



PHONE (575) 397-6388 • FAX (575) 397- 0397 • 1324 W. MARLAND • P.O. BOX 805 • HOBBS, NM 88241-0805  
E-MAIL: cbrunson@bbcinternational.com

## DELINEATION/REMEDATION WORKPLAN

### OXY – Mesa Verde 18 CTB (Leak Date: 2/19/20)

**Incident ID: NRM2008458177**

This delineation workplan and remediation proposal addresses the releases associated with Incident ID #NRM2008458177.

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 area near SP1 – SP3 (BLUE shade on diagram) will be excavated to a depth of 3-4 inches.***

***Oxy requests after the initial surface removal that the leak area be deferred until the end of life of the facility due to the amount of production equipment in the leak area. Pictures of the leak and equipment are included in this report.***

***The estimated amount of soil to be excavated is 41 cubic yards. Remediation activities will commence within 90 days of all approvals.***

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.

Form C-141

Page 3

State of New Mexico  
Oil Conservation Division

Incident ID	NRM2008458177
District RP	
Facility ID	
Application ID	

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

What is the shallowest depth to groundwater beneath the area affected by the release?	33 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

Form C-141

State of New Mexico  
Oil Conservation Division

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Incident ID	NRM2008458177
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: Wade Dittrich Title: Environmental Coordinator  
Signature:  Date: 7-17-20  
email: wade\_dittrich@oxy.com Telephone: (575) 390-2828

**OCD Only**

Received by: Cristina Eads Date: 07/29/2020

Form C-141

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State of New Mexico  
Oil Conservation Division

Incident ID	NRM2008458177
District RP	
Facility ID	
Application ID	

## Remediation Plan

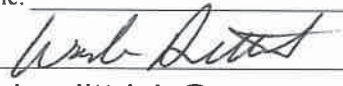
**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ 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: Wade Dittrich Title: Environmental Coordinator  
Signature:  Date: 7-17-20  
email: wade\_dittrich@oxy.com Telephone: (575) 390-2828

**OCD Only**Received by: Cristina Eads Date: 07/29/2020

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

Signature:  Date: 10/22/2020



# Oxy Mesa Verde 18 CTB

Leak Date: 2-19-20

Lea County, NM

Incident ID: NRM2008458177

## Legend



Leak Area



Location Pad



Near Surface Scope (3-4") then defer



Sample Points



Google Earth

100 ft

























Oxy, Mesa Verde 18 CTB (2-19-20)

Sample points

SP1, N 32.21264 W-103.70834

SP2, N 32.21257 W-103.70835

SP3, N 32.21248 W-103.70836

NORTH, N 32.21269 W-103.70384

EAST, N 32.21252 W-103.70827

WEST, N 32.21259 W-103.70841

SOUTH, N 32.21241 W-103.70836





USGS Home  
Contact USGS  
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National Water Information System: Web Interface

USGS Water Resources

Data Category:  
Groundwater

Geographic Area:  
New Mexico

GO

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- Full News

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 321312103395601

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

USGS 321312103395601 24S.32E.10.344333

Lea County, New Mexico  
Latitude 32°13'30.4", Longitude 103°39'52.7" NAD83  
Land-surface elevation 3,589.00 feet above NGVD29  
The depth of the well is 60 feet below land surface.  
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

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 measur
1950-04-13			D33.64			2			U	
1955-06-03			D31.90			2	R		U	
1976-01-22			D31.80			2			U	
1981-03-20			D19.93			2			U	
1986-03-18			D37.16			2			U	
1991-05-29			D39.64			2			U	
1996-03-14			D38.20			2			S	
2001-02-27			D36.58			2			S	
2006-02-07	09:30 MST	m	19.40			2			S	USGS
2010-12-16	15:30 MST	m	33.96			2			S	USGS

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level

Section	Code	Description
Status	R	Site had been pumped recently.
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
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?>**



