Hour Emergency Assistance	800-609-2728
General Assistance	281-487-5482
Product Class	Surface Cleaning Agent, Liquid
Product Number	Petro Clean

2 COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS Number	OSHA PEL	ACGIH TLV

NONE. This product does not contain any ingredients covered by the provisions of 29 CFR 1910.1200. All ingredients are organic and completely biodegradable. Ingredients not precisely identified are proprietary or non-hazardous. The liquid material is a water-based proprietary mixture of emulsifiers, non ionic surfactant, and in some formulations naturally occurring micro- organisms, which are non-pathogenic to humans, livestock, or agriculture.

The criteria for listing components in the composition section are as follows: Carcinogens are listed when present at 0.1% or greater; components which are otherwise hazardous according to OSHA are listed when present at 1.0% or greater. This is not intended to be complete compositional disclosure.

3 HAZARDS IDENTIFICATION

Emergency Overview

Caution

May cause irritation to the eyes, skin, respiratory, and digestive system.

Eye irritation develops immediately with contact and may cause mild irritation experienced as discomfort or pain, excess blinking and tear production, blurred vision, and redness.

Health Effects: Skin

Contact may cause slight irritation on sensitive skin as well as drying out and chapping.

Health Effects: Inhalation

Inhalation of high concentration of vapors may upset stomach and cause slight irritation of the respiratory tract.

Health effects: Ingestion

Ingestion may produce gastrointestinal disturbances including irritation, nausea and vomiting.

4 FIRST AID MEASURES

Eyes

Immediately flush eyes with water for at least 15 minutes while holding eyelids open. If irritation persists get medical attention.

Skin

For skin contact flush with large amounts of water while removing contaminated clothing and shoes. If irritation persists get medical attention.

Inhalation

If symptoms are experienced remove to fresh air. If symptoms persist get medical attention. If the affected person is not breathing apply artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

Ingestion

If swallowed, do not induce vomiting, get immediate medical attention.

5 FIRE FIGHTING MEASURES

Flash Point:	None
Extinguishing Media:	N/A
Decomposition Products:	Oxides of carbon
UEL:	N/A
LEL:	N/A

Containers may explode from internal pressure if confined in fire. Cool with water.

Fire fighting equipment

Fire fighters and others exposed to products of combustion should wear self-contained breathing apparatus and full protective clothing.

6 ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES

Contain large spills with dikes and transfer material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and dispose of in accordance with applicable regulations.

7 HANDLING AND STORAGE

HANDLING PROCEDURES

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and prompt removal of material from eyes, skin and clothing.

STORAGE PROCEDURES

Store away from acids and oxidizers.

PRECAUTIONARY MEASURES

Use with adequate ventilation. Do not breathe vapors. Do not breathe spray mist. Do not get in eyes, on skin or clothing. Wash thoroughly after handling.

8 EXPOSURE CONTROLS

General Considerations

Consider the potential hazards of this material, applicable exposure limits, job activities and work place conditions when designing engineering controls and selecting personal protective equipment.

Personal Protective Equipment: Eyes/Face

Wear safety glasses or chemical goggles (if splashing is possible).

Personal Protective Equipment: Skin

Wear suitable protective clothing. Use impervious gloves and boots.

Personal Protective Equipment: Respiratory

Use NIOSH approved vapor respirator if exposure is unknown or exceeds permissible limits. Consult the manufacturer to determine appropriate type of equipment for a given application.

Ventilation

Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits (see section 2). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult NFPA Standard 91 for design of exhaust system.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor	Clear golden liquid with medium viscosity and slight detergent smell
Flash Point	None
Specific Gravity	1.02
Vapor Pressure	Same as water
Vapor Density (Air = 1)	Same as water
Evaporation Rater (water = 1)	1
Boiling Point	212°F
Solubility in water	Complete
pH	7.0 – 8.0

10 STABILITY AND REACTIVITY

Chemical Stability

Stable

Hazardous Polymerization

Will not occur

Incompatibility

Strong acids, oxidizers or oxidizing materials

Conditions to avoid

None known

11 TOXICOLOGICAL INFORMATION

Carcinogenicity

None of the components have been identified as carcinogen by NTP, IARC or OSHA.

