

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

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

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

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) NRM2032538822
Contact mailing address 382 CR 3100, Aztec NM 87410	

Location of Release Source

Latitude 36.60089 Longitude -107.59963
(NAD 83 in decimal degrees to 5 decimal places)

Site Name San Juan 28-7 Unit 261F	Site Type Gas Well
Date Release Discovered October 22, 2020	API# (if applicable) 30-039-26987

Unit Letter	Section	Township	Range	County
K	05	27N	07W	Rio Aribba

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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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) Unknown	Volume Recovered (bbls) 0
<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

A hole in an underground oil dump line cause the release at this location. The release was identified by the operator who went to the location and saw staining on the ground indicating a release had made its way to the surface.

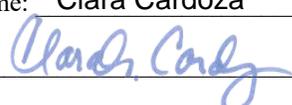
State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Estimated to be greater than 25 bbls based on the amount of soil that was removed due to visible impacts.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Immediate notification given to NMOCD (Cory Smith and Jim Griswold) and BLM (Emmanuel Adeloje) on Thursday, October 22, 2020 at 4:43 pm.	

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: <u></u>	Date: <u>11/04/2020</u>
email: <u>ccardoza@hilcorp.com</u>	Telephone: <u>505.564.0733</u>
<u>OCD Only</u> 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?	>100 (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 not 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.

<p><u>Characterization Report Checklist:</u> Each of the following items must be included in the report.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. <input checked="" type="checkbox"/> Field data <input checked="" type="checkbox"/> Data table of soil contaminant concentration data <input checked="" type="checkbox"/> Depth to water determination <input checked="" type="checkbox"/> Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release <input type="checkbox"/> Boring or excavation logs <input checked="" type="checkbox"/> Photographs including date and GIS information <input checked="" type="checkbox"/> Topographic/Aerial maps <input checked="" type="checkbox"/> Laboratory data including chain of custody
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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.

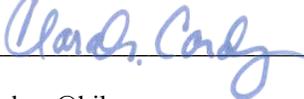
State of New Mexico
Oil Conservation Division

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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 Specialist

Signature:  Date: 01/22/2021

email: ccardoza@hilcorp.com Telephone: 505.564.0733

OCD Only

Received by: _____ Date: _____

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Application ID	

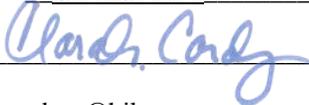
Closure

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: 01/22/2021
 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: 04/06/2022
 Printed Name: Jennifer Nobui Title: Environmental Specialist A

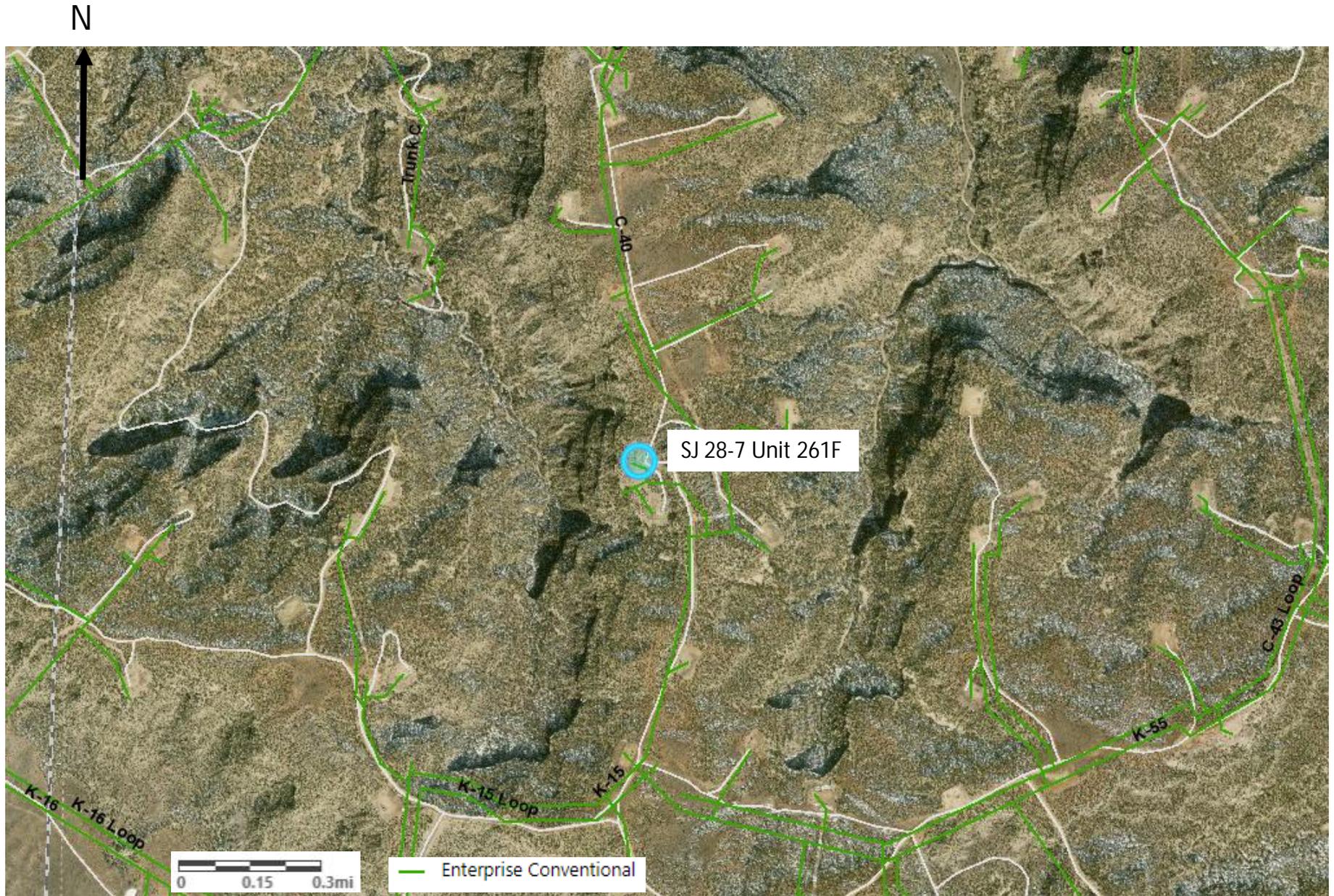
Executive Summary

On October 22, 2020 Hilcorp Energy had a release of an unknown amount of condensate at the San Juan 28-7 261F. The release was due to a hole in an underground oil dump line. Impacted soil was removed and taken to landfarm.

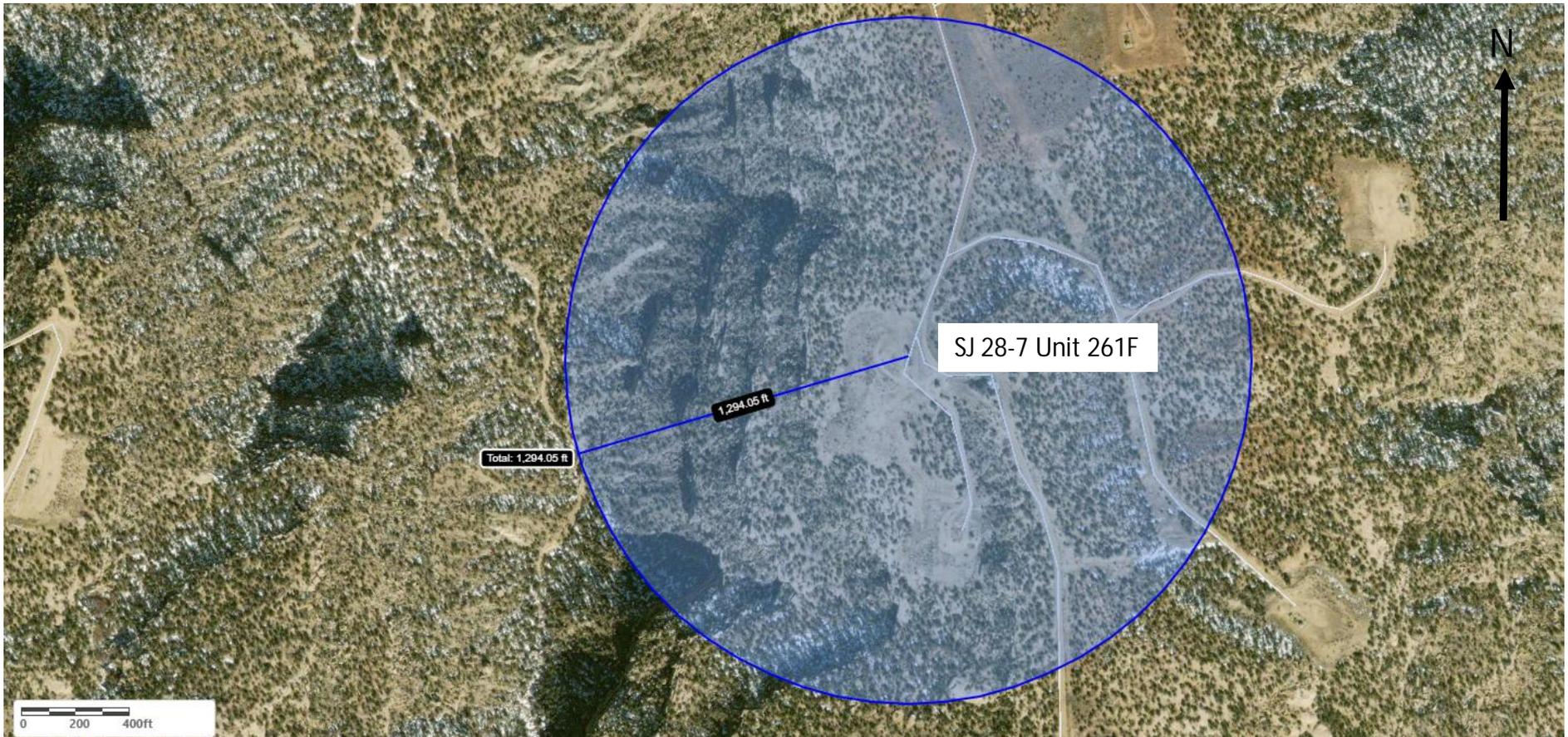
Confirmation sampling was conducted on November 11, 2020 and witnessed by Emmanuel Adeloje of BLM-FFO in accordance with NMAC 19.15.29.12.D. This site is ranked >100 ft per NMAC 19.15.29.12.E. A sample came back above clean up action levels so more impacted soil was removed. Two samples were then taken on November 17th and came back within clean up action levels.



