



Empire ABO Unit #47

Remediation Plan

November 8, 2019

API # 30-015-03193

U/L P, Section 26, Township 17S, Range 28E

Eddy County, NM

Date of Release: August 10th, 2019



Hungry Horse, LLC

4024 Plains Highway
Lovington, NM 88260

November 8, 2019

State of New Mexico Energy Minerals and Natural Resources Department
Oil Conservation Division
C/O Mike Bratcher
811 S. First Street
Artesia, NM 88210

RE: Remediation Work Plan
Apache Corporation – Empire Abo Unit #47 (EAU #47)
U/L P, Section 26, Township 17S, Range 28E
API: 30-015-03193

Dear Mr. Bratcher,

Apache Corporation has retained Hungry Horse, LLC., to address the potential environmental impact for the site detailed herein.

Background

The site is located in Eddy County, New Mexico, approximately 9.5 miles west of Loco Hills.

On August 10th, 2019 Apache Corporation located a release at the above reference site. Approximately 5bbls of crude oil and 17bbls of produced water was released just off the pad near the Apache D State #59. The buried steel flowline corroded resulting in the release of the fluid. A vacuum truck was dispatched out to the site, recovering approximately 3bbls of crude oil and 11bbls of produced water. The source of the release was stopped and the impacted area was secured.

Site Assessment

Hungry-Horse, LLC conducted an extended groundwater study of the area and it has been determined that according to the New Mexico Office of the State Engineer, that only two wells were found with-in 5000' from the release area. Between 2012 and 2015 only two groundwater measurements have been recorded. The New Mexico Office of the State Engineer lists the nearest well to be 4468' southwest which signifies depth to water at 95'bgs. The second well is located 4571' due north of the above-mentioned site at 58'bgs. These two ground water sources provide strong evidence that ground water is greater than 50' below the bottom of the contamination found at this site.

Using Table I, Closure Criteria for Soils Impacted by a Release Dated after August 14th, 2018, this site falls under the ranking of 51' to 100'bgs. The site rankings area as follows:

Closure for Soils Impacted by a Release			
Depth	Constituent	Method	Limit
51' to 100'	Chloride	EPA 300.00 or SM4500 CL B	10,000 mg/kg
	TPH (GRO, DRO, MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Delineation

On October 23rd, 2019 Hungry-Horse, LLC personnel began the delineation of the site. The area of the release which was primarily in the pasture just southeast of the D State #49 well pad. The flowline that was corroded belonged to the East Abo Unit #47. Due to powerlines in the area, the release area was sampled by use of hand auger using 1' intervals. The samples were field tested using the titration method. The samples were then jarred and taken to Enviro-Tech Analytical Laboratory for analysis for Chlorides, BTEX and TPH.

Below you will find the field sample results along with the lab analysis for the EAU #47:

Sample ID	Depth Feet	Field Chloride	Lab CHL Meth 4500	L- BTEX 8021B	L- GRO 8015M	L- DRO 8015M	L-EXT 8015M	L-TPH 8015M
SP1	SUR	4320	4800	ND	ND	42000	22400	64400
SP1	1'	1600	2070	ND	ND	2510	1230	3740
SP1	2'	240	320	ND	ND	198	259	457
SP2	SUR	1200	1610	ND	ND	63.9	ND	63.9
SP2	1'	640	312	ND	ND	215	319	534
SP3	SUR	1600	1520	ND	ND	3660	2990	6650

Attached to the back of this report you will find the Analytical Results along with the sample map of the impacted area.

Vertical sampling was not done at this time but will be finalized during the remediation process that will follow approval of the Remediation Plan.

Remediation and Sampling Plan

Hungry-Horse, LLC on behalf of Apache Corporation would like to propose the following scope of work to bring this site into environmental compliance by doing the following:

The sample plan for this area after excavating out any contaminated soil found no deeper than 4' or below 600 mg/kg chlorides to meet the standards for this site. Further delineation will take place in the impacted area of SP3 which is found at the entrance edge of the location. Samples will be taken in 500 sq. ft. intervals until the threshold is met.

All contaminated soil will be hauled to an approved disposal and the excavation will be backfilled with clean backfill. The NMOCD will be notified 48 hours in advance of the final sampling procedure. Once sidewall and bottom composite samples have been taken, they will be delivered to an approved laboratory for confirmation, the site will be backfilled and contoured back to its original state.

Estimated volume to be remediated is 4,571 square feet of impacted area. Once the remediation is approved, Hungry Horse will begin the remediation project for the Empire Abo Unit #47. The work will be completed within 90 days of the NMOCD's said approval.

Thank you in advance for allowing Hungry-Horse LLC to assist in this matter. Please contact Bruce Baker (Apache Corporation) with any questions and or concerns.