12 ECOLOGICAL INFORMATION

No data available for this product.

13 DISPOSAL CONSIDERATIONS

Follow all Federal and State Regulations

14 TRANSPORTATION INFORMATION

The data provided in this section is for information only. The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate regulations to properly classify your shipment for transportation.

Proper Shipping Name: Non-hazardous cleaning compound, liquid, non-regulated by 49CFR.

Reportable Quantity:	None
Hazard Class and Label:	None
UN Number:	None
NA Number:	None
ERG:	None

15 REGULATORY INFORMATION

TSCA Status

All ingredients in this product are listed or excluded from listing on the TSCA inventory.

SARA TITLE III

313 Reportable Ingredients: None

CERCLA Reportable Quantity:

There is no calculable Reportable Quantity (RQ) for this product.

16 ADDITIONAL INFORMATION

Revision Statement

Changes have been made throughout this Material Safety Data Sheet. Please read the entire document. Supercedes MSDS dated January 31, 2004.

DISCLAIMER:

Although the information and recommendations set forth herein (hereinafter "Information) are presented in good faith and believed to be correct as of the date hereof, the Company makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving this MSDS will make their own determination as to its suitability for their intended purposes prior to use. Since the product is within the exclusive control of the user, it is the user's obligation to determine the conditions of safe use of this product. Such conditions should comply with all Federal Regulations concerning the Product. NO REPRESENTATIONS OF WARRANTIES, EITHER EXPRESS OR IMPLIED, OR MERCHANTABILITY, FITTNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

HAZARD RATINGS

	HMIS
Health	1
Flammability	0
Reactivity	0
PPE	X

	NFPA
Health	1
Flammability	0
Reactivity	0
Other	None

Laboratory Report and Chain-of-Custody Documents

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

August 04, 2023

Jim Foster

Timberwolf Environmental
1920 W Villa Maria Ste 205
Bryan, TX 77807
TEL: (979) 324-2139
FAX:

RE: SJ 28 7 183 M OrderNo.: 2307C02

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 11 sample(s) on 7/26/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2307C02**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: ESW1
Project: SJ 28 7 183 M
Collection Date: 7/25/2023 11:35:00 AM
Lab ID: 2307C02-001 **Matrix:** SOIL **Received Date:** 7/26/2023 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	ND	60		mg/Kg	20	8/1/2023 6:55:25 PM	76612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	16	9.3		mg/Kg	1	7/28/2023 6:47:43 PM	76511
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/28/2023 6:47:43 PM	76511
Surr: DNOP	98.9	69-147		%Rec	1	7/28/2023 6:47:43 PM	76511
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/1/2023 5:11:00 PM	76505
Surr: BFB	102	15-244		%Rec	1	8/1/2023 5:11:00 PM	76505
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.025		mg/Kg	1	8/1/2023 5:11:00 PM	76505
Toluene	ND	0.049		mg/Kg	1	8/1/2023 5:11:00 PM	76505
Ethylbenzene	ND	0.049		mg/Kg	1	8/1/2023 5:11:00 PM	76505
Xylenes, Total	ND	0.098		mg/Kg	1	8/1/2023 5:11:00 PM	76505
Surr: 4-Bromofluorobenzene	94.7	39.1-146		%Rec	1	8/1/2023 5:11:00 PM	76505