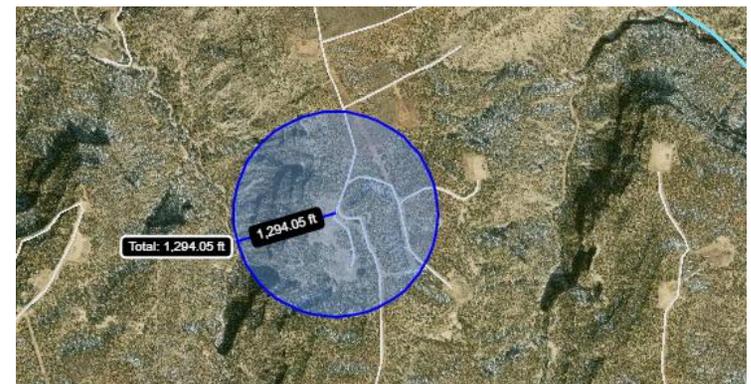
-  Release Area
-  Composite sample locations



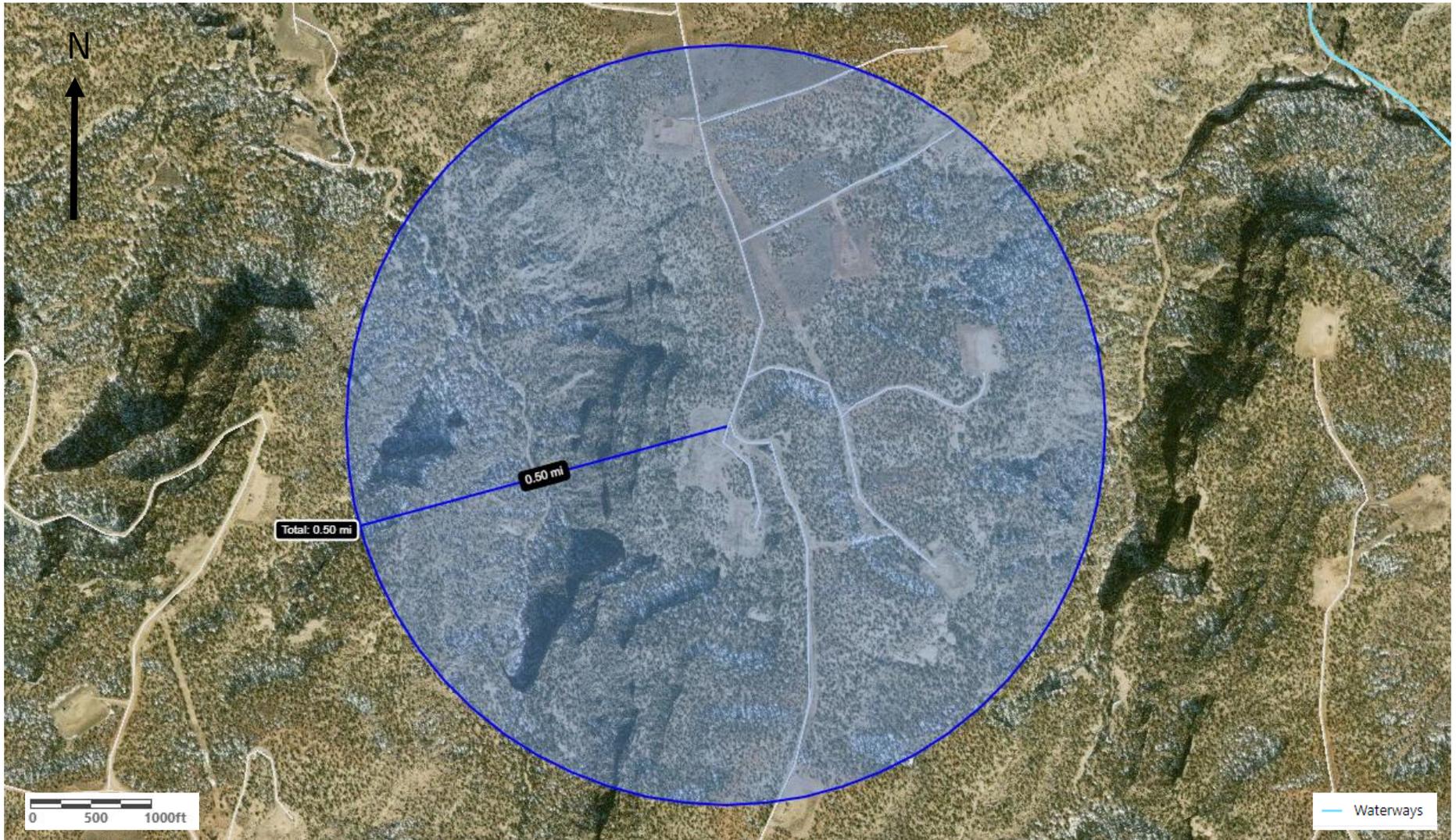
Distance to watercourse



Distance to watercourse approximately 1294 ft



Water sources or courses within ½ mile



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 00195			2	15	27N	07W	271133	4051089*	
Driller License:		Driller Company:								
Driller Name:		YOUNG DRILLING								
Drill Start Date:		Drill Finish Date:			Plug Date:					
Log File Date:		PCW Rcv Date:			Source: Artesian					
Pump Type: SUBMER		Pipe Discharge Size:			Estimated Yield:					
Casing Size:		Depth Well:			1633 feet		Depth Water: 500 feet			

*UTM location was derived from PLSS - see Help

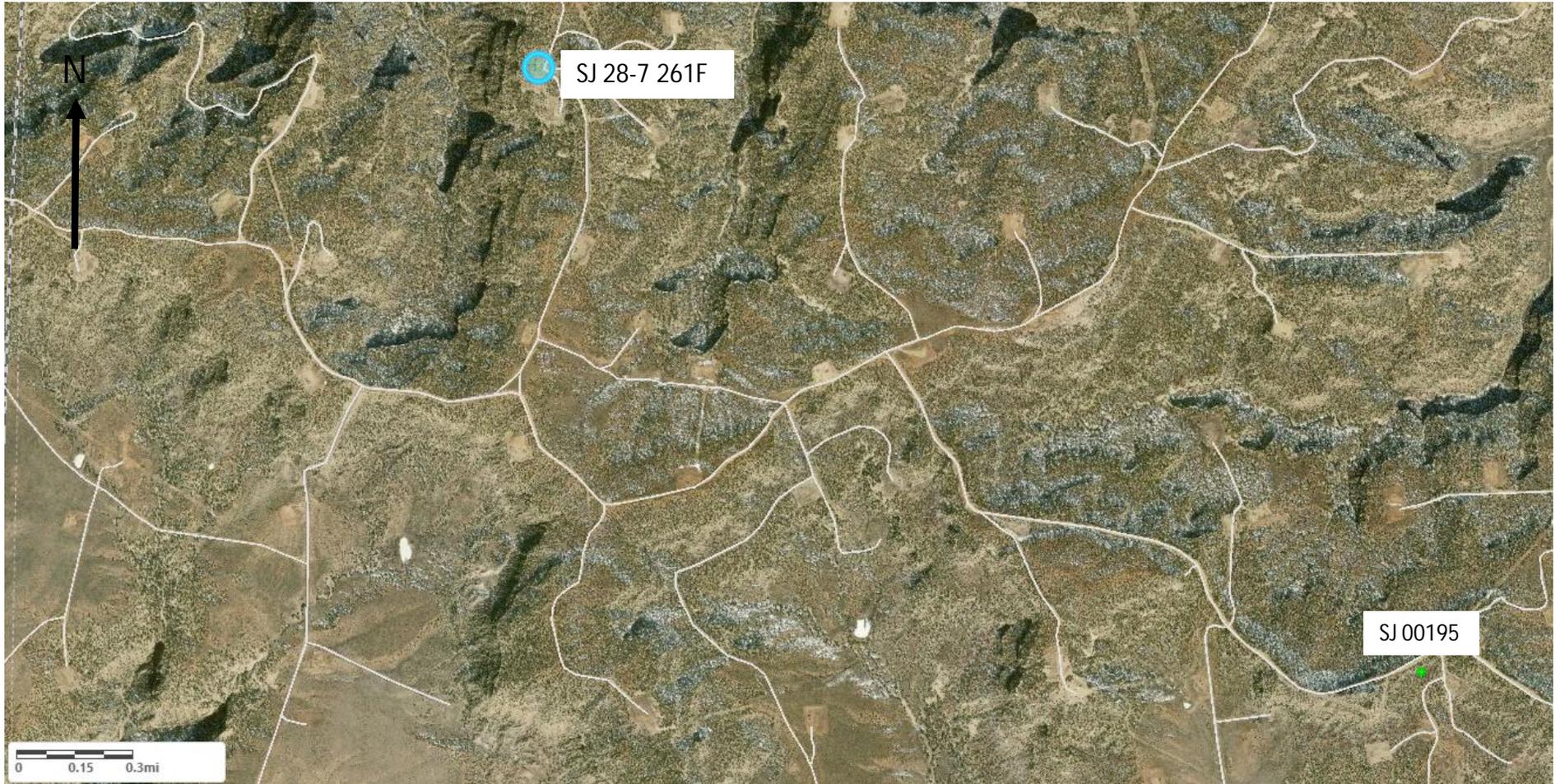
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