Sincerely,

A handwritten signature in blue ink that reads "Kathy Rivera". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Kathy Rivera
Environmental Project Manager
Hungry-Horse, LLC
4024 Plains Highway
Lovington, NM 88260
Email: krivera@hungry-horse.com

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	Apache Corporation	OGRID	873
Contact Name	Bruce Baker	Contact Telephone	432-631-6982
Contact email	larry.baker@apachecorp.com	Incident #	(assigned by OCD)
Contact mailing address	2350 W. Marland BLVD Hobbs, NM 88240		

Location of Release Source

Latitude 32.79977 Longitude -104.13909
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	EAU 47	Site Type	Oil Well
Date Release Discovered	8/10/19	API#	(if applicable)

Unit Letter	Section	Township	Range	County
P	26	17S	28E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name COG Operating LLC + Concho Oil & Gas LLC)

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls)	5 barrels	Volume Recovered (bbls)	3 barrels
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)	17 barrels	Volume Recovered (bbls)	11 barrels
	Is the concentration of dissolved chloride in the produced water > 10,000 mg/l?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
<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 <u>Buried steel flowline corroded resulting in the loss of fluid.</u>				

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State of New Mexico
Oil Conservation Division

Incident ID	
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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: Bruce Baker

Title: Environmental Tech. SR.

Signature: Bruce Baker

Date: 8/19/19

email: larry.baker@apachecorp.com

Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

Volumetric Calculation Tool

Length	250.00	All units in feet
Width	5.00	
Depth	0.10	

Cubic Feet Impacted	125.00
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Amount of Liquids (gallons) contained in a cubic ft of soil	7.48
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Calculated Gallons based on volume of area	935.00	
Barrels/Gallon	42	
Calculated Barrels based on volume of area	22.26	
Conservative Soil Porosity	0.33	
Recovered Fluids	14	bbls
Calculated total fluids released	21	bbls

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State of New Mexico
Oil Conservation Division

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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?	51 - 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within 1/2-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

State of New Mexico
Oil Conservation Division

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Incident ID	
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: Bruce BAKER Title: Environmental Tech SR.Signature: Bruce Baker Date: 11-12-19email: larry.baker@apachecorp.com Telephone: 432-631-6982**OCD Only**

Received by: _____ Date: _____

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State of New Mexico
Oil Conservation Division

Incident ID	NRM1931831123
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Bruce BAKER Title: Environmental Tech SR.
Signature: Bruce Baker Date: 11-12-19
email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____



New Mexico Office of the State Engineer
Wells with Well Log Information

No wells found

UTMAD83 Radius Search (in meters):

Easting (X): 580655.66

Northing (Y): 3629412.6

Radius: 1000

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.

11/8/19 2:22 PM

WELLS WITH WELL LOG INFORMATION



New Mexico Office of the State Engineer

Wells with Well Log Information

(A CLW#### in the POD suffix indicates the POD has been replaced & no longer serves a water right)

(R=POD has been replaced
O=orphaned
C=the file is closed)

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

(NAD83 UTM in meters)

(in feet)

POD Number	Code	Subbasin	County	Source	6416 4	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number	
8311827.POD1	RA	ED	Shallow	1	1	2	05	18S	26E	577784	3635988	4468	09/25/2012	10/01/2012	10/15/2012	235	95	MARTIN DELFORD	1064
8312307.POD1	RA	ED	Shallow	4	2	2	14	17S	28E	580495	3632981	4571	09/28/2015	09/30/2015	10/07/2015	140	58	CLINTON KEY	1058

Record Count: 2

UTM/NAD83 Radius Search (in meters):

Easting (X): 580655.66

Northing (Y): 3629412.6

Radius: 5000

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.

11/8/19 2:22 PM

WELLS WITH WELL LOG INFORMATION



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
	RA 11857 POD1	1 1 2 05 18S 26E	577784	3625988

Driller License: 1064	Driller Company: DELFORD W. MARTIN	
Driller Name: MARTIN, DELFORD		
Drill Start Date: 09/25/2012	Drill Finish Date: 10/01/2012	Plug Date:
Log File Date: 10/15/2012	PCW Rcv Date:	Source: Shallow
Pump Type:	Pipe Discharge Size:	Estimated Yield: 95 GPM
Casing Size: 5.00	Depth Well: 235 feet	Depth Water: 95 feet

Water Bearing Stratifications:	Top	Bottom	Description
	95	130	Sandstone/Gravel/Conglomerate
	160	235	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	140	235

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


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POD SUMMARY - RA 11857 POD1



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
	RA 12307 POD1	4	2	2	14	17S	28E	580495	3633981 
Driller License: 1058		Driller Company: KEY'S DRILLING & PUMP SERVICE							
Driller Name: CLINTON KEY									
Drill Start Date: 09/28/2015	Drill Finish Date:		09/30/2015			Plug Date:			
Log File Date: 10/07/2015	PCW Rcv Date:					Source:		Shallow	
Pump Type:	Pipe Discharge Size:					Estimated Yield: 30 GPM			
Casing Size: 4.50	Depth Well:		140 feet			Depth Water:		58 feet	
Water Bearing Stratifications:		Top	Bottom	Description					
		80	100	Shale/Mudstone/Siltstone					
		110	120	Sandstone/Gravel/Conglomerate					
		120	140	Other/Unknown					
Casing Perforations:		Top	Bottom						
		120	140						

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.

