



DELINEATION WORKPLAN

OXY – COPPERHEAD 18 STATE #2H (Leak Date: 9/19/18)

RP # 1RP-5225

This delineation workplan and remediation proposal addresses the releases associated with RP # 1RP-5225.

The following information includes:

1. Appropriate completed and signed C-141 pages.
2. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
3. GPS information for sample points and sample methodology.
4. Depth to groundwater information (i.e., pdf of OSE search results, USGS search results, and/or copy of Chevron groundwater trend map).
5. Watercourse/features map within 1000 feet.
6. BLM Cave Karst map.
7. FEMA National Flood map.
8. Laboratory analysis results summary table and original laboratory analysis reports.
9. Potentially other pertinent information as necessary for site specific purposes.

Based on the information included in this package and the NMOCD rules, the following remediation is proposed:

OXY will excavate the spill area as depicted on the following site diagram. The leak areas near SP1 and SP2 (PURPLE shade on diagram) will be excavated to a depth of 1 foot. The leak area near SP3 (GREEN shade on diagram) will be excavated to a depth of 6 inches.

Bottom confirmation samples will be collected at no greater than 50 ft. intervals. Estimated volume of material to be removed is 120 cubic yards. The remediation will be completed within 90 days of plan approval.

The entire site will then be backfilled with clean soil and revegetated (if warranted) to the standards of the appropriate regulatory agency or private surface owner.

All excavated materials will be disposed of at an NMOCD-approved disposal facility.

Incident ID	
District RP	1RP-5225
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	97 (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.*

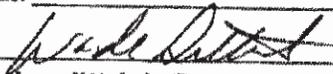
- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/4-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-5225
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: Wade Dittrich Title: Environmental Coordinator
 Signature:  Date: 2-7-11
 email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	1RP-5225
Facility ID	
Application ID	

Remediation Plan

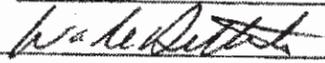
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- 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: Wade Dittrich Title: Environmental Coordinator
 Signature:  Date: 2-7-19
 email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