1/21/21 1:42 PM

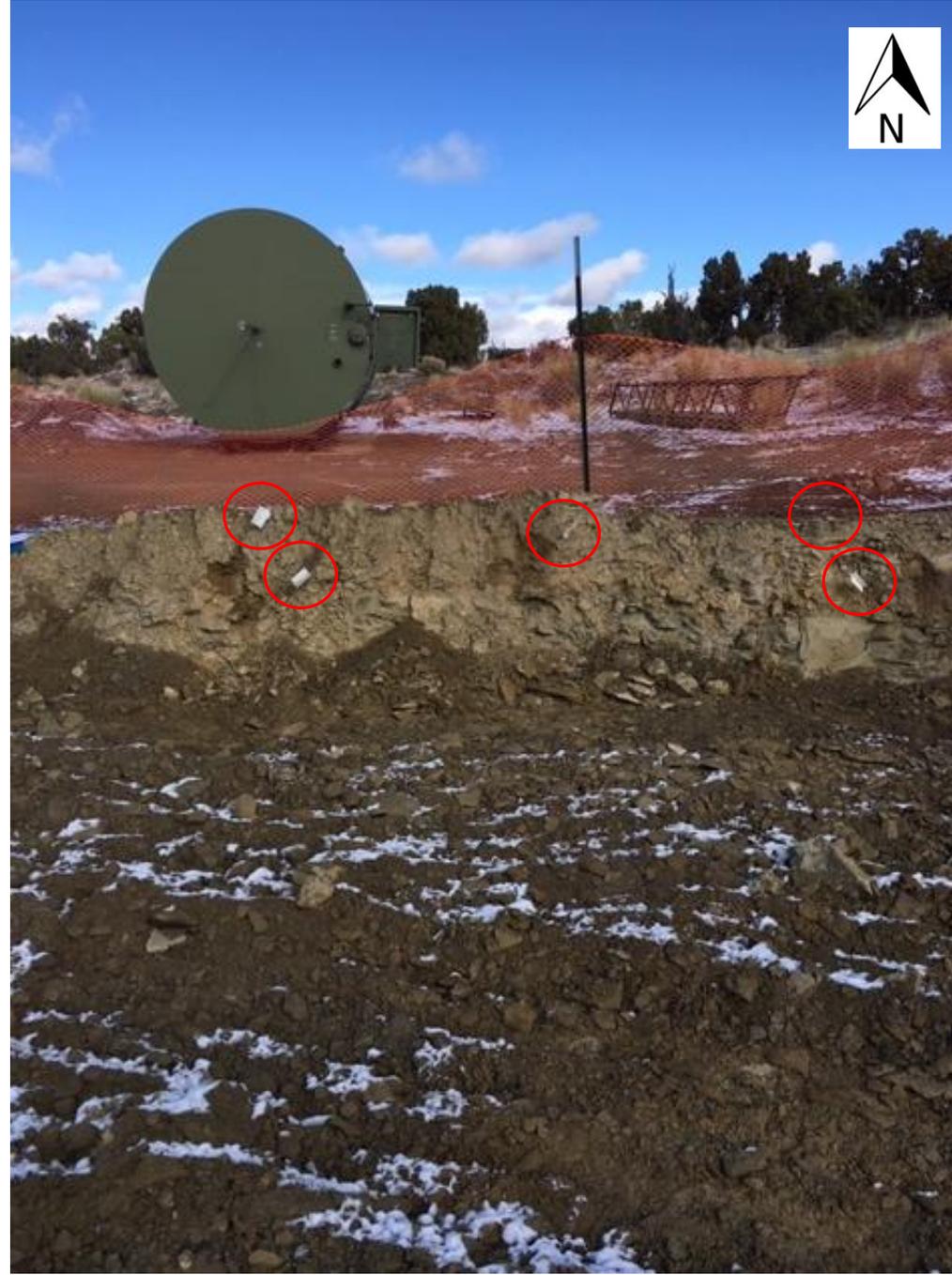
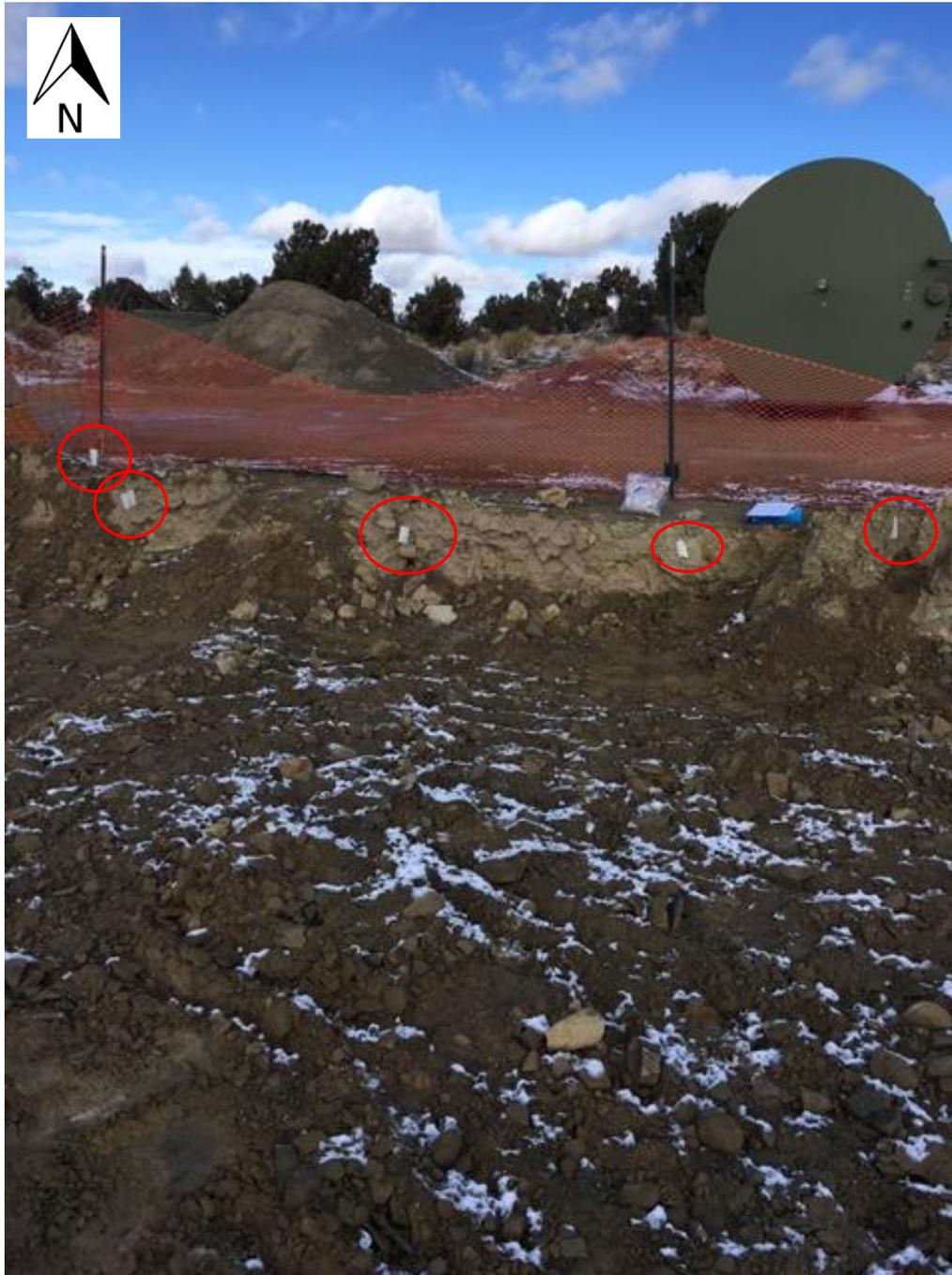
POINT OF DIVERSION SUMMARY

Elevation of SJ 00195 POD 6760 ft, elevation at the SJ 28-7 261F is 6761 ft making an approximate groundwater depth the same at 500 ft

Depth to groundwater



Sample locations/field notes NORTH WALL (11/10/20)



○ Indicate a sample location for 5 point composite

North Wall West-Half

North Wall East-Half

Sample locations/field notes WEST WALL (11/10/20)



Indicate a sample location for 5 point composite

West Wall South-Third

Released to Imaging: 4/6/2022 11:05:52 AM

West Wall Middle-Third

Note: the west wall north third had to be resampled and is included on a later page

Sample locations/field notes SOUTH WALL (11/10/20)



Indicate a sample location for 5 point composite South Wall East-Half

South Wall West-Half

Sample locations/field notes – EAST WALL (11/10/20)



Indicate a sample location for 5 point composite
East Wall North-Third
Released to Imaging: 4/6/2022 11:05:52 AM

East Wall Middle-Third

Sample locations/field notes – EAST WALL (11/10/20)



East Wall South-Third

Sample locations/field notes BASE (11/10/20)



Southwest Base



Southeast Base

Sample locations/field notes BASE (11/10/20)

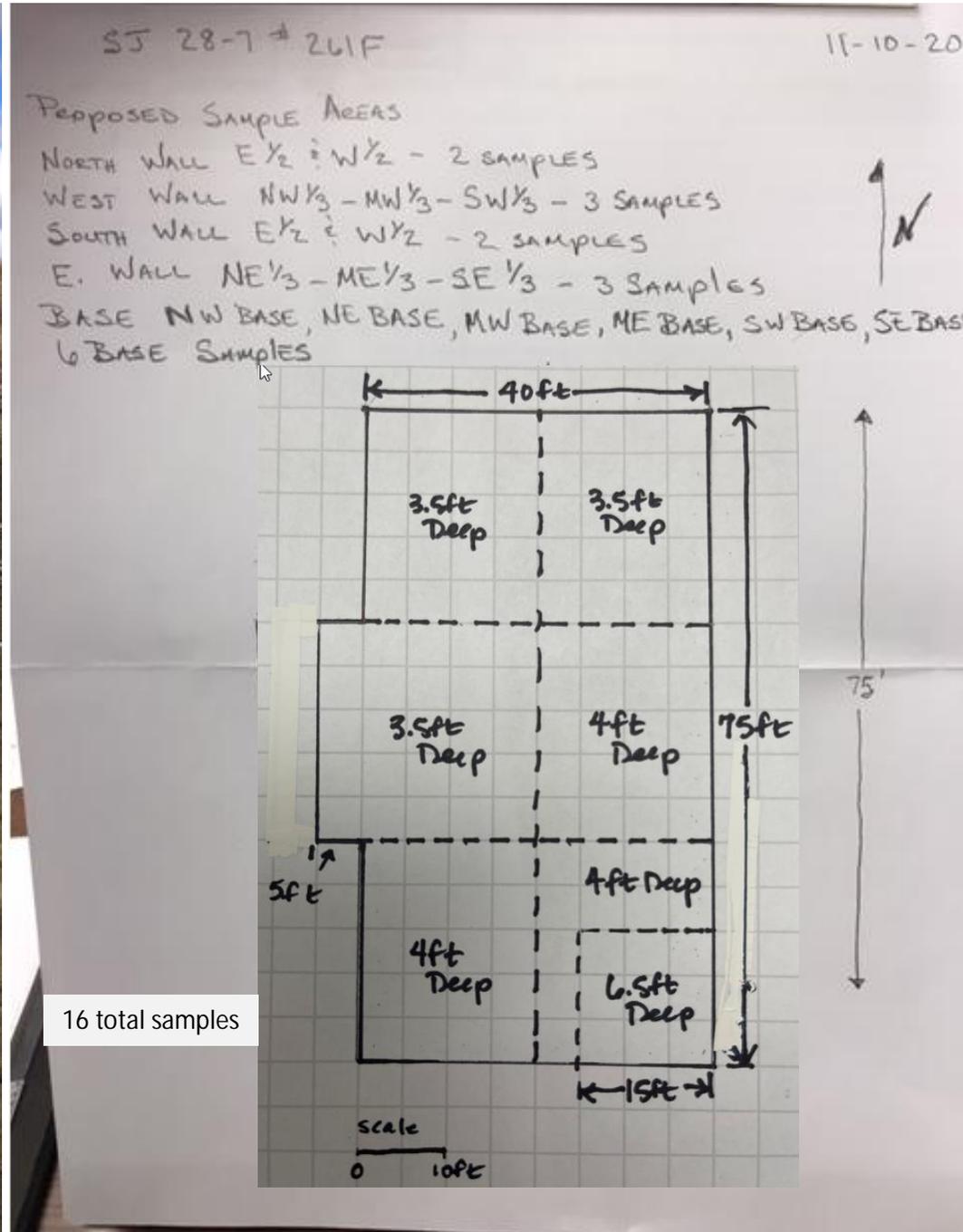


Middle West Base

Middle East Base

○ Indicate a sample location
for point composite

Sample locations/field notes (11/10/20)



