ENSOLUM

January 13, 2023

New Mexico Oil Conservation Division
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Fourth Quarter 2022 – Solar SVE System Update
Scott 4M
San Juan County, New Mexico
Hilcorp Energy Company
NMOCD Incident Number: NCE2003650476

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Fourth Quarter 2022 – Solar SVE System Update* report summarizing the solar soil vapor extraction (SVE) system performance at the Scott 4M natural gas production well (Site), located in Section 17, Township 31 North, and Range 10 West in San Juan County (Figure 1). The SVE system has operated since January 2021 to remediate subsurface soil impacts resulting from approximately 42 barrels (bbls) of natural gas condensate released from an aboveground storage tank. This report summarizes Site activities performed in October, November, and December of 2022.

SVE SYSTEM SPECIFICATIONS

During the fourth quarter of 2022, the upgraded SVE system operated at the Site and consists of a 3-phase, 3.4 horsepower Republic Model KVHRC500 blower capable of producing a flow of 221 scfm and a vacuum of 76 IWC. The system is powered by a permanent power drop and is intended to run 24 hours per day. Seven SVE wells are currently present at the Site (SVE01 through SVE07, shown on Figure 2). SVE wells SVE01 through SVE03 are screened at depth intervals ranging from 25 feet to 45 feet below ground surface (bgs) in order to remediate deep soil impacts located at the Site. SVE wells SVE04 and SVE05 are screened at depth intervals ranging from 5 feet to 25 feet bgs in order to remediate shallow soil impacts at the Site. SVE wells SVE06 and SVE07 were installed at the Site in order to complete the pilot test conducted in 2021; however, these wells are not located in impacted areas and are used as observation wells only.

FOURTH QUARTER 2022 ACTIVITIES

During the fourth quarter of 2022, Ensolum and Hilcorp personnel performed bi-weekly operation and maintenance (O&M) visits to ensure the system was operating as designed and to perform any required maintenance. Field notes taken during O&M visits are presented in Appendix A. During the fourth quarter of 2022, SVE wells SVE01 through SVE05 were operated in order to induce flow in impacted soil zones. Between September 21 and December 10 2022, the SVE system operated for 1,892.6 hours for a runtime efficiency of 98.6 percent (%). Appendix B presents photographs of the runtime meter for

calculating the fourth quarter runtime efficiency. Table 1 presents the SVE system operational hours and calculated percent runtime.

A fourth quarter 2022 air sample was collected on December 12, 2022 from a sample port located between the SVE piping manifold and the SVE blower using a high vacuum air sampler. Prior to collection, the emission sample was field screened with a photoionization detector (PID) for organic vapor monitoring (OVM). The emission sample was collected directly into two 1-Liter Tedlar® bags and submitted to Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico for analysis of total volatile petroleum hydrocarbons (TVPH – also known as total petroleum hydrocarbons – gasoline range organics (TPH-GRO)) following United States Environmental Protection Agency (EPA) Method 8015D, volatile organic compounds (VOCs) following EPA Method 8260B, and fixed gas analysis of oxygen and carbon dioxide following Gas Processors Association (GPA) Method 2261. Table 2 presents a summary of analytical data collected during this sampling event and historical sampling events, with the full laboratory analytical report included in Appendix C.

Air sample data and measured stack flow rates are used to estimate total mass recovered and total emissions generated by the SVE system (Table 3). Based on these estimates, 6,876 pounds (3.4 tons) of TVPH have been removed by the system to date. Due to the increased flow/vacuum of the new system, as well as the increased runtime due to a permanent power supply, the upgraded SVE system removed approximately 850% more pounds of TVPH during the fourth quarter of 2022 as compared to the third quarter results.

RECOMMENDATIONS

Bi-weekly O&M visits will continue to be performed by Ensolum and/or Hilcorp personnel to ensure that the SVE system is operating within normal working ranges (i.e., temperature, pressure, and vacuum). Deviations from regular operations will be noted on field logs and included in the following quarterly report.

We appreciate the opportunity to provide this report to the NMOCD. If you should have any questions or comments regarding this report, please contact the undersigned.

Sincerely,
Ensolum, LLC

Stuart Hyde, LG
Senior Geologist
(970) 903-1607
shyde@ensolum.com

Daniel R. Moir, PG
Senior Managing Geologist
(303) 887-2946
dmoir@ensolum.com

Attachments:

