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	nAPP2121134139
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Hilcorp Energy Company	OGRID 372171
Contact Name Mitch Killough	Contact Telephone 713-757-5247
Contact email mkillough@hilcorp.com	Incident # nAPP2121134139
Contact mailing address 1111 Travis Street, Houston, Texas 77002	

Location of Release Source

Latitude 36.9484215 Longitude -107.5231247
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Middle Mesa SWD 1	Site Type SWD
Date Release Discovered 7/16/2021 @ 10:35 am (MT)	API# 30-045-27004

Unit Letter	Section	Township	Range	County
L	25	32N	7W	San Juan

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 21.46	Volume Recovered (bbls) 20
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
A release of approximately 21.46 bbls produced water was released due to an overflow at the open-top 120-bbl pit tank. Released fluids overflowed into the secondary containment area surrounding the pit tank and did not migrate any further. Upon discovery, the contractor immediately recovered fluids from within the secondary containment area. After further discussion, it was determined that the contractor failed to monitor the pit tank fluid level during an offloading event. The spill amount was determined by using operator's monthly tank gauging data. OCD will be notified 48 hours prior to closure sampling.

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State of New Mexico
Oil Conservation Division

Incident ID	nAPP2121134139
District RP	
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ 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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not 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: __Mitch Killough_____ Title: _____Environmental Specialist_____

Signature: _____ _____ Date: 7/30/2021_____

email: ___mkillough@hilcorp.com_____ Telephone: ____713-757-5247_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2121134139
District RP	
Facility ID	
Application ID	

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?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ 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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2121134139
District RP	
Facility ID	
Application ID	

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: __Mitch Killough_____ Title: _____Environmental Specialist_____

Signature: _____ _____ Date: 10/14/2021_____

email: ___mkillough@hilcorp.com_____ Telephone: ____713-757-5247_____

OCD Only

Received by: _____ Date: _____

Incident ID	nAPP2121134139
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Mitch Killough Title: Environmental Specialist

Signature: Date: 10/14/2021

email: mkillough@hilcorp.com Telephone: 713-757-5247

OCD Only

Received by: Date:

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

Closure Approved by: Nelson Velez Date: 02/23/2022

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

Executive Summary

On July 16, 2021 at 10:35 am MT, Hilcorp Energy Company (Hilcorp) had a 21.46 bbl release of produced water at the Middle Mesa 1 SWD (API No. 30-045-27004). The release was as a result of the contractor failing to monitor the pit tank fluid level during an offloading event. Upon discovery the contractor immediately recovered the fluids from the secondary containment. The released fluids remained inside secondary containment of the bermed area.

Following the initial investigation, Hilcorp chose to assess soil impacts by taking samples of the bermed area. Lab samples confirmed that no action was required based on the cleanup standards at the SWD.

Confirmation sampling was then scheduled for Thursday, September 23rd at 8:00 am in accordance with NMAC 19.15.29.12.D. However, no representation from NMOCD or BLM were present at the time of the scheduled sampling. Hilcorp's representative proceeded with the confirmation sampling event as scheduled. This site is ranked > 100 ft per NMAC 19.15.29.12.E. A composite sample was taken from each corner collected from the base of the bermed area and and additional point in between the NW and SW corner. Results for the composite soil sample were shown to be below the applicable clean up action levels. Refer to sample field pictures for additional information.

Initial Release Photographs

Scaled Map

Note 1: The surface extent of the Middle Mesa 1 SWD release is represented by the red square shown in image above. Note that all spilled liquids remained within secondary containment.