16 total samples

Northeast Base

Note: sampling plan approved by NMOCD, see Agency correspondence. The northwest base had to be resampled and is included on a later page

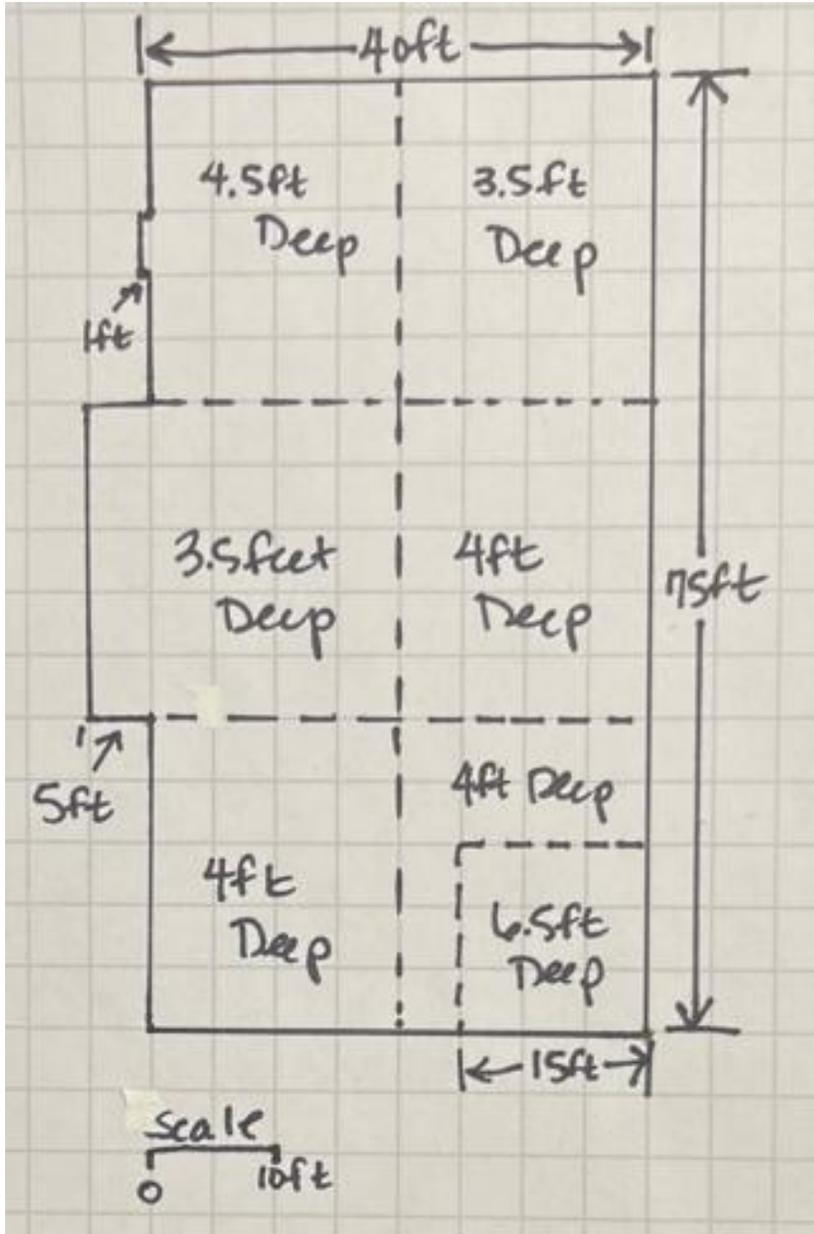
Sample locations/field notes (11/17/20)



West Wall NW Third

Northwest Base

Sample locations/field notes (11/17/20)



Final excavation

Note: sampling plan approved by NMOCD, see Agency correspondence.

Data table of soil contaminant 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		-	20,000	-	-	-	2,500	1,000	10	-	-	-	50
N Wall W/2	11/10/20		ND	45	ND	ND	45	45	ND	ND	ND	ND	ND
N Wall E/2	11/10/20		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
West Wall S/3	11/10/20		ND	770	43	350	1163	813	ND	0.35	ND	2.1	2.45
W Wall Middle/3	11/10/20		ND	13	ND	ND	13	13	ND	ND	ND	ND	ND
W Wall N/3	11/10/20		ND	390	ND	180	570	390	ND	ND	ND	ND	ND
S Wall E/2	11/10/20		ND	570	19	300	889	589	ND	ND	ND	0.47	0.47
S Wall W/2	11/10/20		ND	520	49	250	819	569	ND	0.38	0.21	3.0	3.59
E Wall N/3	11/10/20		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
E Wall Middle/3	11/10/20		ND	47	ND	ND	47	47	ND	ND	ND	ND	ND
E Wall S/3	11/10/20		ND	430	33	200	663	463	ND	0.16	0.12	2.1	2.38
SW Base	11/10/20		ND	400	ND	230	630	400	ND	ND	ND	ND	0
SE Base	11/10/20		ND	320	34	180	534	354	ND	ND	ND	0.83	0.83
Middle W Base	11/10/20		ND	370	28	200	598	398	ND	ND	ND	0.49	0.49
Middle E Base	11/10/20		ND	85	ND	100	185	85	ND	ND	ND	ND	ND
NE Base	11/10/20		ND	370	9.4	190	569	379	ND	ND	ND	ND	ND
NW Base	11/10/20		ND	1200	93	650	1943	1293	ND	0.26	0.48	8.4	9.14
W Wall N/3	11/17/20		ND	110	ND	51	161	110	ND	ND	ND	ND	ND
NW Base	11/17/20		ND	360.00	23.00	150.00	533	383	ND	0.11	0.068	0.82	0.998

Over closure standard

Confirmation sampling was taken on 11/10/2020 and 11/17/2020 and witnessed by Emmanuel Adelaye, BLM on 11/10. A sample was not in compliance with Table 1 of NMAC 19.15.29.12 so more soil was removed and resampled on 11/17/2020. No witnesses present during that time.



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

November 16, 2020

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

RE: SJ 28 7 261F

OrderNo.: 2011571

Dear Clara Cardoza:

Hall Environmental Analysis Laboratory received 16 sample(s) on 11/11/2020 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: N. Wall E 1/2

Project: SJ 28 7 261F

Collection Date: 11/10/2020 9:58:00 AM

Lab ID: 2011571-001

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/12/2020 7:08:21 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/12/2020 8:51:47 AM	56364
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/12/2020 8:51:47 AM	56364
Surr: DNOP	91.5	30.4-154		%Rec	1	11/12/2020 8:51:47 AM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/12/2020 11:19:07 PM	56363
Surr: BFB	89.6	75.3-105		%Rec	1	11/12/2020 11:19:07 PM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/12/2020 11:19:07 PM	56363
Toluene	ND	0.048		mg/Kg	1	11/12/2020 11:19:07 PM	56363
Ethylbenzene	ND	0.048		mg/Kg	1	11/12/2020 11:19:07 PM	56363
Xylenes, Total	ND	0.097		mg/Kg	1	11/12/2020 11:19:07 PM	56363
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	11/12/2020 11:19:07 PM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: N. Wall W 1/2

Project: SJ 28 7 261F

Collection Date: 11/10/2020 10:06:00 AM

Lab ID: 2011571-002

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	61		mg/Kg	20	11/12/2020 8:10:24 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	45	9.8		mg/Kg	1	11/12/2020 10:02:51 AM	56364
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/12/2020 10:02:51 AM	56364
Surr: DNOP	98.0	30.4-154		%Rec	1	11/12/2020 10:02:51 AM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/13/2020 12:29:24 AM	56363
Surr: BFB	95.2	75.3-105		%Rec	1	11/13/2020 12:29:24 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	11/13/2020 12:29:24 AM	56363
Toluene	ND	0.046		mg/Kg	1	11/13/2020 12:29:24 AM	56363
Ethylbenzene	ND	0.046		mg/Kg	1	11/13/2020 12:29:24 AM	56363
Xylenes, Total	ND	0.092		mg/Kg	1	11/13/2020 12:29:24 AM	56363
Surr: 4-Bromofluorobenzene	99.0	80-120		%Rec	1	11/13/2020 12:29:24 AM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: W. Wall N 1/3

Project: SJ 28 7 261F

Collection Date: 11/10/2020 10:11:00 AM

Lab ID: 2011571-003

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/12/2020 8:22:49 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	390	8.9		mg/Kg	1	11/12/2020 10:26:33 AM	56364
Motor Oil Range Organics (MRO)	180	44		mg/Kg	1	11/12/2020 10:26:33 AM	56364
Surr: DNOP	103	30.4-154		%Rec	1	11/12/2020 10:26:33 AM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	11/13/2020 1:39:32 AM	56363
Surr: BFB	112	75.3-105	S	%Rec	5	11/13/2020 1:39:32 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	11/13/2020 1:39:32 AM	56363
Toluene	ND	0.25		mg/Kg	5	11/13/2020 1:39:32 AM	56363
Ethylbenzene	ND	0.25		mg/Kg	5	11/13/2020 1:39:32 AM	56363
Xylenes, Total	ND	0.49		mg/Kg	5	11/13/2020 1:39:32 AM	56363
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	5	11/13/2020 1:39:32 AM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: W. Wall Mid 1/3