Figure 1 Site Location
Figure 2 SVE System Configuration

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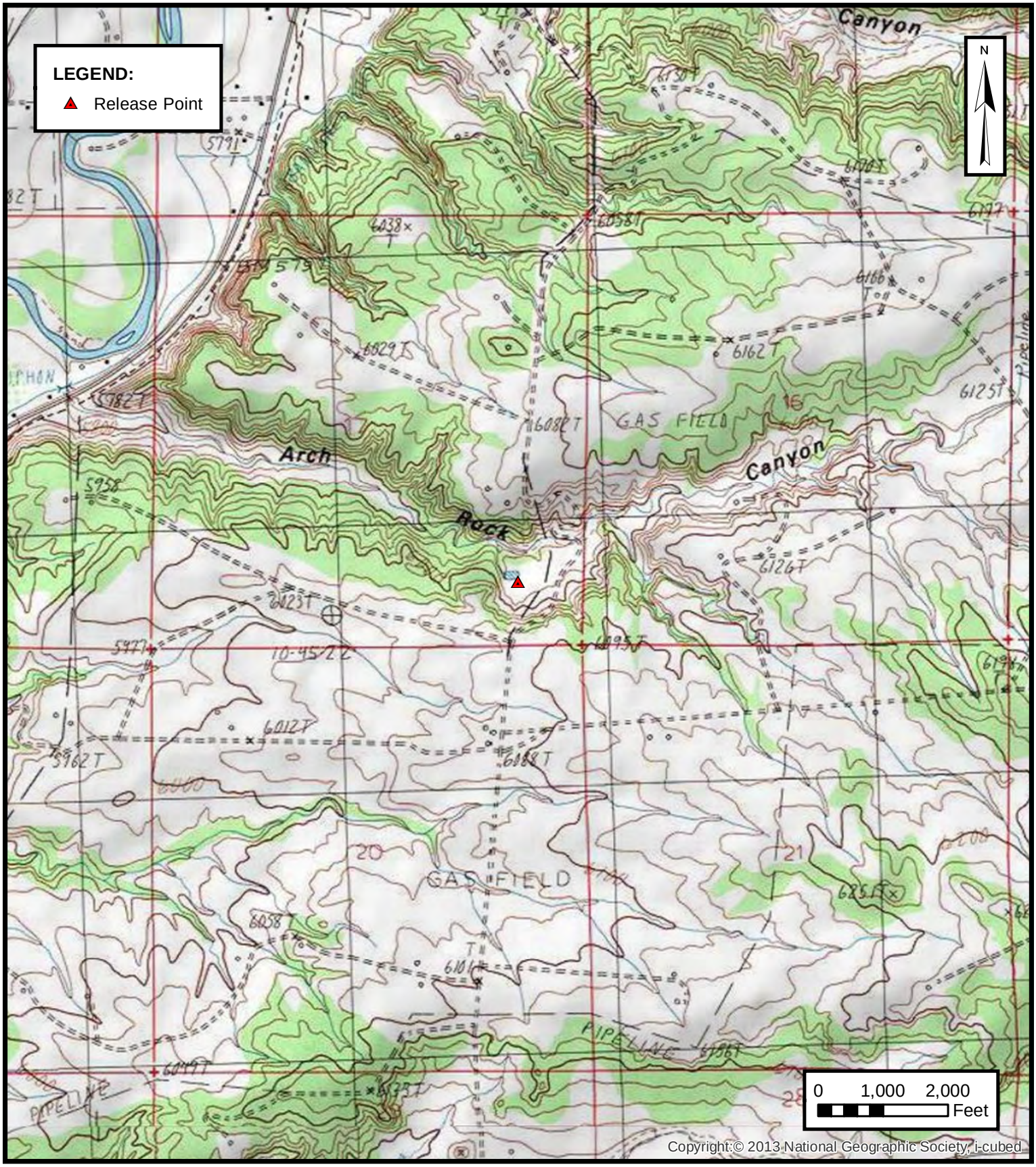
FIGURES



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Environmental & Hydrogeologic Consultants