Scaled Map – Close-up

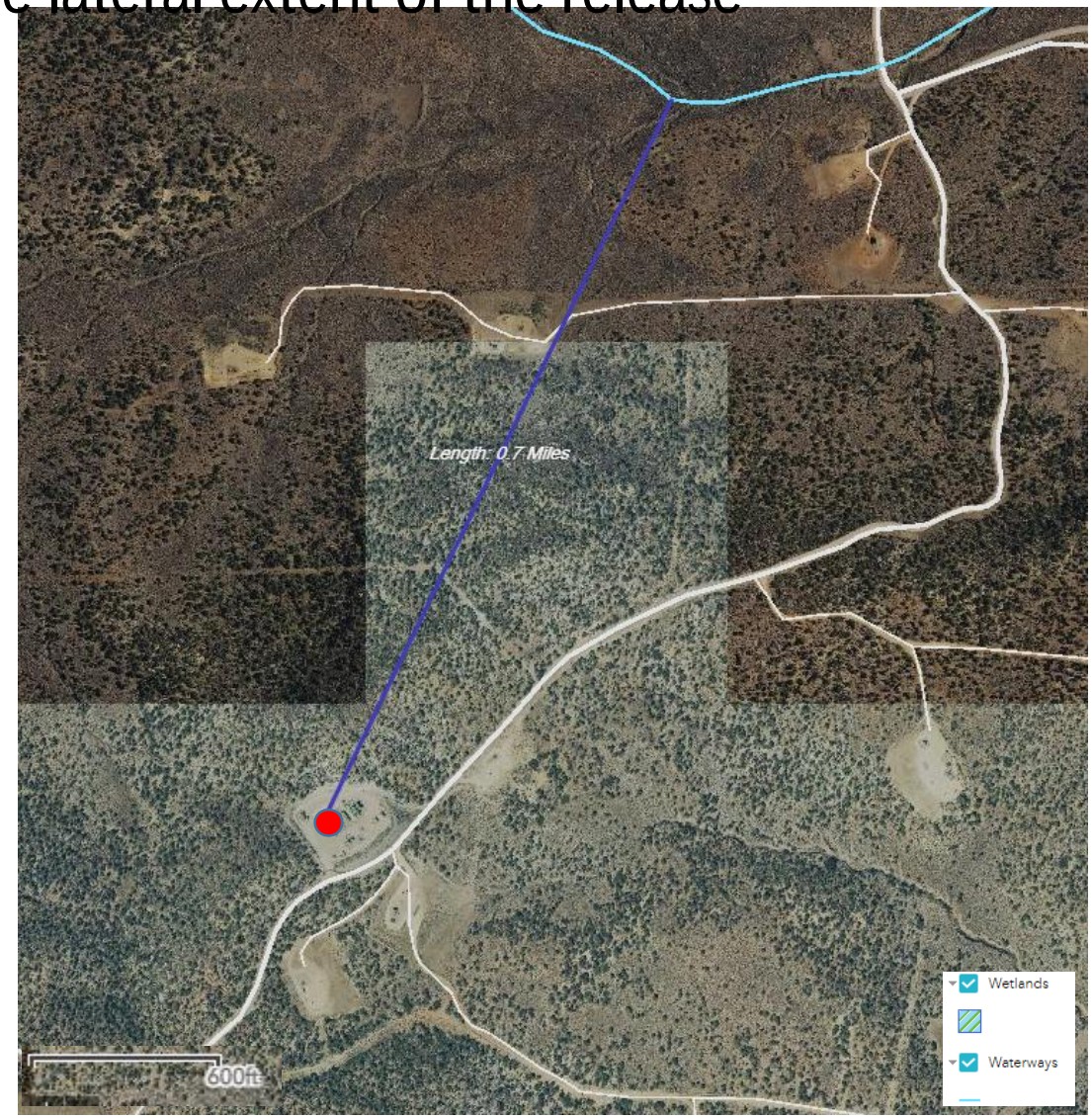
N

Area of Release

5-pt Composite Sample Location

Determination of water sources and significant watercourses within ½ mile of the lateral extent of the release

N



Note 1: Release point is not shown to be within 300 ft of any continuously flowing watercourse or any other significant water course.

Note 2: The lateral extents of the release point are not shown to be within 300 feet of a mapped wetland.

Determination of water sources and significant watercourses within ½ mile of the lateral extent of the release

N

Note: Release point is not shown to be within 300 ft of any continuously flowing watercourse or any other significant water course.

Distance to mapped water wells

Note: The lateral extents of the release point are not shown to be within 500 ft of a spring or domestic freshwater well used by less than 5 households (or stock watering) or within 1,000 ft of any freshwater water well or spring.

Depth to groundwater

Note: Groundwater information taken from the data sheet for ground bed cathodic at the Middle Mesa SWD 1. The estimated groundwater depth is shown to be 190 ft.