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307C02**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: ESW2
Project: SJ 28 7 183 M
Collection Date: 7/25/2023 11:50:00 AM
Lab ID: 2307C02-002 **Matrix:** SOIL **Received Date:** 7/26/2023 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	ND	60		mg/Kg	20	8/1/2023 7:07:50 PM	76612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	23	9.7		mg/Kg	1	7/28/2023 7:12:22 PM	76511
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/28/2023 7:12:22 PM	76511
Surr: DNOP	96.6	69-147		%Rec	1	7/28/2023 7:12:22 PM	76511
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/1/2023 5:33:00 PM	76505
Surr: BFB	121	15-244		%Rec	1	8/1/2023 5:33:00 PM	76505
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.024		mg/Kg	1	8/1/2023 5:33:00 PM	76505
Toluene	ND	0.048		mg/Kg	1	8/1/2023 5:33:00 PM	76505
Ethylbenzene	ND	0.048		mg/Kg	1	8/1/2023 5:33:00 PM	76505
Xylenes, Total	ND	0.095		mg/Kg	1	8/1/2023 5:33:00 PM	76505
Surr: 4-Bromofluorobenzene	98.1	39.1-146		%Rec	1	8/1/2023 5:33:00 PM	76505

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307C02**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: ESW3
Project: SJ 28 7 183 M
Collection Date: 7/25/2023 12:15:00 PM
Lab ID: 2307C02-003 **Matrix:** SOIL **Received Date:** 7/26/2023 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	ND	60		mg/Kg	20	8/2/2023 2:19:57 PM	76612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/28/2023 7:37:03 PM	76511
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/28/2023 7:37:03 PM	76511
Surr: DNOP	93.9	69-147		%Rec	1	7/28/2023 7:37:03 PM	76511
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/1/2023 5:55:00 PM	76505
Surr: BFB	106	15-244		%Rec	1	8/1/2023 5:55:00 PM	76505
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.025		mg/Kg	1	8/1/2023 5:55:00 PM	76505
Toluene	ND	0.049		mg/Kg	1	8/1/2023 5:55:00 PM	76505
Ethylbenzene	ND	0.049		mg/Kg	1	8/1/2023 5:55:00 PM	76505
Xylenes, Total	ND	0.098		mg/Kg	1	8/1/2023 5:55:00 PM	76505
Surr: 4-Bromofluorobenzene	94.1	39.1-146		%Rec	1	8/1/2023 5:55:00 PM	76505

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2307C02**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: ESW4
Project: SJ 28 7 183 M
Collection Date: 7/25/2023 1:15:00 PM
Lab ID: 2307C02-004 **Matrix:** SOIL **Received Date:** 7/26/2023 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	ND	60		mg/Kg	20	8/2/2023 2:32:21 PM	76612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	10	8.9		mg/Kg	1	7/28/2023 8:01:39 PM	76511
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	7/28/2023 8:01:39 PM	76511
Surr: DNOP	95.1	69-147		%Rec	1	7/28/2023 8:01:39 PM	76511
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/1/2023 6:17:00 PM	76505
Surr: BFB	115	15-244		%Rec	1	8/1/2023 6:17:00 PM	76505
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.024		mg/Kg	1	8/1/2023 6:17:00 PM	76505
Toluene	ND	0.049		mg/Kg	1	8/1/2023 6:17:00 PM	76505
Ethylbenzene	ND	0.049		mg/Kg	1	8/1/2023 6:17:00 PM	76505
Xylenes, Total	ND	0.098		mg/Kg	1	8/1/2023 6:17:00 PM	76505
Surr: 4-Bromofluorobenzene	97.8	39.1-146		%Rec	1	8/1/2023 6:17:00 PM	76505

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307C02**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: ESW5
Project: SJ 28 7 183 M
Collection Date: 7/25/2023 1:30:00 PM
Lab ID: 2307C02-005 **Matrix:** SOIL **Received Date:** 7/26/2023 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	ND	61		mg/Kg	20	8/2/2023 2:44:45 PM	76612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/28/2023 8:26:17 PM	76511
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/28/2023 8:26:17 PM	76511
Surr: DNOP	94.5	69-147		%Rec	1	7/28/2023 8:26:17 PM	76511
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/1/2023 6:39:00 PM	76505
Surr: BFB	96.6	15-244		%Rec	1	8/1/2023 6:39:00 PM	76505
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.023		mg/Kg	1	8/1/2023 6:39:00 PM	76505
Toluene	ND	0.047		mg/Kg	1	8/1/2023 6:39:00 PM	76505
Ethylbenzene	ND	0.047		mg/Kg	1	8/1/2023 6:39:00 PM	76505
Xylenes, Total	ND	0.094		mg/Kg	1	8/1/2023 6:39:00 PM	76505
Surr: 4-Bromofluorobenzene	92.4	39.1-146		%Rec	1	8/1/2023 6:39:00 PM	76505

