

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

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Hilcorp Energy	OGRID 372171
Contact Name Clara Cardoza	Contact Telephone 505.564.0733
Contact email ccardoza@hilcorp.com	Incident # (assigned by OCD) nAPP2101050782
Contact mailing address 382 CR 3100, Aztec NM 87410	

### Location of Release Source

Latitude 36.6952477 Longitude -107.9413605  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Eaton A 1R	Site Type Gas Well
Date Release Discovered January 8, 2021	API# (if applicable) 30-045-34457

Unit Letter	Section	Township	Range	County
J	25	029N	011W	San Juan

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

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls) 12.5	Volume Recovered (bbls) 2
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release Over the top		

State of New Mexico  
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

**Initial Response**

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
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: <u>Clara Cardoza</u> Title: <u>Environmental Specialist</u>
Signature: _____ Date: <u>January 22, 2021</u>
email: <u>ccardoza@hilcorp.com</u> Telephone: <u>505.564.0733</u>
<b><u>OCD Only</u></b>
Received by: _____ Date: _____

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## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>51-100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

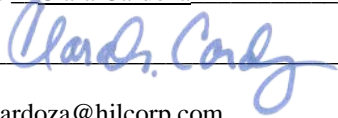
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

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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: Clara Cardoza Title: Environmental SpecialistSignature:  Date: May 7, 2021email: ccardoza@hilcorp.com Telephone: 505.564.0733**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_



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Application ID	

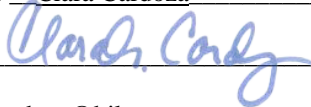
## Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

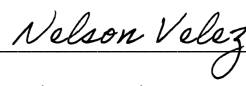
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public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

Printed Name: Clara Cardoza Title: Environmental Specialist  
Signature:  Date: May 7, 2021  
email: ccardoza@hilcorp.com Telephone: 505.564.0733

### OCD Only

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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


Closure Approved by:  Date: 02/22/2022  
Printed Name: Nelson Velez Title: Environmental Specialist – Adv

## Executive Summary

On January 8, 2021 Hilcorp Energy had a release of condensate at the Eaton A 1R. The source of the original release was an over the top corrosion around a welded seam of the tank. The volume reported in the initial report was 12.5 bbls of condensate based on strapping data recorded by the site operator and calculations using that data and amount of liquid recovered. Once remediation began, historic impacts were found and a notification was sent to NMOCD on 1/29/2021.

Two sample events took place on 1/29 and 2/3/2021 in accordance with NMAC 19.15.9.12D. This site is ranked at 51 - 100 ft per NMAC 19.15.29.12.E.



 Release Area



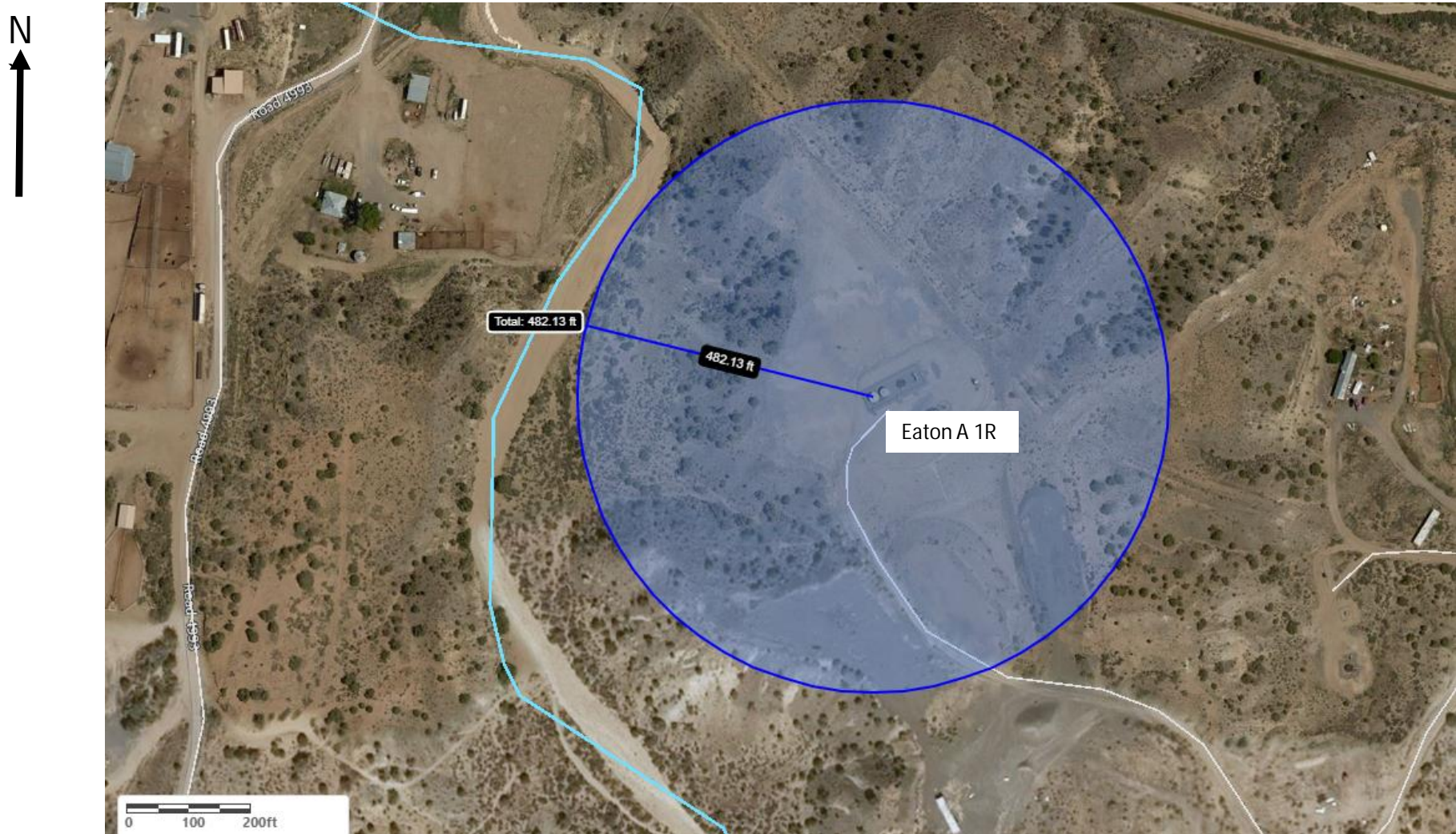
## Nearby Pipelines



— Enterprise Conventional



## Distance to watercourse



Distance to watercourse approximately 482 ft





# Depth to groundwater



## New Mexico Office of the State Engineer Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
		Q64	Q16	Q4	Sec	Tws	Rng	X	Y
SJ 00804		4	1	25	29N	11W		236866	4065508*
<b>Driller License:</b> 666									
<b>Driller Company:</b> GILBERT, JOHN G.									
<b>Driller Name:</b> GILBERT, JOHN G.									
<b>Drill Start Date:</b> 10/09/1978									
<b>Drill Finish Date:</b> 10/12/1978									
<b>Plug Date:</b>									
<b>Log File Date:</b> 10/23/1978									
<b>PCW Rcv Date:</b>									
<b>Source:</b> Shallow									
<b>Pump Type:</b>									
<b>Pipe Discharge Size:</b>									
<b>Estimated Yield:</b> 15 GPM									
<b>Casing Size:</b> 6.00									
<b>Depth Well:</b> 37 feet									
<b>Depth Water:</b> 25 feet									
<b>Water Bearing Stratifications:</b>									
<b>Top Bottom Description</b>									
30 37 Sandstone/Gravel/Conglomerate									

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/5/21 1:15 PM

POINT OF DIVERSION SUMMARY

POD #	Elevation (ft)	GW depth (ft)
SJ 00804	5492	25
SJ 04040	5504	20
SJ 01808	5526	43
Eaton A 1R	5570	102, 86, 87 AVG 92



## New Mexico Office of the State Engineer Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
		Q64	Q16	Q4	Sec	Tws	Rng	X	Y
SJ 04040 POD1		3	4	2	30	29N	10W	239159	4065370
<b>Driller License:</b> 717									
<b>Driller Company:</b> WESTERN WATER WELLS									
<b>Driller Name:</b> HOOD, TERRY									
<b>Drill Start Date:</b> 01/01/2014									
<b>Drill Finish Date:</b> 01/08/2014									
<b>Plug Date:</b>									
<b>Log File Date:</b> 01/08/2014									
<b>PCW Rcv Date:</b>									
<b>Source:</b> Shallow									
<b>Pump Type:</b>									
<b>Pipe Discharge Size:</b>									
<b>Estimated Yield:</b> 15 GPM									
<b>Casing Size:</b> 6.00									
<b>Depth Well:</b> 32 feet									
<b>Depth Water:</b> 20 feet									
<b>Water Bearing Stratifications:</b>									
<b>Top Bottom Description</b>									
0 32 Sandstone/Gravel/Conglomerate									