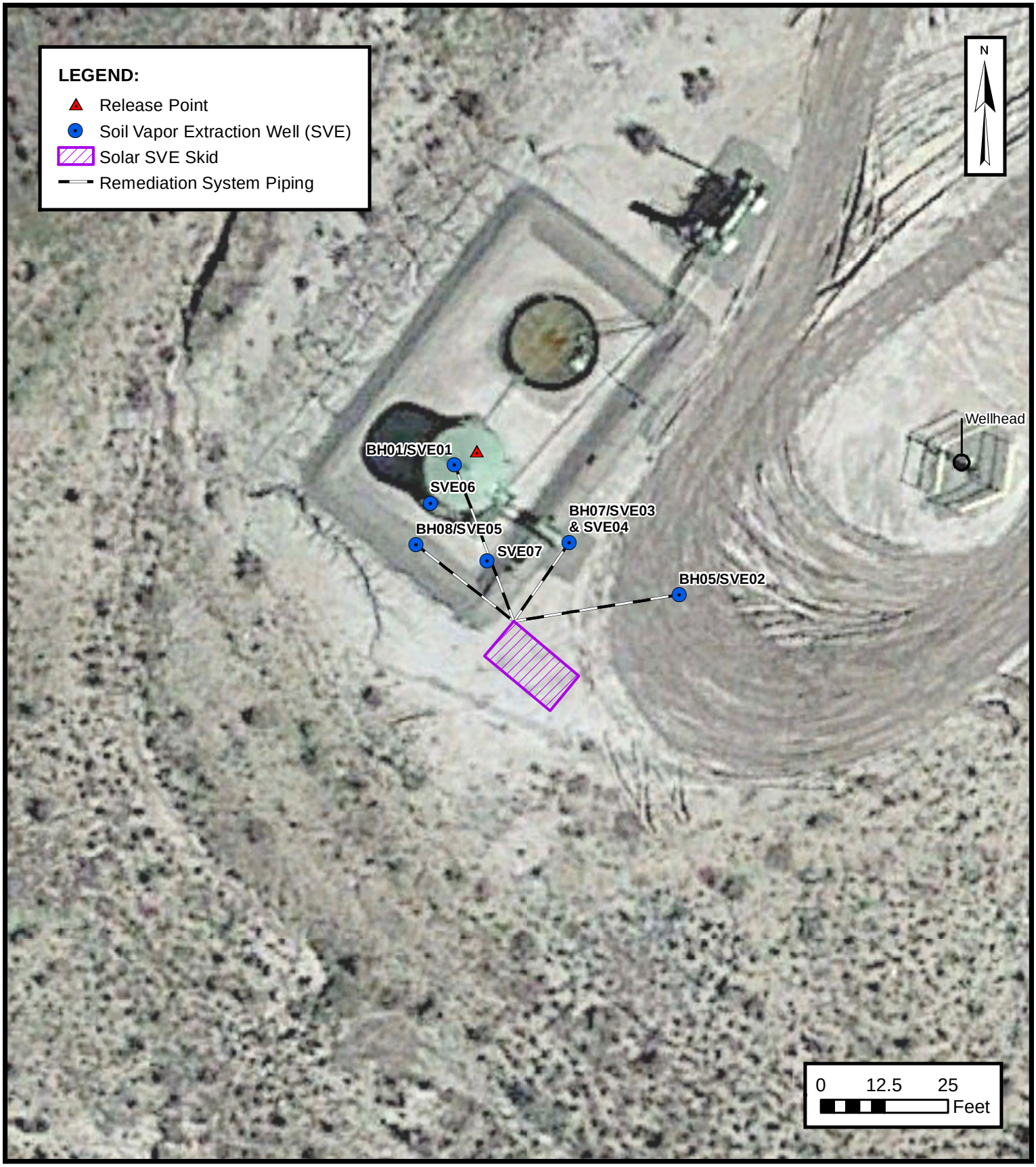
SITE LOCATION

HILCORP ENERGY COMPANY
SCOTT 4M
SESE SEC 17 T31N R1OW, San Juan County, New Mexico
36.893345° N, 107.899185° W

PROJECT NUMBER: 07A1988016

FIGURE

1



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Environmental & Hydrogeologic Consultants

SVE SYSTEM CONFIGURATION

HILCORP ENERGY COMPANY
SCOTT 4M
SESE SEC 17 T31N R1OW, San Juan County, New Mexico
36.893345° N, 107.899185° W

PROJECT NUMBER: 07A1988016

FIGURE
2

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TABLES

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TABLE 1
SOIL VAPOR EXTRACTION SYSTEM RUNTIME CALCULATIONS
Hilcorp Energy Company - Scott 4M
San Juan County, New Mexico

Ensolum Project No. 07A1988016

Date	Total Operational Hours	Delta Hours	Days	Percent Runtime
9/21/2022	6,209	--	--	--
12/10/2022	8,102	1,892.6	80.0	98.6%

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TABLE 2
SOIL VAPOR EXTRACTION SYSTEM EMISSIONS ANALYTICAL RESULTS
Hilcorp Energy Company - Scott 4M
San Juan County, New Mexico

Ensolum Project No. 07A1988016

Date	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH/GRO (µg/L)	Oxygen (%)	Carbon Dioxide (%)
2/1/2021	118	85	240	10	64	18,000	--	--
9/7/2021	53	40	280	24	240	15,000	--	--
9/29/2021	316	210	1,800	240	2,200	85,000	--	--
12/2/2021	232	48	320	32	310	50,000	16.6%	1.03%
3/15/2022	402	38	430	63	660	18,000	20.8%	0.473%
6/16/2022	89	1.3	13	1.6	17	750	21.6%	0.15%
9/28/2022	476	9.6	120	19	220	5,900	20.7%	0.90%
12/12/2022	198.4	2.5	26	4.9	59	2,100	21.7%	0.27%

Notes:

GRO: gasoline range organics

µg/L: microgram per liter

PID: photoionization detector

ppm: parts per million

TVPH: total volatile petroleum hydrocarbons

%: percent

--: not sampled

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TABLE 3
SOIL VAPOR EXTRACTION SYSTEM MASS REMOVAL AND EMISSIONS
Hilcorp Energy Company - Scott 4M
San Juan County, New Mexico

Ensolum Project No. 07A1988016

Flow and Laboratory Analysis

Date	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH (µg/L)
2/1/2021	118	85	240	10	64	18,000
9/7/2021	53	40	280	24	240	15,000
9/29/2021	316	210	1,800	240	2,200	85,000
12/2/2021	232	48	320	32	310	50,000
3/15/2022	402	38	430	63	660	18,000
6/16/2022	89	1.3	13	1.6	17	750
9/28/2022 (1)	476	9.6	120	19	220	5,900
12/12/2022 (2)	198	2.5	26	4.9	59	2,100
Average	236	54	404	49	471	24,344

Vapor Extraction Summary

Date	Flow Rate (cfm)	Total System Flow (cf)	Delta Flow (cf)	Benzene (lb/hr)	Toluene (lb/hr)	Ethylbenzene (lb/hr)	Total Xylenes (lb/hr)	TVPH (lb/hr)
2/1/2021	22	1,980	1,980	0.0070	0.020	0.00082	0.0053	1.5
9/7/2021	22	2,841,168	2,839,188	0.0051	0.021	0.0014	0.013	1.4
9/29/2021	10	2,979,528	138,360	0.0047	0.039	0.0049	0.046	1.9
12/2/2021	3.5	3,106,158	126,630	0.0017	0.014	0.0018	0.016	0.88
3/15/2022	8.0	3,519,486	413,328	0.0013	0.011	0.0014	0.015	1.0
6/16/2022	14	4,412,322	892,836	0.0010	0.012	0.0017	0.018	0.49
9/9/2022 (1)	12	5,218,146	805,824	0.00024	0.0030	0.00046	0.0053	0.15
12/10/2022 (2)	46	10,939,074	5,720,928	0.0010	0.013	0.0021	0.024	0.69
			Average	0.0028	0.017	0.0018	0.018	1.0