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307C02**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: EB1
Project: SJ 28 7 183 M
Collection Date: 7/25/2023 1:55:00 PM
Lab ID: 2307C02-006 **Matrix:** SOIL **Received Date:** 7/26/2023 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	ND	60		mg/Kg	20	8/2/2023 2:57:10 PM	76612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	13	9.8		mg/Kg	1	7/28/2023 8:50:58 PM	76511
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/28/2023 8:50:58 PM	76511
Surr: DNOP	97.6	69-147		%Rec	1	7/28/2023 8:50:58 PM	76511
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	22	4.7		mg/Kg	1	8/1/2023 7:44:00 PM	76505
Surr: BFB	235	15-244		%Rec	1	8/1/2023 7:44:00 PM	76505
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.024		mg/Kg	1	8/1/2023 7:44:00 PM	76505
Toluene	ND	0.047		mg/Kg	1	8/1/2023 7:44:00 PM	76505
Ethylbenzene	0.076	0.047		mg/Kg	1	8/1/2023 7:44:00 PM	76505
Xylenes, Total	0.38	0.095		mg/Kg	1	8/1/2023 7:44:00 PM	76505
Surr: 4-Bromofluorobenzene	121	39.1-146		%Rec	1	8/1/2023 7:44:00 PM	76505

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307C02**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: EB2
Project: SJ 28 7 183 M
Collection Date: 7/25/2023 2:50:00 PM
Lab ID: 2307C02-007 **Matrix:** SOIL **Received Date:** 7/26/2023 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	62	60		mg/Kg	20	8/2/2023 3:09:34 PM	76612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/28/2023 9:15:31 PM	76511
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/28/2023 9:15:31 PM	76511
Surr: DNOP	96.5	69-147		%Rec	1	7/28/2023 9:15:31 PM	76511
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	47	5.0		mg/Kg	1	8/1/2023 8:06:00 PM	76505
Surr: BFB	207	15-244		%Rec	1	8/1/2023 8:06:00 PM	76505
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.025		mg/Kg	1	8/1/2023 8:06:00 PM	76505
Toluene	0.061	0.050		mg/Kg	1	8/1/2023 8:06:00 PM	76505
Ethylbenzene	0.18	0.050		mg/Kg	1	8/1/2023 8:06:00 PM	76505
Xylenes, Total	1.4	0.10		mg/Kg	1	8/1/2023 8:06:00 PM	76505
Surr: 4-Bromofluorobenzene	141	39.1-146		%Rec	1	8/1/2023 8:06:00 PM	76505

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2307C02**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: EB3
Project: SJ 28 7 183 M
Collection Date: 7/25/2023 2:25:00 PM
Lab ID: 2307C02-008 **Matrix:** SOIL **Received Date:** 7/26/2023 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	ND	60		mg/Kg	20	8/2/2023 3:21:59 PM	76612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	62	9.3		mg/Kg	1	7/28/2023 9:40:01 PM	76511
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/28/2023 9:40:01 PM	76511
Surr: DNOP	101	69-147		%Rec	1	7/28/2023 9:40:01 PM	76511
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	120	4.9		mg/Kg	1	8/1/2023 8:27:00 PM	76505
Surr: BFB	328	15-244	S	%Rec	1	8/1/2023 8:27:00 PM	76505
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.024		mg/Kg	1	8/1/2023 8:27:00 PM	76505
Toluene	0.33	0.049		mg/Kg	1	8/1/2023 8:27:00 PM	76505
Ethylbenzene	0.53	0.049		mg/Kg	1	8/1/2023 8:27:00 PM	76505
Xylenes, Total	4.6	0.097		mg/Kg	1	8/1/2023 8:27:00 PM	76505
Surr: 4-Bromofluorobenzene	139	39.1-146		%Rec	1	8/1/2023 8:27:00 PM	76505

