<u>District I</u> 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	

	Jerow			,			racinty 1D				
AFF	KOV					14	Application ID				
	ext page onditions	for	Releas	se N	otificat	ion					
			Resp	ponsi	ble Party				Initial Report		
Responsible	Party Hilcon	rp Energy			OGRID 372	2171					
Contact Nar	ne Kate Kau	ıfman			Contact Te	lephone 346	-237-2275				
Contact ema	il kkaufmar	@hilcorp.com			Incident # (6	assigned by OC	D)				
Contact mai	ling address	382 CR 3100 Azto	ec NM 87410								
Latitude 36.5	5982819				elease So Longitude -1 grees to 5 decima	07.5212479					
Site Name Sa	an Juan 28-7	Unit 183M			Site Type W						
Date Release Discovered 01/15/2019						[applicable] 30-039-25660					
Unit Letter	Section	Township	Range		Count	У					
О	01	27N	07W	R10	Arriba						
Surface Owne	er: 🗌 State	☐ Federal ☐ Ti	ribal 🗌 Private (Name:					_)		
			Nature and	d Vol	lume of R	elease					
							2 0 882 0	F4 (B) (B)			
Crude Oi	Materia 1	l(s) Released (Select all Volume Release		1 calculat	ions or specific ju		covered (bbls) 0	below)			
□ Produced	Water	Volume Release	ed (bbls) 7			Volume Rec	covered (bbls) 0				
			tion of dissolved of	chloride	e in the	Yes	No				
		produced water				T					
Condensa		Volume Release				Volume Recovered (bbls)					
Natural Gas Volume Released (Mcf)					Volume Recovered (Mcf)						
Other (describe) Volume/Weight Released (provide units)	Volume/We	eight Recovered (provide u	nits)				
Cause of Rel	ease										
		ue to corrosion. V	isible signs of the	leak or	surface are e	stimated to b	e 10 feet wide ar	nd 25 -30	feet across. Had		
visited locati	on 1-11-19 a	and saw no signs o	f the leak. When	operato	r returned on	the 15 th notic	ced				

Received by OCD	2: 7/5/2023 1:02:34 PMate of New Mexico
Page 5	Oil Conservation Division

	Page 2 of 37
Incident ID	Tuge 2 of 57
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.										
Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)										
Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.										
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.										
Extents of contamination must be fully delineated.										
Contamination does not cause an imminent risk to human health, the environment, or groundwater.										
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: Signature: Title: Env. Consultant Date: 1/6/23										
email: jin @ team tim berwolf. com Telephone: (979) 324-2139										
OCD Only										
Received by: Nelson Velez Date: 07/06/2023										
Approved										
Signature: Nelson Velez Date: 07/11/2023										

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-todate status of the remedial activities conducted.



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

June 27, 2023

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

Re: Soil Monitoring Results and In-Situ Remediation Proposal

San Juan 28-7 Unit 183M

Rio Arriba County, New Mexico OCD Incident No. NCS1901627746

Dear Mr. Velez:

At the request of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this soil monitoring report to document assessment activities at the San Juan 28-7 No. 183M (Site). In addition, this report provides a work plan to achieve regulatory compliance for impacted soil that remain at the Site. The Site is located approximately 27 miles east-southeast of Bloomfield, in Rio Arriba County, New Mexico (Figures 1-3).

Site History

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 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.

A soil investigation, conducted during March 2019, revealed the constituents of concern (COC) were: total BTEX (i.e., benzene, toluene, ethylbenzene, and xylene) and total petroleum hydrocarbons (TPH). Impacted soil was horizontally and vertically delineated; the vertical extent of impacted soil was approximately 27 ft bgs. Additionally, the soil investigation revealed that subsurface soil is unconsolidated to a depth of 10 ft below ground surface (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 May 21, 2019.

To remediate hydrocarbon impacted soil, a soil vapor extraction (SVE) system was designed, constructed, and installed at the Site. System start-up date was 12/18/19. The SVE system is comprised of 11 SVE

wells, four vent wells, and an SVE trailer. 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. Additionally, the SVE trailer is equipped with a programmable automation panel to control valves for each manifold leg. A natural gas generator powers the trailer.

The SVE system creates a treatment field of approximately 0.15 acres and treats soil to a depth of approximately 30 ft bgs for a total volume of approximately 7,021 cubic yards of soil.

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 New Mexico Administrative Code (NMAC) Rule 19.15.29. The Rule was officially promulgated by Oil Conservation Commission Order No.: R-14751, dated June 21, 2018.

Under Rule 19.15.29, soil cleanup criteria is 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 the following table.

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))

DRO - diesel range organics

GRO – gasoline range organics

⁴ Applies to produced water and fluids containing chloride

TPH = GRO + DRO + ORO ORO – motor oil range organics

Additionally, the most stringent closure criteria as presented in Table 1 (i.e., \leq 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.



²Or other test methods approved by the division

³ Regulatory limits or background level, whichever is greater mg/kg - milligrams per kilogram

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

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 of the Site 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 is 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

Soil Monitoring

On May 8th 2023, Timberwolf collected soil samples on from four (4) soil monitoring borings (i.e., SM1 – SM4) to evaluate the effectiveness and remedial progress of the SVE treatment,). Timberwolf contracted with Enviro-Drill, Inc. of Albuquerque, New Mexico to install 4 soil borings at the Site. The borings were installed using a rotary rig and hollow-stem augers.

Soil samples were collected from the surface to 30 feet (ft) below ground surface (bgs) at each boring. The following sample intervals were selected for laboratory analysis from each boring:

- the highest PID readings from the unconsolidated zone (i.e., 0-9.5 ft)
- consolidated zone (i.e., 9.5 30 ft)
- the boring terminus (i.e., 29 30 ft)

A soil boring location map is provided in Figure 4.

The analytical results from are summarized in Table 3 below. Constituents that exceeded regulatory closure criteria are denoted in yellow highlights.



Table 3. Analytical Results of Soil Monitoring - 05/08/2023

Sample ID	Benzene (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)
SM1 6.5-8.5'	< 0.12	71.4	740	380	< 50	1,120	1,120	< 60
SM1 15-16'	< 0.12	< 0.48	100	230	< 48	330	330	< 60
SM1 29-30'	< 0.12	4.88	84	44	< 47	128	128	< 60
SM2 7-8'	< 0.024	< 0.097	< 4.8	< 9.6	< 48	0	0	< 60
SM2 25-26'	< 0.050	6.05	67	< 9.1	< 46	67	67	< 60
SM2 29-30'	< 0.049	< 0.097	< 9.7	29	< 50	29	29	< 60
SM3 8.5-9.5'	< 0.049	11	1,200	610	< 50	1,810	1,810	< 59
SM3 25-26'	< 0.024	1.51	22	14	< 49	36	36	< 60
SM3 29-30'	< 0.049	17.5	250	17	< 50	267	267	< 60
SM4 2-3'	< 0.025	< 0.050	< 5.0	< 10	< 50	0	0	< 60
SM4 20-21'	< 0.025	0.991	23 19 < 50 42		42	42	< 60	
SM4 29-30'	< 0.023	< 0.093	< 4.7	< 9.5	< 48	0	0	< 60
Regulatory Criteria	10	50				1,000	2,500	600

TPH – total petroleum hydrocarbons (TPH = GRO+DRO+MRO)

BTEX – benzene, toluene, ethylbenzene, and xylenes

mg/kg – milligrams per kilogram

N/A - constituent not analyzed

- exceeds regulatory criteria

GRO – gasoline range organics DRO – diesel range organics MRO – motor oil range organics --- – no applicable regulatory criteria

Conclusions

Based on the supplemental investigation and the applicable NMOCD site-specific closure criteria, the following is concluded:

- Constituent concentrations in SM1 and SM3 exceeded regulatory closure criteria in samples collected from the unconsolidated zone (i.e., SM1 6.5-8.5' and SM3 8.5-9.5')
 - O Total BTEX in SM1 6.5-8.5' exceeded the closure criteria; sample concentration was 71.4 mg/kg
 - GRO+DRO concentrations in two samples (i.e., SM1 6.5-8.5' and SM3 8.5-9.5')
 exceeded regulatory closure criteria; concentrations were 1,120 mg/kg and 1,810 mg/kg, respectively
 - All other constituents were below regulatory criteria
- Constituent concentrations in all samples collected from the consolidated zone (i.e., 9.5 30 ft bgs) were below the regulatory closure criteria