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/5/21 2:54 PM

POINT OF DIVERSION SUMMARY



## New Mexico Office of the State Engineer Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
		Q64	Q16	Q4	Sec	Tws	Rng	X	Y
SJ 01808 0-5		1	1	3	26	29N	11W	234753	4065274*
<b>Driller License:</b> 583									
<b>Driller Company:</b> EARL & SONS INC.									
<b>Driller Name:</b>									
<b>Drill Start Date:</b> 02/06/1984									
<b>Drill Finish Date:</b> 02/06/1984									
<b>Plug Date:</b>									
<b>Log File Date:</b> 09/21/1984									
<b>PCW Rcv Date:</b>									
<b>Source:</b> Shallow									
<b>Pump Type:</b>									
<b>Pipe Discharge Size:</b>									
<b>Estimated Yield:</b>									
<b>Casing Size:</b> 6.00									
<b>Depth Well:</b> 52 feet									
<b>Depth Water:</b> 43 feet									
<b>Water Bearing Stratifications:</b>									
<b>Top Bottom Description</b>									
42 47 Sandstone/Gravel/Conglomerate									
<b>Casing Perforations:</b>									
<b>Top Bottom</b>									
32 52									

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

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POINT OF DIVERSION SUMMARY



# Depth to groundwater POD locations



- ✱ POD Waters
- ✚ Cathodic 2008

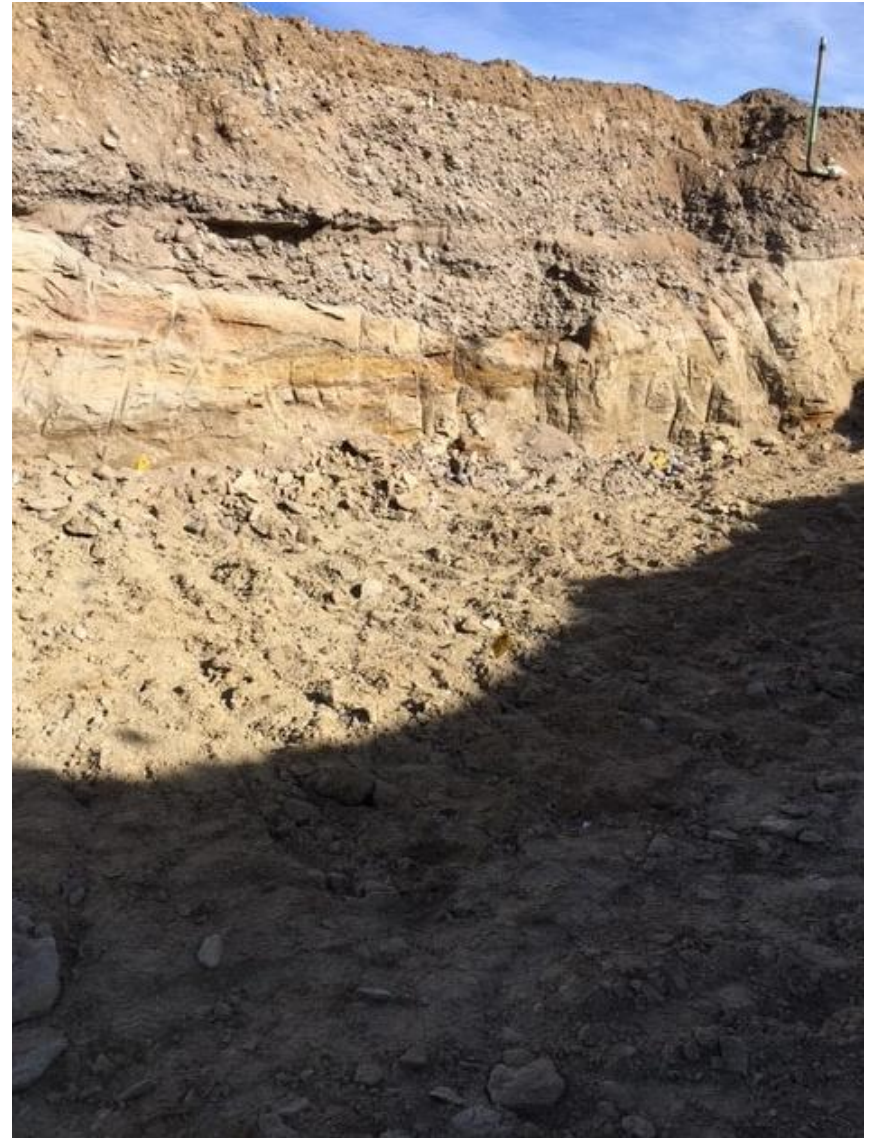




## Sampling 1/29/2021



Wall 1 - 2 and Base 1 -2



Wall 3 -4 and Base 3-4



## Sampling 1/29/2021



North Wall Sect 5



Base 5East



## Sampling 1/29/2021



South Wall 5 and Base 5, 9 & 8



Wall 9 & 8 and Base 9 & 8



## Sampling 1/29/2021



Wall 6 and Base 6 & 7



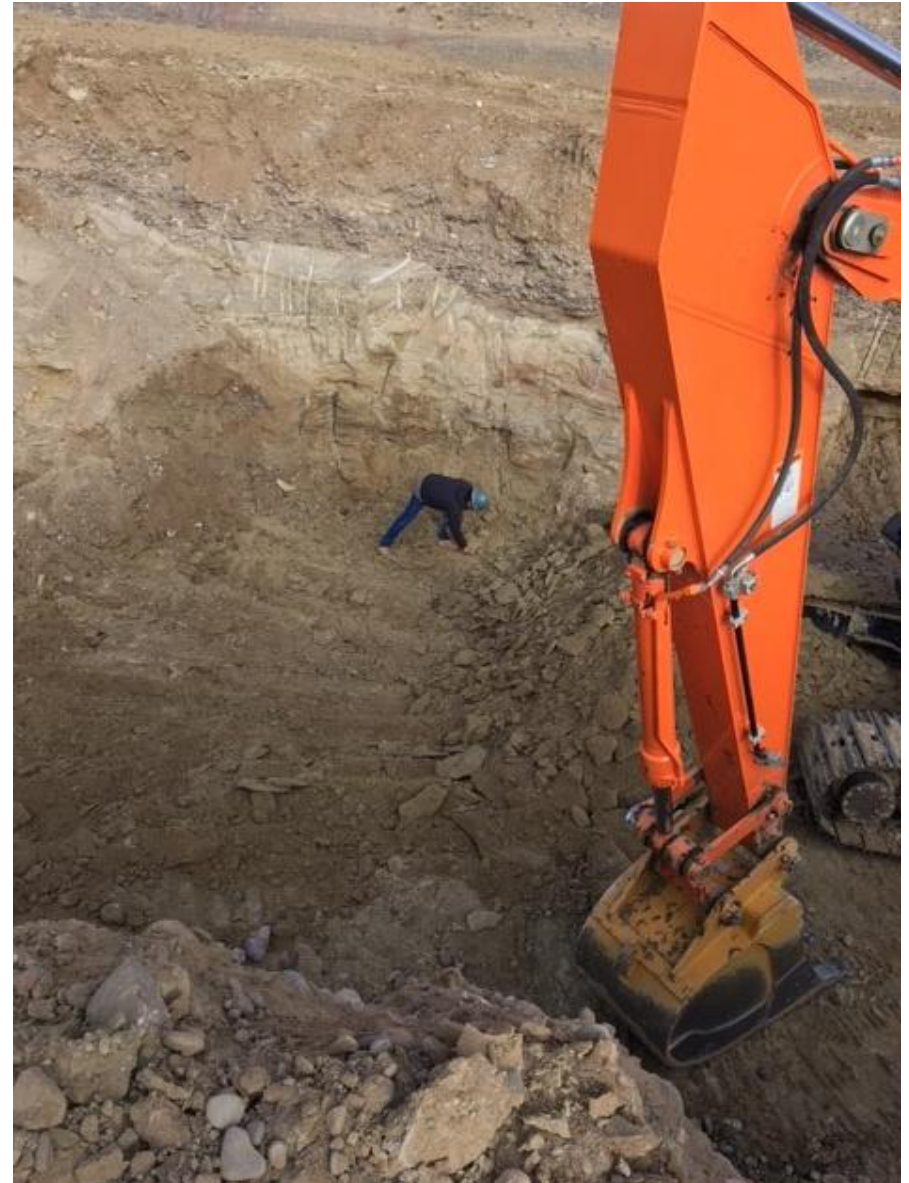
Wall 6 & 7 and Base 6 & 7



## Sampling 2/3/2021



Wall 3-4 stain (removed)