11/8/19 2:26 PM

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POD SUMMARY - RA 12307 POD1

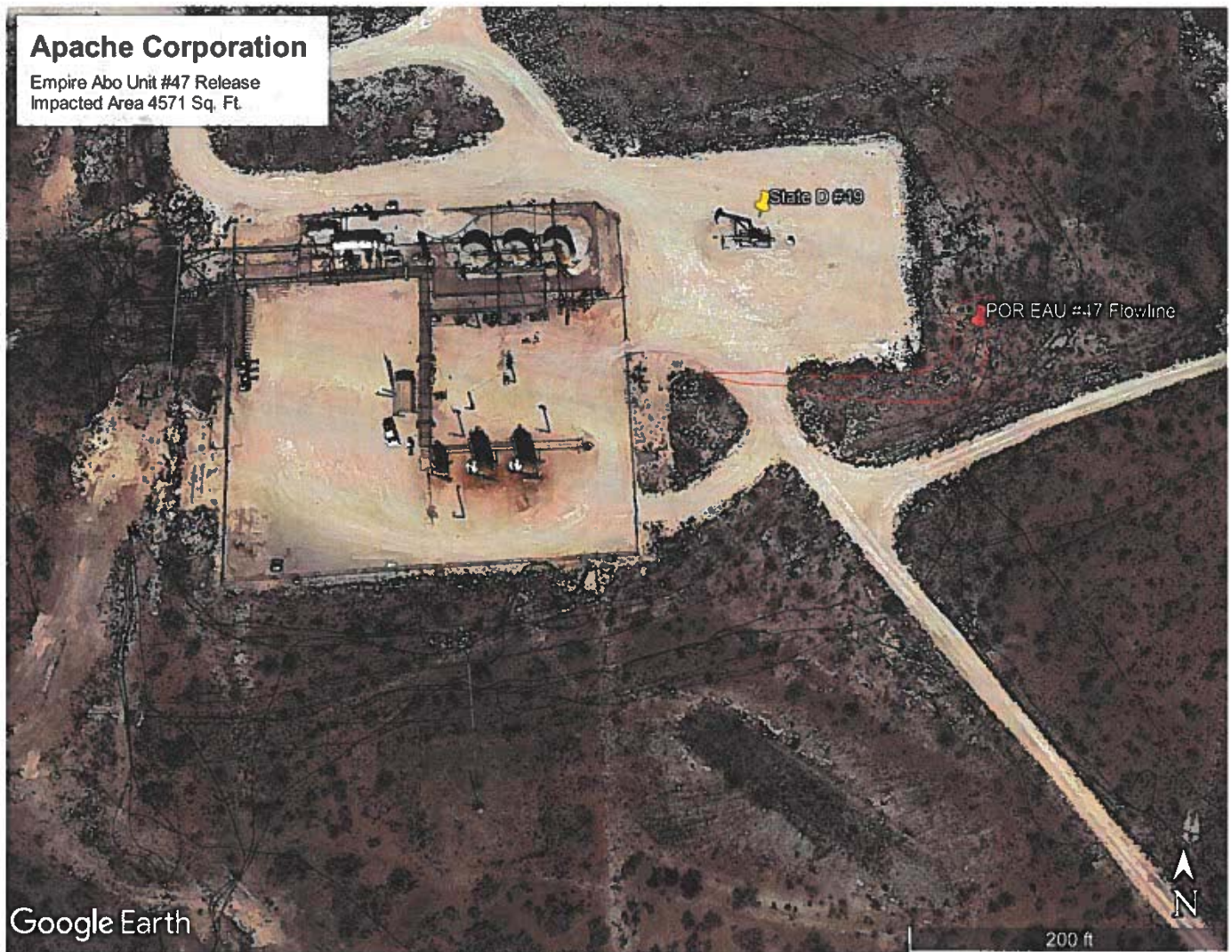
Client:	APACHE CORPORATION
Location:	EMPIRE ABO UNIT C47

API No.	
DOR:	8/10/2019

Bold values represent a result above the thresholds per NMAC 19.15.29.13/All Samples listed in (mg/kg)

Testing Thresholds for Site:

Sample Date	Sample ID	Depth Feet	Field Chloride	Lab CHL Meth 4500	L-BTEX 8021B	L-GRO 8015M	L-DRO 8015M	L-EXT 8015M	L-TPH 8015M	Soil	Notes
10/23/2019	SP1	SUR	4320	4800	ND	ND	42000	22400	64400	CALICHE	
10/23/2019	SP1	1'	1600	2070	ND	ND	2510	1230	3740	CALICHE	
10/23/2019	SP1	2'	240	320	ND	ND	198	259	457	CALICHE	
10/23/2019	SP2	SUR	1200	1610	ND	ND	63.9	ND	63.9	CALICHE	
10/23/2019	SP2	1'	640	312	ND	ND	215	319	534	CALICHE	IMPERVIOUS
10/23/2019	SP3	SUR	1600	1520	ND	ND	3660	2990	6650	CALICHE	IMPERVIOUS