Project: SJ 28 7 261F

Collection Date: 11/10/2020 10:18:00 AM

Lab ID: 2011571-004

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	59		mg/Kg	20	11/12/2020 8:35:14 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	13	9.7		mg/Kg	1	11/13/2020 8:20:51 AM	56364
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/13/2020 8:20:51 AM	56364
Surr: DNOP	94.8	30.4-154		%Rec	1	11/13/2020 8:20:51 AM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/13/2020 2:02:54 AM	56363
Surr: BFB	87.1	75.3-105		%Rec	1	11/13/2020 2:02:54 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/13/2020 2:02:54 AM	56363
Toluene	ND	0.047		mg/Kg	1	11/13/2020 2:02:54 AM	56363
Ethylbenzene	ND	0.047		mg/Kg	1	11/13/2020 2:02:54 AM	56363
Xylenes, Total	ND	0.094		mg/Kg	1	11/13/2020 2:02:54 AM	56363
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	11/13/2020 2:02:54 AM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: W. Wall S 1/3

Project: SJ 28 7 261F

Collection Date: 11/10/2020 10:25:00 AM

Lab ID: 2011571-005

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	59		mg/Kg	20	11/12/2020 8:47:39 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	770	9.7		mg/Kg	1	11/12/2020 11:14:01 AM	56364
Motor Oil Range Organics (MRO)	350	48		mg/Kg	1	11/12/2020 11:14:01 AM	56364
Surr: DNOP	110	30.4-154		%Rec	1	11/12/2020 11:14:01 AM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	43	23		mg/Kg	5	11/13/2020 2:26:12 AM	56363
Surr: BFB	135	75.3-105	S	%Rec	5	11/13/2020 2:26:12 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	11/13/2020 2:26:12 AM	56363
Toluene	0.35	0.23		mg/Kg	5	11/13/2020 2:26:12 AM	56363
Ethylbenzene	ND	0.23		mg/Kg	5	11/13/2020 2:26:12 AM	56363
Xylenes, Total	2.1	0.46		mg/Kg	5	11/13/2020 2:26:12 AM	56363
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	5	11/13/2020 2:26:12 AM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: S. Wall E 1/2

Project: SJ 28 7 261F

Collection Date: 11/10/2020 10:36:00 AM

Lab ID: 2011571-006

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/12/2020 9:00:03 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	570	9.7		mg/Kg	1	11/12/2020 11:37:46 AM	56364
Motor Oil Range Organics (MRO)	300	49		mg/Kg	1	11/12/2020 11:37:46 AM	56364
Surr: DNOP	102	30.4-154		%Rec	1	11/12/2020 11:37:46 AM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	19	4.7		mg/Kg	1	11/13/2020 2:49:30 AM	56363
Surr: BFB	236	75.3-105	S	%Rec	1	11/13/2020 2:49:30 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	11/13/2020 2:49:30 AM	56363
Toluene	ND	0.047		mg/Kg	1	11/13/2020 2:49:30 AM	56363
Ethylbenzene	ND	0.047		mg/Kg	1	11/13/2020 2:49:30 AM	56363
Xylenes, Total	0.47	0.093		mg/Kg	1	11/13/2020 2:49:30 AM	56363
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	11/13/2020 2:49:30 AM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: S. Wall W 1/2

Project: SJ 28 7 261F

Collection Date: 11/10/2020 10:42:00 AM

Lab ID: 2011571-007

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/12/2020 9:12:28 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	520	9.1		mg/Kg	1	11/13/2020 9:08:52 AM	56364
Motor Oil Range Organics (MRO)	250	45		mg/Kg	1	11/13/2020 9:08:52 AM	56364
Surr: DNOP	103	30.4-154		%Rec	1	11/13/2020 9:08:52 AM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	49	4.8		mg/Kg	1	11/13/2020 3:12:51 AM	56363
Surr: BFB	333	75.3-105	S	%Rec	1	11/13/2020 3:12:51 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/13/2020 3:12:51 AM	56363
Toluene	0.38	0.048		mg/Kg	1	11/13/2020 3:12:51 AM	56363
Ethylbenzene	0.21	0.048		mg/Kg	1	11/13/2020 3:12:51 AM	56363
Xylenes, Total	3.0	0.095		mg/Kg	1	11/13/2020 3:12:51 AM	56363
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	11/13/2020 3:12:51 AM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: E. Wall N 1/3

Project: SJ 28 7 261F

Collection Date: 11/10/2020 10:48:00 AM

Lab ID: 2011571-008

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/12/2020 9:24:52 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	11/12/2020 12:25:25 PM	56364
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/12/2020 12:25:25 PM	56364
Surr: DNOP	95.4	30.4-154		%Rec	1	11/12/2020 12:25:25 PM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/13/2020 3:59:22 AM	56363
Surr: BFB	87.5	75.3-105		%Rec	1	11/13/2020 3:59:22 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/13/2020 3:59:22 AM	56363
Toluene	ND	0.047		mg/Kg	1	11/13/2020 3:59:22 AM	56363
Ethylbenzene	ND	0.047		mg/Kg	1	11/13/2020 3:59:22 AM	56363
Xylenes, Total	ND	0.095		mg/Kg	1	11/13/2020 3:59:22 AM	56363
Surr: 4-Bromofluorobenzene	96.5	80-120		%Rec	1	11/13/2020 3:59:22 AM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: E. Wall Mid 1/3

Project: SJ 28 7 261F

Collection Date: 11/10/2020 10:54:00 AM

Lab ID: 2011571-009

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/12/2020 9:37:17 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	47	9.6		mg/Kg	1	11/12/2020 12:49:17 PM	56364
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/12/2020 12:49:17 PM	56364
Surr: DNOP	93.2	30.4-154		%Rec	1	11/12/2020 12:49:17 PM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	24		mg/Kg	5	11/13/2020 4:22:39 AM	56363
Surr: BFB	89.5	75.3-105		%Rec	5	11/13/2020 4:22:39 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	11/13/2020 4:22:39 AM	56363
Toluene	ND	0.24		mg/Kg	5	11/13/2020 4:22:39 AM	56363
Ethylbenzene	ND	0.24		mg/Kg	5	11/13/2020 4:22:39 AM	56363
Xylenes, Total	ND	0.49		mg/Kg	5	11/13/2020 4:22:39 AM	56363
Surr: 4-Bromofluorobenzene	98.5	80-120		%Rec	5	11/13/2020 4:22:39 AM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: E. Wall S 1/3

Project: SJ 28 7 261F

Collection Date: 11/10/2020 11:02:00 AM

Lab ID: 2011571-010

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/12/2020 10:14:31 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	430	9.6		mg/Kg	1	11/12/2020 1:13:10 PM	56364
Motor Oil Range Organics (MRO)	200	48		mg/Kg	1	11/12/2020 1:13:10 PM	56364
Surr: DNOP	100	30.4-154		%Rec	1	11/12/2020 1:13:10 PM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	33	4.6		mg/Kg	1	11/13/2020 4:46:00 AM	56363
Surr: BFB	269	75.3-105	S	%Rec	1	11/13/2020 4:46:00 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	11/13/2020 4:46:00 AM	56363
Toluene	0.16	0.046		mg/Kg	1	11/13/2020 4:46:00 AM	56363
Ethylbenzene	0.12	0.046		mg/Kg	1	11/13/2020 4:46:00 AM	56363
Xylenes, Total	2.1	0.092		mg/Kg	1	11/13/2020 4:46:00 AM	56363
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	11/13/2020 4:46:00 AM	56363

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		

Analytical Report

Lab Order 2011571

Date Reported: 11/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: NW Base

Project: SJ 28 7 261F

Collection Date: 11/10/2020 11:34:00 AM

Lab ID: 2011571-011

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/12/2020 10:26:56 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	1200	92		mg/Kg	10	11/12/2020 1:36:54 PM	56364
Motor Oil Range Organics (MRO)	650	460		mg/Kg	10	11/12/2020 1:36:54 PM	56364
Surr: DNOP	0	30.4	154	S %Rec	10	11/12/2020 1:36:54 PM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	93	5.0		mg/Kg	1	11/13/2020 5:09:22 AM	56363
Surr: BFB	580	75.3	105	S %Rec	1	11/13/2020 5:09:22 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	11/13/2020 5:09:22 AM	56363
Toluene	0.26	0.050		mg/Kg	1	11/13/2020 5:09:22 AM	56363
Ethylbenzene	0.48	0.050		mg/Kg	1	11/13/2020 5:09:22 AM	56363
Xylenes, Total	8.4	0.10		mg/Kg	1	11/13/2020 5:09:22 AM	56363
Surr: 4-Bromofluorobenzene	121	80	120	S %Rec	1	11/13/2020 5:09:22 AM	56363

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	

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: NE Base

Project: SJ 28 7 261F

Collection Date: 11/10/2020 11:38:00 AM

Lab ID: 2011571-012

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/12/2020 10:39:21 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	370	9.9		mg/Kg	1	11/12/2020 2:00:35 PM	56364
Motor Oil Range Organics (MRO)	190	50		mg/Kg	1	11/12/2020 2:00:35 PM	56364
Surr: DNOP	101	30.4-154		%Rec	1	11/12/2020 2:00:35 PM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	9.4	4.7		mg/Kg	1	11/13/2020 9:15:53 AM	56363
Surr: BFB	149	75.3-105	S	%Rec	1	11/13/2020 9:15:53 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	11/13/2020 9:15:53 AM	56363
Toluene	ND	0.047		mg/Kg	1	11/13/2020 9:15:53 AM	56363
Ethylbenzene	ND	0.047		mg/Kg	1	11/13/2020 9:15:53 AM	56363
Xylenes, Total	ND	0.093		mg/Kg	1	11/13/2020 9:15:53 AM	56363
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	11/13/2020 9:15:53 AM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: Mid West Base

Project: SJ 28 7 261F

Collection Date: 11/10/2020 11:43:00 AM

Lab ID: 2011571-013

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/12/2020 10:51:46 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	370	10		mg/Kg	1	11/12/2020 2:24:21 PM	56364
Motor Oil Range Organics (MRO)	200	50		mg/Kg	1	11/12/2020 2:24:21 PM	56364
Surr: DNOP	101	30.4-154		%Rec	1	11/12/2020 2:24:21 PM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	28	24		mg/Kg	5	11/13/2020 9:39:24 AM	56363
Surr: BFB	120	75.3-105	S	%Rec	5	11/13/2020 9:39:24 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	11/13/2020 9:39:24 AM	56363
Toluene	ND	0.24		mg/Kg	5	11/13/2020 9:39:24 AM	56363
Ethylbenzene	ND	0.24		mg/Kg	5	11/13/2020 9:39:24 AM	56363
Xylenes, Total	0.49	0.48		mg/Kg	5	11/13/2020 9:39:24 AM	56363
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	5	11/13/2020 9:39:24 AM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: Mid East Base