Base 2

# Lab Analysis

# Data table of soil contamination concentration data

Sample Name	Date Collected	Field VOCs by PID (ppm)	Laboratory Results										
			Chloride (mg/kg)	TPH as DRO (mg/kg)	TPH as GRO (mg/kg)	TPH as MRO (mg/kg)	Total TPH (mg/kg)	TPH as GRO + DRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylene (mg/kg)	Total BTEX (mg/kg)
NMOCD Action Level		-	10,000	-	-	-	2,500	1,000	10	-	-	-	50
Base 5	01/29/21		ND	46	ND	ND	46	46	ND	ND	ND	ND	ND
Base 4	01/29/21		ND	340	14	160	514	354	ND	ND	ND	0.11	0.1
Base 3	01/29/21		ND	390	49	200	639	439	ND	0.043	0.15	1.8	2.0
Base 2	01/29/21		ND	2100	530	790	3420	2630	0.035	3.3	2.8	35	41.1
Base 9	01/29/21		ND	67	ND	ND	67	67	ND	ND	ND	ND	ND
Base 8	01/29/21		ND	340	35	150	525	375	ND	ND	ND	0.66	0.7
Base 7	01/29/21		ND	180	24	90	294	204	ND	ND	ND	0.12	0.12
Base 6	01/29/21		ND	18	ND	ND	18	18	ND	ND	ND	ND	ND
Wall 1&2	01/29/21		ND	ND	ND	ND	0	0	ND	ND	ND	ND	ND
Wall 3&4	01/29/21		ND	ND	ND	ND	0	0	ND	ND	ND	ND	ND
Wall 3&4 Stain	01/29/21		ND	1500	570	530	2600	2070	0.2	5.7	3.4	43	52.3
#5 N Wall	01/29/21		ND	38	9.6	ND	48	48	ND	0.062	0.045	0.5	0.607
#5 E Wall	01/29/21		ND	ND	ND	ND	0	0	ND	ND	ND	ND	ND
#5 S Wall	01/29/21		ND	ND	ND	ND	0	0	ND	ND	ND	ND	ND
#8&9 Wall	01/29/21		ND	ND	ND	ND	0	0	ND	ND	ND	ND	ND
#6&7 Wall	01/29/21		ND	25	5.5	ND	31	31	ND	ND	ND	ND	ND
#1 Base	01/29/21		ND	99	16	ND	115	115	ND	ND	0.061	0.71	0.771
#1&6 Wall	01/29/21		ND	160	29	60	249	189	ND	0.081	0.12	1.5	1.701
3 & 4 Wall Stain	02/03/21		ND	ND	ND	ND	0	0	ND	ND	ND	ND	ND
#2 Base	02/03/21		ND	46.00	ND	ND	46	46	ND	ND	ND	ND	ND

Over closure standard





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [clients.hallenvironmental.com](http://clients.hallenvironmental.com)

February 04, 2021

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

RE: Eaton A 1R

OrderNo.: 2101B07

Dear Clara Cardoza:

Hall Environmental Analysis Laboratory received 18 sample(s) on 1/30/2021 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](http://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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #5 Base

Project: Eaton A 1R

Collection Date: 1/29/2021 10:00:00 AM

Lab ID: 2101B07-001

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	46	9.7		mg/Kg	1	1/30/2021 1:14:42 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/30/2021 1:14:42 PM
Surr: DNOP	87.7	30.4-154		%Rec	1	1/30/2021 1:14:42 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	1/30/2021 6:08:38 PM
Surr: BFB	101	75.3-105		%Rec	1	1/30/2021 6:08:38 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.019		mg/Kg	1	1/30/2021 6:08:38 PM
Toluene	ND	0.038		mg/Kg	1	1/30/2021 6:08:38 PM
Ethylbenzene	ND	0.038		mg/Kg	1	1/30/2021 6:08:38 PM
Xylenes, Total	ND	0.077		mg/Kg	1	1/30/2021 6:08:38 PM
Surr: 4-Bromofluorobenzene	99.6	80-120		%Rec	1	1/30/2021 6:08:38 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 11:44:55 AM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #4 Base

Project: Eaton A 1R

Collection Date: 1/29/2021 10:03:00 AM

Lab ID: 2101B07-002

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	340	9.4		mg/Kg	1	1/30/2021 2:25:52 PM
Motor Oil Range Organics (MRO)	160	47		mg/Kg	1	1/30/2021 2:25:52 PM
Surr: DNOP	94.8	30.4-154		%Rec	1	1/30/2021 2:25:52 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	14	3.8		mg/Kg	1	1/30/2021 6:32:07 PM
Surr: BFB	230	75.3-105	S	%Rec	1	1/30/2021 6:32:07 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.019		mg/Kg	1	1/30/2021 6:32:07 PM
Toluene	ND	0.038		mg/Kg	1	1/30/2021 6:32:07 PM
Ethylbenzene	ND	0.038		mg/Kg	1	1/30/2021 6:32:07 PM
Xylenes, Total	0.11	0.077		mg/Kg	1	1/30/2021 6:32:07 PM
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	1/30/2021 6:32:07 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 11:57:19 AM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #3 Base

Project: Eaton A 1R

Collection Date: 1/29/2021 10:06:00 AM

Lab ID: 2101B07-003

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	390	8.8		mg/Kg	1	1/30/2021 2:49:33 PM
Motor Oil Range Organics (MRO)	200	44		mg/Kg	1	1/30/2021 2:49:33 PM
Surr: DNOP	96.4	30.4-154		%Rec	1	1/30/2021 2:49:33 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	49	4.1		mg/Kg	1	1/30/2021 6:55:42 PM
Surr: BFB	429	75.3-105	S	%Rec	1	1/30/2021 6:55:42 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.020		mg/Kg	1	1/30/2021 6:55:42 PM
Toluene	0.043	0.041		mg/Kg	1	1/30/2021 6:55:42 PM
Ethylbenzene	0.15	0.041		mg/Kg	1	1/30/2021 6:55:42 PM
Xylenes, Total	1.8	0.082		mg/Kg	1	1/30/2021 6:55:42 PM
Surr: 4-Bromofluorobenzene	115	80-120		%Rec	1	1/30/2021 6:55:42 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	61		mg/Kg	20	1/31/2021 12:09:44 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #2 Base

Project: Eaton A 1R

Collection Date: 1/29/2021 10:08:00 AM

Lab ID: 2101B07-004

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	2100	94		mg/Kg	10	1/30/2021 3:36:55 PM
Motor Oil Range Organics (MRO)	790	470		mg/Kg	10	1/30/2021 3:36:55 PM
Surr: DNOP	0	30.4-154	S	%Rec	10	1/30/2021 3:36:55 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	530	41		mg/Kg	10	2/1/2021 9:18:47 AM
Surr: BFB	354	75.3-105	S	%Rec	10	2/1/2021 9:18:47 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	0.035	0.021		mg/Kg	1	1/30/2021 7:19:10 PM
Toluene	3.3	0.041		mg/Kg	1	1/30/2021 7:19:10 PM
Ethylbenzene	2.8	0.041		mg/Kg	1	1/30/2021 7:19:10 PM
Xylenes, Total	35	0.82		mg/Kg	10	2/1/2021 9:18:47 AM
Surr: 4-Bromofluorobenzene	299	80-120	S	%Rec	1	1/30/2021 7:19:10 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	61		mg/Kg	20	1/31/2021 12:22:08 PM

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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #9 Base