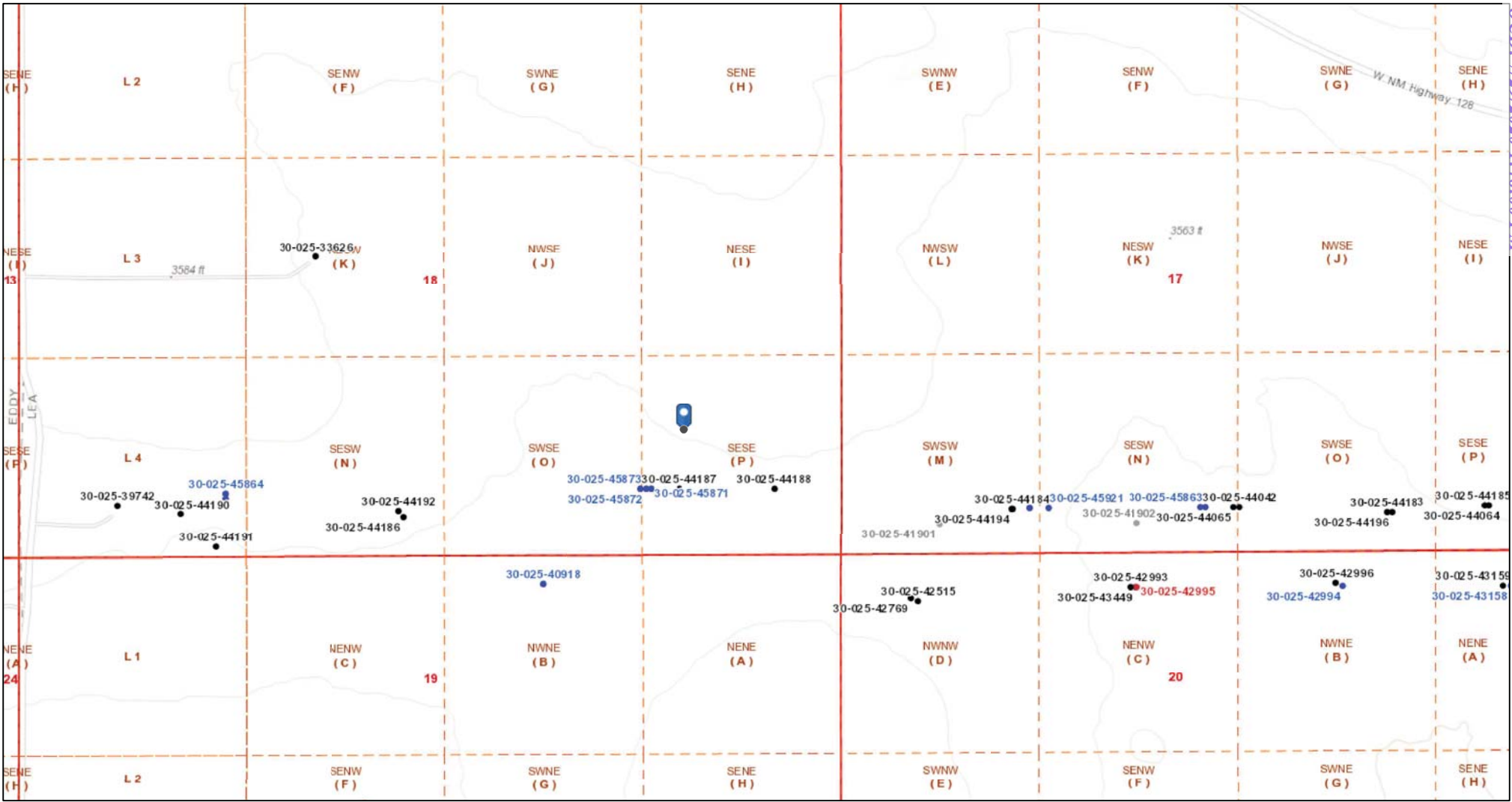
Page Contact Information: [New Mexico Water Data Maintainer](#)

Page Last Modified: 2020-01-15 18:36:30 EST

0.25 0.22 nadww01



# Oxy, Mesa Verde 18 CTB, +3000' to H2O



1/15/2020 4:08:41 PM

Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

Well Locations - Large Scale

- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2 Plugged
- CO2 Temporarily Abandoned

Gas Active

- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active

Injection, Cancelled

- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled

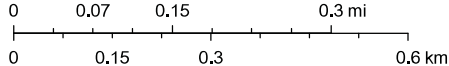
Oil, New

- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New

Salt Water Injection, Plugged

- Salt Water Injection Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged

1:9,028




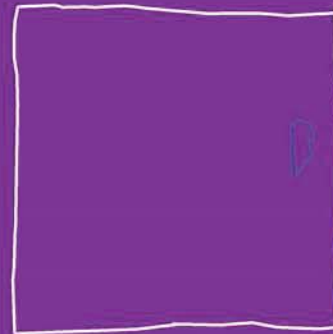
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, OCD.