Flow and Laboratory Analysis

Date	Total SVE System Hours	Delta Hours	Benzene (pounds)	Toluene (pounds)	Ethylbenzene (pounds)	Total Xylenes (pounds)	TVPH (pounds)	TVPH (tons)
2/1/2021	1.5	1.5	0.010	0.030	0.0012	0.0079	2.2	0.0011
9/7/2021	2,152	2,151	11	46	3.0	27	2,920	1.5
9/29/2021	2,383	231	1.1	9.0	1.1	11	431	0.22
12/2/2021	2,986	603	1.0	8.4	1.1	9.9	533	0.27
3/15/2022	3,847	861	1.1	9.7	1.2	12	876	0.44
6/16/2022	4,910	1,063	1.1	12.3	1.8	19	522	0.26
9/9/2022 (1)	6,029	1,119	0.3	3.3	0.5	6.0	167	0.08
12/10/2022 (2)	8,102	2,073	2.2	26	4.3	50	1,426	0.71
		Total Mass Recovery to Date	18	115	13.0	134	6,878	3.4

Notes:

(1): SVE system hours and flow rates were collected during operation and maintenance visit on 9/9/2022

(2): PID measurement, SVE system hours, and flow rates were collected during operation and maintenance visit on 12/10/2022

cf: cubic feet

cfm: cubic feet per minute

µg/L: micrograms per liter

lb/hr: pounds per hour

--: not sampled

PID: photoionization detector

ppm: parts per million

TVPH: total volatile petroleum hydrocarbons

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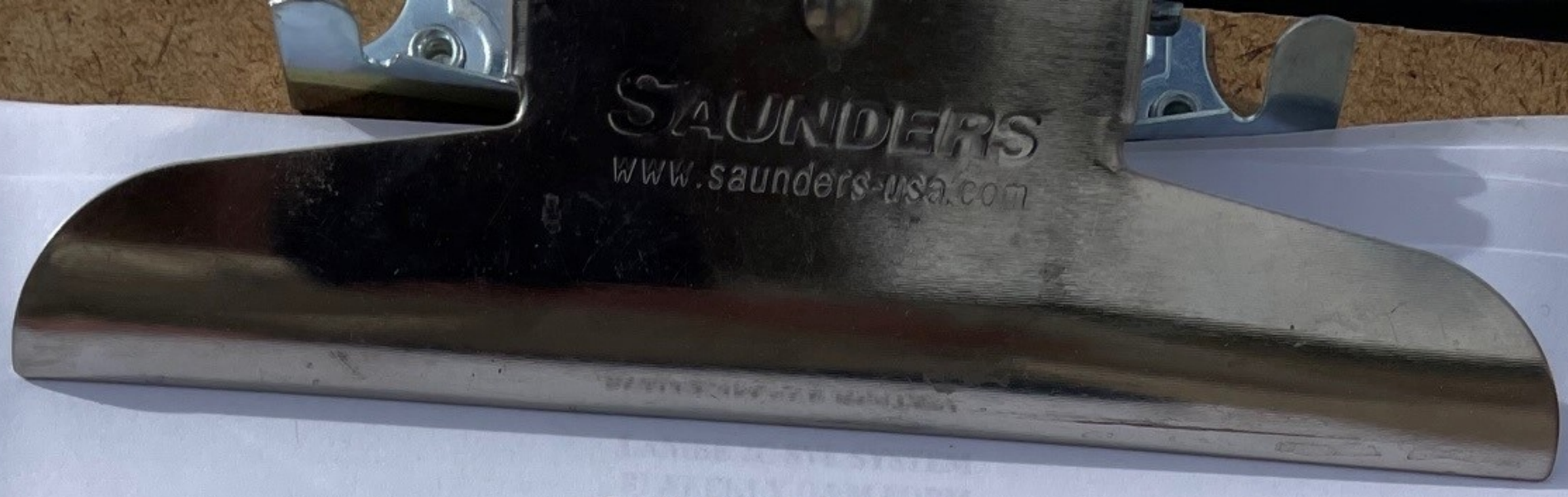
APPENDIX A

Field Notes



SCOTT 4M SVE SYSTEM
BIWEEKLY O&M FORM

DATE: 10-3
TIME ONSITE:

O&M PERSONNEL: B Sinclair
TIME OFFSITE:

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours **(take photo)**	6500.2	1502
Voltage In		
Amperage In		
Voltage Out		
Amperage Out		
KiloWatts		
KiloWatt-Hours		
Solar Controller Status		
post ~~Pre~~ K/O Vacuum (IWC)	-54	
Inlet Rotameter Flow (scfm)	30	
Inlet PID	417	
Exhaust PID	497	
Solar Panel Angle		
K/O Tank Drum Level		
K/O Liquid Drained (gallons)		
Timer Setting		