Project: Eaton A 1R

Collection Date: 1/29/2021 10:12:00 AM

Lab ID: 2101B07-005

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	67	9.7		mg/Kg	1	1/30/2021 4:00:32 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/30/2021 4:00:32 PM
Surr: DNOP	90.5	30.4-154		%Rec	1	1/30/2021 4:00:32 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	1/30/2021 7:43:03 PM
Surr: BFB	107	75.3-105	S	%Rec	1	1/30/2021 7:43:03 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.019		mg/Kg	1	1/30/2021 7:43:03 PM
Toluene	ND	0.038		mg/Kg	1	1/30/2021 7:43:03 PM
Ethylbenzene	ND	0.038		mg/Kg	1	1/30/2021 7:43:03 PM
Xylenes, Total	ND	0.077		mg/Kg	1	1/30/2021 7:43:03 PM
Surr: 4-Bromofluorobenzene	97.5	80-120		%Rec	1	1/30/2021 7:43:03 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 12:59:22 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #8 Base

Project: Eaton A 1R

Collection Date: 1/29/2021 10:15:00 AM

Lab ID: 2101B07-006

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	340	9.2		mg/Kg	1	1/30/2021 4:24:12 PM
Motor Oil Range Organics (MRO)	150	46		mg/Kg	1	1/30/2021 4:24:12 PM
Surr: DNOP	95.4	30.4-154		%Rec	1	1/30/2021 4:24:12 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	35	4.3		mg/Kg	1	1/30/2021 8:06:36 PM
Surr: BFB	338	75.3-105	S	%Rec	1	1/30/2021 8:06:36 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.021		mg/Kg	1	1/30/2021 8:06:36 PM
Toluene	ND	0.043		mg/Kg	1	1/30/2021 8:06:36 PM
Ethylbenzene	ND	0.043		mg/Kg	1	1/30/2021 8:06:36 PM
Xylenes, Total	0.66	0.086		mg/Kg	1	1/30/2021 8:06:36 PM
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	1/30/2021 8:06:36 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 1:11:46 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #7 Base

Project: Eaton A 1R

Collection Date: 1/29/2021 10:19:00 AM

Lab ID: 2101B07-007

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	180	9.5		mg/Kg	1	1/30/2021 4:47:46 PM
Motor Oil Range Organics (MRO)	90	47		mg/Kg	1	1/30/2021 4:47:46 PM
Surr: DNOP	92.5	30.4-154		%Rec	1	1/30/2021 4:47:46 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	24	4.1		mg/Kg	1	1/30/2021 8:30:34 PM
Surr: BFB	275	75.3-105	S	%Rec	1	1/30/2021 8:30:34 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.020		mg/Kg	1	1/30/2021 8:30:34 PM
Toluene	ND	0.041		mg/Kg	1	1/30/2021 8:30:34 PM
Ethylbenzene	ND	0.041		mg/Kg	1	1/30/2021 8:30:34 PM
Xylenes, Total	0.12	0.082		mg/Kg	1	1/30/2021 8:30:34 PM
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	1/30/2021 8:30:34 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	61		mg/Kg	20	1/31/2021 1:24:11 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	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #6 Base

Project: Eaton A 1R

Collection Date: 1/29/2021 10:25:00 AM

Lab ID: 2101B07-008

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	18	8.9		mg/Kg	1	1/30/2021 5:11:17 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	1/30/2021 5:11:17 PM
Surr: DNOP	89.4	30.4-154		%Rec	1	1/30/2021 5:11:17 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	1/30/2021 8:54:03 PM
Surr: BFB	121	75.3-105	S	%Rec	1	1/30/2021 8:54:03 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.018		mg/Kg	1	1/30/2021 8:54:03 PM
Toluene	ND	0.036		mg/Kg	1	1/30/2021 8:54:03 PM
Ethylbenzene	ND	0.036		mg/Kg	1	1/30/2021 8:54:03 PM
Xylenes, Total	ND	0.073		mg/Kg	1	1/30/2021 8:54:03 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/30/2021 8:54:03 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	61		mg/Kg	20	1/31/2021 1:36:36 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #1 &amp; 2 Wall

Project: Eaton A 1R

Collection Date: 1/29/2021 10:45:00 AM

Lab ID: 2101B07-009

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	1/30/2021 5:34:47 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/30/2021 5:34:47 PM
Surr: DNOP	90.0	30.4-154		%Rec	1	1/30/2021 5:34:47 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	1/30/2021 9:17:37 PM
Surr: BFB	97.8	75.3-105		%Rec	1	1/30/2021 9:17:37 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.018		mg/Kg	1	1/30/2021 9:17:37 PM
Toluene	ND	0.036		mg/Kg	1	1/30/2021 9:17:37 PM
Ethylbenzene	ND	0.036		mg/Kg	1	1/30/2021 9:17:37 PM
Xylenes, Total	ND	0.072		mg/Kg	1	1/30/2021 9:17:37 PM
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	1/30/2021 9:17:37 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 1:49:01 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #3 &amp; 4 Wall

Project: Eaton A 1R

Collection Date: 1/29/2021 10:50:00 AM

Lab ID: 2101B07-010

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	1/30/2021 5:58:11 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/30/2021 5:58:11 PM
Surr: DNOP	89.6	30.4-154		%Rec	1	1/30/2021 5:58:11 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	1/30/2021 9:41:38 PM
Surr: BFB	95.0	75.3-105		%Rec	1	1/30/2021 9:41:38 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.018		mg/Kg	1	1/30/2021 9:41:38 PM
Toluene	ND	0.036		mg/Kg	1	1/30/2021 9:41:38 PM
Ethylbenzene	ND	0.036		mg/Kg	1	1/30/2021 9:41:38 PM
Xylenes, Total	ND	0.072		mg/Kg	1	1/30/2021 9:41:38 PM
Surr: 4-Bromofluorobenzene	98.9	80-120		%Rec	1	1/30/2021 9:41:38 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 2:01:25 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #3 &amp; 4 Wall Stain

Project: Eaton A 1R

Collection Date: 1/29/2021 10:52:00 AM

Lab ID: 2101B07-011

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	1500	46		mg/Kg	5	2/1/2021 1:56:18 PM
Motor Oil Range Organics (MRO)	530	230		mg/Kg	5	2/1/2021 1:56:18 PM
Surr: DNOP	109	30.4-154		%Rec	5	2/1/2021 1:56:18 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	570	20		mg/Kg	5	1/31/2021 12:49:29 AM
Surr: BFB	603	75.3-105	S	%Rec	5	1/31/2021 12:49:29 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	0.20	0.10		mg/Kg	5	1/31/2021 12:49:29 AM
Toluene	5.7	0.20		mg/Kg	5	1/31/2021 12:49:29 AM
Ethylbenzene	3.4	0.20		mg/Kg	5	1/31/2021 12:49:29 AM
Xylenes, Total	43	0.41		mg/Kg	5	1/31/2021 12:49:29 AM
Surr: 4-Bromofluorobenzene	127	80-120	S	%Rec	5	1/31/2021 12:49:29 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 2:13:49 PM

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

<b>Qualifiers:</b>		*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D		Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S		% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #5 N. Wall

Project: Eaton A 1R

Collection Date: 1/29/2021 10:58:00 AM

Lab ID: 2101B07-012

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	38	9.2		mg/Kg	1	1/30/2021 6:44:52 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/30/2021 6:44:52 PM
Surr: DNOP	89.8	30.4-154		%Rec	1	1/30/2021 6:44:52 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	9.6	3.6		mg/Kg	1	1/31/2021 1:13:18 AM
Surr: BFB	147	75.3-105	S	%Rec	1	1/31/2021 1:13:18 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.018		mg/Kg	1	1/31/2021 1:13:18 AM
Toluene	0.062	0.036		mg/Kg	1	1/31/2021 1:13:18 AM
Ethylbenzene	0.045	0.036		mg/Kg	1	1/31/2021 1:13:18 AM
Xylenes, Total	0.50	0.071		mg/Kg	1	1/31/2021 1:13:18 AM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	1/31/2021 1:13:18 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 2:26:14 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #5 E. Wall

Project: Eaton A 1R

Collection Date: 1/29/2021 11:03:00 AM

Lab ID: 2101B07-013

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	1/30/2021 7:08:10 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	1/30/2021 7:08:10 PM
Surr: DNOP	89.3	30.4-154		%Rec	1	1/30/2021 7:08:10 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	1/31/2021 1:37:12 AM
Surr: BFB	94.0	75.3-105		%Rec	1	1/31/2021 1:37:12 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.019		mg/Kg	1	1/31/2021 1:37:12 AM
Toluene	ND	0.038		mg/Kg	1	1/31/2021 1:37:12 AM
Ethylbenzene	ND	0.038		mg/Kg	1	1/31/2021 1:37:12 AM
Xylenes, Total	ND	0.076		mg/Kg	1	1/31/2021 1:37:12 AM
Surr: 4-Bromofluorobenzene	98.8	80-120		%Rec	1	1/31/2021 1:37:12 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 2:38:38 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #5 S. Wall