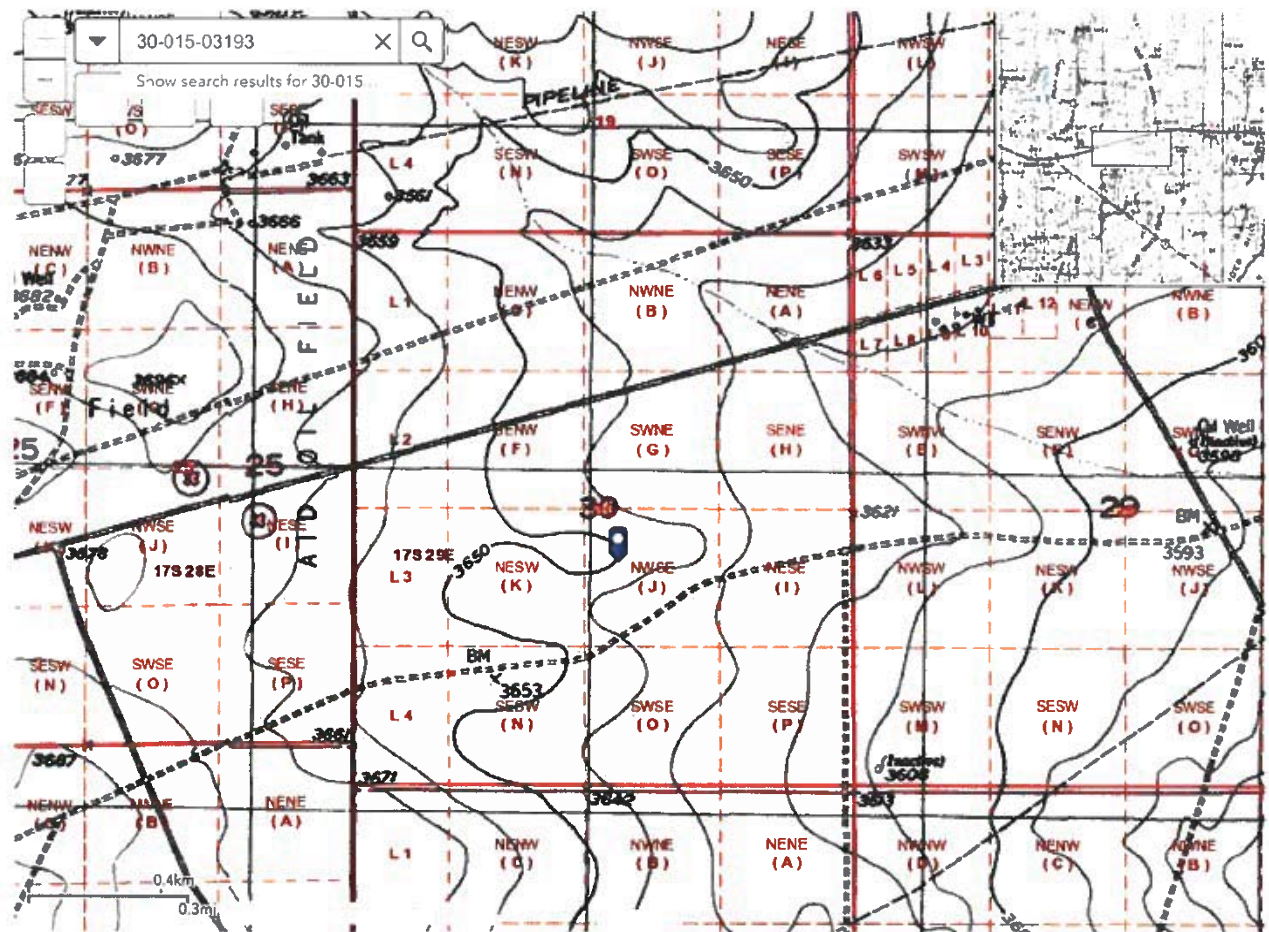
11/11/2019

NM OCD OIL AND GAS MAP



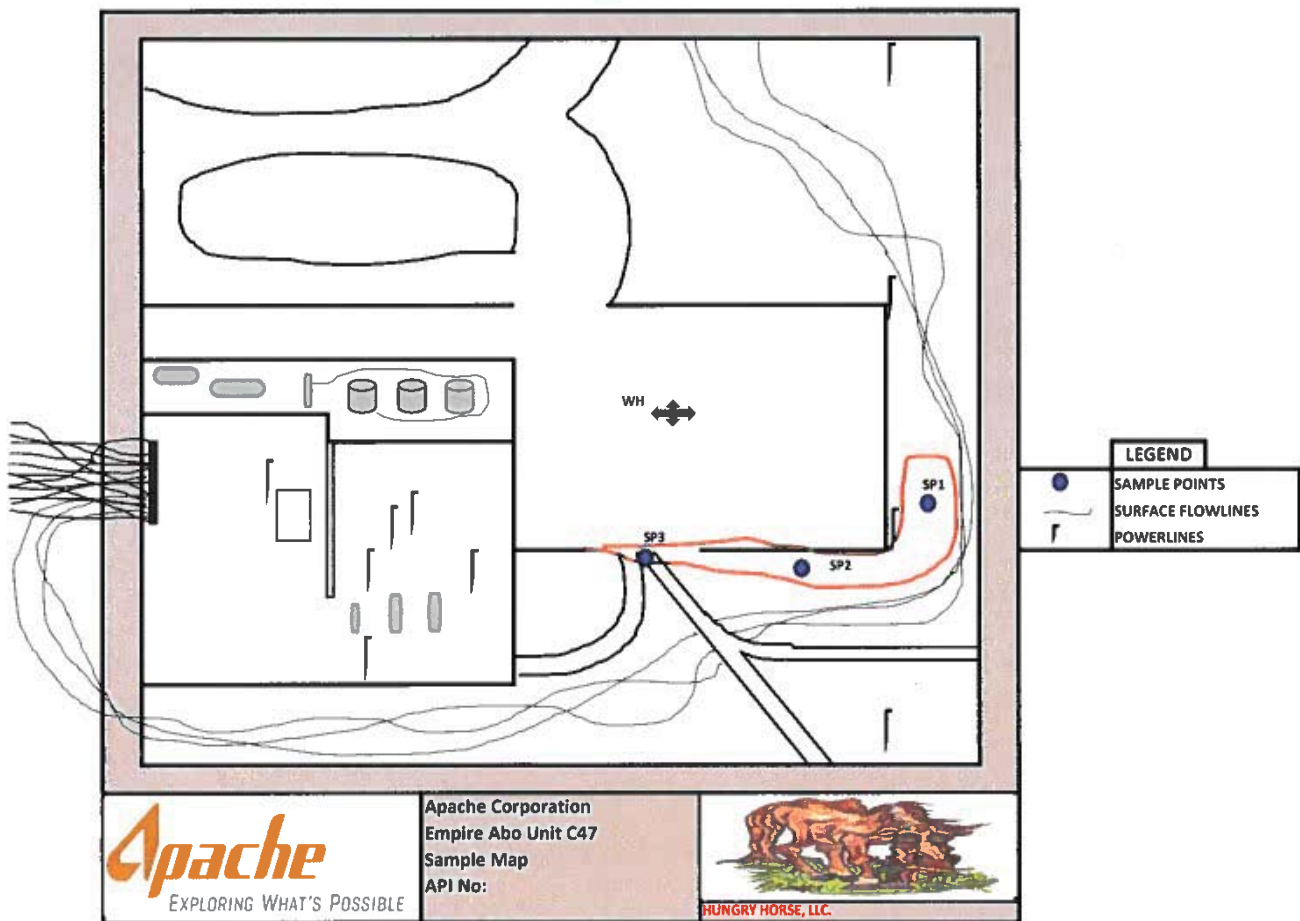
NM OCD OIL AND GAS MAP

New Mexico Oil Conservation Division



<https://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75>

1/1





Analytical Report

Report Summary

Client: Hungry Horse

Samples Received: 10/29/2019

Job Number: 19054-0003

Work Order: P910184

Project Name/Location: Apache Corp- Empire Abo
Unit C47

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', is written over a horizontal line.

Date: 10/30/19

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.
Envirotech, Inc. holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc. holds the Texas TNI certification T104704557-19-2 for the data reported.



Hungry Horse
PO box 1058
Hobbs NM, 88240

Project Name: Apache Corp- Empire Abo Unit C47
Project Number: 19054-0003
Project Manager: Lindsey Salgado

Reported:
10/30/19 17:22

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP1-Surf	P910184-01A	Soil	10/23/19	10/29/19	Glass Jar, 4 oz.
SP2-Surf	P910184-02A	Soil	10/23/19	10/29/19	Glass Jar, 4 oz.
SP3-Surf	P910184-03A	Soil	10/23/19	10/29/19	Glass Jar, 4 oz.
SP1-1'	P910184-04A	Soil	10/23/19	10/29/19	Glass Jar, 4 oz.
SP2-1'	P910184-05A	Soil	10/23/19	10/29/19	Glass Jar, 4 oz.
SP1-2'	P910184-06A	Soil	10/23/19	10/29/19	Glass Jar, 4 oz.

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5796 Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