4240

30-045-27004

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC. Location: Unit L Sec. 25 Twp 32 Rng 7

Name of Well/Wells or Pipeline Serviced MIDDLE MESA SWD #1

cps 2131w

Elevation 6642' Completion Date 5/10/89 Total Depth 500' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 190' & 220'

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 465', 440', 430', 420', 410', 400', 390', 380', 300', 280'

Depths vent pipes placed: N/A

Vent pipe perforations: 400'

Remarks: gb #1

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

Depth to groundwater

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	SJ 03420		2	4	19	32N	06W	277997	4093753*

Driller License:	717	**Driller Company:**	WESTERN WATER WELLS		
Driller Name:	HOOD, TERRY				
Drill Start Date:	03/10/2006	**Drill Finish Date:**	03/18/2006	**Plug Date:**	
Log File Date:	03/22/2006	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	1 GPM
Casing Size:	6.00	**Depth Well:**	415 feet	**Depth Water:**	60 feet

Water Bearing Stratifications:	Top	Bottom	Description
	55	65	Sandstone/Gravel/Conglomerate
	325	365	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	320	400

Note: NMOSE data pulled from 9 sections including the release point is shown above. Depth to groundwater in the sources is 60 ft at an elevation of 6453 ft. Middle Mesa SWD's elevation is 6642 ft. From that groundwater depth can be estimated at 129 ft.