The SVE system effectively treated the consolidated soil (i.e., 9.5-30 ft) and can continued to be operated to remediate the unconsolidated zone (i.e., 0-9.5 ft). However, an in-situ remedy is preferred in an effort to provide more immediate results. The proposed in-situ treatment of remaining soil impacts is described below:



- Areas impacted by total BTEX and/or GRO+DRO are approximately 1,110 square ft (ft²) (Figure 5)
- Soil within the area of concern (AOC) is characterized as: (1) clean overburden soil, (2) consolidated impacted soil.
 - Clean overburden soil had an averaged depth of 6.0 ft bgs; the estimated volume of clean overburden soil is 380 yd³
 - The impacted soil is below the clean overburden with an approximate thickness of 3.5 ft and is located between 6.0 ft to 9.5 ft bgs; the estimated volume of impacted soil is 150 cubic yards (yd³)

In-Situ Treatment Work Plan

Impacted soil which exceeded site-specific closure criteria were identified in the area of soil boring SM1 and SM3. The map depicting the proposed in-situ treatment area and site plan for the proposed work is included in figures 5 and 6, respectively.

To bring the Site into compliance with NMOCD regulatory criteria, excavation will be performed to remove the clean overburden soil and perform in-situ treatment of petroleum hydrocarbon impacted soil using enhanced bioremediation techniques. The workplan for in-situ treatment will include the following actions:

- 1. Excavate and *stockpile overburden* soil adjacent the excavation on the San Juan 28-7 Unit 183M well pad as to limit non-authorized vehicle access while soil treatment is performed. Overburden soil includes surface to 6.0 ft bgs. All stockpiled soil will remain on the well pad.
- 2. Erect a *safety fence* surrounding the excavation and stockpiles.
- 3. Treat impacted soil in place using in-situ techniques:
 - a. Incorporate soil amendments (e.g., biosurfactant and ag fertilizers)
 - b. Mix impacted soil and amendments 4 to 6 times to promote rapid biodegradation.
- 4. Collect and analyze confirmation samples from excavation sidewalls, excavation base, and stockpiled overburden soil. All confirmation samples will be analyzed for BTEX and TPH and will be collected in accordance with the sample rates specified below:
 - a. Sample rates for stockpiled overburden soil to be one composite sample per 100 yd³
 - i. Resulting in a total of 3 samples from overburden
 - b. Sample rates for excavation sidewall and base to be one composite sample per 200 ft².
 - i. Resulting in a total of 6 base samples
 - ii. Resulting in a total of 6 sidewall samples
- 5. Conduct additional excavation activities, if required, to remove and treat any soil where base or sidewall confirmation samples indicated an exceedance of closure criteria.
- 6. Eight weeks post treatment, collect and analyze confirmation samples:
 - a. Sample rates for treated soil to be one composite sample per 50 yd³
 - i. Resulting in a total of 3 treated soils samples.



- b. Resample sidewall or base area that required additional excavation and treatment.
- 7. After all confirmation samples reveal that all samples from excavation base, excavation sidewalls, stockpiled overburden, and treated soil meets closure criteria <u>and</u> OCD approval to backfill has been obtained, the excavation will be backfilled. Material used to backfill the exaction will include treated soil and overburden soils.

Initiation of the Work Plan will begin within 30 days of OCD approval. A timeline of tasks associated with Work Plan is provided in Table 4 below.

Task

O-30

OCD Approval

Remove and stockpile clean overburden soil

Collect confirmation samples from overburden stockpile, excavation base, and sidewalls

Treat impacted soil

Collect and analyze confirmation samples from treated soil

Submit confirmation sample results to OCD and receive regulatory approval to backfill

Backfill

Table 4. Planned Remedial Tasks and Timeline

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

Sincerely,

Timberwolf Environmental, LLC

La Start

Jim Foster President

Attachments: Figures

Laboratory Reports and Chain-of-Custody Documents

CC: Kate Kaufman - Hilcorp Energy Company

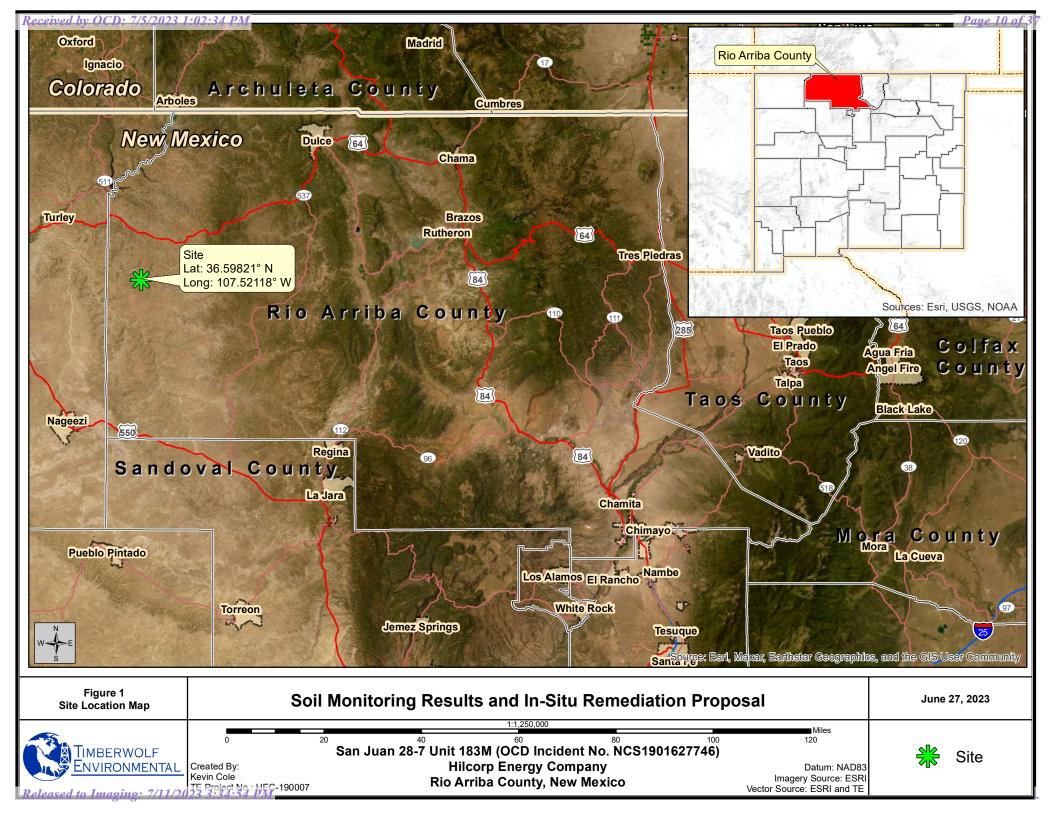
Trey Charanza - Timberwolf Environmental