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307C02**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: Stockpile1
Project: SJ 28 7 183 M
Collection Date: 7/25/2023 2:30:00 PM
Lab ID: 2307C02-009 **Matrix:** SOIL **Received Date:** 7/26/2023 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	ND	59		mg/Kg	20	8/2/2023 3:59:12 PM	76612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	44	9.7		mg/Kg	1	7/28/2023 10:04:28 PM	76511
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/28/2023 10:04:28 PM	76511
Surr: DNOP	106	69-147		%Rec	1	7/28/2023 10:04:28 PM	76511
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	6.2	4.7		mg/Kg	1	8/1/2023 8:49:00 PM	76505
Surr: BFB	139	15-244		%Rec	1	8/1/2023 8:49:00 PM	76505
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.023		mg/Kg	1	8/1/2023 8:49:00 PM	76505
Toluene	ND	0.047		mg/Kg	1	8/1/2023 8:49:00 PM	76505
Ethylbenzene	ND	0.047		mg/Kg	1	8/1/2023 8:49:00 PM	76505
Xylenes, Total	ND	0.094		mg/Kg	1	8/1/2023 8:49:00 PM	76505
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	8/1/2023 8:49:00 PM	76505

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307C02**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: Stockpile 2
Project: SJ 28 7 183 M
Collection Date: 7/25/2023 2:35:00 PM
Lab ID: 2307C02-010 **Matrix:** SOIL **Received Date:** 7/26/2023 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	ND	60		mg/Kg	20	8/2/2023 4:11:37 PM	76612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	16	9.3		mg/Kg	1	7/28/2023 10:29:00 PM	76511
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/28/2023 10:29:00 PM	76511
Surr: DNOP	92.6	69-147		%Rec	1	7/28/2023 10:29:00 PM	76511
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	7.3	4.9		mg/Kg	1	8/1/2023 9:11:00 PM	76505
Surr: BFB	159	15-244		%Rec	1	8/1/2023 9:11:00 PM	76505
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.024		mg/Kg	1	8/1/2023 9:11:00 PM	76505
Toluene	ND	0.049		mg/Kg	1	8/1/2023 9:11:00 PM	76505
Ethylbenzene	ND	0.049		mg/Kg	1	8/1/2023 9:11:00 PM	76505
Xylenes, Total	ND	0.098		mg/Kg	1	8/1/2023 9:11:00 PM	76505
Surr: 4-Bromofluorobenzene	107	39.1-146		%Rec	1	8/1/2023 9:11:00 PM	76505

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307C02**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: Stockpile 3
Project: SJ 28 7 183 M
Collection Date: 7/25/2023 2:40:00 PM
Lab ID: 2307C02-011 **Matrix:** SOIL **Received Date:** 7/26/2023 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **RBC**	
Chloride	ND	60		mg/Kg	20	8/2/2023 4:24:01 PM	76612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	80	10		mg/Kg	1	7/28/2023 10:53:32 PM	76511
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/28/2023 10:53:32 PM	76511
Surr: DNOP	92.5	69-147		%Rec	1	7/28/2023 10:53:32 PM	76511
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	53	4.6		mg/Kg	1	8/1/2023 9:33:00 PM	76505
Surr: BFB	278	15-244	S	%Rec	1	8/1/2023 9:33:00 PM	76505
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.023		mg/Kg	1	8/1/2023 9:33:00 PM	76505
Toluene	ND	0.046		mg/Kg	1	8/1/2023 9:33:00 PM	76505
Ethylbenzene	0.21	0.046		mg/Kg	1	8/1/2023 9:33:00 PM	76505
Xylenes, Total	0.56	0.092		mg/Kg	1	8/1/2023 9:33:00 PM	76505
Surr: 4-Bromofluorobenzene	126	39.1-146		%Rec	1	8/1/2023 9:33:00 PM	76505