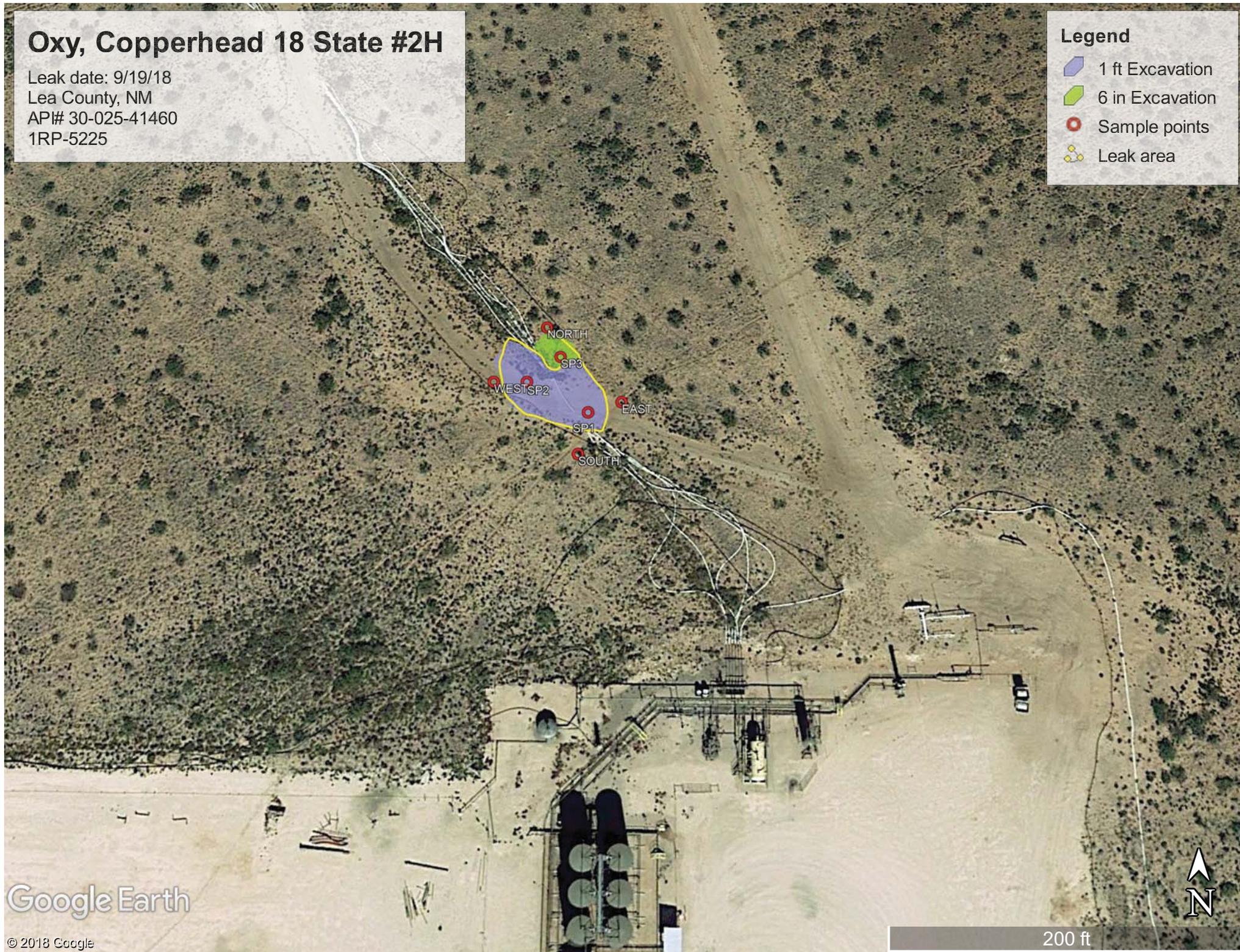
Received by: Vanessa Fields Date: 2/21/2019
 Approved Approved with Attached Conditions of Approval Denied Deferral Approved
 Signature:  Date: 2/22/2019

Oxy, Copperhead 18 State #2H

Leak date: 9/19/18
Lea County, NM
API# 30-025-41460
1RP-5225

Legend

-  1 ft Excavation
-  6 in Excavation
-  Sample points
-  Leak area



Google Earth

© 2018 Google



200 ft



New Mexico State Land Office Revegetation and Noxious Weed Management Plan

OXY – Copperhead 18 State #2H

Revegetation Plan

Disturbed areas associated with the remediation efforts will be reseeded. If after one growing season, the vegetation has not taken hold, seeding may need to be repeated until revegetation is successful, as determined by the State Land Office. The seed will be spread by either using a hand-held broadcaster or tractor-mounted broadcaster and the area will be raked or dragged to cover the seed. If the seed will be broadcast, the pounds per acre will be double over the amount used by drill planting.

The seed mixture will be the appropriate mixture for the specific site and planted in the required amounts of pounds pure live seed (PLS) per acre. Commercially sold seed will be either certified or registered and will not contain primary or secondary noxious weeds.

Gamma grass – 40% - 3.0 lbs. PLS

Buffalo grass – 40% - 3.0 lbs. PLS

Side oats – 10% - 1.0% lbs. PLS

Four wing Salt bush – 10% - 3.0 lbs. PLS

Noxious Weed Management Plan

The site will be visited to assess the establishment of vegetative growth. Personnel performing the site visit will also look for the presence of noxious weeds at the site as indicated on the New Mexico Noxious Weeds List specified on the United States Department of Agriculture website. If a noxious weed is observed at the site, the NMSLO will be contacted to determine the most effective manner to eradicate it.