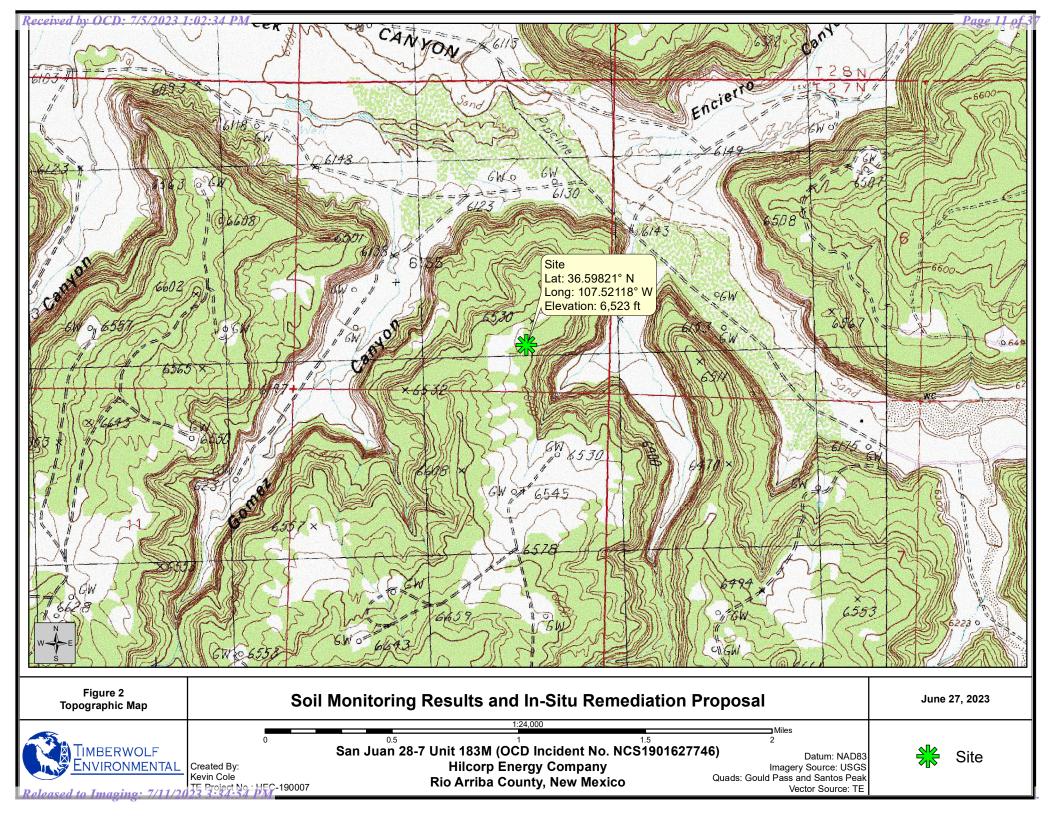


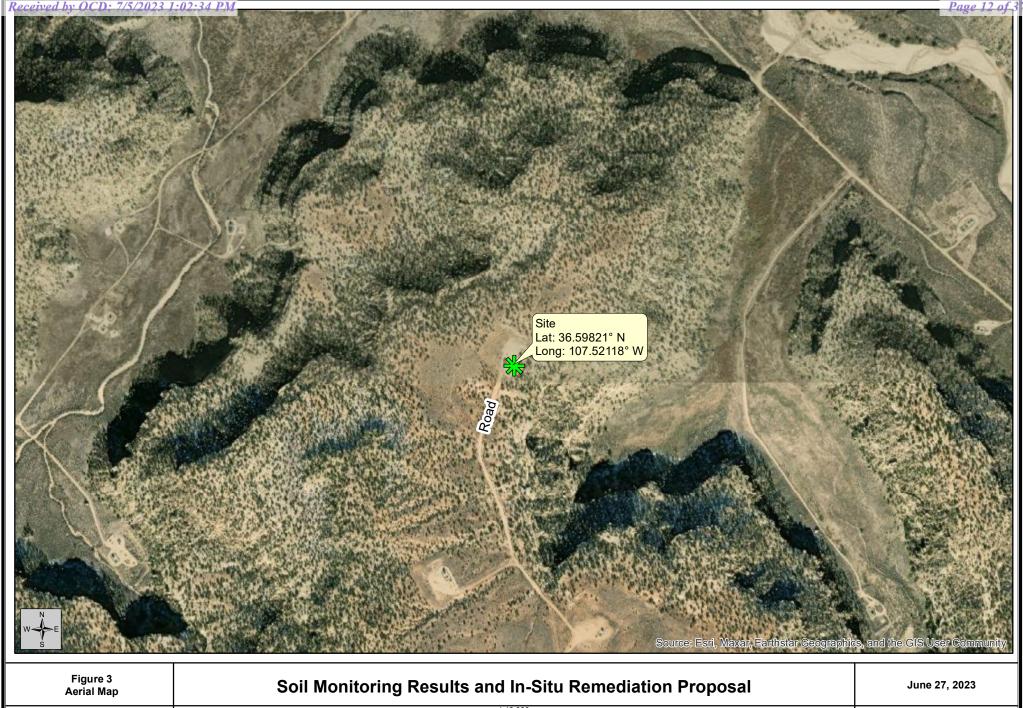


Page 9 of 37

Figures









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

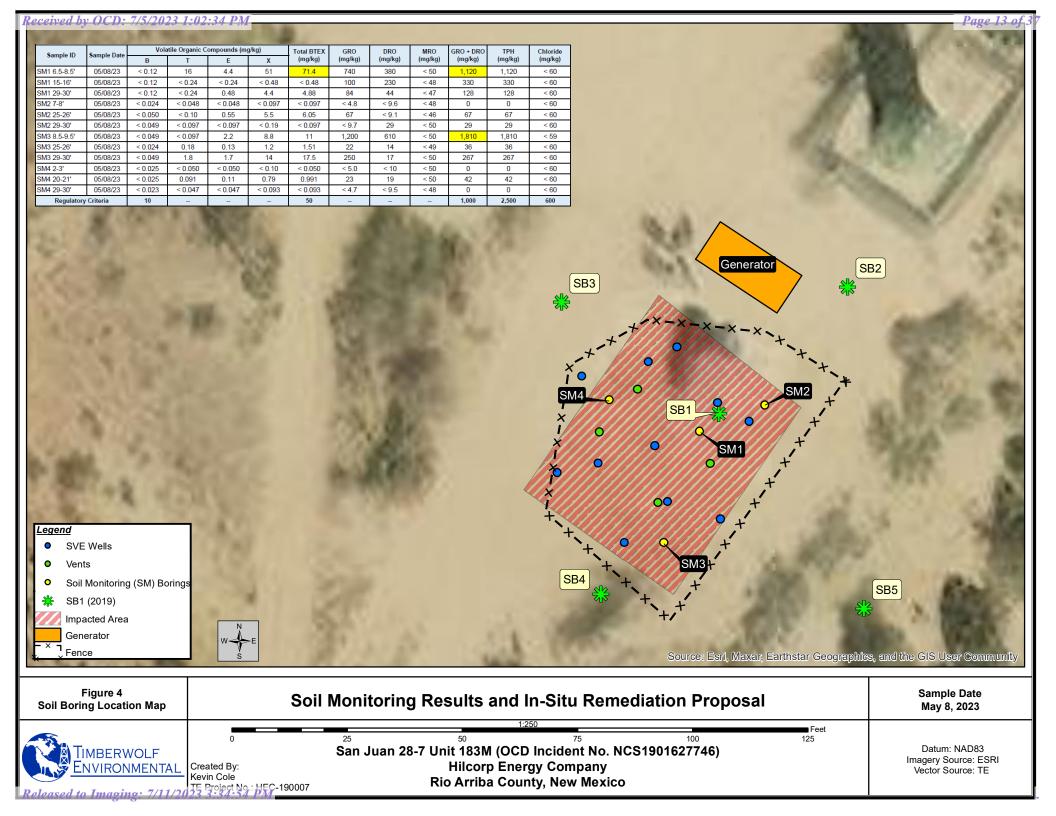
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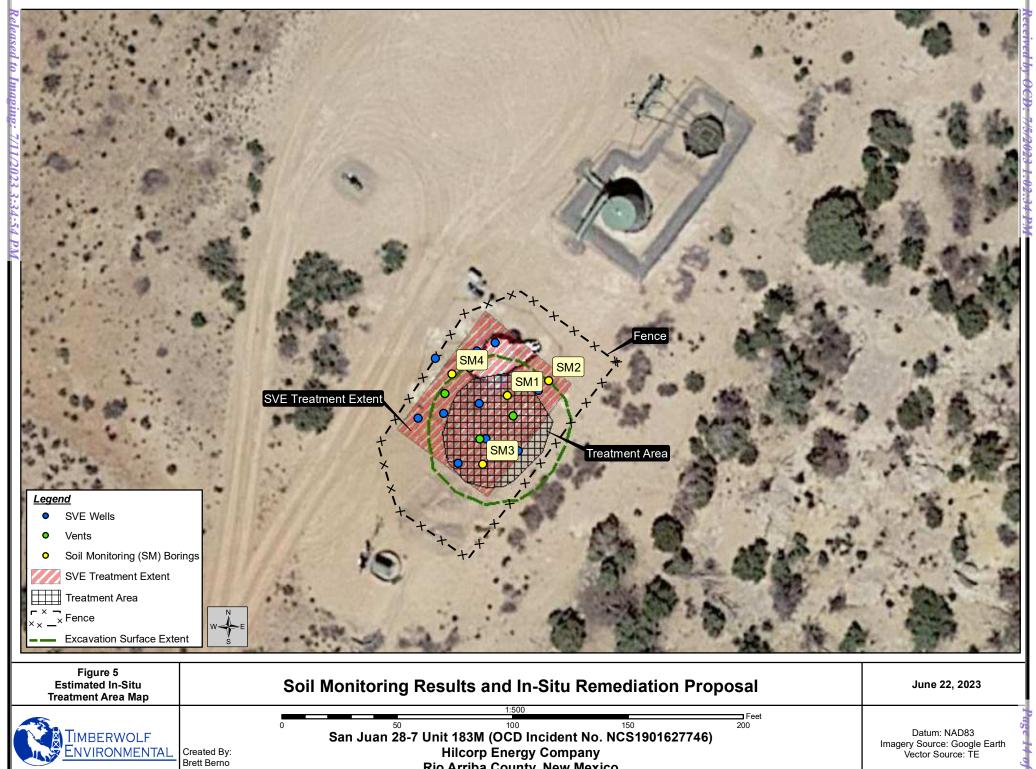