TIMER SETTINGS	
Month	**Timer Setting**
January	8 AM to 7 PM
February	8 AM to 7 PM
March	8 AM to 8 PM
April	8 AM to 9 PM
May	7 AM to 9 PM
June	6 AM to 9 PM
July	6 AM to 9 PM
August	7 AM to 9 PM
September	8 AM to 9 PM
October	8 AM to 8 PM
November	9 AM to 8 PM
December	8 AM to 6 PM

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID:	**SAMPLE TIME:**
Analytes:	TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS	1-5

Change in Well Operation:

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01		483		
SVE02		167		
SVE03		94.9		
SVE04		167		
SVE05		559		
SVE06 (OBSERVATION WELL)				
SVE07 (OBSERVATION WELL)				

COMMENTS/OTHER MAINTENANCE:

Replaced SVE 05 well cap

SCOTT 4M SVE SYSTEM
BIWEEKLY O&M FORM

DATE: 10-19
TIME ONSITE:

O&M PERSONNEL: B Sinclair
TIME OFFSITE:

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: | KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	6883.9	1445
Voltage In		
Amperage In		
Voltage Out		
Amperage Out		
KiloWatts		
KiloWatt-Hours		
Solar Controller Status		
Post ~~Pre~~ K/O Vacuum (IWC)	-54	
Inlet Rotameter Flow (scfm)	35	
Inlet PID	495	
Exhaust PID	671	
Solar Panel Angle		
K/O Tank Drum Level		
K/O Liquid Drained (gallons)		
Timer Setting		

TIMER SETTINGS	
Month	Timer Setting
January	8 AM to 7 PM
February	8 AM to 7 PM
March	8 AM to 8 PM
April	8 AM to 9 PM
May	7 AM to 9 PM
June	6 AM to 9 PM
July	6 AM to 9 PM
August	7 AM to 9 PM
September	8 AM to 9 PM
October	8 AM to 8 PM
November	9 AM to 8 PM
December	8 AM to 6 PM

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID: **SAMPLE TIME:**
Analytes: TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS

Change in Well Operation:

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01		758		
SVE02		196		
SVE03		104		
SVE04		275		
SVE05		426		
SVE06 (OBSERVATION WELL)				
SVE07 (OBSERVATION WELL)				

COMMENTS/OTHER MAINTENANCE:

Drained 8 gallons from KO tank.
Drained filter

SCOTT 4M SVE SYSTEM
BIWEEKLY O&M FORM

DATE: 11-5 O&M PERSONNEL: B Sinclair
TIME ONSITE: _____ TIME OFFSITE: _____

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: | KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours **(take photo)**	7292.1	1523
Voltage In		
Amperage In		
Voltage Out		
Amperage Out		
KiloWatts		
KiloWatt-Hours		
Solar Controller Status		
Pre K/O Vacuum (IWC)		
Inlet Rotameter Flow (scfm)	34	
Inlet PID	307.6	
Exhaust PID	382.3	
Solar Panel Angle		
K/O Tank Drum Level		
K/O Liquid Drained (gallons)	19	
Timer Setting		

TIMER SETTINGS	
Month	**Timer Setting**
January	8 AM to 7 PM
February	8 AM to 7 PM
March	8 AM to 8 PM
April	8 AM to 9 PM
May	7 AM to 9 PM
June	6 AM to 9 PM
July	6 AM to 9 PM
August	7 AM to 9 PM
September	8 AM to 9 PM
October	8 AM to 8 PM
November	9 AM to 8 PM
December	8 AM to 6 PM

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID:	**SAMPLE TIME:**
Analytes:	TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS	

Change in Well Operation:

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01		479.1		
SVE02		135.4		
SVE03		87.89		
SVE04		155.1		
SVE05		362.1		
SVE06 (OBSERVATION WELL)				
SVE07 (OBSERVATION WELL)				

COMMENTS/OTHER MAINTENANCE:

Drained 19g of fluid from KO tank

SCOTT 4M SVE SYSTEM
BIWEEKLY O&M FORM

DATE: 11-17
TIME ONSITE:

O&M PERSONNEL: B Sinclair
TIME OFFSITE:

SVE SYSTEM - MONTHLY O&M

SVE ALARMS:	KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours **(take photo)**	7576.0	1033
Voltage In		
Amperage In		
Voltage Out		
Amperage Out		
KiloWatts		
KiloWatt-Hours		
Solar Controller Status		
~~Pre~~ Post K/O Vacuum (IWC)	-56	
Inlet Rotameter Flow (scfm)	46	
Inlet PID	*	
Exhaust PID	489.5	
Solar Panel Angle		
K/O Tank Drum Level		
K/O Liquid Drained (gallons)	17.5	
Timer Setting		

TIMER SETTINGS	
Month	**Timer Setting**
January	8 AM to 7 PM
February	8 AM to 7 PM
March	8 AM to 8 PM
April	8 AM to 9 PM
May	7 AM to 9 PM
June	6 AM to 9 PM
July	6 AM to 9 PM
August	7 AM to 9 PM
September	8 AM to 9 PM
October	8 AM to 8 PM
November	9 AM to 8 PM
December	8 AM to 6 PM

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID:	**SAMPLE TIME:**
Analytes:	TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS	

Change in Well Operation:

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01		376.1		
SVE02		257		
SVE03		114.5		
SVE04		269.4		
SVE05		375.2		
SVE06 (OBSERVATION WELL)				
SVE07 (OBSERVATION WELL)				