Oxy, Copperhead 18 State #2H

Sample points

SP1, N 32.21953 W-103.60973

SP2, N 32.21959 W-103.60986

SP3, N 32.21964 W-103.60979

NORTH, N 32.21970 W-103.60982

SOUTH, N 32.21945 W-103.60975

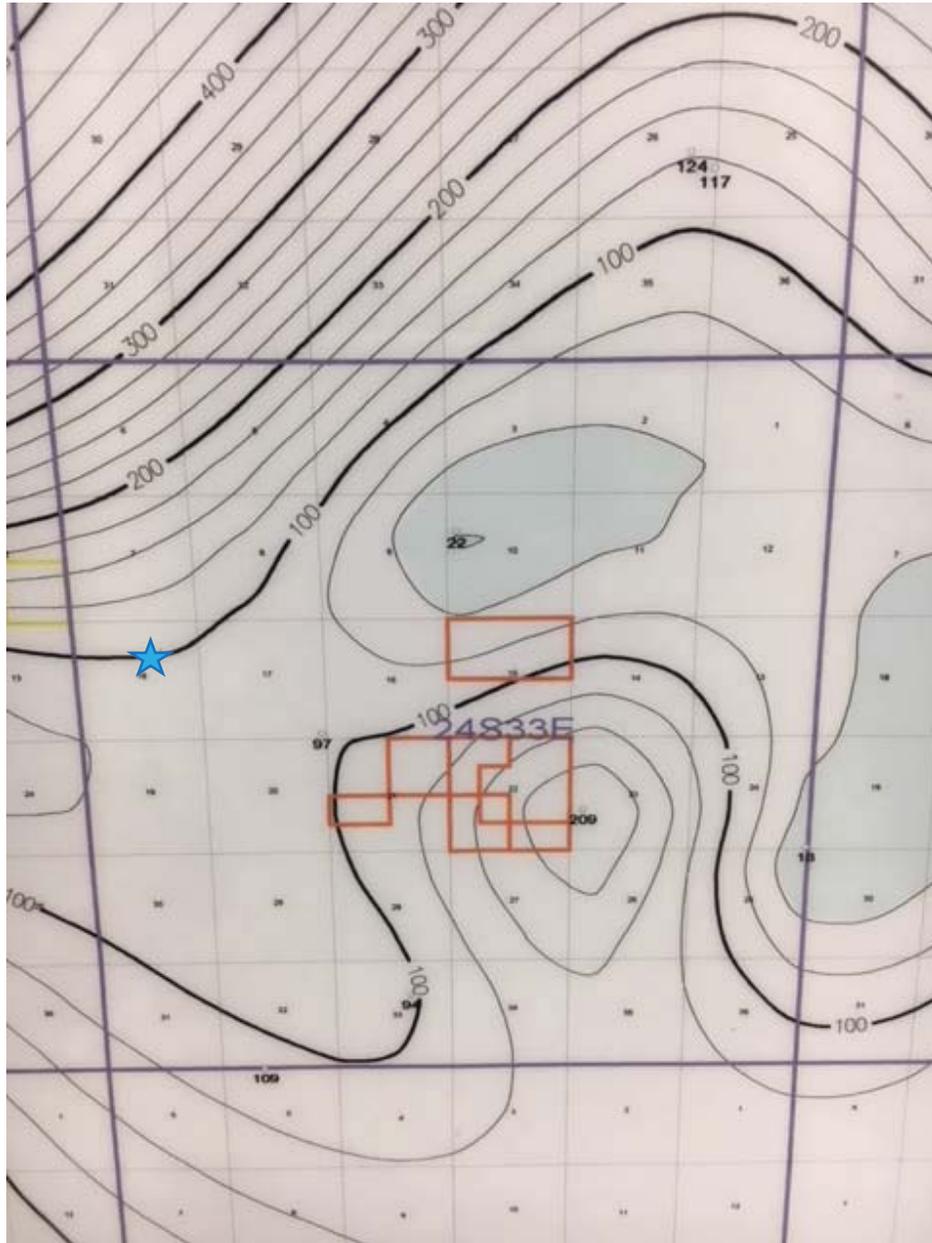
EAST, N 32.21955 W-103.60966

WEST, N 32.21959 W-103.60993

Oxy, Copperhead 18 State #002H

U/L G, Section 18, T24S, R33E

Groundwater: 100'