Project: Eaton A 1R

Collection Date: 1/29/2021 11:12:00 AM

Lab ID: 2101B07-014

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/30/2021 7:31:29 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/30/2021 7:31:29 PM
Surr: DNOP	88.8	30.4-154		%Rec	1	1/30/2021 7:31:29 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	1/31/2021 2:01:09 AM
Surr: BFB	96.0	75.3-105		%Rec	1	1/31/2021 2:01:09 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.020		mg/Kg	1	1/31/2021 2:01:09 AM
Toluene	ND	0.040		mg/Kg	1	1/31/2021 2:01:09 AM
Ethylbenzene	ND	0.040		mg/Kg	1	1/31/2021 2:01:09 AM
Xylenes, Total	ND	0.080		mg/Kg	1	1/31/2021 2:01:09 AM
Surr: 4-Bromofluorobenzene	99.0	80-120		%Rec	1	1/31/2021 2:01:09 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 2:51:03 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #8 &amp; 9 Wall

Project: Eaton A 1R

Collection Date: 1/29/2021 11:18:00 AM

Lab ID: 2101B07-015

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/30/2021 7:54:47 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/30/2021 7:54:47 PM
Surr: DNOP	90.8	30.4-154		%Rec	1	1/30/2021 7:54:47 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	1/31/2021 2:25:02 AM
Surr: BFB	94.1	75.3-105		%Rec	1	1/31/2021 2:25:02 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.021		mg/Kg	1	1/31/2021 2:25:02 AM
Toluene	ND	0.042		mg/Kg	1	1/31/2021 2:25:02 AM
Ethylbenzene	ND	0.042		mg/Kg	1	1/31/2021 2:25:02 AM
Xylenes, Total	ND	0.085		mg/Kg	1	1/31/2021 2:25:02 AM
Surr: 4-Bromofluorobenzene	98.7	80-120		%Rec	1	1/31/2021 2:25:02 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 3:28:16 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #6 &amp; 7 Wall

Project: Eaton A 1R

Collection Date: 1/29/2021 11:23:00 AM

Lab ID: 2101B07-016

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	25	9.8		mg/Kg	1	1/30/2021 8:18:04 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/30/2021 8:18:04 PM
Surr: DNOP	89.6	30.4-154		%Rec	1	1/30/2021 8:18:04 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	5.5	3.6		mg/Kg	1	1/31/2021 2:48:53 AM
Surr: BFB	139	75.3-105	S	%Rec	1	1/31/2021 2:48:53 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.018		mg/Kg	1	1/31/2021 2:48:53 AM
Toluene	ND	0.036		mg/Kg	1	1/31/2021 2:48:53 AM
Ethylbenzene	ND	0.036		mg/Kg	1	1/31/2021 2:48:53 AM
Xylenes, Total	ND	0.073		mg/Kg	1	1/31/2021 2:48:53 AM
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	1	1/31/2021 2:48:53 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 3:40:40 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #1 Base

Project: Eaton A 1R

Collection Date: 1/29/2021 3:02:00 PM

Lab ID: 2101B07-017

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	99	9.1		mg/Kg	1	1/30/2021 8:41:21 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/30/2021 8:41:21 PM
Surr: DNOP	91.5	30.4-154		%Rec	1	1/30/2021 8:41:21 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	16	3.9		mg/Kg	1	1/31/2021 3:12:36 AM
Surr: BFB	205	75.3-105	S	%Rec	1	1/31/2021 3:12:36 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.019		mg/Kg	1	1/31/2021 3:12:36 AM
Toluene	ND	0.039		mg/Kg	1	1/31/2021 3:12:36 AM
Ethylbenzene	0.061	0.039		mg/Kg	1	1/31/2021 3:12:36 AM
Xylenes, Total	0.71	0.078		mg/Kg	1	1/31/2021 3:12:36 AM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	1/31/2021 3:12:36 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	59		mg/Kg	20	1/31/2021 3:53:04 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2101B07

Date Reported: 2/4/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #1 &amp; 6 Wall

Project: Eaton A 1R

Collection Date: 1/29/2021 3:08:00 PM

Lab ID: 2101B07-018

Matrix: MEOH (SOIL)

Received Date: 1/30/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	160	9.6		mg/Kg	1	1/30/2021 9:04:38 PM
Motor Oil Range Organics (MRO)	60	48		mg/Kg	1	1/30/2021 9:04:38 PM
Surr: DNOP	92.7	30.4-154		%Rec	1	1/30/2021 9:04:38 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	29	3.8		mg/Kg	1	1/31/2021 3:36:08 AM
Surr: BFB	308	75.3-105	S	%Rec	1	1/31/2021 3:36:08 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.019		mg/Kg	1	1/31/2021 3:36:08 AM
Toluene	0.081	0.038		mg/Kg	1	1/31/2021 3:36:08 AM
Ethylbenzene	0.12	0.038		mg/Kg	1	1/31/2021 3:36:08 AM
Xylenes, Total	1.5	0.075		mg/Kg	1	1/31/2021 3:36:08 AM
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	1/31/2021 3:36:08 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	1/31/2021 4:30:18 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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QC SUMMARY REPORT  
Hall Environmental Analysis Laboratory, Inc.

WO#: 2101B07  
04-Feb-21

Client: HILCORP ENERGY  
Project: Eaton A 1R

Sample ID: MB-57817	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 57817	RunNo: 74958
Prep Date: 1/31/2021	Analysis Date: 1/31/2021	SeqNo: 2646202 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-57817	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 57817	RunNo: 74958
Prep Date: 1/31/2021	Analysis Date: 1/31/2021	SeqNo: 2646203 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 96.3 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 Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2101B07

04-Feb-21

**Client:** HILCORP ENERGY**Project:** Eaton A 1R

Sample ID: <b>MB-57812</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>57812</b>	RunNo: <b>74960</b>								
Prep Date: <b>1/30/2021</b>	Analysis Date: <b>1/30/2021</b>	SeqNo: <b>2646384</b>			Units: <b>mg/Kg</b>					
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	8.2		10.00		82.5	30.4	154			

Sample ID: <b>LCS-57812</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>57812</b>	RunNo: <b>74960</b>								
Prep Date: <b>1/30/2021</b>	Analysis Date: <b>1/30/2021</b>	SeqNo: <b>2646385</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.7	68.9	141			
Surr: DNOP	3.8		5.000		76.7	30.4	154			

Sample ID: <b>2101B07-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>#5 Base</b>	Batch ID: <b>57812</b>	RunNo: <b>74960</b>								
Prep Date: <b>1/30/2021</b>	Analysis Date: <b>1/30/2021</b>	SeqNo: <b>2646386</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	80	9.4	47.13	46.37	70.5	15	184			
Surr: DNOP	4.1		4.713		88.0	30.4	154			

Sample ID: <b>2101B07-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>#5 Base</b>	Batch ID: <b>57812</b>	RunNo: <b>74960</b>								
Prep Date: <b>1/30/2021</b>	Analysis Date: <b>1/30/2021</b>	SeqNo: <b>2646387</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	73	10	49.75	46.37	54.4	15	184	8.06	23.9	
Surr: DNOP	4.4		4.975		87.7	30.4	154	0	0	

Sample ID: <b>MB-57819</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>57819</b>	RunNo: <b>74965</b>								
Prep Date: <b>2/1/2021</b>	Analysis Date: <b>2/1/2021</b>	SeqNo: <b>2646643</b>			Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		102	30.4	154			

Sample ID: <b>LCS-57819</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>57819</b>	RunNo: <b>74965</b>								
Prep Date: <b>2/1/2021</b>	Analysis Date: <b>2/1/2021</b>	SeqNo: <b>2646800</b>			Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**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 range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2101B07

04-Feb-21

Client: HILCORP ENERGY

Project: Eaton A 1R

Sample ID: <b>LCS-57819</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>57819</b>		RunNo: <b>74965</b>							
Prep Date: <b>2/1/2021</b>	Analysis Date: <b>2/1/2021</b>		SeqNo: <b>2646800</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		95.3	30.4	154			

### 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 range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
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.**

WO#: 2101B07

04-Feb-21

**Client:** HILCORP ENERGY**Project:** Eaton A 1R

Sample ID: <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>R74957</b>			RunNo: <b>74957</b>						
Prep Date:	Analysis Date: <b>1/30/2021</b>			SeqNo: <b>2646140</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	80	120			
Surr: BFB	1100		1000		107	75.3	105			S