Site

ENVIRONMENTAL Created By:
Kevin Cole
TE Project No : HEC-19000

Released to Imaging: 7/11/2015 Project No.: HEC-190007

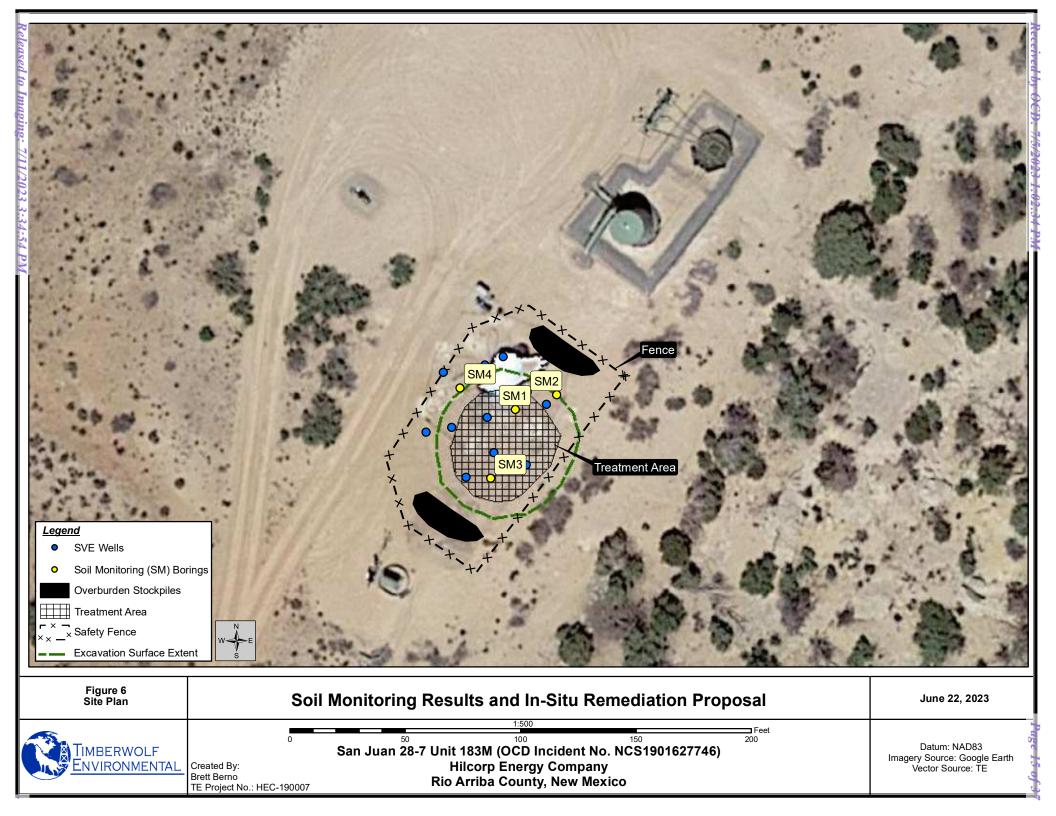


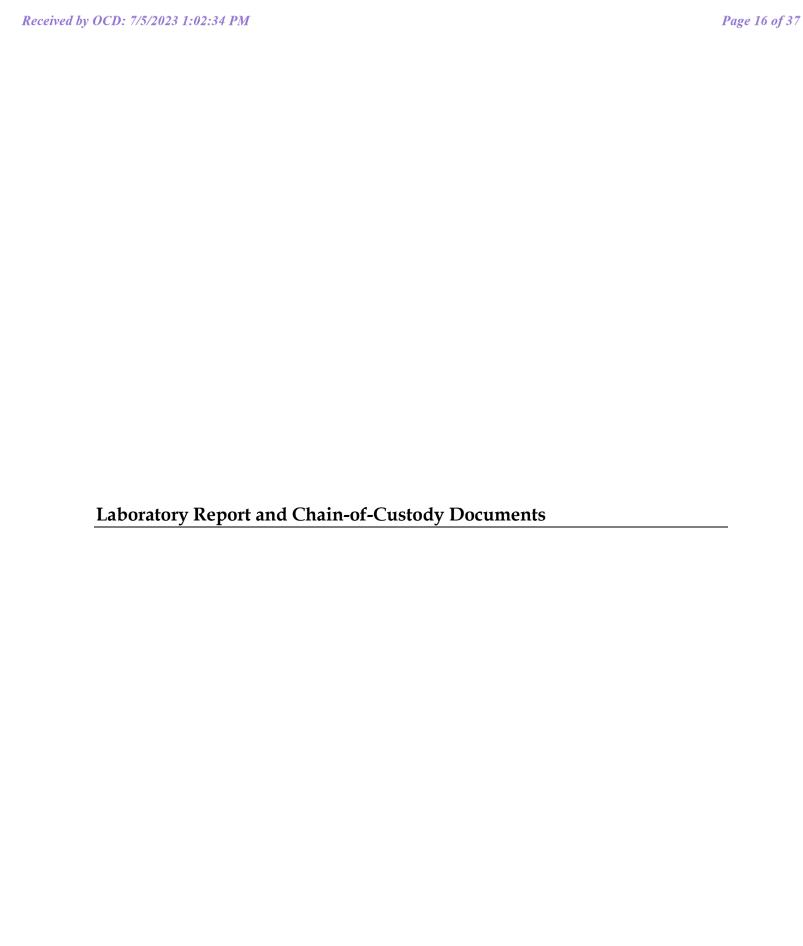


Rio Arriba County, New Mexico

TE Project No.: HEC-190007

Imagery Source: Google Earth Vector Source: TE







Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Hall Environmental Analysis Laboratory

4901 Hawkins NE

May 22, 2023

Jim Foster Timberwolf Environmental 1920 W Villa Maria Ste 205 Bryan, TX 77807

TEL: (979) 324-2139

FAX

RE: SJ 28 7 183M OrderNo.: 2305496

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 12 sample(s) on 5/10/2023 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

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 5/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental Client Sample ID: SM1 6.5-8.5'

 Project:
 SJ 28 7 183M
 Collection Date: 5/8/2023 5:30:00 PM

 Lab ID:
 2305496-001
 Matrix: SOIL
 Received Date: 5/10/2023 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	SNS
Chloride	ND	60		mg/Kg	20	5/15/2023 9:14:35 PM	74963
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	: PRD
Diesel Range Organics (DRO)	380	10		mg/Kg	1	5/15/2023 1:55:00 PM	74924
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/15/2023 1:55:00 PM	74924
Surr: DNOP	99.0	69-147		%Rec	1	5/15/2023 1:55:00 PM	74924
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: CCM
Gasoline Range Organics (GRO)	740	24		mg/Kg	5	5/15/2023 4:20:00 PM	74896
Surr: BFB	303	15-244	S	%Rec	5	5/15/2023 4:20:00 PM	74896
EPA METHOD 8021B: VOLATILES						Analyst	: CCM
Benzene	ND	0.12		mg/Kg	5	5/15/2023 4:20:00 PM	74896
Toluene	16	0.24		mg/Kg	5	5/15/2023 4:20:00 PM	74896
Ethylbenzene	4.4	0.24		mg/Kg	5	5/15/2023 4:20:00 PM	74896
Xylenes, Total	51	0.49		mg/Kg	5	5/15/2023 4:20:00 PM	74896
Surr: 4-Bromofluorobenzene	196	39.1-146	S	%Rec	5	5/15/2023 4:20:00 PM	74896