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2307C02**
04-Aug-23

Client: Timberwolf Environmental
Project: SJ 28 7 183 M

Sample ID: **MB-76612**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **76612**	RunNo: **98664**							
Prep Date: **8/1/2023**	Analysis Date: **8/1/2023**	SeqNo: **3593662**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-76612**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **76612**	RunNo: **98664**							
Prep Date: **8/1/2023**	Analysis Date: **8/1/2023**	SeqNo: **3593663**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2307C02**
04-Aug-23

Client: Timberwolf Environmental
Project: SJ 28 7 183 M

Sample ID: **MB-76511**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **76511**	RunNo: **98568**
Prep Date: **7/27/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590172** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	69	147			

Sample ID: **LCS-76511**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **76511**	RunNo: **98568**
Prep Date: **7/27/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590173** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	61.9	130			
Surr: DNOP	5.0		5.000		99.7	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307C02**

04-Aug-23

Client: Timberwolf Environmental

Project: SJ 28 7 183 M

Sample ID: **lcs-76505**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **76505**	RunNo: **98640**
Prep Date: **7/27/2023**	Analysis Date: **8/1/2023**	SeqNo: **3592408** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.9	70	130			
Surr: BFB	2100		1000		209	15	244			

Sample ID: **mb-76505**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **76505**	RunNo: **98640**
Prep Date: **7/27/2023**	Analysis Date: **8/1/2023**	SeqNo: **3592409** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		98.4	15	244			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307C02**

04-Aug-23

Client: Timberwolf Environmental

Project: SJ 28 7 183 M

Sample ID: **lcs-76505**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **76505**	RunNo: **98640**
Prep Date: **7/27/2023**	Analysis Date: **8/1/2023**	SeqNo: **3592421** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	1.000	0	84.8	70	130			
Toluene	0.86	0.050	1.000	0	86.0	70	130			
Ethylbenzene	0.88	0.050	1.000	0	88.1	70	130			
Xylenes, Total	2.6	0.10	3.000	0	88.1	70	130			
Surr: 4-Bromofluorobenzene	0.95		1.000		95.4	39.1	146			

Sample ID: **mb-76505**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **76505**	RunNo: **98640**
Prep Date: **7/27/2023**	Analysis Date: **8/1/2023**	SeqNo: **3592422** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		95.6	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Timberwolf Environmental Work Order Number: 2307C02 RcptNo: 1

Received By: Tracy Casarrubias 7/26/2023 6:35:00 AM

Completed By: Tracy Casarrubias 7/26/2023 9:55:49 AM

Reviewed By: TM 7/26/23

Chain of Custody

1. Is Chain of Custody complete? Yes ☐ No ☑ Not Present ☐
2. How was the sample delivered? Courier

Log In

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

# of preserved bottles checked for pH: (<2 or >12 unless noted)

Adjusted?

Checked by: SCM 07/26/23

Special Handling (if applicable)

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

Person Notified: ____ Date: ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: Mailing address, phone number and project manager are missing on COC- tMC 7/26/23

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Timberwolf

Mailing Address:

Phone #:

email or Fax#: lab@teamtimberwolf.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name: SJ 28-7 #183M

Project #: 190007

Project Manager:

Sampler:

On Ice: ☒ Yes ☐ No UMI

# of Coolers: 1

Cooler Temp (Including CF): 2.0-0.1=1.9 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2307C02	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Air
7/25/23	1135	S	ESW1			001	✓	✓									✓
	1150		ESW2			002	✓	✓									✓
	1215		ESW3			003	✓	✓									✓
	1315		ESW4			004	✓	✓									✓
	1330		ESW5			005	✓	✓									✓
	1355		EB1			006	✓	✓									✓
	1450		EB2			007	✓	✓									✓
	1425		EB3			008	✓	✓									✓
	1430		Stockpile 1			009	✓	✓									✓
	1435		Stockpile 2			010	✓	✓									✓
↓	1440	↓	Stockpile 3			011	✓	✓									✓
						012											