USGS Home
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National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category: Geographic Area:

Click to hide News Bulletins

- [Please see news on new formats](#)
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Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
 site_no list =

- 321236103350101

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321236103350101 24S.33E.17.444414

Lea County, New Mexico
 Latitude 32°12'36", Longitude 103°35'01" NAD27
 Land-surface elevation 3,573 feet above NAVD88
 This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement
1986-03-11		D	97.37			2		U		

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for New Mexico: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>



Page Contact Information: [New Mexico Water Data Maintainer](#)

Page Last Modified: 2018-12-19 11:20:06 EST

0.5 0.44 nadww01

Oxy, Copperhead 18 State #2H

Leak date: 9/19/18
Lea County, NM
AP# 30-025-41460
1RP-5225

BLM CAVE KARST MAP

Legend

-  Sample points
-  Leak area

SP2
SOUTH SP1

Bell Lake



National Flood Hazard Layer FIRMMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

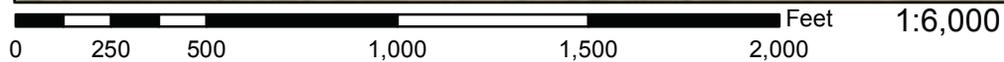
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **12/19/2018 at 11:38:37 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

32°13'25.64"N



USGS The National Map: Orthoimagery. Data refreshed October, 2017.



32°12'55.20"N

103°36'16.48"W

103°36'53.94"W

Laboratory Analytical Results Summary
Copperhead 18 State #002H (9/19/18)

Analyte	Method	Sample ID	SP1 @	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 4'
			SURFACE				
Date			12/17/18	12/17/18	12/17/18	12/17/18	12/17/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	n/a	n/a
Chloride	SM4500Cl-B		224	704	1650	112	48
GRO	TPH 8015M		<10.0	<10.0	<10.0	n/a	n/a
DRO	TPH 8015M		2730	374	<10.0	n/a	n/a
EXT DRO	TPH 8015M		5680	135	<10.0	n/a	n/a

Analyte	Method	Sample ID	SP2 @	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'
			SURFACE				
Date			12/17/18	12/17/18	12/17/18	12/17/18	12/17/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	n/a	n/a
Chloride	SM4500Cl-B		384	1150	656	48	48
GRO	TPH 8015M		<10.0	<10.0	<10.0	n/a	n/a
DRO	TPH 8015M		1080	121	<10.0	n/a	n/a
EXT DRO	TPH 8015M		2540	72	<10.0	n/a	n/a

Analyte	Method	Sample ID	SP3 @	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 4'
			SURFACE				
Date			12/17/18	12/17/18	12/17/18	12/17/18	12/17/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	n/a	n/a
Chloride	SM4500Cl-B		1520	1250	704	48	96
GRO	TPH 8015M		<10.0	<10.0	<10.0	n/a	n/a
DRO	TPH 8015M		67.7	<10.0	<10.0	n/a	n/a
EXT DRO	TPH 8015M		12.4	<10.0	<10.0	n/a	n/a

Analyte	Method	Sample ID	NORTH @	EAST @	WEST @	SOUTH @
			SURFACE	SURFACE	SURFACE	SURFACE
Date			12/17/18	12/17/18	12/17/18	12/17/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		48	16	48	48
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

January 02, 2019

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: COPPERHEAD 18 STATE #002H (9/19/18)