Sample ID: <b>2101b07-001ams</b>	SampType: <b>MS</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>#5 Base</b>	Batch ID: <b>R74957</b>			RunNo: <b>74957</b>						
Prep Date:	Analysis Date: <b>1/30/2021</b>			SeqNo: <b>2646154</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	3.8	19.17	0	97.9	61.3	114			
Surr: BFB	890		766.9		116	75.3	105			S

Sample ID: <b>2101b07-001amsd</b>	SampType: <b>MSD</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>#5 Base</b>	Batch ID: <b>R74957</b>			RunNo: <b>74957</b>						
Prep Date:	Analysis Date: <b>1/30/2021</b>			SeqNo: <b>2646155</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.8	19.17	0	95.9	61.3	114	2.06	20	
Surr: BFB	900		766.9		117	75.3	105	0	0	S

Sample ID: <b>mb</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>R74957</b>			RunNo: <b>74957</b>						
Prep Date:	Analysis Date: <b>1/30/2021</b>			SeqNo: <b>2646173</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		105	75.3	105			

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>G74963</b>			RunNo: <b>74963</b>						
Prep Date:	Analysis Date: <b>2/1/2021</b>			SeqNo: <b>2647108</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.8	75.3	105			

Sample ID: <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>G74963</b>			RunNo: <b>74963</b>						
Prep Date:	Analysis Date: <b>2/1/2021</b>			SeqNo: <b>2647109</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**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 range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
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.**

WO#: 2101B07

04-Feb-21

**Client:** HILCORP ENERGY**Project:** Eaton A 1R

Sample ID: <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>G74963</b>		RunNo: <b>74963</b>							
Prep Date:	Analysis Date: <b>2/1/2021</b>		SeqNo: <b>2647109</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	80	120			
Surr: BFB	1100		1000		108	75.3	105			S

Sample ID: <b>mb-57813</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>57813</b>		RunNo: <b>74963</b>							
Prep Date: <b>1/30/2021</b>	Analysis Date: <b>2/1/2021</b>		SeqNo: <b>2647126</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		94.4	75.3	105			

Sample ID: <b>lcs-57813</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>57813</b>		RunNo: <b>74963</b>							
Prep Date: <b>1/30/2021</b>	Analysis Date: <b>2/1/2021</b>		SeqNo: <b>2647127</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	75.3	105			

**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 range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2101B07

04-Feb-21

**Client:** HILCORP ENERGY**Project:** Eaton A 1R

Sample ID: <b>100ng btex lcs</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>BS74957</b>			RunNo: <b>74957</b>						
Prep Date:	Analysis Date: <b>1/30/2021</b>			SeqNo: <b>2646178</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	96.1	80	120			
Toluene	0.99	0.050	1.000	0	99.3	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.3	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: <b>2101b07-002ams</b>	SampType: <b>MS</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>#4 Base</b>	Batch ID: <b>BS74957</b>			RunNo: <b>74957</b>						
Prep Date:	Analysis Date: <b>1/30/2021</b>			SeqNo: <b>2646181</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.77	0.019	0.7698	0	100	76.3	120			
Toluene	0.78	0.038	0.7698	0.007929	101	78.5	120			
Ethylbenzene	0.79	0.038	0.7698	0	103	78.1	124			
Xylenes, Total	2.5	0.077	2.309	0.1075	102	79.3	125			
Surr: 4-Bromofluorobenzene	0.85		0.7698		111	80	120			

Sample ID: <b>2101b07-002amsd</b>	SampType: <b>MSD</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>#4 Base</b>	Batch ID: <b>BS74957</b>			RunNo: <b>74957</b>						
Prep Date:	Analysis Date: <b>1/30/2021</b>			SeqNo: <b>2646182</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.76	0.019	0.7698	0	98.4	76.3	120	1.95	20	
Toluene	0.77	0.038	0.7698	0.007929	98.8	78.5	120	1.86	20	
Ethylbenzene	0.78	0.038	0.7698	0	101	78.1	124	1.55	20	
Xylenes, Total	2.4	0.077	2.309	0.1075	99.3	79.3	125	2.34	20	
Surr: 4-Bromofluorobenzene	0.85		0.7698		110	80	120	0	0	

Sample ID: <b>mb</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>PBS</b>	Batch ID: <b>BS74957</b>			RunNo: <b>74957</b>						
Prep Date:	Analysis Date: <b>1/30/2021</b>			SeqNo: <b>2646199</b>		Units: <b>mg/Kg</b>				
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	1.1		1.000		108	80	120			

**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 range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
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.**

WO#: 2101B07

04-Feb-21

**Client:** HILCORP ENERGY**Project:** Eaton A 1R

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>PBS</b>	Batch ID: <b>B74963</b>			RunNo: <b>74963</b>						
Prep Date:	Analysis Date: <b>2/1/2021</b>			SeqNo: <b>2647153</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.3	80	120			

Sample ID: <b>100ng btex lcs</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>B74963</b>			RunNo: <b>74963</b>						
Prep Date:	Analysis Date: <b>2/1/2021</b>			SeqNo: <b>2647154</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	2.8	0.10	3.000	0	94.0	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: <b>mb-57813</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>PBS</b>	Batch ID: <b>57813</b>			RunNo: <b>74963</b>						
Prep Date: <b>1/30/2021</b>	Analysis Date: <b>2/1/2021</b>			SeqNo: <b>2647161</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID: <b>LCS-57813</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>57813</b>			RunNo: <b>74963</b>						
Prep Date: <b>1/30/2021</b>	Analysis Date: <b>2/1/2021</b>			SeqNo: <b>2647162</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		99.5	80	120			

**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 range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



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

## Sample Log-In Check List

Client Name: HILCORP ENERGY

Work Order Number: 2101B07

RcptNo: 1

Received By: Juan Rojas

1/30/2021 9:15:00 AM

*Juan Rojas*

Completed By: Juan Rojas

1/30/2021 9:30:43 AM

*Juan Rojas*Reviewed By: *M* 01/30/2021

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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: *JR 1/30/21*

### Special Handling (if applicable)

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

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

16. Additional remarks:

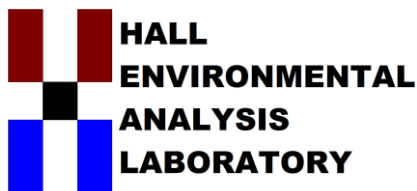
### 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good				
2	1.3	Good				
3	1.6	Good				









Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [clients.hallenvironmental.com](http://clients.hallenvironmental.com)

February 09, 2021

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

RE: Eaton A 1R

OrderNo.: 2102208

Dear Clara Cardoza:

Hall Environmental Analysis Laboratory received 2 sample(s) on 2/4/2021 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](http://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,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 2102208

Date Reported: 2/9/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #3 &amp; #4 Wall Stain

Project: Eaton A 1R

Collection Date: 2/3/2021 9:04:00 AM

Lab ID: 2102208-001

Matrix: SOIL

Received Date: 2/4/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/5/2021 8:05:14 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/5/2021 8:05:14 AM
Surr: DNOP	92.0	70-130		%Rec	1	2/5/2021 8:05:14 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	2/4/2021 2:34:58 PM
Surr: BFB	107	75.3-105	S	%Rec	1	2/4/2021 2:34:58 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.020		mg/Kg	1	2/4/2021 2:34:58 PM
Toluene	ND	0.039		mg/Kg	1	2/4/2021 2:34:58 PM
Ethylbenzene	ND	0.039		mg/Kg	1	2/4/2021 2:34:58 PM
Xylenes, Total	ND	0.078		mg/Kg	1	2/4/2021 2:34:58 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	2/4/2021 2:34:58 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	2/4/2021 5:11:27 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 1 of 6

## Analytical Report

Lab Order 2102208

Date Reported: 2/9/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: #2 Base

Project: Eaton A 1R

Collection Date: 2/3/2021 10:00:00 AM

Lab ID: 2102208-002

Matrix: SOIL

Received Date: 2/4/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: TOM
Diesel Range Organics (DRO)	46	9.3		mg/Kg	1	2/5/2021 9:16:25 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/5/2021 9:16:25 AM
Surr: DNOP	94.7	70-130		%Rec	1	2/5/2021 9:16:25 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	2/4/2021 2:58:25 PM
Surr: BFB	114	75.3-105	S	%Rec	5	2/4/2021 2:58:25 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.091		mg/Kg	5	2/4/2021 2:58:25 PM
Toluene	ND	0.18		mg/Kg	5	2/4/2021 2:58:25 PM
Ethylbenzene	ND	0.18		mg/Kg	5	2/4/2021 2:58:25 PM
Xylenes, Total	ND	0.36		mg/Kg	5	2/4/2021 2:58:25 PM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	5	2/4/2021 2:58:25 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: VP
Chloride	ND	60		mg/Kg	20	2/4/2021 5:23:52 PM