24 Hour Emergency Response Phone (800) 362-1879

envirotech-inc.com

Labadmin@envirotech-inc.com



Hungry Horse
PO box 1058
Hobbs NM, 88240

Project Name: Apache Corp- Empire Abo Unit C47
Project Number: 19054-0003
Project Manager: Lindsey Salgado

Reported:
10/30/19 17:22

SPI-Surf
P910184-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0500	mg/kg	2	1944006	10/29/19	10/29/19	EPA 8021B	
Toluene	ND	0.0500	mg/kg	2	1944006	10/29/19	10/29/19	EPA 8021B	
Ethylbenzene	ND	0.0500	mg/kg	2	1944006	10/29/19	10/29/19	EPA 8021B	
p,m-Xylene	ND	0.100	mg/kg	2	1944006	10/29/19	10/29/19	EPA 8021B	
o-Xylene	ND	0.0500	mg/kg	2	1944006	10/29/19	10/29/19	EPA 8021B	
Total Xylenes	ND	0.0500	mg/kg	2	1944006	10/29/19	10/29/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PHD		103 %		50-150	1944006	10/29/19	10/29/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	42000	1250	mg/kg	50	1944008	10/29/19	10/29/19	EPA 8015D	
Oil Range Organics (C28-C40)	22400	2500	mg/kg	50	1944008	10/29/19	10/29/19	EPA 8015D	
Surrogate: n-Nonane		156 %		50-200	1944008	10/29/19	10/29/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	40.0	mg/kg	2	1944006	10/29/19	10/29/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		84.6 %		50-150	1944006	10/29/19	10/29/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	4800	40.0	mg/kg	2	1944005	10/29/19	10/29/19	EPA 300.0/9056A	

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.