Project: SJ 28 7 261F

Collection Date: 11/10/2020 11:47:00 AM

Lab ID: 2011571-014

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/12/2020 11:04:11 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	85		8.9	mg/Kg	1	11/12/2020 2:48:05 PM	56364
Motor Oil Range Organics (MRO)	100		45	mg/Kg	1	11/12/2020 2:48:05 PM	56364
Surr: DNOP	98.1	30.4-154		%Rec	1	11/12/2020 2:48:05 PM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND		4.7	mg/Kg	1	11/13/2020 10:03:01 AM	56363
Surr: BFB	91.1	75.3-105		%Rec	1	11/13/2020 10:03:01 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND		0.023	mg/Kg	1	11/13/2020 10:03:01 AM	56363
Toluene	ND		0.047	mg/Kg	1	11/13/2020 10:03:01 AM	56363
Ethylbenzene	ND		0.047	mg/Kg	1	11/13/2020 10:03:01 AM	56363
Xylenes, Total	ND		0.093	mg/Kg	1	11/13/2020 10:03:01 AM	56363
Surr: 4-Bromofluorobenzene	96.7	80-120		%Rec	1	11/13/2020 10:03:01 AM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SW Base

Project: SJ 28 7 261F

Collection Date: 11/10/2020 11:52:00 AM

Lab ID: 2011571-015

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/12/2020 11:16:35 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	400	10		mg/Kg	1	11/12/2020 3:12:09 PM	56364
Motor Oil Range Organics (MRO)	230	50		mg/Kg	1	11/12/2020 3:12:09 PM	56364
Surr: DNOP	100	30.4-154		%Rec	1	11/12/2020 3:12:09 PM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	24		mg/Kg	5	11/13/2020 10:26:42 AM	56363
Surr: BFB	96.0	75.3-105		%Rec	5	11/13/2020 10:26:42 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	11/13/2020 10:26:42 AM	56363
Toluene	ND	0.24		mg/Kg	5	11/13/2020 10:26:42 AM	56363
Ethylbenzene	ND	0.24		mg/Kg	5	11/13/2020 10:26:42 AM	56363
Xylenes, Total	ND	0.47		mg/Kg	5	11/13/2020 10:26:42 AM	56363
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	5	11/13/2020 10:26:42 AM	56363

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		

Analytical Report

Lab Order **2011571**

Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SE Base

Project: SJ 28 7 261F

Collection Date: 11/10/2020 11:57:00 AM

Lab ID: 2011571-016

Matrix: SOIL

Received Date: 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	59		mg/Kg	20	11/12/2020 11:28:59 PM	56412
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	320	9.1		mg/Kg	1	11/12/2020 3:36:13 PM	56364
Motor Oil Range Organics (MRO)	180	45		mg/Kg	1	11/12/2020 3:36:13 PM	56364
Surr: DNOP	99.0	30.4-154		%Rec	1	11/12/2020 3:36:13 PM	56364
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	34	23		mg/Kg	5	11/13/2020 10:50:28 AM	56363
Surr: BFB	111	75.3-105	S	%Rec	5	11/13/2020 10:50:28 AM	56363
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	11/13/2020 10:50:28 AM	56363
Toluene	ND	0.23		mg/Kg	5	11/13/2020 10:50:28 AM	56363
Ethylbenzene	ND	0.23		mg/Kg	5	11/13/2020 10:50:28 AM	56363
Xylenes, Total	0.83	0.47		mg/Kg	5	11/13/2020 10:50:28 AM	56363
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	5	11/13/2020 10:50:28 AM	56363

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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2011571

16-Nov-20

Client: HILCORP ENERGY

Project: SJ 28 7 261F

Sample ID: MB-56412	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 56412	RunNo: 73331								
Prep Date: 11/12/2020	Analysis Date: 11/12/2020	SeqNo: 2581120	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-56412	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 56412	RunNo: 73331								
Prep Date: 11/12/2020	Analysis Date: 11/12/2020	SeqNo: 2581121	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.1	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 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#: 2011571

16-Nov-20

Client: HILCORP ENERGY

Project: SJ 28 7 261F

Sample ID: MB-56364	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 56364	RunNo: 73311								
Prep Date: 11/11/2020	Analysis Date: 11/12/2020	SeqNo: 2580072	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	30.4	154			

Sample ID: LCS-56364	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 56364	RunNo: 73311								
Prep Date: 11/11/2020	Analysis Date: 11/12/2020	SeqNo: 2580073	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.7	70	130			
Surr: DNOP	5.2		5.000		104	30.4	154			

Sample ID: 2011571-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: N. Wall E 1/2	Batch ID: 56364	RunNo: 73311								
Prep Date: 11/11/2020	Analysis Date: 11/12/2020	SeqNo: 2580075	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.8	49.07	0	93.5	15	184			
Surr: DNOP	5.0		4.907		101	30.4	154			

Sample ID: 2011571-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: N. Wall E 1/2	Batch ID: 56364	RunNo: 73311								
Prep Date: 11/11/2020	Analysis Date: 11/12/2020	SeqNo: 2580076	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.8	48.97	0	94.3	15	184	0.733	23.9	
Surr: DNOP	4.9		4.897		99.7	30.4	154	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2011571

16-Nov-20

Client: HILCORP ENERGY

Project: SJ 28 7 261F

Sample ID: mb-56363	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 56363		RunNo: 73309							
Prep Date: 11/11/2020	Analysis Date: 11/12/2020		SeqNo: 2579913		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	920		1000		91.6	75.3	105			

Sample ID: lcs-56363	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 56363		RunNo: 73309							
Prep Date: 11/11/2020	Analysis Date: 11/12/2020		SeqNo: 2579914		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.8	72.5	106			
Surr: BFB	990		1000		99.4	75.3	105			

Sample ID: 2011571-001ams	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: N. Wall E 1/2	Batch ID: 56363		RunNo: 73309							
Prep Date: 11/11/2020	Analysis Date: 11/12/2020		SeqNo: 2579916		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.9	24.65	0	90.9	61.3	114			
Surr: BFB	1000		986.2		102	75.3	105			

Sample ID: 2011571-001amsd	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: N. Wall E 1/2	Batch ID: 56363		RunNo: 73309							
Prep Date: 11/11/2020	Analysis Date: 11/13/2020		SeqNo: 2579917		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.7	23.65	0	87.5	61.3	114	7.92	20	
Surr: BFB	960		946.1		101	75.3	105	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2011571

16-Nov-20

Client: HILCORP ENERGY

Project: SJ 28 7 261F

Sample ID: mb-56363	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 56363	RunNo: 73309								
Prep Date: 11/11/2020	Analysis Date: 11/12/2020	SeqNo: 2579960	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	1.0		1.000		100	80	120			

Sample ID: LCS-56363	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 56363	RunNo: 73309								
Prep Date: 11/11/2020	Analysis Date: 11/12/2020	SeqNo: 2579961	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.6	80	120			
Toluene	0.97	0.050	1.000	0	96.9	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.5	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.1	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: 2011571-002ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: N. Wall W 1/2	Batch ID: 56363	RunNo: 73309								
Prep Date: 11/11/2020	Analysis Date: 11/13/2020	SeqNo: 2579964	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.023	0.9363	0	95.2	76.3	120			
Toluene	0.95	0.047	0.9363	0.009704	101	78.5	120			
Ethylbenzene	0.97	0.047	0.9363	0.01017	102	78.1	124			
Xylenes, Total	2.9	0.094	2.809	0.02597	103	79.3	125			
Surr: 4-Bromofluorobenzene	0.94		0.9363		99.9	80	120			

Sample ID: 2011571-002amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: N. Wall W 1/2	Batch ID: 56363	RunNo: 73309								
Prep Date: 11/11/2020	Analysis Date: 11/13/2020	SeqNo: 2579965	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.024	0.9671	0	95.0	76.3	120	3.12	20	
Toluene	0.97	0.048	0.9671	0.009704	99.7	78.5	120	1.94	20	
Ethylbenzene	0.99	0.048	0.9671	0.01017	101	78.1	124	2.42	20	
Xylenes, Total	3.0	0.097	2.901	0.02597	101	79.3	125	1.09	20	
Surr: 4-Bromofluorobenzene	0.95		0.9671		98.6	80	120	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



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: **2011571** RcptNo: **1**

Received By: **Desiree Dominguez** 11/11/2020 8:00:00 AM *DD*
 Completed By: **Desiree Dominguez** 11/11/2020 8:14:58 AM *DD*
 Reviewed By: *SR uluko*

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? Yes No
 (Note discrepancies on chain of custody)
 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? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: *CNE W/uk*

Special Handling (if applicable)

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

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	4.0	Good	Yes			

Chain-of-Custody Record

Client: Hilcorp
 Mailing Address:
 Phone #: 505-793-2784
 email or Fax#: C. Cardoza
 QA/QC Package:
 Standard Level 4 (Full Validation)
 Standard Az Compliance
 NELAC Other
 EDD (Type)

Turn-Around Time: 11/13
 Standard Rush 3 Day
 Project Name:
S.J. 28-7 # 261 F
 Project #:

Project Manager:
CLARA CARDOZA
 Sampler:
KURT
 On Ice: Yes No
 # of Coolers: 1
 Cooler Temp (including CF): 4.0-0.0-4.0 (°C)

Project Manager:
CLARA CARDOZA
 Sampler:
KURT
 On Ice: Yes No
 # of Coolers: 1
 Cooler Temp (including CF): 4.0-0.0-4.0 (°C)

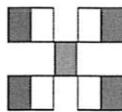
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
11-10	11:43	SS	MID WEST BASE	(1) POLY JAR	ON ICE	2011571
11-10	11:47		MID EAST BASE			-014
11-10	11:52		SW BASE			-015
11-10	11:57		SE BASE			-016

BTEX / MTBE / TMS (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)
X	X								X
X	X								X
X	X								X
X	X								X