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2102208

09-Feb-21

**Client:** HILCORP ENERGY**Project:** Eaton A 1R

Sample ID: <b>MB-57922</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>57922</b>	RunNo: <b>75086</b>								
Prep Date: <b>2/4/2021</b>	Analysis Date: <b>2/4/2021</b>	SeqNo: <b>2650484</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-57922</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>57922</b>	RunNo: <b>75086</b>								
Prep Date: <b>2/4/2021</b>	Analysis Date: <b>2/4/2021</b>	SeqNo: <b>2650485</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.2	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 Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
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.**

WO#: 2102208

09-Feb-21

**Client:** HILCORP ENERGY**Project:** Eaton A 1R

Sample ID: <b>MB-57918</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>57918</b>	RunNo: <b>75091</b>								
Prep Date: <b>2/4/2021</b>	Analysis Date: <b>2/5/2021</b>	SeqNo: <b>2650944</b> Units: <b>mg/Kg</b>								
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	8.7		10.00		87.3	70	130			

Sample ID: <b>LCS-57918</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>57918</b>	RunNo: <b>75091</b>								
Prep Date: <b>2/4/2021</b>	Analysis Date: <b>2/5/2021</b>	SeqNo: <b>2650945</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.8	68.9	141			
Surr: DNOP	4.2		5.000		84.5	70	130			

Sample ID: <b>2102208-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>#3 &amp; #4 Wall Stain</b>	Batch ID: <b>57918</b>	RunNo: <b>75091</b>								
Prep Date: <b>2/4/2021</b>	Analysis Date: <b>2/5/2021</b>	SeqNo: <b>2650947</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.6	48.08	0	97.0	15	184			
Surr: DNOP	4.4		4.808		91.4	70	130			

Sample ID: <b>2102208-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>#3 &amp; #4 Wall Stain</b>	Batch ID: <b>57918</b>	RunNo: <b>75091</b>								
Prep Date: <b>2/4/2021</b>	Analysis Date: <b>2/5/2021</b>	SeqNo: <b>2650948</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.7	48.69	0	94.6	15	184	1.28	23.9	
Surr: DNOP	4.4		4.869		90.5	70	130	0	0	

**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 range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 4 of 6

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2102208

09-Feb-21

**Client:** HILCORP ENERGY**Project:** Eaton A 1R

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>G75077</b>	RunNo: <b>75077</b>								
Prep Date:	Analysis Date: <b>2/4/2021</b>	SeqNo: <b>2650151</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		105	75.3	105			

Sample ID: <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>G75077</b>	RunNo: <b>75077</b>								
Prep Date:	Analysis Date: <b>2/4/2021</b>	SeqNo: <b>2650152</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	80	120			
Surr: BFB	1200		1000		117	75.3	105			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 Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2102208

09-Feb-21

**Client:** HILCORP ENERGY**Project:** Eaton A 1R

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>B75077</b>	RunNo: <b>75077</b>								
Prep Date:	Analysis Date: <b>2/4/2021</b>	SeqNo: <b>2650166</b>	Units: <b>mg/Kg</b>							
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	1.0		1.000		100	80	120			

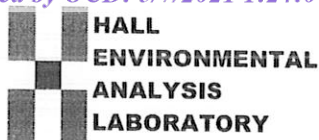
Sample ID: <b>100ng btex lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>B75077</b>	RunNo: <b>75077</b>								
Prep Date:	Analysis Date: <b>2/4/2021</b>	SeqNo: <b>2650169</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.4	80	120			
Toluene	0.96	0.050	1.000	0	96.0	80	120			
Ethylbenzene	0.96	0.050	1.000	0	95.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.7	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

**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 range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit





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

## Sample Log-In Check List

Client Name: HILCORP ENERGY

Work Order Number: 2102208

RcptNo: 1

Received By: Juan Rojas 2/4/2021 8:00:00 AM

Completed By: Sean Livingston 2/4/2021 8:21:12 AM

Reviewed By: JR 2/4/21

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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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: \_\_\_\_\_

Special Handling (if applicable)

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

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.8	Good	Yes			



## Agency Correspondence

Clara Cardoza

---

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>  
Sent: Thursday, January 28, 2021 12:23 PM  
To: Clara Cardoza  
Cc: Kurt Hoekstra  
Subject: [EXTERNAL] RE: Conf Samples/Variance

Clara,

OCD reviewing the site it is on Private surface correct? If so the OCD is ok with approving the variance to the 48 hour notice for confirmation samples.

If the surface is Federal or State please make sure to get approval from either agency if needed.

Please sample per 19.15.29.12. NMAC or if needed you may send me photos/facetime and I could alternatively approve an alterative sampling plan.

Thanks,

**Cory Smith • Environmental Specialist**  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1000 Rio Brazos | Aztec, NM 87410  
505.334.6178 x115 | [Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>

---

From: Clara Cardoza <ccardoza@hilcorp.com>  
Sent: Thursday, January 28, 2021 11:17 AM  
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>  
Cc: Kurt Hoekstra <khoekstra@hilcorp.com>  
Subject: [EXT] Conf Samples/Variance

Good morning Cory. Hilcorp would like to request a variance on the 48 hr notice on confirmation sampling notice for the Eaton A 1R (nAPP2101050782). We had an over the top that has turned into a bigger excavation as we have found what appears to be historic impacts . Since we have the equipment onsite we wanted to utilize the time to get our confirmation samples completed. We know that NMOCD has restrictions because of COVID so we thought this might be acceptable. We want to sample tomorrow morning at 8:00 a.m. If this is not acceptable, can we schedule a 8:00 a.m. on Monday? Thank you for your consideration.

Clara M Cardoza  
Environmental Specialist  
505-564-0733 (O)  
505-793-2784 (C)



Please consider the environment before printing this e-mail



Clara Cardoza

---

From: Clara Cardoza  
Sent: Wednesday, February 3, 2021 12:19 PM  
To: Smith, Cory, EMNRD; Kurt Hoekstra  
Subject: RE: [EXTERNAL] RE: Eaton A #1R nAPP2101050782  
Attachments: Grab sample before.jpg; Grab after.JPG; Base After.JPG

Cory, as a follow-up to the conversation you had with Kurt this morning regarding confirmation re-sampling at the Eaton A 1R please find the following:

Attached are pictures of the excavation areas that needed to be resampled (Grab sample you requested from 1/29 sampling pictured below in your email and base 2 depicted in my email below).

- Grab sample before – shows the area of the grab sample and Base 2 (on the left of the grab area) both which did not pass and before additional work was done today before resampling.
- Grab sample after – shows the area sampled after dark soil was removed
- Base after – shows base 2 after excavation

This email also serves to document your approval to resample these two areas without 48 hour notice.

Please let me know if you have any questions.

Thank you,  
Clara



Grab sample before



Grab sample after



Base After

---

**From:** Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us]  
**Sent:** Friday, January 29, 2021 9:31 AM  
**To:** Clara Cardoza <ccardoza@hilcorp.com>; Kurt Hoekstra <khoekstra@hilcorp.com>  
**Subject:** [EXTERNAL] RE: Eaton A #1R