Enclosed are the results of analyses for samples received by the laboratory on 12/20/18 16:42.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 1 @ SURFACE (H803752-01)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1	
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4	
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3	
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7	
Total BTEX	<0.300	0.300	12/27/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	12/27/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/22/2018	ND	187	93.7	200	2.42	
DRO >C10-C28*	2730	10.0	12/22/2018	ND	221	111	200	0.130	QM-07
EXT DRO >C28-C36	5680	10.0	12/22/2018	ND					

Surrogate: 1-Chlorooctane 80.5 % 41-142
Surrogate: 1-Chlorooctadecane 93.0 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 1 @ 1' (H803752-02)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1		
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4		
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3		
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7		
Total BTEX	<0.300	0.300	12/27/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	704	16.0	12/27/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/22/2018	ND	187	93.7	200	2.42		
DRO >C10-C28*	374	10.0	12/22/2018	ND	221	111	200	0.130		
EXT DRO >C28-C36	135	10.0	12/22/2018	ND						

Surrogate: 1-Chlorooctane 100 % 41-142

Surrogate: 1-Chlorooctadecane 113 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 1 @ 2' (H803752-03)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1		
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4		
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3		
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7		
Total BTEX	<0.300	0.300	12/27/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1650	16.0	12/27/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/22/2018	ND	187	93.7	200	2.42		
DRO >C10-C28*	<10.0	10.0	12/22/2018	ND	221	111	200	0.130		
EXT DRO >C28-C36	<10.0	10.0	12/22/2018	ND						

Surrogate: 1-Chlorooctane 97.7 % 41-142

Surrogate: 1-Chlorooctadecane 97.3 % 37.6-147

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 Cliff Brunson
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 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 1 @ 3' (H803752-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/27/2018	ND	432	108	400	0.00	

Sample ID: SP 1 @ 4' (H803752-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/27/2018	ND	432	108	400	0.00	

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Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 2 @ SURFACE (H803752-06)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1	
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4	
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3	
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7	
Total BTEX	<0.300	0.300	12/27/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	12/27/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/29/2018	ND	187	93.7	200	2.42	
DRO >C10-C28*	1080	10.0	12/29/2018	ND	221	111	200	0.130	
EXT DRO >C28-C36	2540	10.0	12/29/2018	ND					

Surrogate: 1-Chlorooctane 82.9 % 41-142

Surrogate: 1-Chlorooctadecane 80.3 % 37.6-147

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Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 2 @ 1' (H803752-07)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1	
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4	
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3	
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7	
Total BTEX	<0.300	0.300	12/27/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1150	16.0	12/27/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/29/2018	ND	187	93.7	200	2.42	
DRO >C10-C28*	121	10.0	12/29/2018	ND	221	111	200	0.130	
EXT DRO >C28-C36	72.0	10.0	12/29/2018	ND					

Surrogate: 1-Chlorooctane 88.6 % 41-142

Surrogate: 1-Chlorooctadecane 90.1 % 37.6-147

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Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 2 @ 2' (H803752-08)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1		
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4		
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3		
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7		
Total BTEX	<0.300	0.300	12/27/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	656	16.0	12/27/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/29/2018	ND	187	93.7	200	2.42		
DRO >C10-C28*	<10.0	10.0	12/29/2018	ND	221	111	200	0.130		
EXT DRO >C28-C36	<10.0	10.0	12/29/2018	ND						

Surrogate: 1-Chlorooctane 91.6 % 41-142
Surrogate: 1-Chlorooctadecane 90.4 % 37.6-147

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Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 2 @ 3' (H803752-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/27/2018	ND	432	108	400	0.00	

Sample ID: SP 2 @ 4' (H803752-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/27/2018	ND	432	108	400	0.00	

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Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 3 @ SURFACE (H803752-11)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1	
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4	
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3	
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7	
Total BTEX	<0.300	0.300	12/27/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1520	16.0	12/27/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/22/2018	ND	187	93.7	200	2.42	
DRO >C10-C28*	67.7	10.0	12/22/2018	ND	221	111	200	0.130	
EXT DRO >C28-C36	12.4	10.0	12/22/2018	ND					