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
7/25/23	1715				7/25/23	1715
7/25/23	1833			courier	7/26/23	6:35

Remarks:

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

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 02, 2023

Jim Foster

Timberwolf Environmental
1920 W Villa Maria Ste 205
Bryan, TX 77807
TEL: (979) 324-2139
FAX:

RE: SJ 28 7 183 M OrderNo.: 2310C86

Dear Jim Foster:

Eurofins Environment Testing South Central, LLC received 3 sample(s) on 10/27/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2310C86**
Date Reported: **11/2/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: CS1
Project: SJ 28 7 183 M
Collection Date: 10/26/2023 1:35:00 PM
Lab ID: 2310C86-001 **Matrix:** SOIL **Received Date:** 10/27/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	12	9.4		mg/Kg	1	10/31/2023 10:59:54 AM	78449
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/31/2023 10:59:54 AM	78449
Surr: DNOP	108	69-147		%Rec	1	10/31/2023 10:59:54 AM	78449
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	8.1	4.7		mg/Kg	1	10/31/2023 3:49:00 PM	78421
Surr: BFB	184	15-244		%Rec	1	10/31/2023 3:49:00 PM	78421
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.024		mg/Kg	1	10/31/2023 3:49:00 PM	78421
Toluene	ND	0.047		mg/Kg	1	10/31/2023 3:49:00 PM	78421
Ethylbenzene	ND	0.047		mg/Kg	1	10/31/2023 3:49:00 PM	78421
Xylenes, Total	ND	0.094		mg/Kg	1	10/31/2023 3:49:00 PM	78421
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	10/31/2023 3:49:00 PM	78421

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C86**
Date Reported: **11/2/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: CS2
Project: SJ 28 7 183 M
Collection Date: 10/26/2023 2:10:00 PM
Lab ID: 2310C86-002 **Matrix:** SOIL **Received Date:** 10/27/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/31/2023 11:10:26 AM	78449
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/31/2023 11:10:26 AM	78449
Surr: DNOP	116	69-147		%Rec	1	10/31/2023 11:10:26 AM	78449
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/31/2023 4:11:00 PM	78421
Surr: BFB	112	15-244		%Rec	1	10/31/2023 4:11:00 PM	78421
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.023		mg/Kg	1	10/31/2023 4:11:00 PM	78421
Toluene	ND	0.046		mg/Kg	1	10/31/2023 4:11:00 PM	78421
Ethylbenzene	ND	0.046		mg/Kg	1	10/31/2023 4:11:00 PM	78421
Xylenes, Total	ND	0.092		mg/Kg	1	10/31/2023 4:11:00 PM	78421
Surr: 4-Bromofluorobenzene	89.7	39.1-146		%Rec	1	10/31/2023 4:11:00 PM	78421

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310C86**
Date Reported: **11/2/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: CS3
Project: SJ 28 7 183 M
Collection Date: 10/26/2023 2:40:00 PM
Lab ID: 2310C86-003 **Matrix:** SOIL **Received Date:** 10/27/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/31/2023 11:21:00 AM	78449
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/31/2023 11:21:00 AM	78449
Surr: DNOP	109	69-147		%Rec	1	10/31/2023 11:21:00 AM	78449
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**	
Gasoline Range Organics (GRO)	15	4.7		mg/Kg	1	10/31/2023 4:33:00 PM	78421
Surr: BFB	193	15-244		%Rec	1	10/31/2023 4:33:00 PM	78421
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**	
Benzene	ND	0.023		mg/Kg	1	10/31/2023 4:33:00 PM	78421
Toluene	ND	0.047		mg/Kg	1	10/31/2023 4:33:00 PM	78421
Ethylbenzene	ND	0.047		mg/Kg	1	10/31/2023 4:33:00 PM	78421
Xylenes, Total	ND	0.094		mg/Kg	1	10/31/2023 4:33:00 PM	78421
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	10/31/2023 4:33:00 PM	78421