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
- 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

Page 1 of 16

Date Reported: 5/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental Client Sample ID: SM1 15-16'

SJ 28 7 183M **Project:** Collection Date: 5/8/2023 5:43:00 PM Lab ID: 2305496-002 Matrix: SOIL Received Date: 5/10/2023 7:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	SNS
Chloride	ND	60	mg/Kg	20	5/15/2023 9:27:00 PM	74963
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: PRD
Diesel Range Organics (DRO)	230	9.6	mg/Kg	1	5/15/2023 2:27:04 PM	74924
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	5/15/2023 2:27:04 PM	74924
Surr: DNOP	94.7	69-147	%Rec	1	5/15/2023 2:27:04 PM	74924
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: CCM
Gasoline Range Organics (GRO)	100	24	mg/Kg	5	5/15/2023 5:25:00 PM	74896
Surr: BFB	205	15-244	%Rec	5	5/15/2023 5:25:00 PM	74896
EPA METHOD 8021B: VOLATILES					Analyst	: CCM
Benzene	ND	0.12	mg/Kg	5	5/15/2023 5:25:00 PM	74896
Toluene	ND	0.24	mg/Kg	5	5/15/2023 5:25:00 PM	74896
Ethylbenzene	ND	0.24	mg/Kg	5	5/15/2023 5:25:00 PM	74896
Xylenes, Total	ND	0.48	mg/Kg	5	5/15/2023 5:25:00 PM	74896
Surr: 4-Bromofluorobenzene	138	39.1-146	%Rec	5	5/15/2023 5:25:00 PM	74896

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
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank
- Е Above Quantitation Range/Estimated Value
- Analyte detected below quantitation limits
- P Sample pH Not In Range
- Reporting Limit

Page 2 of 16

Date Reported: 5/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental Client Sample ID: SM1 29-30'

 Project:
 SJ 28 7 183M
 Collection Date: 5/8/2023 6:00:00 PM

 Lab ID:
 2305496-003
 Matrix: SOIL
 Received Date: 5/10/2023 7:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	SNS
Chloride	ND	60	mg/Kg	20	5/15/2023 9:39:24 PM	74963
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: PRD
Diesel Range Organics (DRO)	44	9.5	mg/Kg	1	5/15/2023 2:37:47 PM	74924
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	5/15/2023 2:37:47 PM	74924
Surr: DNOP	94.4	69-147	%Rec	1	5/15/2023 2:37:47 PM	74924
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: CCM
Gasoline Range Organics (GRO)	84	24	mg/Kg	5	5/15/2023 6:30:00 PM	74896
Surr: BFB	202	15-244	%Rec	5	5/15/2023 6:30:00 PM	74896
EPA METHOD 8021B: VOLATILES					Analyst	: CCM
Benzene	ND	0.12	mg/Kg	5	5/15/2023 6:30:00 PM	74896
Toluene	ND	0.24	mg/Kg	5	5/15/2023 6:30:00 PM	74896
Ethylbenzene	0.48	0.24	mg/Kg	5	5/15/2023 6:30:00 PM	74896
Xylenes, Total	4.4	0.48	mg/Kg	5	5/15/2023 6:30:00 PM	74896
Surr: 4-Bromofluorobenzene	113	39.1-146	%Rec	5	5/15/2023 6:30:00 PM	74896

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
- 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

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Date Reported: 5/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental Client Sample ID: SM2 7-8'

SJ 28 7 183M **Project: Collection Date:** 5/8/2023 2:18:00 PM 2305496-004 Matrix: SOIL Lab ID: Received Date: 5/10/2023 7:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: SNS
Chloride	ND	60	mg/Kg	20	5/15/2023 9:51:49 PM	74963
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: PRD
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	5/15/2023 2:48:30 PM	74924
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	5/15/2023 2:48:30 PM	74924
Surr: DNOP	99.8	69-147	%Rec	1	5/15/2023 2:48:30 PM	74924
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: CCM
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	5/15/2023 6:51:00 PM	74896
Surr: BFB	85.9	15-244	%Rec	1	5/15/2023 6:51:00 PM	74896
EPA METHOD 8021B: VOLATILES					Analyst	: CCM
Benzene	ND	0.024	mg/Kg	1	5/15/2023 6:51:00 PM	74896
Toluene	ND	0.048	mg/Kg	1	5/15/2023 6:51:00 PM	74896
Ethylbenzene	ND	0.048	mg/Kg	1	5/15/2023 6:51:00 PM	74896
Xylenes, Total	ND	0.097	mg/Kg	1	5/15/2023 6:51:00 PM	74896
Surr: 4-Bromofluorobenzene	84.8	39.1-146	%Rec	1	5/15/2023 6:51:00 PM	74896

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
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank
- Е Above Quantitation Range/Estimated Value
- Analyte detected below quantitation limits
- P Sample pH Not In Range
- Reporting Limit

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Date Reported: 5/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental Client Sample ID: SM2 25-26'

 Project:
 SJ 28 7 183M
 Collection Date: 5/8/2023 2:40:00 PM

 Lab ID:
 2305496-005
 Matrix: SOIL
 Received Date: 5/10/2023 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	SNS
Chloride	ND	60		mg/Kg	20	5/15/2023 10:04:14 PM	74963
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS					Analyst	PRD
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	5/15/2023 2:59:14 PM	74924
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/15/2023 2:59:14 PM	74924
Surr: DNOP	99.0	69-147		%Rec	1	5/15/2023 2:59:14 PM	74924
EPA METHOD 8015D: GASOLINE RANGE						Analyst	ССМ
Gasoline Range Organics (GRO)	67	10		mg/Kg	2	5/15/2023 7:13:00 PM	74896
Surr: BFB	288	15-244	S	%Rec	2	5/15/2023 7:13:00 PM	74896
EPA METHOD 8021B: VOLATILES						Analyst	CCM
Benzene	ND	0.050		mg/Kg	2	5/15/2023 7:13:00 PM	74896
Toluene	ND	0.10		mg/Kg	2	5/15/2023 7:13:00 PM	74896
Ethylbenzene	0.55	0.10		mg/Kg	2	5/15/2023 7:13:00 PM	74896
Xylenes, Total	5.5	0.20		mg/Kg	2	5/15/2023 7:13:00 PM	74896
Surr: 4-Bromofluorobenzene	128	39.1-146		%Rec	2	5/15/2023 7:13:00 PM	74896

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
- 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

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Date Reported: 5/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental Client Sample ID: SM2 29-30'

SJ 28 7 183M **Project:** Collection Date: 5/8/2023 2:50:00 PM Lab ID: 2305496-006 Matrix: SOIL Received Date: 5/10/2023 7:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	SNS
Chloride	ND	60	mg/Kg	20	5/15/2023 10:41:27 PM	74963
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	PRD
Diesel Range Organics (DRO)	29	10	mg/Kg	1	5/16/2023 9:24:33 AM	74924
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/16/2023 9:24:33 AM	74924
Surr: DNOP	97.4	69-147	%Rec	1	5/16/2023 9:24:33 AM	74924
EPA METHOD 8015D: GASOLINE RANGE					Analyst	CCM
Gasoline Range Organics (GRO)	ND	9.7	mg/Kg	2	5/15/2023 7:34:00 PM	74896
Surr: BFB	89.8	15-244	%Rec	2	5/15/2023 7:34:00 PM	74896
EPA METHOD 8021B: VOLATILES					Analyst	CCM
Benzene	ND	0.049	mg/Kg	2	5/15/2023 7:34:00 PM	74896
Toluene	ND	0.097	mg/Kg	2	5/15/2023 7:34:00 PM	74896
Ethylbenzene	ND	0.097	mg/Kg	2	5/15/2023 7:34:00 PM	74896
Xylenes, Total	ND	0.19	mg/Kg	2	5/15/2023 7:34:00 PM	74896
Surr: 4-Bromofluorobenzene	88.8	39.1-146	%Rec	2	5/15/2023 7:34:00 PM	74896