# Mesa Verde 18 CTB

Leak Date: 2-19-20  
Lea County, NM  
Incident ID: NRM2008458177

## BLM CAVE KARST MAP

- Legend**
-  Leak Area
  -  Location Pad
  -  Low Potential





# National Flood Hazard Layer FIRMette



32°13'0.47"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

USGS The National Map: Orthoimagery. Data refreshed April, 2019.

32°12'30.03"N

## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		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 Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone X
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		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 4/7/2020 at 4:03:04 PM 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.

Laboratory Analytical Results Summary  
Oxy, Mesa Verde 18 CTB (2-19-20)

		Sample ID	North @ Surface	East @ Surface	West @ Surface	South @ Surface
Analyte	Method	Date	3/20/20	3/20/20	3/20/20	3/20/20
			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		32.0	64.0	48.0	64.0
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

		Sample ID	SP1 @ Surface	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 4'
Analyte	Method	Date	3/20/20	3/20/20	3/20/20	3/20/20	3/20/20
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	n/a
Toluene	BTEX 8021B		0.345	<0.050	<0.050	<0.050	n/a
Ethylbenzene	BTEX 8021B		0.193	<0.050	<0.050	<0.050	n/a
Total Xylenes	BTEX 8021B		1.51	<0.150	<0.150	<0.150	n/a
Total BTEX	BTEX 8021B		2.05	<0.300	<0.300	<0.300	n/a
Chloride	SM4500Cl-B		6320	1960	816	32.0	16.0
GRO	TPH 8015M		22.6	<10.0	<10.0	<10.0	n/a
DRO	TPH 8015M		1170	49.9	<10.0	<10.0	n/a
EXT DRO	TPH 8015M		278	19.2	<10.0	<10.0	n/a

		Sample ID	SP2 @ Surface	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'
Analyte	Method	Date	3/20/20	3/20/20	3/20/20	3/20/20	3/20/20
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		0.977	<0.050	<0.050	<0.050	n/a
Toluene	BTEX 8021B		16.4	<0.050	0.078	<0.050	n/a
Ethylbenzene	BTEX 8021B		8.63	<0.050	<0.050	<0.050	n/a
Total Xylenes	BTEX 8021B		67.5	<0.150	<0.150	<0.150	n/a
Total BTEX	BTEX 8021B		93.5	<0.300	<0.300	<0.300	n/a
Chloride	SM4500Cl-B		1640	704	416	16.0	32.0
GRO	TPH 8015M		1760	<10.0	<10.0	<10.0	n/a
DRO	TPH 8015M		14600	23.6	18.4	<10.0	n/a
EXT DRO	TPH 8015M		2250	<10.0	<10.0	<10.0	n/a

		Sample ID	SP3 @ Surface	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 4'
Analyte	Method	Date	3/20/20	3/20/20	3/20/20	3/20/20	3/20/20
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		0.617	0.130	<0.050	<0.050	n/a
Toluene	BTEX 8021B		10.6	4.34	0.055	<0.050	n/a
Ethylbenzene	BTEX 8021B		2.99	2.51	<0.050	<0.050	n/a
Total Xylenes	BTEX 8021B		26.9	18	0.357	<0.150	n/a
Total BTEX	BTEX 8021B		41.1	25	0.411	<0.300	n/a
Chloride	SM4500Cl-B		96.0	304	160	<16.0	16.0
GRO	TPH 8015M		960	764	<10.0	<10.0	n/a
DRO	TPH 8015M		31600	2980	85.5	<10.0	n/a
EXT DRO	TPH 8015M		6420	482	<10.0	<10.0	n/a





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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March 30, 2020

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: MESA VERDE 18 CTB

Enclosed are the results of analyses for samples received by the laboratory on 03/23/20 16:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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](http://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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

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

Received:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: NORTH @ SURFACE (H000893-01)**