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310C86**

02-Nov-23

Client: Timberwolf Environmental

Project: SJ 28 7 183 M

Sample ID: **LCS-78449**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **78449**	RunNo: **100863**
Prep Date: **10/30/2023**	Analysis Date: **10/31/2023**	SeqNo: **3700786** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	59	10	50.00	0	117	61.9	130			
Surr: DNOP	7.4		5.000		148	69	147			S

Sample ID: **MB-78449**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **78449**	RunNo: **100863**
Prep Date: **10/30/2023**	Analysis Date: **10/31/2023**	SeqNo: **3700789** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		115	69	147			

Sample ID: **LCS-78476**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **78476**	RunNo: **100868**
Prep Date: **10/31/2023**	Analysis Date: **11/1/2023**	SeqNo: **3701935** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.0		5.000		120	69	147			

Sample ID: **MB-78476**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **78476**	RunNo: **100868**
Prep Date: **10/31/2023**	Analysis Date: **11/1/2023**	SeqNo: **3701938** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		119	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310C86**

02-Nov-23

Client: Timberwolf Environmental

Project: SJ 28 7 183 M

Sample ID: **lcs-78421**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **78421**	RunNo: **100865**
Prep Date: **10/27/2023**	Analysis Date: **10/31/2023**	SeqNo: **3700821** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.2	70	130			
Surr: BFB	2200		1000		221	15	244			

Sample ID: **mb-78421**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **78421**	RunNo: **100865**
Prep Date: **10/27/2023**	Analysis Date: **10/31/2023**	SeqNo: **3700822** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		108	15	244			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310C86**

02-Nov-23

Client: Timberwolf Environmental

Project: SJ 28 7 183 M

Sample ID: **lcs-78421**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **78421**	RunNo: **100865**
Prep Date: **10/27/2023**	Analysis Date: **10/31/2023**	SeqNo: **3700798** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.025	1.000	0	79.4	70	130			
Toluene	0.81	0.050	1.000	0	81.2	70	130			
Ethylbenzene	0.84	0.050	1.000	0	83.6	70	130			
Xylenes, Total	2.5	0.10	3.000	0	82.9	70	130			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	39.1	146			

Sample ID: **mb-78421**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **78421**	RunNo: **100865**
Prep Date: **10/27/2023**	Analysis Date: **10/31/2023**	SeqNo: **3700799** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		94.2	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Timberwolf Environmental Work Order Number: 2310C86 RcptNo: 1

Received By: Cheyenne Cason 10/27/2023 7:30:00 AM Chel

Completed By: Cheyenne Cason 10/27/2023 7:49:56 AM Chel

Reviewed By: SCM 10/27/23

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Client		

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JM 10/27/23

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes	Morty		
2	4.2	Good	Yes	Morty		

Chain-of-Custody Record

Client: Timberwolf Env

Mailing Address:

Phone #: 979-324-2139

email or Fax#: lab@teamtimberwolf.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush 3 DAY

Project Name: SJ 28-7 #183M

Project #: 190007

Project Manager: Jim Foster

Sampler:

On Ice: ☒ Yes ☐ No Marty

# of Coolers: 2 4.4 - 0.2 = 4.2

Cooler Temp (including CF): 2.6 - 0.2 = 2.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2310C86
10/26/23	1335	S	CS1	1-4oz	Ice	001
10/26/23	1410	S	CS2	1-4oz	Ice	002
10/26/23	1440	S	CS3	1-4oz	Ice	003

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
✓	✓								
✓	✓								
✓	✓								

Remarks:

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
10/26/23	1650				10/26/23	1650
10/26/23	1836		Chris Green		10/27/23	0730

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

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

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

CONDITIONS

Action 285567

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 285567
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Remediation closure report via SVE is approved. Release resolved.	3/1/2024