COMMENTS/OTHER MAINTENANCE:

* Too much water in inlet to draw air into sampler
Replaced SVE 01 well cap

SCOTT 4M SVE SYSTEM
BIWEEKLY O&M FORM

DATE: 12-10 O&M PERSONNEL: B Sinclair
TIME ONSITE: _____ TIME OFFSITE: _____

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: | KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	8102.0	1400
Voltage In		
Amperage In		
Voltage Out		
Amperage Out		
KiloWatts		
KiloWatt-Hours		
Solar Controller Status		
Post Pre K/O Vacuum (IWC)	-54	
Inlet Rotameter Flow (scfm)	46	
Inlet PID	198.4	
Exhaust PID	178.7	
Solar Panel Angle		
K/O Tank Drum Level		
K/O Liquid Drained (gallons)	12	
Timer Setting		

TIMER SETTINGS	
Month	**Timer Setting**
January	8 AM to 7 PM
February	8 AM to 7 PM
March	8 AM to 8 PM
April	8 AM to 9 PM
May	7 AM to 9 PM
June	6 AM to 9 PM
July	6 AM to 9 PM
August	7 AM to 9 PM
September	8 AM to 9 PM
October	8 AM to 8 PM
November	9 AM to 8 PM
December	8 AM to 6 PM

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID:	**SAMPLE TIME:**
Analytes:	TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS	

Change in Well Operation:

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01		448.7		
SVE02		51.26		
SVE03		92.46		
SVE04		101.5		
SVE05		155.6		
SVE06 (OBSERVATION WELL)				
SVE07 (OBSERVATION WELL)				

COMMENTS/OTHER MAINTENANCE:

SCOTT 4M SVE SYSTEM
BIWEEKLY O&M FORM

DATE: 12-21
TIME ONSITE:

O&M PERSONNEL: B Sinclair
TIME OFFSITE:

SVE SYSTEM - MONTHLY O&M

SVE ALARMS:	KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours **(take photo)**	8367.4	1529
Voltage In		
Amperage In		
Voltage Out		
Amperage Out		
KiloWatts		
KiloWatt-Hours		
Solar Controller Status		
Post ~~Pre~~ K/O Vacuum (IWC)	-54	
Inlet Rotameter Flow (scfm)	52	
Inlet PID	138.8	
Exhaust PID	128.7	
Solar Panel Angle		
K/O Tank Drum Level		
K/O Liquid Drained (gallons)	4.5	
Timer Setting		

TIMER SETTINGS	
Month	**Timer Setting**
January	8 AM to 7 PM
February	8 AM to 7 PM
March	8 AM to 8 PM
April	8 AM to 9 PM
May	7 AM to 9 PM
June	6 AM to 9 PM
July	6 AM to 9 PM
August	7 AM to 9 PM
September	8 AM to 9 PM
October	8 AM to 8 PM
November	9 AM to 8 PM
December	8 AM to 6 PM

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID:	**SAMPLE TIME:**
Analytes:	TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS	

Change in Well Operation:

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01		379.3		
SVE02		69.74		
SVE03		93.51		
SVE04		90.62		
SVE05		88.24		
SVE06 (OBSERVATION WELL)				
SVE07 (OBSERVATION WELL)				

COMMENTS/OTHER MAINTENANCE:

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APPENDIX B

Project Photographs

PROJECT PHOTOGRAPHS
Scott 4M
San Juan County, New Mexico
Hilcorp Energy Company

Photograph 1 Runtime meter taken on September 21, 2022 at 12:45 PM when the SVE system was switched from solar to permanent power Hours = 6209.4	
Photograph 2 Runtime meter taken on December 10, 2022 at 2:00 PM Hours = 8102.0	

Ensolum, LLC | Environmental & Hydrogeologic Consultants
Durango, Colorado | info@ensolum.com

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APPENDIX C

Laboratory Analytical Reports

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

January 03, 2023

Mitch Killough
HILCORP ENERGY
PO Box 4700
Farmington, NM 87499
TEL: (505) 564-0733
FAX:

RE: Scott 4M OrderNo.: 2212734

Dear Mitch Killough:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/13/2022 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 **2212734**
Date Reported: **1/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SVE-1
Project: Scott 4M
Collection Date: 12/12/2022 3:00:00 PM
Lab ID: 2212734-001 **Matrix:** AIR **Received Date:** 12/13/2022 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	2100	50		µg/L	10	12/19/2022 8:48:44 AM
Surr: BFB	495	15-380	S	%Rec	10	12/19/2022 8:48:44 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	2.5	0.50		µg/L	5	12/23/2022 4:57:09 PM
Toluene	26	0.50		µg/L	5	12/23/2022 4:57:09 PM
Ethylbenzene	4.9	0.50		µg/L	5	12/23/2022 4:57:09 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,2,4-Trimethylbenzene	3.8	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,3,5-Trimethylbenzene	4.3	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,2-Dichloroethane (EDC)	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,2-Dibromoethane (EDB)	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Naphthalene	ND	1.0		µg/L	5	12/23/2022 4:57:09 PM
1-Methylnaphthalene	ND	2.0		µg/L	5	12/23/2022 4:57:09 PM
2-Methylnaphthalene	ND	2.0		µg/L	5	12/23/2022 4:57:09 PM
Acetone	ND	5.0		µg/L	5	12/23/2022 4:57:09 PM
Bromobenzene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Bromodichloromethane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Bromoform	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Bromomethane	ND	1.0		µg/L	5	12/23/2022 4:57:09 PM
2-Butanone	ND	5.0		µg/L	5	12/23/2022 4:57:09 PM
Carbon disulfide	ND	5.0		µg/L	5	12/23/2022 4:57:09 PM
Carbon tetrachloride	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Chlorobenzene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Chloroethane	ND	1.0		µg/L	5	12/23/2022 4:57:09 PM
Chloroform	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Chloromethane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
2-Chlorotoluene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
4-Chlorotoluene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
cis-1,2-DCE	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
cis-1,3-Dichloropropene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,2-Dibromo-3-chloropropane	ND	1.0		µg/L	5	12/23/2022 4:57:09 PM
Dibromochloromethane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Dibromomethane	ND	1.0		µg/L	5	12/23/2022 4:57:09 PM
1,2-Dichlorobenzene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,3-Dichlorobenzene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,4-Dichlorobenzene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Dichlorodifluoromethane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,1-Dichloroethane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,1-Dichloroethene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM

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 **2212734**
Date Reported: **1/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SVE-1
Project: Scott 4M
Collection Date: 12/12/2022 3:00:00 PM
Lab ID: 2212734-001 **Matrix:** AIR **Received Date:** 12/13/2022 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichloropropane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,3-Dichloropropane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
2,2-Dichloropropane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,1-Dichloropropene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Hexachlorobutadiene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
2-Hexanone	ND	5.0		µg/L	5	12/23/2022 4:57:09 PM
Isopropylbenzene	1.7	0.50		µg/L	5	12/23/2022 4:57:09 PM
4-Isopropyltoluene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
4-Methyl-2-pentanone	ND	5.0		µg/L	5	12/23/2022 4:57:09 PM
Methylene chloride	ND	1.5		µg/L	5	12/23/2022 4:57:09 PM
n-Butylbenzene	ND	1.5		µg/L	5	12/23/2022 4:57:09 PM
n-Propylbenzene	1.4	0.50		µg/L	5	12/23/2022 4:57:09 PM
sec-Butylbenzene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Styrene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
tert-Butylbenzene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Tetrachloroethene (PCE)	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
trans-1,2-DCE	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
trans-1,3-Dichloropropene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,2,3-Trichlorobenzene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,2,4-Trichlorobenzene	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,1,1-Trichloroethane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,1,2-Trichloroethane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Trichloroethene (TCE)	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Trichlorofluoromethane	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
1,2,3-Trichloropropane	ND	1.0		µg/L	5	12/23/2022 4:57:09 PM
Vinyl chloride	ND	0.50		µg/L	5	12/23/2022 4:57:09 PM
Xylenes, Total	59	0.75		µg/L	5	12/23/2022 4:57:09 PM
Surr: Dibromofluoromethane	83.9	70-130		%Rec	5	12/23/2022 4:57:09 PM
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	5	12/23/2022 4:57:09 PM
Surr: Toluene-d8	131	70-130	S	%Rec	5	12/23/2022 4:57:09 PM
Surr: 4-Bromofluorobenzene	123	70-130		%Rec	5	12/23/2022 4:57:09 PM

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.		

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ANALYTICAL SUMMARY REPORT

December 30, 2022

Hall Environmental
4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: B22121296 Quote ID: B15626

Project Name: Not Indicated

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 12/15/2022 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B22121296-001	2212734-001B, SVE-1	12/12/22 15:00	12/15/22	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond,/1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager.

Report Approved By:

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B22121296-001
Client Sample ID: 2212734-001B, SVE-1

Report Date: 12/30/22
Collection Date: 12/12/22 15:00
DateReceived: 12/15/22
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	21.65	Mol %		0.01		GPA 2261-95	12/19/22 13:12 / jrj
Nitrogen	77.76	Mol %		0.01		GPA 2261-95	12/19/22 13:12 / jrj
Carbon Dioxide	0.27	Mol %		0.01		GPA 2261-95	12/19/22 13:12 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	12/19/22 13:12 / jrj
Methane	0.29	Mol %		0.01		GPA 2261-95	12/19/22 13:12 / jrj
Ethane	0.03	Mol %		0.01		GPA 2261-95	12/19/22 13:12 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	12/19/22 13:12 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	12/19/22 13:12 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	12/19/22 13:12 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	12/19/22 13:12 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	12/19/22 13:12 / jrj
Hexanes plus	<0.01	Mol %		0.01		GPA 2261-95	12/19/22 13:12 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	12/19/22 13:12 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	12/19/22 13:12 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	12/19/22 13:12 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	12/19/22 13:12 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	12/19/22 13:12 / jrj
Hexanes plus	< 0.001	gpm		0.001		GPA 2261-95	12/19/22 13:12 / jrj
GPM Total	< 0.001	gpm		0.001		GPA 2261-95	12/19/22 13:12 / jrj
GPM Pentanes plus	< 0.001	gpm		0.001		GPA 2261-95	12/19/22 13:12 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	3			1		GPA 2261-95	12/19/22 13:12 / jrj
Net BTU per cu ft @ std cond. (LHV)	3			1		GPA 2261-95	12/19/22 13:12 / jrj
Pseudo-critical Pressure, psia	546			1		GPA 2261-95	12/19/22 13:12 / jrj
Pseudo-critical Temperature, deg R	240			1		GPA 2261-95	12/19/22 13:12 / jrj
Specific Gravity @ 60/60F	0.998			0.001		D3588-81	12/19/22 13:12 / jrj
Air, %	98.92			0.01		GPA 2261-95	12/19/22 13:12 / jrj
- The analysis was not corrected for air.							