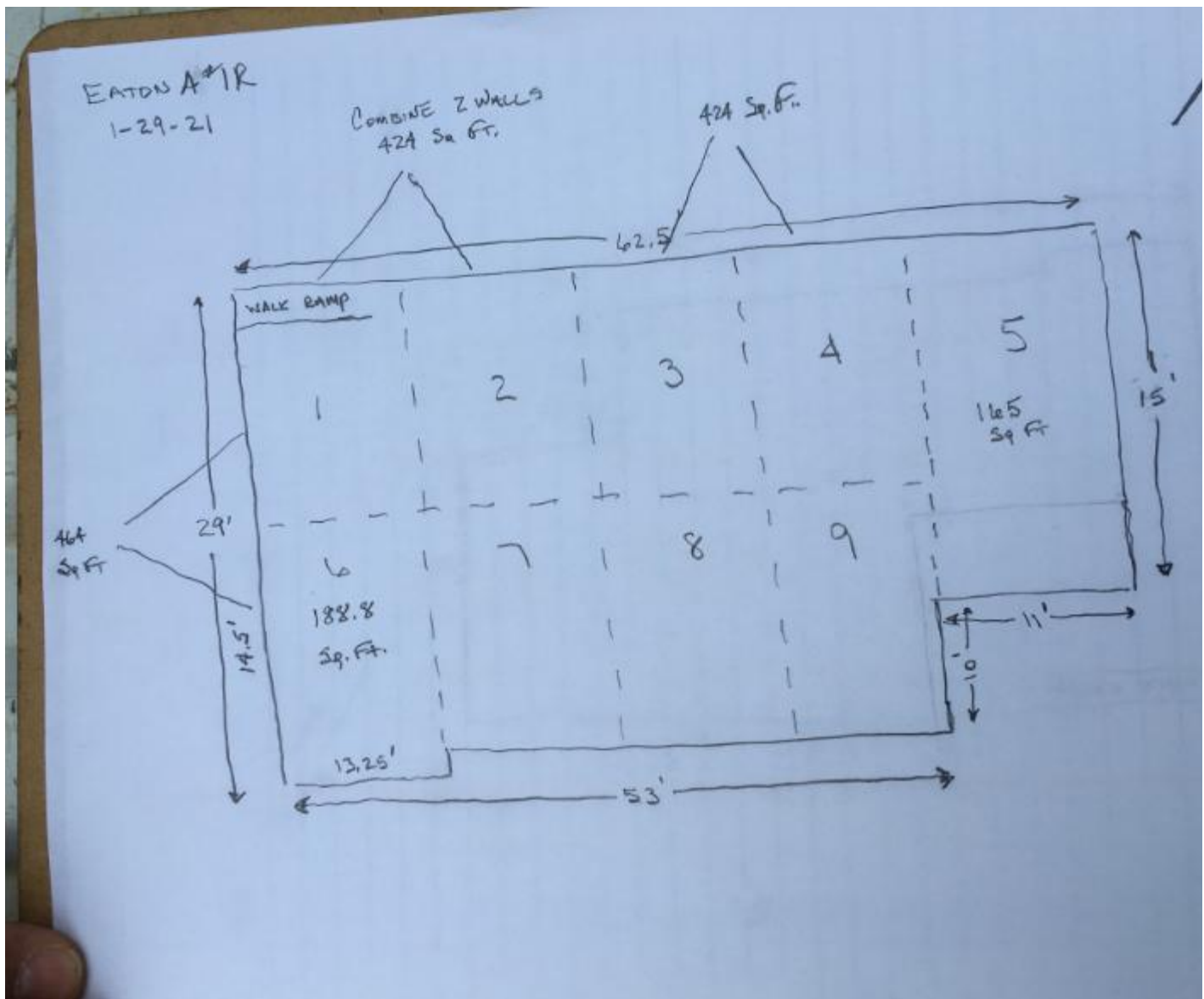
Clara,

Thanks for the follow up!

**Cory Smith** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1000 Rio Brazos | Aztec, NM 87410  
505.334.6178 x115 | [Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Clara Cardoza <[ccardoza@hilcorp.com](mailto:ccardoza@hilcorp.com)>  
**Sent:** Friday, January 29, 2021 8:47 AM  
**To:** Kurt Hoekstra <[khoekstra@hilcorp.com](mailto:khoekstra@hilcorp.com)>; Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>  
**Subject:** [EXT] Re: Eaton A #1R



The attached is the document originally sent via text message that was conditionally approved by Cory in this email string with additional grab sample he specified.

Get [Outlook for iOS](#)

-----Original Message-----

From: Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us]

Sent: Friday, January 29, 2021 8:41 AM

To: Kurt Hoekstra <khoekstra@hilcorp.com>; Clara Cardoza <ccardoza@hilcorp.com>

Subject: [EXTERNAL] RE: Eaton A #1R

Kurt,

OCD approves the alternative sampling on the walls for 400 sqft with the following conditions.

- Hilcorp will collect a grab sample of the area in red attached.

Please keep this approval for your records and include it in your Final C-141 as a hard copy will not be sent to you.





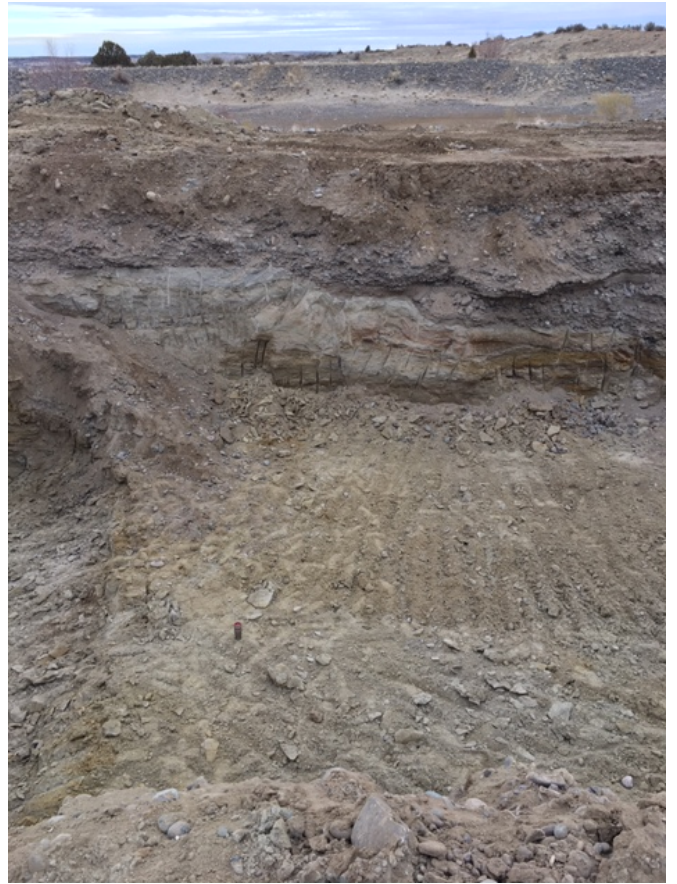
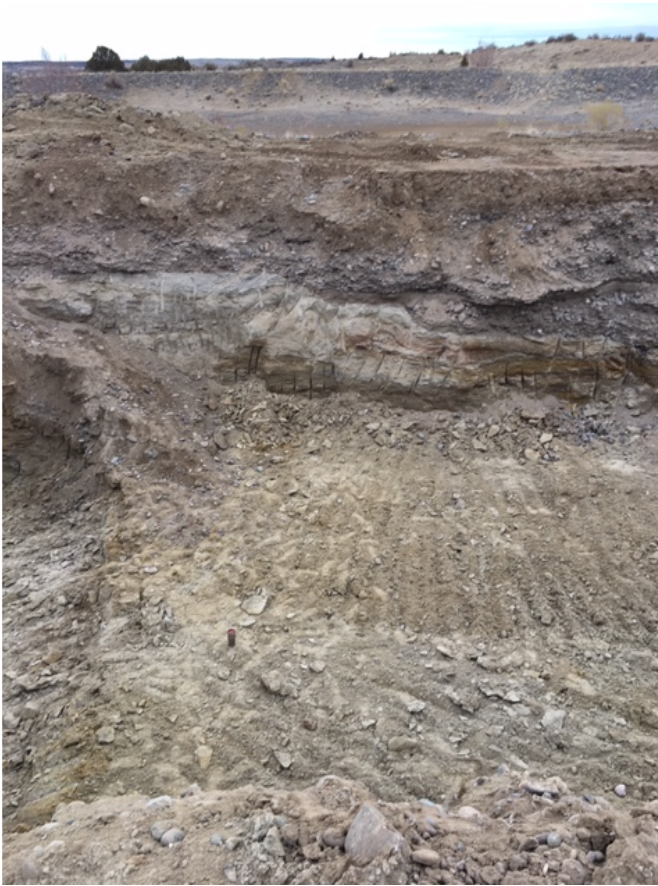
Thanks,

Cory Smith • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1000 Rio Brazos | Aztec, NM 87410  
505.334.6178 x115 | [Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us) <http://www.emnrd.state.nm.us/OCD/>

---

From: Kurt Hoekstra <[khoekstra@hilcorp.com](mailto:khoekstra@hilcorp.com)>  
Sent: Friday, January 29, 2021 8:32:58 AM  
To: Cory Smith <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>; Clara Cardoza <[ccardoza@hilcorp.com](mailto:ccardoza@hilcorp.com)>  
Subject: Eaton A #1R





**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 27379

## CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 27379
	Action Type: [C-141] Release Corrective Action (C-141)

## CONDITIONS

Created By	Condition	Condition Date
nvelez	None	2/22/2022