Surrogate: 1-Chlorooctane 87.1 % 41-142

Surrogate: 1-Chlorooctadecane 87.0 % 37.6-147

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Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 3 @ 1' (H803752-12)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1		
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4		
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3		
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7		
Total BTEX	<0.300	0.300	12/27/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1250	16.0	12/27/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/22/2018	ND	187	93.7	200	2.42		
DRO >C10-C28*	<10.0	10.0	12/22/2018	ND	221	111	200	0.130		
EXT DRO >C28-C36	<10.0	10.0	12/22/2018	ND						

Surrogate: 1-Chlorooctane 98.9 % 41-142

Surrogate: 1-Chlorooctadecane 98.8 % 37.6-147

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Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 3 @ 2' (H803752-13)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1		
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4		
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3		
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7		
Total BTEX	<0.300	0.300	12/27/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	704	16.0	12/27/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/22/2018	ND	187	93.7	200	2.42		
DRO >C10-C28*	<10.0	10.0	12/22/2018	ND	221	111	200	0.130		
EXT DRO >C28-C36	<10.0	10.0	12/22/2018	ND						

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 106 % 37.6-147

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Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 3 @ 3' (H803752-14)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/27/2018	ND	432	108	400	0.00	

Sample ID: SP 3 @ 4' (H803752-15)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/27/2018	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: NORTH @ SURFACE (H803752-16)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1		
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4		
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3		
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7		
Total BTEX	<0.300	0.300	12/27/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	12/27/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/22/2018	ND	187	93.7	200	2.42		
DRO >C10-C28*	<10.0	10.0	12/22/2018	ND	221	111	200	0.130		
EXT DRO >C28-C36	<10.0	10.0	12/22/2018	ND						

Surrogate: 1-Chlorooctane 92.1 % 41-142

Surrogate: 1-Chlorooctadecane 90.8 % 37.6-147

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Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: EAST @ SURFACE (H803752-17)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1		
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4		
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3		
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7		
Total BTEX	<0.300	0.300	12/27/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	12/27/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/22/2018	ND	187	93.7	200	2.42		
DRO >C10-C28*	<10.0	10.0	12/22/2018	ND	221	111	200	0.130		
EXT DRO >C28-C36	<10.0	10.0	12/22/2018	ND						

Surrogate: 1-Chlorooctane 97.8 % 41-142

Surrogate: 1-Chlorooctadecane 95.0 % 37.6-147

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 Cliff Brunson
 P.O. Box 805
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 Fax To: (575) 397-0397

Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: WEST @ SURFACE (H803752-18)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1	
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4	
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3	
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7	
Total BTEX	<0.300	0.300	12/27/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/27/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/22/2018	ND	187	93.7	200	2.42	
DRO >C10-C28*	<10.0	10.0	12/22/2018	ND	221	111	200	0.130	
EXT DRO >C28-C36	<10.0	10.0	12/22/2018	ND					

Surrogate: 1-Chlorooctane 99.6 % 41-142

Surrogate: 1-Chlorooctadecane 98.9 % 37.6-147

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Analytical Results For:

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 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	12/20/2018	Sampling Date:	12/17/2018
Reported:	01/02/2019	Sampling Type:	Soil
Project Name:	COPPERHEAD 18 STATE #002H (9/19/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SOUTH @ SURFACE (H803752-19)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/27/2018	ND	2.26	113	2.00	15.1		
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4		
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3		
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7		
Total BTEX	<0.300	0.300	12/27/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	12/27/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/22/2018	ND	187	93.7	200	2.42		
DRO >C10-C28*	<10.0	10.0	12/22/2018	ND	221	111	200	0.130		
EXT DRO >C28-C36	<10.0	10.0	12/22/2018	ND						

Surrogate: 1-Chlorooctane 94.4 % 41-142

Surrogate: 1-Chlorooctadecane 91.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report



Celey D. Keene, Lab Director/Quality Manager