Sample locations

Northwest corner

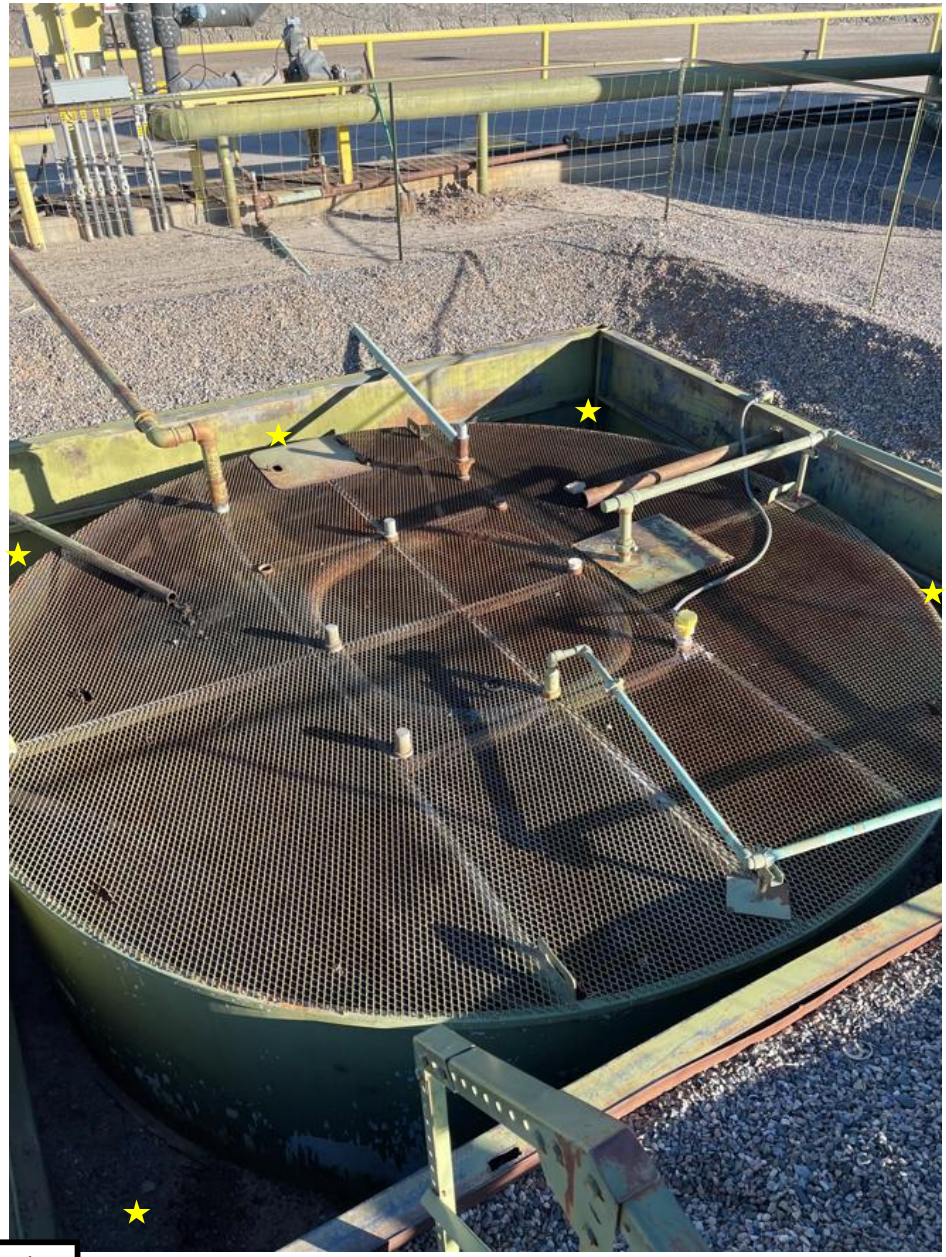
Southwest corner and NW/SW Middle

Sample locations

Northeast Corner

Southeast Corner

Sample locations - Overview



★ General area of 5-pt Composite Sample Location

Data table of soil contaminant concentration data

Soil Sample Identification	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Chlorides (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO+DRO (mg/kg)	TPH (mg/kg)
BGT Composite	9/23/2021	<0.026	<0.052	<0.052	<0.10	<0.23	150	<5.2	24	180	<29.2	<209.2
NMOCD Table 1 Closure Criteria		**10**	**NE**	**NE**	**NE**	**50**	**20,000**	**NE**	**NE**	**NE**	**1,000**	**2,500**

Note: Confirmation samples were collected on 9/23/2021 by Hilcorp personnel. Sample came back below action levels.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 30, 2021

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

RE: Middle Mesa SWD OrderNo.: 2109D84

Dear Mitch Killough:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/24/2021 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 or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2109D84**
Date Reported: **9/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** BGT Composite
Project: Middle Mesa SWD **Collection Date:** 9/23/2021 8:17:00 AM
Lab ID: 2109D84-001 **Matrix:** MEOH (SOIL) **Received Date:** 9/24/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	24	8.8		mg/Kg	1	9/27/2021 11:04:35 AM
Motor Oil Range Organics (MRO)	180	44		mg/Kg	1	9/27/2021 11:04:35 AM
Surr: DNOP	95.4	70-130		%Rec	1	9/27/2021 11:04:35 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.2		mg/Kg	1	9/24/2021 12:12:16 PM
Surr: BFB	98.7	70-130		%Rec	1	9/24/2021 12:12:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.026		mg/Kg	1	9/24/2021 12:12:16 PM
Toluene	ND	0.052		mg/Kg	1	9/24/2021 12:12:16 PM
Ethylbenzene	ND	0.052		mg/Kg	1	9/24/2021 12:12:16 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/24/2021 12:12:16 PM
Surr: 4-Bromofluorobenzene	86.7	70-130		%Rec	1	9/24/2021 12:12:16 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	150	60		mg/Kg	20	9/27/2021 3:46:30 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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2109D84**
30-Sep-21

Client: HILCORP ENERGY
Project: Middle Mesa SWD

Sample ID: **MB-62847** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **62847** RunNo: **81597**
Prep Date: **9/27/2021** Analysis Date: **9/27/2021** SeqNo: **2883492** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-62847** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **62847** RunNo: **81597**
Prep Date: **9/27/2021** Analysis Date: **9/27/2021** SeqNo: **2883493** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.1	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of 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#: **2109D84**

30-Sep-21

Client: HILCORP ENERGY

Project: Middle Mesa SWD

Sample ID: **MB-62827**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **62827**	RunNo: **81612**
Prep Date: **9/24/2021**	Analysis Date: **9/27/2021**	SeqNo: **2884266** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		85.5	70	130			

Sample ID: **LCS-62827**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **62827**	RunNo: **81612**
Prep Date: **9/24/2021**	Analysis Date: **9/27/2021**	SeqNo: **2884267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.9	68.9	135			
Surr: DNOP	4.1		5.000		81.5	70	130			

Sample ID: **2109D84-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BGT Composite**	Batch ID: **62827**	RunNo: **81612**
Prep Date: **9/24/2021**	Analysis Date: **9/27/2021**	SeqNo: **2884780** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	9.8	49.02	23.69	68.1	39.3	155			
Surr: DNOP	4.8		4.902		97.9	70	130			

Sample ID: **2109D84-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BGT Composite**	Batch ID: **62827**	RunNo: **81612**
Prep Date: **9/24/2021**	Analysis Date: **9/27/2021**	SeqNo: **2884781** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	10	49.75	23.69	69.1	39.3	155	1.79	23.4	
Surr: DNOP	5.2		4.975		104	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 Quanitative 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#: **2109D84**