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
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank
- Е Above Quantitation Range/Estimated Value
- Analyte detected below quantitation limits
- P Sample pH Not In Range
- Reporting Limit

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Date Reported: 5/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental Client Sample ID: SM3 8.5-9.5'

SJ 28 7 183M **Project: Collection Date:** 5/8/2023 4:20:00 PM 2305496-007 Matrix: SOIL Lab ID: Received Date: 5/10/2023 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: JMT
Chloride	ND	59		mg/Kg	20	5/15/2023 10:52:08 PM	74968
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	: PRD
Diesel Range Organics (DRO)	610	10		mg/Kg	1	5/16/2023 9:35:00 AM	74924
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/16/2023 9:35:00 AM	74924
Surr: DNOP	103	69-147		%Rec	1	5/16/2023 9:35:00 AM	74924
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: KMN
Gasoline Range Organics (GRO)	1200	240		mg/Kg	50	5/18/2023 1:41:00 AM	74896
Surr: BFB	241	15-244		%Rec	50	5/18/2023 1:41:00 AM	74896
EPA METHOD 8021B: VOLATILES						Analyst	: CCM
Benzene	ND	0.049		mg/Kg	2	5/15/2023 7:56:00 PM	74896
Toluene	ND	0.097		mg/Kg	2	5/15/2023 7:56:00 PM	74896
Ethylbenzene	2.2	0.097		mg/Kg	2	5/15/2023 7:56:00 PM	74896
Xylenes, Total	8.8	0.19		mg/Kg	2	5/15/2023 7:56:00 PM	74896
Surr: 4-Bromofluorobenzene	0	39.1-146	S	%Rec	2	5/15/2023 7:56:00 PM	74896

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
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank
- Е Above Quantitation Range/Estimated Value
- Analyte detected below quantitation limits
- P Sample pH Not In Range
- Reporting Limit

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Date Reported: 5/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental Client Sample ID: SM3 25-26'

 Project:
 SJ 28 7 183M
 Collection Date: 5/8/2023 4:50:00 PM

 Lab ID:
 2305496-008
 Matrix: SOIL
 Received Date: 5/10/2023 7:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	ND	60	mg/Kg	20	5/15/2023 11:04:29 PM	74968
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst	: PRD
Diesel Range Organics (DRO)	14	9.8	mg/Kg	1	5/16/2023 9:45:30 AM	74924
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/16/2023 9:45:30 AM	74924
Surr: DNOP	97.0	69-147	%Rec	1	5/16/2023 9:45:30 AM	74924
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: KMN
Gasoline Range Organics (GRO)	22	4.7	mg/Kg	1	5/18/2023 2:03:00 AM	74896
Surr: BFB	193	15-244	%Rec	1	5/18/2023 2:03:00 AM	74896
EPA METHOD 8021B: VOLATILES					Analyst	: KMN
Benzene	ND	0.024	mg/Kg	1	5/18/2023 2:03:00 AM	74896
Toluene	0.18	0.047	mg/Kg	1	5/18/2023 2:03:00 AM	74896
Ethylbenzene	0.13	0.047	mg/Kg	1	5/18/2023 2:03:00 AM	74896
Xylenes, Total	1.2	0.095	mg/Kg	1	5/18/2023 2:03:00 AM	74896
Surr: 4-Bromofluorobenzene	107	39.1-146	%Rec	1	5/18/2023 2:03:00 AM	74896

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
- 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

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Date Reported: 5/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental Client Sample ID: SM3 29-30'

SJ 28 7 183M **Project:** Collection Date: 5/8/2023 5:00:00 PM 2305496-009 Matrix: SOIL Lab ID: Received Date: 5/10/2023 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: JMT
Chloride	ND	60		mg/Kg	20	5/15/2023 11:16:49 PM	74968
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst	PRD
Diesel Range Organics (DRO)	17	10		mg/Kg	1	5/16/2023 9:56:00 AM	74924
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/16/2023 9:56:00 AM	74924
Surr: DNOP	99.3	69-147		%Rec	1	5/16/2023 9:56:00 AM	74924
EPA METHOD 8015D: GASOLINE RANGE						Analyst	CCM
Gasoline Range Organics (GRO)	250	9.9		mg/Kg	2	5/15/2023 9:22:00 PM	74896
Surr: BFB	300	15-244	S	%Rec	2	5/15/2023 9:22:00 PM	74896
EPA METHOD 8021B: VOLATILES						Analyst	CCM
Benzene	ND	0.049		mg/Kg	2	5/15/2023 9:22:00 PM	74896
Toluene	1.8	0.099		mg/Kg	2	5/15/2023 9:22:00 PM	74896
Ethylbenzene	1.7	0.099		mg/Kg	2	5/15/2023 9:22:00 PM	74896
Xylenes, Total	14	0.20		mg/Kg	2	5/15/2023 9:22:00 PM	74896
Surr: 4-Bromofluorobenzene	198	39.1-146	S	%Rec	2	5/15/2023 9:22:00 PM	74896

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
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank
- Е Above Quantitation Range/Estimated Value
- Analyte detected below quantitation limits
- P Sample pH Not In Range
- Reporting Limit

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Date Reported: 5/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental Client Sample ID: SM4 2-3'

 Project:
 SJ 28 7 183M
 Collection Date: 5/8/2023 3:15:00 PM

 Lab ID:
 2305496-010
 Matrix: SOIL
 Received Date: 5/10/2023 7:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	ND	60	mg/Kg	20	5/15/2023 11:29:09 PM	74968
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst	PRD
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	5/16/2023 10:06:31 AM	74924
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/16/2023 10:06:31 AM	74924
Surr: DNOP	94.7	69-147	%Rec	1	5/16/2023 10:06:31 AM	74924
EPA METHOD 8015D: GASOLINE RANGE					Analyst	CCM
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	5/15/2023 9:44:00 PM	74896
Surr: BFB	86.9	15-244	%Rec	1	5/15/2023 9:44:00 PM	74896
EPA METHOD 8021B: VOLATILES					Analyst	CCM
Benzene	ND	0.025	mg/Kg	1	5/15/2023 9:44:00 PM	74896
Toluene	ND	0.050	mg/Kg	1	5/15/2023 9:44:00 PM	74896
Ethylbenzene	ND	0.050	mg/Kg	1	5/15/2023 9:44:00 PM	74896
Xylenes, Total	ND	0.10	mg/Kg	1	5/15/2023 9:44:00 PM	74896
Surr: 4-Bromofluorobenzene	84.2	39.1-146	%Rec	1	5/15/2023 9:44:00 PM	74896

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
- 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

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Date Reported: 5/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental Client Sample ID: SM4 20-21'

SJ 28 7 183M **Project:** Collection Date: 5/8/2023 3:35:00 PM 2305496-011 Lab ID: Matrix: SOIL Received Date: 5/10/2023 7:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	ND	60	mg/Kg	20	5/15/2023 11:41:30 PM	74968
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: PRD
Diesel Range Organics (DRO)	19	10	mg/Kg	1	5/16/2023 10:17:05 AM	74924
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/16/2023 10:17:05 AM	74924
Surr: DNOP	101	69-147	%Rec	1	5/16/2023 10:17:05 AM	74924
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: CCM
Gasoline Range Organics (GRO)	23	5.0	mg/Kg	1	5/15/2023 10:05:00 PM	74896
Surr: BFB	223	15-244	%Rec	1	5/15/2023 10:05:00 PM	74896
EPA METHOD 8021B: VOLATILES					Analyst	: CCM
Benzene	ND	0.025	mg/Kg	1	5/15/2023 10:05:00 PM	74896
Toluene	0.091	0.050	mg/Kg	1	5/15/2023 10:05:00 PM	74896
Ethylbenzene	0.11	0.050	mg/Kg	1	5/15/2023 10:05:00 PM	74896
Xylenes, Total	0.79	0.099	mg/Kg	1	5/15/2023 10:05:00 PM	74896
Surr: 4-Bromofluorobenzene	110	39.1-146	%Rec	1	5/15/2023 10:05:00 PM	74896