Hungry Horse PO box 1058 Hobbs NM, 88240	Project Name: Apache Corp- Empire Abo Unit C47 Project Number: 19054-0003 Project Manager: Lindsey Salgado	Reported: 10/30/19 17:22
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**SP2-Surf
P910184-02 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PHD		105 %		50-150	1944006	10/29/19	10/29/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	63.9	25.0	mg/kg	1	1944008	10/29/19	10/29/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1944008	10/29/19	10/29/19	EPA 8015D	
Surrogate: n-Nonane		105 %		50-200	1944008	10/29/19	10/29/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8015D	
Surrogate: 1-Chloro-4-Fluorobenzene-FHD		86.5 %		50-150	1944006	10/29/19	10/29/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	1610	40.0	mg/kg	2	1944005	10/29/19	10/29/19	EPA 300.0 9056A	

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Hungry Horse
PO box 1058
Hobbs NM, 88240

Project Name: Apache Corp- Empire Abo Unit C47
Project Number: 19054-0003
Project Manager: Lindsey Salgado

Reported:
10/30/19 17:22

SP3-Surf
P910184-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PHD		105 %		50-150	1944006	10/29/19	10/29/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	3660	500	mg/kg	20	1944008	10/29/19	10/29/19	EPA 8015D	
Oil Range Organics (C28-C40)	2990	1000	mg/kg	20	1944008	10/29/19	10/29/19	EPA 8015D	
Surrogate: n-Nonane		127 %		50-200	1944008	10/29/19	10/29/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		85.4 %		50-150	1944006	10/29/19	10/29/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	1520	40.0	mg/kg	2	1944005	10/29/19	10/29/19	EPA 300.0-9056A	

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Hungry Horse
PO box 1058
Hobbs NM, 88240

Project Name: Apache Corp- Empire Abo Unit C47
Project Number: 19054-0003
Project Manager: Lindsey Salgado

Reported:
10/30/19 17:22

SP1-1'
P910184-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PHD		108 %		50-150	1944006	10/29/19	10/29/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	2510	500	mg/kg	20	1944008	10/29/19	10/29/19	EPA 8015D	
Oil Range Organics (C28-C40)	1230	1000	mg/kg	20	1944008	10/29/19	10/29/19	EPA 8015D	
Surrogate: n-Nonane		124 %		50-200	1944008	10/29/19	10/29/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FHD		85.7 %		50-150	1944006	10/29/19	10/29/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	2070	40.0	mg/kg	2	1944005	10/29/19	10/29/19	EPA 300.0/9056A	

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Hungry Horse
PO box 1058
Hobbs NM, 88240

Project Name: Apache Corp- Empire Abo Unit C47
Project Number: 19054-0003
Project Manager: Lindsey Salgado

Reported:
10/30/19 17:22

SP2-1'
P910184-05 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		105 %		50-150	1944006	10/29/19	10/29/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	215	125	mg/kg	5	1944008	10/29/19	10/29/19	EPA 8015D	
Oil Range Organics (C28-C40)	319	250	mg/kg	5	1944008	10/29/19	10/29/19	EPA 8015D	
Surrogate: n-Nonane		113 %		50-200	1944008	10/29/19	10/29/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		86.4 %		50-150	1944006	10/29/19	10/29/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	312	20.0	mg/kg	1	1944005	10/29/19	10/29/19	EPA 300.0 9056A	

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Hobbs NM, 88240

Project Name: Apache Corp- Empire Abo Unit C47
Project Number: 19054-0003
Project Manager: Lindsey Salgado

Reported:
10/30/19 17:22

SP1-2'
P910184-06 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		104 %		50-150	1944006	10/29/19	10/29/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	198	125	mg/kg	5	1944008	10/29/19	10/29/19	EPA 8015D	
Oil Range Organics (C28-C40)	259	250	mg/kg	5	1944008	10/29/19	10/29/19	EPA 8015D	
Surrogate: n-Nonane		116 %		50-200	1944008	10/29/19	10/29/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1944006	10/29/19	10/29/19	EPA 8015D	
Surrogate: 1,4-Chloro-4-fluorobenzene-FID		86.0 %		50-150	1944006	10/29/19	10/29/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	320	20.0	mg/kg	1	1944005	10/29/19	10/29/19	EPA 300.0 9056A	

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Hungry Horse
PO box 1058
Hobbs NM, 88240

Project Name: Apache Corp- Empire Abo Unit C47
Project Number: 19054-0003
Project Manager: Lindsey Salgado

Reported:
10/30/19 17:22

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1944006 - Purge and Trap EPA 5030A

Blank (1944006-BLK1)

Prepared & Analyzed: 10/29/19 1

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
Surrogate: 4-Bromochlorobenzene-PID	8.3%		"	8.00		105	50-150			