30-Sep-21

Client: HILCORP ENERGY

Project: Middle Mesa SWD

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **B81560**	RunNo: **81560**
Prep Date:	Analysis Date: **9/24/2021**	SeqNo: **2882065** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	70	130			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **B81560**	RunNo: **81560**
Prep Date:	Analysis Date: **9/24/2021**	SeqNo: **2882066** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	78.6	131			
Surr: BFB	1200		1000		115	70	130			

Sample ID: **2109d84-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BGT Composite**	Batch ID: **B81560**	RunNo: **81560**
Prep Date:	Analysis Date: **9/24/2021**	SeqNo: **2882068** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.2	25.80	0	101	61.3	114			
Surr: BFB	1200		1032		118	70	130			

Sample ID: **2109d84-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BGT Composite**	Batch ID: **B81560**	RunNo: **81560**
Prep Date:	Analysis Date: **9/24/2021**	SeqNo: **2882069** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.2	25.80	0	102	61.3	114	1.53	20	
Surr: BFB	1200		1032		117	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 Quanitative 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#: **2109D84**

30-Sep-21

Client: HILCORP ENERGY

Project: Middle Mesa SWD

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **D81560**	RunNo: **81560**
Prep Date:	Analysis Date: **9/24/2021**	SeqNo: **2882122** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		89.7	70	130			

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **D81560**	RunNo: **81560**
Prep Date:	Analysis Date: **9/24/2021**	SeqNo: **2882123** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.6	80	120			
Toluene	0.98	0.050	1.000	0	98.5	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.5	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.1	80	120			
Surr: 4-Bromofluorobenzene	0.90		1.000		89.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of 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

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: **2109D84** RcptNo: **1**

Received By: **Cheyenne Cason** **9/24/2021 7:00:00 AM** Cheyenne

Completed By: **Isaiah Ortiz** **9/24/2021 7:34:10 AM** I-Ortiz

Reviewed By: KPG 9/24/21

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

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

Adjusted?

Checked by: JN 9/24/21

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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.7	Good	Not Present			
2	3.9	Good	Not Present			

Chain-of-Custody Record

Client: Hilcorp Energy

Mailing Address: 382 CR3100
Aztec NM 87410

Phone #: 505 599 3400

email or Fax#: mkillough@hilcorp.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☒ Rush 2 Day

Project Name: Middle Mesa SWD

Project #:

Project Manager: Mitch Killough

Sampler: C Cardoza

On Ice: ☒ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 5.6+0.1=5.7 / 3.8+0.1=3.9 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2109D84	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chlorides 300.0
9/23/21	817	Soil	BGT Composite	Glass 4oz/1	—	001	X	X									X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9/23/21	1406				9/23/21	1406
9/23/21	1826			courier	9/24/21	0700

Remarks:

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

Mitch Killough

From: Mitch Killough
Sent: Tuesday, September 21, 2021 6:50 AM
To: Smith, Cory, EMNRD; Enviro, OCD, EMNRD
Cc: Cameron Garrett; Clara Cardoza; Adeloye, Abiodun A
Subject: Closure Soil Sampling - Middle Mesa SWD 1 (Incident No. nAPP2121134139)

Tracking:

Recipient	Delivery
Smith, Cory, EMNRD	
Enviro, OCD, EMNRD	
Cameron Garrett	Delivered: 9/21/2021 6:50 AM
Clara Cardoza	Delivered: 9/21/2021 6:50 AM
Adeloye, Abiodun A	

Hi Cory.

Hilcorp Energy Company (Hilcorp) is providing a 48-hour notification for closure soil sampling scheduled to occur at the Middle Mesa SWD 1 on Thursday, September 23, 2021, beginning at 8:00 am (MT). The initial C-141 was submitted to the NMOCD on 7/30/2021 and was assigned incident no. nAPP2121134139. The location is on federal surface.

Please let me know if you have any questions.

Thanks.

Mitch Killough
Environmental Specialist
Hilcorp Energy Company
1111 Travis Street
Houston, TX 77002
713-757-5247 (office)
281-851-2338 (cell)
mkillough@hilcorp.com

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 56104

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 56104
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	2/23/2022