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
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank
- Е Above Quantitation Range/Estimated Value
- Analyte detected below quantitation limits
- P Sample pH Not In Range
- Reporting Limit

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Date Reported: 5/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental Client Sample ID: SM4 29-30'

 Project:
 SJ 28 7 183M
 Collection Date: 5/8/2023 3:55:00 PM

 Lab ID:
 2305496-012
 Matrix: SOIL
 Received Date: 5/10/2023 7:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	ND	60	mg/Kg	20	5/15/2023 11:53:51 PM	74968
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: PRD
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	5/16/2023 10:27:37 AM	74924
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	5/16/2023 10:27:37 AM	74924
Surr: DNOP	102	69-147	%Rec	1	5/16/2023 10:27:37 AM	74924
EPA METHOD 8015D: GASOLINE RANGE					Analyst	CCM
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	5/15/2023 10:27:00 PM	74896
Surr: BFB	89.3	15-244	%Rec	1	5/15/2023 10:27:00 PM	74896
EPA METHOD 8021B: VOLATILES					Analyst	: CCM
Benzene	ND	0.023	mg/Kg	1	5/15/2023 10:27:00 PM	74896
Toluene	ND	0.047	mg/Kg	1	5/15/2023 10:27:00 PM	74896
Ethylbenzene	ND	0.047	mg/Kg	1	5/15/2023 10:27:00 PM	74896
Xylenes, Total	ND	0.093	mg/Kg	1	5/15/2023 10:27:00 PM	74896
Surr: 4-Bromofluorobenzene	85.9	39.1-146	%Rec	1	5/15/2023 10:27:00 PM	74896

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
- 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

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

22-May-23

2305496

WO#:

Client: Timberwolf Environmental

Project: SJ 28 7 183M

Sample ID: MB-74968 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 74968 RunNo: 96777

Prep Date: 5/15/2023 Analysis Date: 5/15/2023 SeqNo: 3509658 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-74968 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 74968 RunNo: 96777

Prep Date: 5/15/2023 Analysis Date: 5/15/2023 SeqNo: 3509659 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 93.9 90 110

Sample ID: MB-74963 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 74963 RunNo: 96761

Prep Date: 5/15/2023 Analysis Date: 5/15/2023 SeqNo: 3509949 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-74963 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 74963 RunNo: 96761

Prep Date: 5/15/2023 Analysis Date: 5/15/2023 SeqNo: 3509950 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 92.3 90 110

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical 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

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

2305496 22-May-23

WO#:

Client: Timberwolf Environmental

Project: SJ 28 7 183M

Sample ID: 2305496-001AMS	SampType: MS TestCode: EPA Method 801							esel Range	e Organics	
Client ID: SM1 6.5-8.5'	Batch	Batch ID: 74924 RunNo: 96749								
Prep Date: 5/12/2023	Analysis Da	ate: 5/	15/2023	S	SeqNo: 3	509524	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	300	10	50.45	382.6	-172	54.2	135			S
Surr: DNOP	5.3		5.045		105	69	147			

Sample ID: 2305496-001AMSD	SampType: MSD TestCode: EPA Method						8015M/D: Die	esel Range	e Organics	
Client ID: SM1 6.5-8.5'	Batch	ID: 74 9	924	R	tunNo: 90	6749				
Prep Date: 5/12/2023	Analysis Da	ate: 5/	15/2023	S	SeqNo: 3	509525	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	400	9.5	47.26	382.6	40.7	54.2	135	30.5	29.2	RS
Surr: DNOP	4.5		4.726		95.9	69	147	0	0	

Sample ID: LCS-74924	SampT	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch	ID: 74 9	924	R	lunNo: 9	6749				
Prep Date: 5/12/2023	Analysis D	ate: 5/	15/2023	S	SeqNo: 3	509530	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.3	61.9	130			
Surr: DNOP	4.6		5.000		92.2	69	147			

Sample ID: MB-74924	SampType: MBLK TestCode: EPA Method 8						8015M/D: Diesel Range Organics								
Client ID: PBS	Batch	ID: 74 9	924	F	RunNo: 9	6749									
Prep Date: 5/12/2023	Analysis D	ate: 5/	15/2023	9	SeqNo: 3	509531	Units: mg/K	(g							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual					
Diesel Range Organics (DRO)	ND	10													
Motor Oil Range Organics (MRO)	ND	50													
Surr: DNOP	9.0		10.00		89.9	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 Quantitative 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

Page 14 of 16

OC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2305496**

22-May-23

Client: Timberwolf Environmental

Project: SJ 28 7 183M

Sample ID: mb-74896 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: **PBS** Batch ID: **74896** RunNo: **96758**

Prep Date: 5/11/2023 Analysis Date: 5/15/2023 SeqNo: 3509390 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 870 1000 87.1 15 244

Sample ID: Ics-74896 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 74896 RunNo: 96758

Prep Date: 5/11/2023 Analysis Date: 5/15/2023 SeqNo: 3509391 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 20 5.0 25.00 O 78.6 70 130

189

15

244

Sample ID: 2305496-001AMS SampType: MS TestCode: EPA Method 8015D: Gasoline Range

1000

Client ID: SM1 6.5-8.5' Batch ID: 74896 RunNo: 96758

1900

Prep Date: 5/11/2023 Analysis Date: 5/15/2023 SeqNo: 3509393 Units: mg/Kg

SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual Gasoline Range Organics (GRO) 340 25 24.61 739.4 -1630 70 130 S Surr: BFB S 18000 4921 359 15 244

Sample ID: 2305496-001AMSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: SM1 6.5-8.5' Batch ID: 74896 RunNo: 96758

Prep Date: 5/11/2023 Analysis Date: 5/15/2023 SeqNo: 3509394 Units: mg/Kg

SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Result PQL LowLimit Qual Gasoline Range Organics (GRO) 810 25 24.75 739.4 268 70 81.7 RS 130 20 Surr: BFB 17000 4950 353 15 244 0 0 S

Qualifiers:

Surr: BFB

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

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

Page 15 of 16

OC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2305496**

22-May-23

Client: Timberwolf Environmental

Project: SJ 28 7 183M

Sample ID: mb-74896 SampType: MBLK TestCode: EPA Method 8021B: Volatiles
Client ID: PBS Batch ID: 74896 RunNo: 96758

Prep Date: 5/11/2023 Analysis Date: 5/15/2023 SeqNo: 3509443 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 0.85 1.000 84.7 39.1 146

Sample ID: Ics-74896 SampType: LCS TestCode: EPA Method 8021B: Volatiles Client ID: LCSS Batch ID: 74896 RunNo: 96758 Analysis Date: 5/15/2023 SeqNo: 3509444 Prep Date: 5/11/2023 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 1.000 70 0.91 0.025 n 91.5 130 Benzene Toluene 0.91 0.050 1.000 0 90.6 70 130 0 88.2 70 0.88 0.050 1.000 130 Ethylbenzene 0 87.8 Xylenes, Total 2.6 0.10 3.000 70 130 Surr: 4-Bromofluorobenzene 0.87 1.000 87.0 39.1 146

Sample ID: 2305496-002AMS SampType: MS TestCode: EPA Method 8021B: Volatiles Client ID: SM1 15-16' Batch ID: 74896 RunNo: 96758 Prep Date: 5/11/2023 Analysis Date: 5/15/2023 SeqNo: 3509447 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 0.12 81.0 70 0.78 0.9653 130 Benzene O 0.80 0.24 0.9653 83.2 70 130 Toluene 0 0.24 0.9653 76.5 70 Ethylbenzene 0.87 0.1357 130 Xylenes, Total 2.6 0.48 2.896 0.3961 74.5 70 130

4.826

TestCode: EPA Method 8021B: Volatiles Sample ID: 2305496-002AMSD SampType: MSD Client ID: SM1 15-16' Batch ID: 74896 RunNo: 96758 Prep Date: 5/11/2023 Analysis Date: 5/15/2023 SeqNo: 3509448 Units: mg/Kg SPK value SPK Ref Val %REC **RPDLimit** Analyte Result PQL LowLimit HighLimit %RPD Qual 0.83 0.12 0.9747 0 85.6 70 130 6.56 20 Benzene Toluene 0.82 0.24 0.9747 0 84.4 70 130 2.48 20 Ethylbenzene 0.86 0.24 0.9747 747 70 130 1.27 20 0.1357 Xylenes, Total 2.5 0.49 2.924 0.3961 73.4 70 130 0.353 20 Surr: 4-Bromofluorobenzene 5.1 4.873 104 39.1 0 0 146