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	03/24/2020	ND	2.09	105	2.00	4.12	
Toluene*	<0.050	0.050	03/24/2020	ND	2.10	105	2.00	4.83	
Ethylbenzene*	<0.050	0.050	03/24/2020	ND	2.10	105	2.00	4.43	
Total Xylenes*	<0.150	0.150	03/24/2020	ND	6.06	101	6.00	4.68	
Total BTEX	<0.300	0.300	03/24/2020	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/25/2020	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	03/25/2020	ND	208	104	200	0.598	
DRO >C10-C28*	<10.0	10.0	03/25/2020	ND	216	108	200	9.66	
EXT DRO >C28-C36	<10.0	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 72.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 79.9 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

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

Received:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: EAST @ SURFACE (H000893-02)**

BTX 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	03/24/2020	ND	2.09	105	2.00	4.12		
Toluene*	<0.050	0.050	03/24/2020	ND	2.10	105	2.00	4.83		
Ethylbenzene*	<0.050	0.050	03/24/2020	ND	2.10	105	2.00	4.43		
Total Xylenes*	<0.150	0.150	03/24/2020	ND	6.06	101	6.00	4.68		
Total BTX	<0.300	0.300	03/24/2020	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	03/25/2020	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	03/25/2020	ND	208	104	200	0.598	
DRO >C10-C28*	<10.0	10.0	03/25/2020	ND	216	108	200	9.66	
EXT DRO >C28-C36	<10.0	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 76.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

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

Received:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: WEST @ SURFACE (H000893-03)**

BTX 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	03/24/2020	ND	2.09	105	2.00	4.12	
Toluene*	<0.050	0.050	03/24/2020	ND	2.10	105	2.00	4.83	
Ethylbenzene*	<0.050	0.050	03/24/2020	ND	2.10	105	2.00	4.43	
Total Xylenes*	<0.150	0.150	03/24/2020	ND	6.06	101	6.00	4.68	
Total BTX	<0.300	0.300	03/24/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	03/25/2020	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	03/25/2020	ND	208	104	200	0.598	
DRO >C10-C28*	<10.0	10.0	03/25/2020	ND	216	108	200	9.66	
EXT DRO >C28-C36	<10.0	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 79.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.6 % 42.2-156

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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SOUTH @ SURFACE (H000893-04)**

BTX 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	03/24/2020	ND	2.09	105	2.00	4.12		
Toluene*	<0.050	0.050	03/24/2020	ND	2.10	105	2.00	4.83		
Ethylbenzene*	<0.050	0.050	03/24/2020	ND	2.10	105	2.00	4.43		
Total Xylenes*	<0.150	0.150	03/24/2020	ND	6.06	101	6.00	4.68		
Total BTX	<0.300	0.300	03/24/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	03/25/2020	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	03/25/2020	ND	208	104	200	0.598	
DRO >C10-C28*	<10.0	10.0	03/25/2020	ND	216	108	200	9.66	
EXT DRO >C28-C36	<10.0	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 78.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.4 % 42.2-156

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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 1 @ SURFACE (H000893-05)**

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	03/24/2020	ND	2.09	105	2.00	4.12	
Toluene*	0.345	0.050	03/24/2020	ND	2.10	105	2.00	4.83	
Ethylbenzene*	0.193	0.050	03/24/2020	ND	2.10	105	2.00	4.43	
Total Xylenes*	1.51	0.150	03/24/2020	ND	6.06	101	6.00	4.68	
Total BTEx	2.05	0.300	03/24/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6320	16.0	03/25/2020	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*	22.6	10.0	03/25/2020	ND	208	104	200	0.598	
DRO >C10-C28*	1170	10.0	03/25/2020	ND	216	108	200	9.66	
EXT DRO >C28-C36	278	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 85.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 114 % 42.2-156

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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 1 @ 1' (H000893-06)**

BTX 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	03/24/2020	ND	2.09	105	2.00	4.12		
Toluene*	<0.050	0.050	03/24/2020	ND	2.10	105	2.00	4.83		
Ethylbenzene*	<0.050	0.050	03/24/2020	ND	2.10	105	2.00	4.43		
Total Xylenes*	<0.150	0.150	03/24/2020	ND	6.06	101	6.00	4.68		
Total BTX	<0.300	0.300	03/24/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1960	16.0	03/25/2020	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	03/25/2020	ND	208	104	200	0.598	
DRO >C10-C28*	49.9	10.0	03/25/2020	ND	216	108	200	9.66	
EXT DRO >C28-C36	19.2	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 83.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.4 % 42.2-156