Analysis Request

Received by: Kurt Cardoza Date: 11/10/2020 16:57
 Relinquished by: Kurt Cardoza
 Received by: [Signature] Date: 11/10/2020 8:00
 Relinquished by: [Signature]

Remarks:



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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



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

November 20, 2020

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

RE: SJ28 7 Unit 261F

OrderNo.: 2011878

Dear Clara Cardoza:

Hall Environmental Analysis Laboratory received 2 sample(s) on 11/18/2020 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2011878**

Date Reported: **11/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: NW Base

Project: SJ28 7 Unit 261F

Collection Date: 11/17/2020 1:00:00 PM

Lab ID: 2011878-001

Matrix: MEOH (SOIL)

Received Date: 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: mb
Diesel Range Organics (DRO)	360	9.2		mg/Kg	1	11/18/2020 10:19:47 AM
Motor Oil Range Organics (MRO)	150	46		mg/Kg	1	11/18/2020 10:19:47 AM
Surr: DNOP	132	30.4-154		%Rec	1	11/18/2020 10:19:47 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	23	3.4		mg/Kg	1	11/18/2020 9:37:47 AM
Surr: BFB	235	75.3-105	S	%Rec	1	11/18/2020 9:37:47 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	11/18/2020 9:37:47 AM
Toluene	0.11	0.034		mg/Kg	1	11/18/2020 9:37:47 AM
Ethylbenzene	0.068	0.034		mg/Kg	1	11/18/2020 9:37:47 AM
Xylenes, Total	0.82	0.069		mg/Kg	1	11/18/2020 9:37:47 AM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	11/18/2020 9:37:47 AM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	ND	60		mg/Kg	20	11/18/2020 11:50:27 AM

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		

Analytical Report

Lab Order 2011878

Date Reported: 11/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: W Wall NW/3

Project: SJ28 7 Unit 261F

Collection Date: 11/17/2020 1:11:00 PM

Lab ID: 2011878-002

Matrix: MEOH (SOIL)

Received Date: 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: mb
Diesel Range Organics (DRO)	110	9.7		mg/Kg	1	11/18/2020 10:48:18 AM
Motor Oil Range Organics (MRO)	51	49		mg/Kg	1	11/18/2020 10:48:18 AM
Surr: DNOP	106	30.4-154		%Rec	1	11/18/2020 10:48:18 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/18/2020 10:01:06 AM
Surr: BFB	94.2	75.3-105		%Rec	1	11/18/2020 10:01:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	11/18/2020 10:01:06 AM
Toluene	ND	0.047		mg/Kg	1	11/18/2020 10:01:06 AM
Ethylbenzene	ND	0.047		mg/Kg	1	11/18/2020 10:01:06 AM
Xylenes, Total	ND	0.094		mg/Kg	1	11/18/2020 10:01:06 AM
Surr: 4-Bromofluorobenzene	99.6	80-120		%Rec	1	11/18/2020 10:01:06 AM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	ND	60		mg/Kg	20	11/18/2020 12:27:41 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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2011878

20-Nov-20

Client: HILCORP ENERGY

Project: SJ28 7 Unit 261F

Sample ID: MB-56558	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 56558	RunNo: 73446								
Prep Date: 11/18/2020	Analysis Date: 11/18/2020	SeqNo: 2587359	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-56558	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 56558	RunNo: 73446								
Prep Date: 11/18/2020	Analysis Date: 11/18/2020	SeqNo: 2587360	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2011878

20-Nov-20

Client: HILCORP ENERGY

Project: SJ28 7 Unit 261F

Sample ID: 2011878-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: NW Base	Batch ID: 56518	RunNo: 73443								
Prep Date: 11/18/2020	Analysis Date: 11/18/2020	SeqNo: 2586504	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	450	10	49.95	359.5	181	15	184			
Surr: DNOP	8.1		4.995		162	30.4	154			S

Sample ID: 2011878-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: NW Base	Batch ID: 56518	RunNo: 73443								
Prep Date: 11/18/2020	Analysis Date: 11/18/2020	SeqNo: 2586505	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	400	9.5	47.48	359.5	86.3	15	184	11.6	23.9	
Surr: DNOP	7.4		4.748		155	30.4	154	0	0	S

Sample ID: MB-56518	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 56518	RunNo: 73443								
Prep Date: 11/18/2020	Analysis Date: 11/18/2020	SeqNo: 2586506	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	30.4	154			

Sample ID: LCS-56518	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 56518	RunNo: 73443								
Prep Date: 11/18/2020	Analysis Date: 11/18/2020	SeqNo: 2586507	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.3	70	130			
Surr: DNOP	4.9		5.000		97.0	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2011878

20-Nov-20

Client: HILCORP ENERGY

Project: SJ28 7 Unit 261F

Sample ID: mb1	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: G73447		RunNo: 73447							
Prep Date:	Analysis Date: 11/18/2020		SeqNo: 2586922		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	900		1000		90.1	75.3	105			

Sample ID: 2.5ug gro lcsb	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: G73447		RunNo: 73447							
Prep Date:	Analysis Date: 11/18/2020		SeqNo: 2586923		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	103	72.5	106			
Surr: BFB	1000		1000		102	75.3	105			

Sample ID: 2011878-001ams	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: NW Base	Batch ID: G73447		RunNo: 73447							
Prep Date:	Analysis Date: 11/18/2020		SeqNo: 2586927		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	38	3.4	17.17	23.21	85.6	61.3	114			
Surr: BFB	1600		686.8		230	75.3	105			S

Sample ID: 2011878-001amsd	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: NW Base	Batch ID: G73447		RunNo: 73447							
Prep Date:	Analysis Date: 11/18/2020		SeqNo: 2586928		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	41	3.4	17.17	23.21	101	61.3	114	6.65	20	
Surr: BFB	1600		686.8		232	75.3	105	0	0	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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#: 2011878

20-Nov-20

Client: HILCORP ENERGY

Project: SJ28 7 Unit 261F

Sample ID: mb1	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: B73447		RunNo: 73447							
Prep Date:	Analysis Date: 11/18/2020		SeqNo: 2586967		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	0.97		1.000		96.9	80	120			

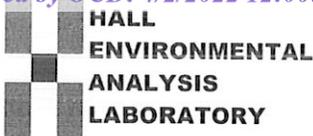
Sample ID: 100ng btex lcs	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: B73447		RunNo: 73447							
Prep Date:	Analysis Date: 11/18/2020		SeqNo: 2586968		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.9	80	120			
Toluene	0.98	0.050	1.000	0	97.8	80	120			
Ethylbenzene	0.98	0.050	1.000	0	97.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.2	80	120			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.4	80	120			

Sample ID: 2011878-002ams	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: W Wall NW/3	Batch ID: B73447		RunNo: 73447							
Prep Date:	Analysis Date: 11/18/2020		SeqNo: 2586974		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.023	0.9381	0	96.1	76.3	120			
Toluene	0.93	0.047	0.9381	0.009944	98.6	78.5	120			
Ethylbenzene	0.93	0.047	0.9381	0	98.9	78.1	124			
Xylenes, Total	2.8	0.094	2.814	0.02505	98.8	79.3	125			
Surr: 4-Bromofluorobenzene	0.97		0.9381		103	80	120			

Sample ID: 2011878-002amsd	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: W Wall NW/3	Batch ID: B73447		RunNo: 73447							
Prep Date:	Analysis Date: 11/18/2020		SeqNo: 2586975		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.023	0.9381	0	102	76.3	120	5.87	20	
Toluene	1.0	0.047	0.9381	0.009944	106	78.5	120	7.39	20	
Ethylbenzene	1.0	0.047	0.9381	0	107	78.1	124	7.97	20	
Xylenes, Total	3.0	0.094	2.814	0.02505	106	79.3	125	7.21	20	
Surr: 4-Bromofluorobenzene	0.97		0.9381		103	80	120	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



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: 2011878 RcptNo: 1

Received By: Juan Rojas 11/18/2020 8:00:00 AM
Completed By: Desiree Dominguez 11/18/2020 8:13:21 AM
Reviewed By: SGL 11/18/20

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

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

of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted? Checked by: JR 11/18/20

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

Person Notified: Date: By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions:

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 0.2, Good, Yes, , ,

Chain-of-Custody Record

Client: Hilcorp Energy

Mailing Address: 3822 R 3100

Phone #: 505.564.0733

email or Fax#: Cardoza@hilcorp.com

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

Accreditation: Az Compliance NELAC Other

EDD (Type)

Turn-Around Time:

Standard Rush Same Day

Project Name: SJ 28-7 Unit 261F

Project #:

Project Manager: Cardoza

Sampler: Cardoza

On Ice: Yes No

of Coolers: 1

Cooler Temp (including CF): 6.3-0.1-0.2

Container Type and #

Preservative Type

HEAL No

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No	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
11/17/20	1:11	Soi 1	NW Base	Glass/1	-	-001	X	X								X	
11/17/20	1:00	Soi 1	NW Base	Glass/1	-	-002	X	X								X	
11/17/20	1:11	Soi 1	NW Wall NW/3	Glass/1	-	-002	X	X								X	

Received by: Shantelle Date: 11/17/20 1525

Relinquished by: Blair Cag Date: 11/17/20 1525

Received by: Shantelle Date: 11/17/20 1525

Relinquished by: Blair Cag Date: 11/17/20 1525

Remarks:

4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107



www.hallenvironmental.com

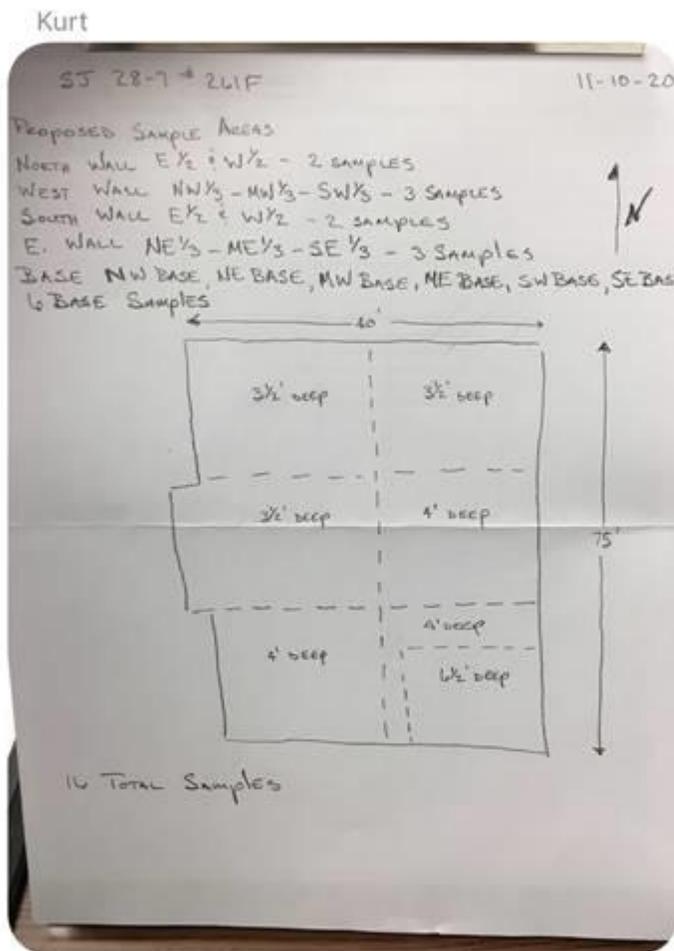
Analysis Request

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.