LCS (1944006-BS1)

Prepared & Analyzed: 10/29/19 1

Benzene	4.27	0.0250	mg/kg	5.00		85.5	70-130			
Toluene	4.77	0.0250	"	5.00		95.4	70-130			
Ethylbenzene	4.87	0.0250	"	5.00		97.4	70-130			
p,m-Xylene	9.70	0.0500	"	10.0		97.0	70-130			
o-Xylene	4.86	0.0250	"	5.00		97.2	70-130			
Total Xylenes	14.6	0.0250	"	15.0		97.1	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.5%		"	8.00		107	50-150			

Matrix Spike (1944006-MS1)

Source: P910184-02

Prepared: 10/29/19 1 Analyzed: 10/29/19 2

Benzene	3.96	0.0250	mg/kg	5.00	ND	79.2	54.3-133			
Toluene	4.48	0.0250	"	5.00	ND	89.6	61.4-130			
Ethylbenzene	4.53	0.0250	"	5.00	ND	90.6	61.4-133			
p,m-Xylene	9.03	0.0500	"	10.0	ND	90.3	63.3-131			
o-Xylene	4.55	0.0250	"	5.00	ND	90.9	63.3-131			
Total Xylenes	13.6	0.0250	"	15.0	ND	90.5	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8.5%		"	8.00		106	50-150			

Matrix Spike Dup (1944006-MSD1)

Source: P910184-02

Prepared: 10/29/19 1 Analyzed: 10/29/19 2

Benzene	4.22	0.0250	mg/kg	5.00	ND	84.5	54.3-133	6.48	20	
Toluene	4.72	0.0250	"	5.00	ND	94.3	61.4-130	5.15	20	
Ethylbenzene	4.84	0.0250	"	5.00	ND	96.8	61.4-133	6.58	20	
p,m-Xylene	9.63	0.0500	"	10.0	ND	96.3	63.3-131	6.42	20	
o-Xylene	4.85	0.0250	"	5.00	ND	97.0	63.3-131	6.47	20	
Total Xylenes	14.5	0.0250	"	15.0	ND	96.5	63.3-131	6.44	20	
Surrogate: 4-Bromochlorobenzene-PID	8.55		"	8.00		107	50-150			

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Hungry Horse
PO box 1058
Hobbs NM, 88240

Project Name: Apache Corp- Empire Abo Unit C47
Project Number: 19054-0003
Project Manager: Lindsey Salgado

Reported:
10/30/19 17:22

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1944008 - DRO Extraction EPA 3570										
Blank (1944008-BLK1)										
				Prepared: 10/29/19 Analyzed: 10/30/19 0						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	47.5		"	50.0		95.0	50-200			
LCS (1944008-BS1)										
				Prepared: 10/29/19 Analyzed: 10/30/19 0						
Diesel Range Organics (C10-C28)	496	25.0	mg/kg	500		99.3	38-132			
Surrogate: n-Nonane	50.8		"	50.0		102	50-200			
Matrix Spike (1944008-MS1)										
				Source: P910167-01 Prepared: 10/29/19 Analyzed: 10/30/19 1						
Diesel Range Organics (C10-C28)	511	25.0	mg/kg	500	ND	102	38-132			
Surrogate: n-Nonane	49.4		"	50.0		98.8	50-200			
Matrix Spike Dup (1944008-MSD1)										
				Source: P910167-01 Prepared: 10/29/19 Analyzed: 10/30/19 1						
Diesel Range Organics (C10-C28)	525	25.0	mg/kg	500	ND	105	38-132	2.61	20	
Surrogate: n-Nonane	48.7		"	50.0		97.3	50-200			

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Hungry Horse
PO box 1058
Hobbs NM, 88240

Project Name: Apache Corp- Empire Abo Unit C47
Project Number: 19054-0003
Project Manager: Lindsey Salgado

Reported:
10/30/19 17:22

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1944006 - Purge and Trap EPA 5030A										
Blank (1944006-BLK1)				Prepared & Analyzed: 10/29/19 1						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.89			8.00		86.1	50-150			
LCS (1944006-BS2)				Prepared: 10/29/19 Analyzed: 10/29/19 2						
Gasoline Range Organics (C6-C10)	47.4	20.0	mg/kg	50.0		94.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.89			8.00		86.1	50-150			
Matrix Spike (1944006-MS2)				Source: P910184-02 Prepared: 10/29/19 Analyzed: 10/29/19 2						
Gasoline Range Organics (C6-C10)	47.8	20.0	mg/kg	50.0	ND	95.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.93			8.00		86.6	50-150			
Matrix Spike Dup (1944006-MSD2)				Source: P910184-02 Prepared: 10/29/19 Analyzed: 10/29/19 2						
Gasoline Range Organics (C6-C10)	47.3	20.0	mg/kg	50.0	ND	94.5	70-130	1.05	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.03			8.00		87.9	50-150			

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Hungry Horse
PO box 1058
Hobbs NM, 88240

Project Name: Apache Corp- Empire Abo Unit C47
Project Number: 19054-0003
Project Manager: Lindsey Salgado