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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 1 @ 2' (H000893-07)**

BTX 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	03/24/2020	ND	2.09	105	2.00	4.12		
Toluene*	<0.050	0.050	03/24/2020	ND	2.10	105	2.00	4.83		
Ethylbenzene*	<0.050	0.050	03/24/2020	ND	2.10	105	2.00	4.43		
Total Xylenes*	<0.150	0.150	03/24/2020	ND	6.06	101	6.00	4.68		
Total BTX	<0.300	0.300	03/24/2020	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	816	16.0	03/25/2020	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	03/25/2020	ND	188	94.0	200	0.747	
DRO >C10-C28*	<10.0	10.0	03/25/2020	ND	176	87.9	200	4.60	
EXT DRO >C28-C36	<10.0	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 84.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 81.9 % 42.2-156

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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 1 @ 3' (H000893-08)**

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	03/25/2020	ND	2.06	103	2.00	2.29	
Toluene*	<0.050	0.050	03/25/2020	ND	2.07	104	2.00	2.69	
Ethylbenzene*	<0.050	0.050	03/25/2020	ND	2.09	105	2.00	3.11	
Total Xylenes*	<0.150	0.150	03/25/2020	ND	6.13	102	6.00	3.10	
Total BTEx	<0.300	0.300	03/25/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/25/2020	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	03/25/2020	ND	188	94.0	200	0.747	
DRO >C10-C28*	<10.0	10.0	03/25/2020	ND	176	87.9	200	4.60	
EXT DRO >C28-C36	<10.0	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 86.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.9 % 42.2-156

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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 1 @ 4' (H000893-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	03/25/2020	ND	432	108	400	0.00		

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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 2 @ SURFACE (H000893-10)**

BTEx 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.977</b>	0.200	03/26/2020	ND	2.06	103	2.00	2.29	
<b>Toluene*</b>	<b>16.4</b>	0.200	03/26/2020	ND	2.07	104	2.00	2.69	
<b>Ethylbenzene*</b>	<b>8.63</b>	0.200	03/26/2020	ND	2.09	105	2.00	3.11	
<b>Total Xylenes*</b>	<b>67.5</b>	0.600	03/26/2020	ND	6.13	102	6.00	3.10	
<b>Total BTEx</b>	<b>93.5</b>	1.20	03/26/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 224 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1640</b>	16.0	03/25/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>1760</b>	100	03/26/2020	ND	188	94.0	200	0.747	
<b>DRO &gt;C10-C28*</b>	<b>14600</b>	100	03/26/2020	ND	176	87.9	200	4.60	
<b>EXT DRO &gt;C28-C36</b>	<b>2250</b>	100	03/26/2020	ND					

Surrogate: 1-Chlorooctane 225 % 44.3-144

Surrogate: 1-Chlorooctadecane 510 % 42.2-156

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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 2 @ 1' (H000893-11)**

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	03/25/2020	ND	2.06	103	2.00	2.29		
Toluene*	<0.050	0.050	03/25/2020	ND	2.07	104	2.00	2.69		
Ethylbenzene*	<0.050	0.050	03/25/2020	ND	2.09	105	2.00	3.11		
Total Xylenes*	<0.150	0.150	03/25/2020	ND	6.13	102	6.00	3.10		
Total BTEx	<0.300	0.300	03/25/2020	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	704	16.0	03/25/2020	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	03/25/2020	ND	188	94.0	200	0.747	
DRO >C10-C28*	23.6	10.0	03/25/2020	ND	176	87.9	200	4.60	
EXT DRO >C28-C36	<10.0	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 87.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.1 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

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

Received:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 2 @ 2' (H000893-12)**