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

5.4

B Analyte detected in the associated Method Blank

113

39.1

146

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 16 of 16



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

Released to Imaging: 7/11/2023 3:34:54 PM

Client Name:	Timberwolf Environmental	Work Order N	umber: 2305496		ReptNo: 1	
Received By:	Tracy Casarrubias	5/10/2023 7:40:	00 AM			
Completed By:	Tracy Casarrubias	5/10/2023 8:34:	40 AM			
Reviewed By:	KP4 5:10-2	3				
Chain of Cus	<u>tody</u>					
1. Is Chain of Cu	ustody complete?		Yes 🗹	No 🗌	Not Present	
2. How was the	sample delivered?		<u>Courier</u>			
Log In 3. Was an attem	pt made to cool the samples	?	Yes 🗹	No 🗆	na 🗆	
1 Were all same	oles received at a temperatur	o of >0° C to 6.0°C	Yes 🗸	No 🗌	na 🗆	
4. Wele all Sallip	nes received at a temperatur	e 01 >0 C 10 6.0 C	Yes ▼	110	NA L	
5. Sample(s) in p	proper container(s)?		Yes 🗸	No 🗌		
6. Sufficient sam	ple volume for indicated test	(s)?	Yes 🗹	No 🗌		
7. Are samples (except VOA and ONG) prope	erly preserved?	Yes 🗹	No 🗌		
8. Was preserva	tive added to bottles?		Yes 🗌	No 🗹	NA 🗆	
9. Received at le	ast 1 vial with headspace <1	/4" for AQ VOA?	Yes 🔲	No 🗌	NA 🗹	
10. Were any san	nple containers received brok	ken?	Yes 📙	No 🗹	# of preserved	
	ork match bottle labels? ancies on chain of custody)		Yes 🗸	No 🗆	bottles checked for pH: (<2 or >12 unless	noted)
12. Are matrices of	correctly identified on Chain of	of Custody?	Yes 🗹	No 🗌	Adjusted?	
13. Is it clear what	t analyses were requested?		Yes 🗹	No 🗌		
	ng times able to be met? ustomer for authorization.)		Yes 🗹	No 🗆	Checked by:	0/73
Special Handl	ing (if applicable)			,	560 510	
15. Was client no	tified of all discrepancies with	n this order?	Yes 🗌	No 🗆	NA 🗹	
Person	Notified:	D	ate:			
By Who		V	ia: 🗌 eMail 🔲 P	hone Fax	☐ In Person	
Regardi	2					
	nstructions:					
16. Additional rei						
17. Cooler Infor		Co-11-4 1 C		Cinn d D		
Cooler No	- -	Seal Intact Seal N es Morty	o Seal Date	Signed By		
	J JG000 1	CG IVIOITY	1			

वांभववीकेस । १९८० में स्ट्रीर १९७३ में भी	2:34 PM		Billing Info	ormation:						Apalysis	/ Containe	212 CE 132 11	<u>e</u>	Chain of Cu	stody P#	age 35
1115 Welsh Ave, Suite B College Station, TX 77840	ental, LLC		1115 W	ts Payable elsh Ave. Station, TX 77	'840	Pres Chk									,	and the second
Report to: A	(10															
14b@feamt:	mberwolf	City/State	2 1		Disease of			,								he
			Rio Ar	rba	Please Ci PT MT C											
none: 361-772-8706	Client Project			Lab Project #						14.						-
		007			,									SDG #		
lected by (print):	Site/Facility ID	# c/2 B	=/83M	P.O. #										Table #		
ected by (signature):		ab MUST Be		Quote #		-	0	Ú	2					Acctnum: T	IMENVBT.	Y
Lan		y Five [Quote #			6.10	200	312		1			Template:		
nediately		5 Day		Date Resul	ts Needed	T.,	1,	13	1	4.				Prelogin:		
ked on Ice N Y	Three Da	y 5	tal			No. of	3	3	h	STE				PM: 3564 -	Chad A Upch	urch
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	0	80%	Sus	15				Shipped Via		
MI 6-5-8,5	7 6	5		-1.1				/	~					Remarks	0544	(Jab only)
M. I amendance	6	<u>رن</u> نز		3/8/23	1730		4	La		1					001	
10 3		<u> </u>		5/8/23	1743		-	1							002	
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M2 25-26'	9	5		5/8/23	1440		1	1	1						005	
M2 29-30	.6	<u>ح</u>		5/8/23	1450		/		/						006	
43 8.5-9.5	(9)	2		5/8/23	1620		1	/	/	/					007	·
M3 25-261	9	2		5/8/23	1650		/		/	/					000	
M3 29-30'		5 -		5/8/23	1700		/	1	1	7					009	
M4 2-3"	16	5		5/8/23	1515		1		/	/	U.S.				010	
rix: oil AIR - Air F - Filter	emarks:								- Continue and Line	L				Sample Receipt	Thecklist	
Groundwater B - Bioassay WasteWater										Hq	Te	mp	COC SI	al Present/Intac .gned/Accurate:	t: NP	Y _N
Drinking Water	amples returned via	GEOGRAFIE AND A								Flow	Ot	her	Bottle	s arrive intact: t bottles used:		Y _N
THE T	_UPS FedEx _			Tracking	g #								Suffic	ient volume sent		YИ
quished by : (Signature)	Date	5/9/2	3 Time:	Receive	d by; (Signatur	e)	-	-	Trip	Blank F	Received:	Yes / No	Preser	ro Headspace: vation Correct/C	necked:	Y N
-fil	54	8/23		15 / h	AWa	- January						HCL / MeoH	RAD Sc	reen <0.5 mR/hr:		
quished by : (Signature)	Date 5	19/23	Time:		d by: (Signatur	el	COL.	40	Ten		°C B	TBR ottles Received:		rvation required by Lo	ogin: Date/Ti	me
quished by : (Signature)	Date		Time:	Receive	d for lab by: (Si	ignature	9)		Dat		***************************************	me:	Hold:		Condit NCF /	91

Received by OCD: 7/5/2023 1:02:34 PM

2012 of 37

Chain-of-Custody Record	Turn-Around	HALL ENVIRONMENTAL														
Client: Timbout	Standard	d □ Rush	1											RAT		
	Project Nam	e:				ROW.									•	
Mailing Address:	-				40	04.11				enviro						
	Project #:		11201120 3 51										M 871	09		
Phone #:		20009		100 100 100	Te	l. 50	5-34	5-39		to the same of	-		-4107	Ment One		
						Title.				alysi	Rec				Z SAN	
email or Fax#: /ab@tean timberwolf. a QA/QC Package: DCStandard	5.F.TOJect Mana	ager.		TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	PCB's		8270SIMS		PO ₄ , SO ₄		Total Coliform (Present/Absent)		ord time?		
Accreditation: Az Compliance	Sampler:] <u>B</u>	R	082	\in	327(NO ₂ ,		ser				
□ NELAC □ Other	On Ice:	¥ Yes	□ No morty		잆	8/se	504	٦I			18					
□ EDD (Type)	# of Coolers:		, , , , , , , , , , , , , , , , , , , ,	MTBE/	[<u>G</u>	icide	bot	310	eta	g 2	, <u>></u>	E E				
	Cooler Temp	(Including CF): 4:	2-8=4.2 (°C)	Σ	115	est	Meth	by 8	8 ≥	, S	Ser	i iii	200	7		
Date , Time Matrix Sample Name	Container Type and #	Preservative Type	HEAL No. (BTEX!)	TPH:8	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310	RCRA 8 Metals	Cl, F, Br, NO ₃ ,	8270 (Semi-VOA)	Total C				П
5/8/23 153 - 5 SM4 20-21'	402	1ce	011	7	V									Tp: 15" 1	100 11	
5/8/13 1555 5 SM4 29-30'	452	ادم	012	/				Carrier III				#7 - 1 = 0-30				
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Date: Time: Relinquished by:	Received by:	Via:	Date Time													

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

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 236046

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	236046
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	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.	7/11/2023