Agency Correspondence

Clara Cardoza

From: Clara Cardoza
Sent: Wednesday, November 11, 2020 9:41 AM
To: Clara Cardoza
Subject: [EXTERNAL] Screenshot 2020-11-11 at 9.29.40 AM



K Proposal for confirmation sampling @ SJ 28-7 # 261F

Cory Smith

CS Looks good to me

Clara Cardoza

Subject: FW: [EXTERNAL] RE: CONFIRMATION SAMPLES: SJ 28-7 261F

From: Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us]
Sent: Tuesday, November 17, 2020 3:09 PM
To: Clara Cardoza <ccardoza@hilcorp.com>; Adeloye, Abiodun A <aadeloye@blm.gov>
Subject: RE: [EXTERNAL] RE: CONFIRMATION SAMPLES: SJ 28-7 261F

Clara,

Looks good from the pictures thanks for the follow up.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Clara Cardoza <ccardoza@hilcorp.com>
Sent: Tuesday, November 17, 2020 3:02 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Adeloye, Abiodun A <aadeloye@blm.gov>
Subject: [EXT] Re: [EXTERNAL] RE: CONFIRMATION SAMPLES: SJ 28-7 261F

Cory notch was between 6-12". I've attached pictures is my sample spots with white flags. There were no stained areas that would require grab samples. Let me know if these are okay. Thank you.





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From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Tuesday, November 17, 2020 2:39:03 PM
To: Clara Cardoza <ccardoza@hilcorp.com>; Adeloje, Abiodun A <aadeloye@blm.gov>
Subject: RE: [EXTERNAL] RE: CONFIRMATION SAMPLES: SJ 28-7 261F

Clara,

Size and areas looks fine is the small nook area small? I cant tell how big it is from the map? Also if there are areas that are showing signs of stains that are not representative of the entire sampling area please collect a grab sample from those areas in addition to the large area sampling.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Clara Cardoza <ccardoza@hilcorp.com>
Sent: Tuesday, November 17, 2020 12:14 PM
To: Adeloje, Abiodun A <aadeloye@blm.gov>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Subject: [EXT] Re: [EXTERNAL] RE: CONFIRMATION SAMPLES: SJ 28-7 261F

Thank you both. Attached is the updated figure. If you approve I will grab the NW base and the West Wall NW/3.

SJ 28-7 # 261F

PROPOSED SAMPLE AREAS

NORTH WALL E 1/2 & W 1/2 - 2 SAMPL

WEST WALL NW 1/3 - MW 1/3 - SW 1/3

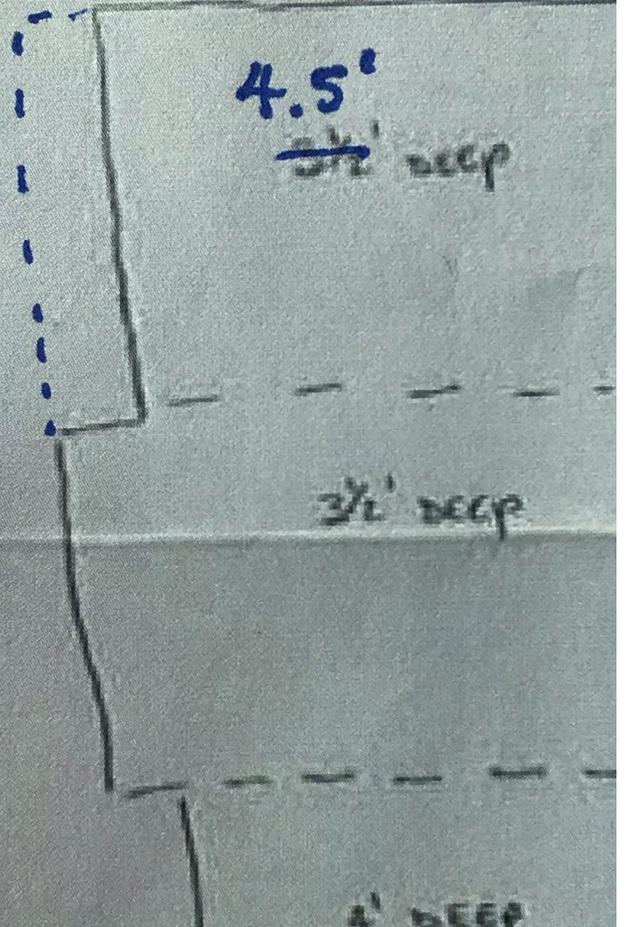
SOUTH WALL E 1/2 & W 1/2 - 2 SA

E. WALL NE 1/3 - ME 1/3 - SE 1/3

BASE NW BASE, NE BASE, MW E
6 BASE SAMPLES

11/17
Update

NW Base
W Wall - NW
3



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From: Adeloje, Abiodun A <adeloje@blm.gov>
Sent: Tuesday, November 17, 2020 12:07:02 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Clara Cardoza <ccardoza@hilcorp.com>
Subject: Re: [EXTERNAL] RE: CONFIRMATION SAMPLES: SJ 28-7 261F

They can go ahead with the sampling. No objection to Cory's request.

Thank you

Abiodun Adeloje (Emmanuel), NRS
Bureau of Land Management
Farmington Field Office
6251 College Blvd., Suite A
Farmington, NM 87402
Office Phone: 505-564-7665
Cell Phone: 505-635-0984

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Tuesday, November 17, 2020 12:01 PM
To: Clara Cardoza <ccardoza@hilcorp.com>
Cc: Adeloje, Abiodun A <adeloje@blm.gov>
Subject: RE: [EXTERNAL] RE: CONFIRMATION SAMPLES: SJ 28-7 261F

Clara,

I am ok with HEC collecting samples today if the BLM approves the sampling time/date. Regarding sampling size etc. please follow the previous approved sampling size if additional consideration is required Kurt can send pictures/Face time and we can discuss sampling etc.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Clara Cardoza <ccardoza@hilcorp.com>
Sent: Tuesday, November 17, 2020 11:10 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Subject: [EXT] Fwd: [EXTERNAL] RE: CONFIRMATION SAMPLES: SJ 28-7 261F

Hi Cory. Do you have a sense of your schedule tomorrow? Since BLM will not be attending and if you do not believe you will be present I would like to ask your permission to grab the samples today. I will grab the base in the NW corner and resample the wall as the excavation pushed out the wall. It now lines up with the notch that was on the west wall Kurt sent in the figure before. I understand if we need to wait until tomorrow to allow the 24 hr notice I just thought I would ask.

Have a great day,
Clara

Get [Outlook for iOS](#)

From: Adeloje, Abiodun A <aadeloye@blm.gov>
Sent: Tuesday, November 17, 2020 10:10 AM
To: Clara Cardoza; cory.smith@state.nm.us
Cc: Kurt Hoekstra; Curtis House; Cary Green
Subject: Re: [EXTERNAL] RE: CONFIRMATION SAMPLES: SJ 28-7 261F

Hi Clara, thanks for the notification. I will not be able to make it to the sampling. Please go ahead with the sampling according to the guidelines.
Thank you

Abiodun Adeloje (Emmanuel), NRS
Bureau of Land Management
Farmington Field Office
6251 College Blvd., Suite A
Farmington, NM 87402
Office Phone: 505-564-7665
Cell Phone: 505-635-0984

From: Clara Cardoza <ccardoza@hilcorp.com>
Sent: Tuesday, November 17, 2020 7:01 AM
To: cory.smith@state.nm.us <cory.smith@state.nm.us>; Adeloje, Abiodun A <aadeloye@blm.gov>
Cc: Kurt Hoekstra <khoekstra@hilcorp.com>; Curtis House <chouse@hilcorp.com>; Cary Green <cgreen@hilcorp.com>
Subject: [EXTERNAL] RE: CONFIRMATION SAMPLES: SJ 28-7 261F

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Cory/Emmanuel, please let this serve as confirmation sampling at the San Juan 28-7 261F for Wednesday November 18th at 10:30 a.m. We had one base come back above cleanup standards that we will be digging on today.

Thank you,
Clara

From: Clara Cardoza
Sent: Friday, November 6, 2020 8:28 PM
To: cory.smith@state.nm.us; Abiodun Adeloje <aadeloye@blm.gov>
Cc: Kurt Hoekstra <khoekstra@hilcorp.com>; Curtis House <chouse@hilcorp.com>; Cary Green <cgreen@hilcorp.com>
Subject: CONFIRMATION SAMPLES: SJ 28-7 261F

Please let this serve as notice for confirmation sampling at the San Juan 28-7 Unit 261F API 30-039-26987 for Tuesday November 10th at 10:30 a.m.

Thank you,
Clara

From: Clara Cardoza
Sent: Thursday, October 22, 2020 5:43 PM
To: cory.smith@state.nm.us; Abiodun Adeloje <aadeloje@blm.gov>
Cc: Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>
Subject: Immediate Notice: SJ 28-7 61F

Please let this serve as an immediate notice for a release found at the San Juan 28-7 Unit 261F API 30-039-26987. The volume is unknown at this time but it is greater than 25 bbls based on the soil that has been removed due to visible impacts. The cause of the release was due to a hole in an underground oil dump line. The release was identified by the operator who went to the location and saw staining which had made its way to the surface. The contents of the tank has been pulled to prevent further release. Hilcorp will continue to excavate at the site.

Let me know if you have any questions.

Thank you,

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



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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 95281

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 95281
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved. Going forward, submitted reports should include complete site maps with scale, a legend, and sample locations with names of sample locations on map. Tables should show sample depths.	4/6/2022