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	03/25/2020	ND	2.06	103	2.00	2.29	
Toluene*	0.078	0.050	03/25/2020	ND	2.07	104	2.00	2.69	
Ethylbenzene*	<0.050	0.050	03/25/2020	ND	2.09	105	2.00	3.11	
Total Xylenes*	<0.150	0.150	03/25/2020	ND	6.13	102	6.00	3.10	
Total BTEx	<0.300	0.300	03/25/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	03/25/2020	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	03/25/2020	ND	188	94.0	200	0.747	
DRO >C10-C28*	18.4	10.0	03/25/2020	ND	176	87.9	200	4.60	
EXT DRO >C28-C36	<10.0	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 90.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.9 % 42.2-156

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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 2 @ 3' (H000893-13)**

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	03/25/2020	ND	2.06	103	2.00	2.29	
Toluene*	<0.050	0.050	03/25/2020	ND	2.07	104	2.00	2.69	
Ethylbenzene*	<0.050	0.050	03/25/2020	ND	2.09	105	2.00	3.11	
Total Xylenes*	<0.150	0.150	03/25/2020	ND	6.13	102	6.00	3.10	
Total BTEx	<0.300	0.300	03/25/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/25/2020	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	03/25/2020	ND	188	94.0	200	0.747	
DRO >C10-C28*	<10.0	10.0	03/25/2020	ND	176	87.9	200	4.60	
EXT DRO >C28-C36	<10.0	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 88.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.1 % 42.2-156

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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 2 @ 4' (H000893-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/25/2020	ND	432	108	400	0.00		

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**Analytical Results For:**

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

Received:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 3 @ SURFACE (H000893-15)**

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.617</b>	0.050	03/26/2020	ND	2.06	103	2.00	2.29	
<b>Toluene*</b>	<b>10.6</b>	0.050	03/26/2020	ND	2.07	104	2.00	2.69	
<b>Ethylbenzene*</b>	<b>2.99</b>	0.050	03/26/2020	ND	2.09	105	2.00	3.11	
<b>Total Xylenes*</b>	<b>26.9</b>	0.150	03/26/2020	ND	6.13	102	6.00	3.10	
<b>Total BTX</b>	<b>41.1</b>	0.300	03/26/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 137 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>96.0</b>	16.0	03/25/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>960</b>	100	03/26/2020	ND	188	94.0	200	0.747	
<b>DRO &gt;C10-C28*</b>	<b>31600</b>	100	03/26/2020	ND	176	87.9	200	4.60	
<b>EXT DRO &gt;C28-C36</b>	<b>6420</b>	100	03/26/2020	ND					

Surrogate: 1-Chlorooctane 210 % 44.3-144

Surrogate: 1-Chlorooctadecane 1250 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 3 @ 1' (H000893-16)**

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.130</b>	0.050	03/25/2020	ND	2.06	103	2.00	2.29	
<b>Toluene*</b>	<b>4.34</b>	0.050	03/25/2020	ND	2.07	104	2.00	2.69	
<b>Ethylbenzene*</b>	<b>2.51</b>	0.050	03/25/2020	ND	2.09	105	2.00	3.11	
<b>Total Xylenes*</b>	<b>18.0</b>	0.150	03/25/2020	ND	6.13	102	6.00	3.10	
<b>Total BTX</b>	<b>25.0</b>	0.300	03/25/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 141 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>304</b>	16.0	03/25/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>764</b>	10.0	03/25/2020	ND	188	94.0	200	0.747	
<b>DRO &gt;C10-C28*</b>	<b>2980</b>	10.0	03/25/2020	ND	176	87.9	200	4.60	
<b>EXT DRO &gt;C28-C36</b>	<b>482</b>	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 143 % 44.3-144

Surrogate: 1-Chlorooctadecane 172 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 3 @ 2' (H000893-17)**

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	03/25/2020	ND	2.06	103	2.00	2.29		
Toluene*	0.055	0.050	03/25/2020	ND	2.07	104	2.00	2.69		
Ethylbenzene*	<0.050	0.050	03/25/2020	ND	2.09	105	2.00	3.11		
Total Xylenes*	0.357	0.150	03/25/2020	ND	6.13	102	6.00	3.10		
Total BTEX	0.411	0.300	03/25/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	03/25/2020	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	03/25/2020	ND	188	94.0	200	0.747	
<b>DRO &gt;C10-C28*</b>	<b>85.5</b>	10.0	03/25/2020	ND	176	87.9	200	4.60	
EXT DRO >C28-C36	<10.0	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 86.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.0 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager





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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 3 @ 3' (H000893-18)**

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	03/25/2020	ND	2.06	103	2.00	2.29	
Toluene*	<0.050	0.050	03/25/2020	ND	2.07	104	2.00	2.69	
Ethylbenzene*	<0.050	0.050	03/25/2020	ND	2.09	105	2.00	3.11	
Total Xylenes*	<0.150	0.150	03/25/2020	ND	6.13	102	6.00	3.10	
Total BTEx	<0.300	0.300	03/25/2020	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	03/25/2020	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	03/25/2020	ND	188	94.0	200	0.747	
DRO >C10-C28*	<10.0	10.0	03/25/2020	ND	176	87.9	200	4.60	
EXT DRO >C28-C36	<10.0	10.0	03/25/2020	ND					

Surrogate: 1-Chlorooctane 84.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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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:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/30/2020	Sampling Type:	Soil
Project Name:	MESA VERDE 18 CTB	Sampling Condition:	Cool & Intact
Project Number:	( 2-19-20 )	Sample Received By:	Jodi Henson
Project Location:	OXY - LEA COUNTY, NM		

**Sample ID: SP 3 @ 4' (H000893-19)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/25/2020	ND	432	108	400	0.00	

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### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

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A handwritten signature in cursive script, appearing to read "Celey D. Keene", written in black ink.

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Celey D. Keene, Lab Director/Quality Manager





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## 1 of 2

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Relinquished By: <i>Simon Juan</i>		Date: <i>3-20-20</i>	Received By: <i>Israel Pena</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: _____
Time: <i>5:00 PM</i>				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #: _____
Relinquished By: <i>Israel Pena</i>		Date: <i>3-23-20</i>	Received By: <i>Jodi Munson</i>	REMARKS: _____	
Time: <i>8:00 AM</i>					
Delivered By: (Circle One)		Sample Condition	CHECKED BY:		
		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	(Initials) <i>JM</i>		
Sampler - UPS - Bus - Other: <i>16:30</i>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
<i>-44°/1 #113</i>		<input type="checkbox"/> No <input type="checkbox"/> No			

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**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST** 2 of 2

Company Name: BBC International, Inc.				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																	
Project Manager: Cliff Brunson				P.O. #:																					
Address: P.O. Box 805				Company: OXY																					
City: Hobbs State: NM Zip: 88241				Attn: Wade																					
Phone #: 575-397-6388 Fax #: 575-397-0397				Address:																					
Project #: Project Owner: Oxy				City:																					
Project Name: Mesa Verde 18 CTB (2-19-20)				State: Zip:																					
Project Location: Lea County, NM				Phone #:																					
Sampler Name: Simon Rendon				Fax #:																					
FOR LAB USE ONLY				MATRIX				PRESERV.		SAMPLING															
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CL	BTEX	TPH	EXT							
HDD0893																									
11	SP2 @ 1'	✓	1										3/20/20	11:20 AM	✓	✓	✓								
12	SP2 @ 2'	✓	1										3/20/20	11:34 AM	✓	✓	✓								
13	SP2 @ 3'	✓	1										3/20/20	11:47 AM	✓	✓	✓								
14	SP2 @ 4'	✓	1										3/20/20	12:43 PM	✓										
15	SP3 @ Surface	✓	1										3/20/20	1:05 PM	✓	✓	✓								
16	SP3 @ 1'	✓	1										3/20/20	1:20 PM	✓	✓	✓								
17	SP3 @ 2'	✓	1										3/20/20	1:33 PM	✓	✓	✓								
18	SP3 @ 3'	✓	1										3/20/20	1:47 PM	✓	✓	✓								
19	SP3 @ 4'	✓	1										3/20/20	2:05 PM	✓										

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Relinquished By:	Date: 3/20/20	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Time: 5:00 pm		Time: 5:00 pm	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: Israel Pena	Date: 3-23-20	Received By: Jodi Henson	REMARKS:	
Time: 8:00 AM		Time: 8:00 AM		
Delivered By: (Circle One)	Sample Condition	Checked By:		
Sampler - UPS - Bus - Other: -4.42 / #113	Cool / Intact	(Initials)		
	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

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