Reported:
10/30/19 17:22

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1944005 - Anion Extraction EPA 300.0/9056A										
Blank (1944005-BLK1)										
Chloride	ND	20.0	mg/kg							Prepared & Analyzed: 10/29/19 1
LCS (1944005-BS1)										
Chloride	254	20.0	mg/kg	250		102	90-110			Prepared & Analyzed: 10/29/19 1
Matrix Spike (1944005-MS1)										
Chloride	4920	40.0	mg/kg	250	4800	45.9	80-120			Source: P910184-01 Prepared & Analyzed: 10/29/19 1
Matrix Spike Dup (1944005-MSD1)										
Chloride	5340	40.0	mg/kg	250	4800	215	80-120	8.26	20	Source: P910184-01 Prepared: 10/29/19 1 Analyzed: 10/30/19 1

QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Hungry Horse	Project Name:	Apache Corp- Empire Abo Unit C47	Reported: 10/30/19 17:22
PO box 1058	Project Number:	I9054-0003	
Hobbs NM, 88240	Project Manager:	Lindsey Salgado	

Notes and Definitions

M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

** Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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Project Information

** Rush **

Chain of Custody

Page 1 of 1

Client: <u>Apache Corp</u>		Report Attention		Lab Use Only		TAT		EPA Program				
Project: <u>Apache Abq Unit C47</u>		Report due by:		Lab WO# <u>P910004</u>		Job Number <u>1904-0003</u>		1D	3D	RCRA	CWA	SDWA
Project Manager: <u>Judy Salgado</u>		Attention:		Analysis and Method		State		NM CO UT AZ				
Address: <u>PO Box 1058</u>		Address:		Analysis and Method		State		NM CO UT AZ				
City, State, Zip: <u>Flagstaff, AZ 86001</u>		City, State, Zip:		Analysis and Method		State		NM CO UT AZ				
Phone: <u>505.325.1000</u>		Phone:		Analysis and Method		State		NM CO UT AZ				
Email: <u>jsalgado@apachecorp.com</u>		Email:		Analysis and Method		State		NM CO UT AZ				

Time Sampled	Date Sampled	Matrix	No. Containers	Sample ID	Lab Number	GC/MS by 8015	GC/MS by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	Remarks
10:15	10/24	S	1	SP1-Surf	1	X	X	X	X	X	
10:20				SP2-Surf	2	X	X	X	X	X	
10:30				SP3-Surf	3	X	X	X	X	X	
11:00				SP1-1'	4	X	X	X	X	X	
11:30				SP2-1'	5	X	X	X	X	X	
12:19				SP1-2'	6	X	X	X	X	X	
<p>Additional Instructions:</p> <p>I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, data or time of collection is considered fraud and may be grounds for legal action. Sampled by: <u>[Signature]</u></p> <p>Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other</p> <p>Container Type: <u>g - glass, p - poly/plastic, ag - amber glass, v - VOA</u></p> <p>Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.</p>											

Received by: (Signature) <u>[Signature]</u>	Date <u>10/25</u>	Time <u>9:36</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>10/25</u>	Time <u>9:40</u>	Received on Ice: <u>[Signature]</u>	Lab Use Only
Received by: (Signature) <u>[Signature]</u>	Date <u>10/25</u>	Time	Received by: (Signature) <u>[Signature]</u>	Date <u>10/25</u>	Time <u>1:45</u>	T1	T2
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other						AVG Temp °C <u>4</u>	

envirotech
Analytical Laboratory

5799 US Highway 66, Farmington, NM 87401
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APPROVED FOR ANALYSIS
[Signature]

FedEx 10/29/19 10:20

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Project Information

Chain of Custody

Page 1 of 1

Client: Apache Corp
 Project: Empire Abandon C47
 Project Manager: Lindsay Salgado
 Address: PO Box 1058
 City, State, Zip: Doonbeg
 Phone: Larry Baker @ apache corp.com
 Email: lsalgado@hungry-horse.com

Report Attention
 Report due by:
 Attention:
 Address:
 City, State, Zip
 Phone:
 Email:

Lab Use Only
 Lab WO# P10524
 Job Number 19054-0003

TAT
 1D 3D RCRA CWA SOWA

EPA Program
 NM CO UT AZ

Analysis and Method
 DRO/DRO by 8015
 GRO/DRO by 8015
 BTEX by 8021
 VOC by 8260
 Metals 8010
 Chloride 300.0

Time Sampled	Date Sampled	Matrix	No. Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 8010	Chloride 300.0	Remarks
10:15	10/25/19	S	1	SP1-Surf	1	X	X	X	X	X		
10:20				SP2-Surf	2	X	X	X	X	X		
10:30				SP3-Surf	3	X	X	X	X	X		
11:00				SP1-1'	4	X	X	X	X	X		
11:30				SP2-1'	5	X	X	X	X	X		
12:19				SP1-2'	6	X	X	X	X	X		

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Relinquished by: (Signature) [Signature] Date 10/25 Time 9:36 Received by: (Signature) [Signature] Date 10/25/19 Time 9:40

Relinquished by: (Signature) [Signature] Date 10/25 Time 13:45 Received by: (Signature) [Signature] Date 10/25/19 Time 13:45

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other
 Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



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