COMMENTS

-						-	12/19/22 13:12 / jrj

- BTU, GPM, and specific gravity are corrected for deviation from ideal gas behavior.
- GPM = gallons of liquid at standard conditions per 1000 cu. ft. of moisture free gas @ standard conditions.
- To convert BTU to a water-saturated basis @ standard conditions, multiply by 0.9825.
- Standard conditions: 60 F & 14.73 psi on a dry basis.

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental **Work Order:** B22121296 **Report Date:** 12/30/22

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261-95**										Batch: R393977
Lab ID: **B22121289-001ADUP**	12	Sample Duplicate				Run: GCNGA-B_221219A				12/19/22 11:12
Oxygen		21.7	Mol %	0.01				0.0	20	
Nitrogen		78.0	Mol %	0.01				0.0	20	
Carbon Dioxide		0.30	Mol %	0.01				0.0	20	
Hydrogen Sulfide		<0.01	Mol %	0.01					20	
Methane		<0.01	Mol %	0.01					20	
Ethane		<0.01	Mol %	0.01					20	
Propane		<0.01	Mol %	0.01					20	
Isobutane		<0.01	Mol %	0.01					20	
n-Butane		<0.01	Mol %	0.01					20	
Isopentane		<0.01	Mol %	0.01					20	
n-Pentane		<0.01	Mol %	0.01					20	
Hexanes plus		<0.01	Mol %	0.01					20	
Lab ID: **LCS121922**	11	Laboratory Control Sample				Run: GCNGA-B_221219A				12/19/22 14:48
Oxygen		0.58	Mol %	0.01	116	70	130			
Nitrogen		6.02	Mol %	0.01	100	70	130			
Carbon Dioxide		1.00	Mol %	0.01	101	70	130			
Methane		74.6	Mol %	0.01	100	70	130			
Ethane		6.04	Mol %	0.01	101	70	130			
Propane		5.01	Mol %	0.01	101	70	130			
Isobutane		1.99	Mol %	0.01	99	70	130			
n-Butane		1.99	Mol %	0.01	99	70	130			
Isopentane		1.01	Mol %	0.01	101	70	130			
n-Pentane		1.00	Mol %	0.01	100	70	130			
Hexanes plus		0.81	Mol %	0.01	101	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist

Hall Environmental

B22121296

Login completed by: Yvonna E. Smith
Date Received: 12/15/2022
Reviewed by: tedwards
Received by: llt
Reviewed Date: 12/20/2022
Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	11.1°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

Contact and Corrective Action Comments:

None

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

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

SUB CONTRATOR: **Energy Labs -Billings**	COMPANY: **Energy Laboratories**	PHONE: **(406) 869-6253**	FAX: **(406) 252-6069**
ADDRESS: **1120 South 27th Street**		ACCOUNT #:	EMAIL:
CITY, STATE, ZIP: **Billings, MT 59107**			

ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2212734-001B	SVE-1	TEDLAR	Air	12/12/2022 3:00:00 PM	1	Fixed Gases CO2, O2 B22121960

SPECIAL INSTRUCTIONS / COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By:	Date: 12/13/2022	Time: 9:34 AM	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 12/15/22	Time: 0720

TAT: Standard ■ **RUSH** Next BD ☐ 2nd BD ☐ 3rd BD ☐

REPORT TRANSMITTAL DESIRED:
☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY
Temp of samples _____ ℃ Attempt to Cool ? _____
Comments: _____

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2212734**

03-Jan-23

Client: HILCORP ENERGY

Project: Scott 4M

Sample ID: **2212734-001adup**	SampType: **DUP**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SVE-1**	Batch ID: **A93392**	RunNo: **93392**
Prep Date:	Analysis Date: **12/19/2022**	SeqNo: **3368372** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2000	50						2.73	20	
Surr: BFB	100000		20000		498	15	380	0	0	S

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: HILCORP ENERGY Work Order Number: 2212734 RcptNo: 1

Received By: Cheyenne Cason 12/13/2022 7:50:00 AM

Completed By: Isaiah Ortiz 12/13/2022 9:24:29 AM

Reviewed By: 12-13-22

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: KR 12-13-22

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

Chain-of-Custody Record

Client: Hilcorp

Mailing Address:

Phone #:

email or Fax#: brandon.sinclair@hilcorp.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Scott 4M

Project #:

Project Manager: Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☐ Yes ☒ No

# of Coolers: 1

Cooler Temp(Including CF): NA (°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. 2212734	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)	8015 TVPH	Fixed gases O_2 & CO_2
12-12	1500	air	SVE-1	2 Tedlar		001								✓			✓	✓

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
12-12	1540		Chris Walls		12/12/22	1540
12/12/22	1744	Chris Walls	Emc	courier	12/13/22	0750

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.

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 176024

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	372171
	Action Number: 176024
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	1. Continue with O & M schedule. 2. Submit next quarterly report by May 1, 2023.	2/6/2023