

Closure Report

Site Description

Site Name:	Cedar Canyon 23 Federal #33H
Company:	Oxy USA Inc.
Legal Description:	U/L I, Section 22, T24E, T29E
County:	Eddy County, NM
GPS Coordinates:	N 32.20205° W-103.96723°

Release Data

Date of Release:	08/10/2017
Type of Release:	Produced water
Source of Release:	Compromised poly line
Volume of Release:	12 bbls
Volume Recovered:	9 bbls

Remediation Specifications

Remediation Parameters:	Excavated the areas around SP1-SP5 to a depth of 2 feet. Excavated the areas around SP6 and SP7 to a depth of 1 foot. Backfilled the site with clean soil.	
Remediation Activities:	08/06/2018 to 08/14/2018	
Plan Sent to OCD:	11/25/2017	Email from Cliff Brunson to Mike Bratcher
OCD Approval of Plan:	03/05/2018	Email from Mike Bratcher to Cliff Brunson
Plan Sent to BLM:	11/25/2017	Email from Cliff Brunson to Shelly Tucker
BLM Approval of Plan:	12/26/2017	Email from Shelly Tucker to Cliff Brunson

Supporting Documentation

Initial C-141	Signed 08/14/2014
Final C-141	Upon completion
Site Diagram	October 2017
Groundwater Plot	100'
TOPO Maps	October 2017
Lab Summary	10/16/2017-10/17/2017
Lab Analysis	10/16/2017-10/17/2017
Correspondence	Request and approval of remediation plan via email

Request for Closure

Based on the completion of the remediation plan, Oxy Permian requests closure approval from NMOCD.

Wade Dittrich, Environmental Specialist

08/20/2018

NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 14 2017

Form C-141
Revised April 3, 2017

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

State of New Mexico
Energy Minerals and Natural Resources

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

Submit Copy to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

Release Notification and Corrective Action

NAB1722833617

OPERATOR

Initial Report Final Report

Name of Company	OXY USA INC	Contact	WADE DITTRICH
Address	PO BOX 4294; HOUSTON, TX 77210	Telephone No.	575-390-2828
Facility Name	CEDAR CANYON 23 FEDERAL #33H	Facility Type	WELL

Surface Owner	BLM	Mineral Owner	BLM	API No.	30-015-44074
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	22	24E	29E	2344	SOUTH	1199	EAST	EDDY

Latitude_ 32.2020942 _ Longitude_ - 103.9676325 _ _ NAD83

NATURE OF RELEASE

Type of Release	PRODUCED WATER	Volume of Release	12 bbls	Volume Recovered	9 bbls
Source of Release	1.5 inch poly line connected to chemical trailer failure	Date and Hour of Occurrence	8/10/2017	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	MIKE BRATCHER-NMOCD; CRYSTAL WEAVER-NMOCD; SHELLY TUCKER-BLM		
By Whom?	WADE DITTRICH	Date and Hour	8-11-2017 @ 12:35 PM		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Spill caused by a 1.5-inch poly line connected to chemical trailer failure. The leak has been repaired and is back in service.

Describe Area Affected and Cleanup Action Taken.*

The affected area of the spill is 10x25 FT. Leak did not leave the location-9 bbls inside cont. -3 outside (measurements are subject to change with GPS tracking). Remediation will be completed in accordance with a remediation plan approved by the NMOCD and the SLO.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:	<i>WaDe Dittrich</i>	OIL CONSERVATION DIVISION	
Printed Name:	WADE DITTRICH	Approved by Environmental Specialist:	<i>Crystal Weaver</i>
Title:	ENVIROMENTAL COORDINATOR	Approval Date:	8/15/17
E-mail Address:	waade_dittrich@oxy.com	Expiration Date:	N/A
Date:	8/14/2017	Conditions of Approval:	<i>see attached</i>
Phone:	575-390-2828	Attached	<input checked="" type="checkbox"/> 2 RP 4312

* Attach Additional Sheets If Necessary

8/15/17

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **8/14/17** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4342 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 9/14/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold

OCD Environmental Bureau Chief

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

505-476-3465

jim.griswold@state.nm.us

Weaver, Crystal, EMNRD

From: Wade_Dittrich@oxy.com
Sent: Monday, August 14, 2017 10:45 AM
To: Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD
Cc: stucker@blm.gov; cbrunson@bbcinternational.com; kathy@bbcinternational.com; kswinney@bbcinternational.com; jgilkey@bbcinternational.com; Jennifer_Smith@oxy.com
Subject: Cedar Canyon 23 Fed. Com 0033H
Attachments: Scanned from a Xerox Multifunction Device

All,

Attached is the [Initial C-141](#). Please review and let me know if there any questions. Thank you.

Wade Dittrich
Environmental Coordinator
Oxy Permian-New Mexico
575.390.2828 cell
Wade_Dittrich@Oxy.com

Weaver, Crystal, EMNRD

From: Wade_Dittrich@oxy.com
Sent: Friday, August 11, 2017 11:35 AM
To: Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD
Cc: stucker@blm.gov; cbrunson@bbcinternational.com; kathy@bbcinternational.com; kswinney@bbcinternational.com; jgilkey@bbcinternational.com; Jennifer_Smith@oxy.com
Subject: Cedar Canyon 23 Fed. Com 0033H

All,

This is to inform you that Oxy Permian had a **Reportable** release in **Eddy County** at the **Cedar Canyon 23 Fed. Com #0033H** on **8/10/2017**.

- **Release Location:** Legal -22-24S-29E, API: 30-015-44074
- **Release Volume:** 0 bbls of Oil and 12 bbls of Produced Water.
- **Recovered:** 9 bbls recovered
- **Cause of Release:** 1.5 inch poly line connected to chemical trailer failure
- **Approximate Area impacted by release:** 10x25 FT, Leak did not leave the location-9 bbls inside cont. -3 outside (measurements are subject to change with GPS tracking)
- **GPS Coordinates and Driving Direction:** **32.2020942** , **-103.9676325** Follow GPS to site.

Please let me know if you have any questions.

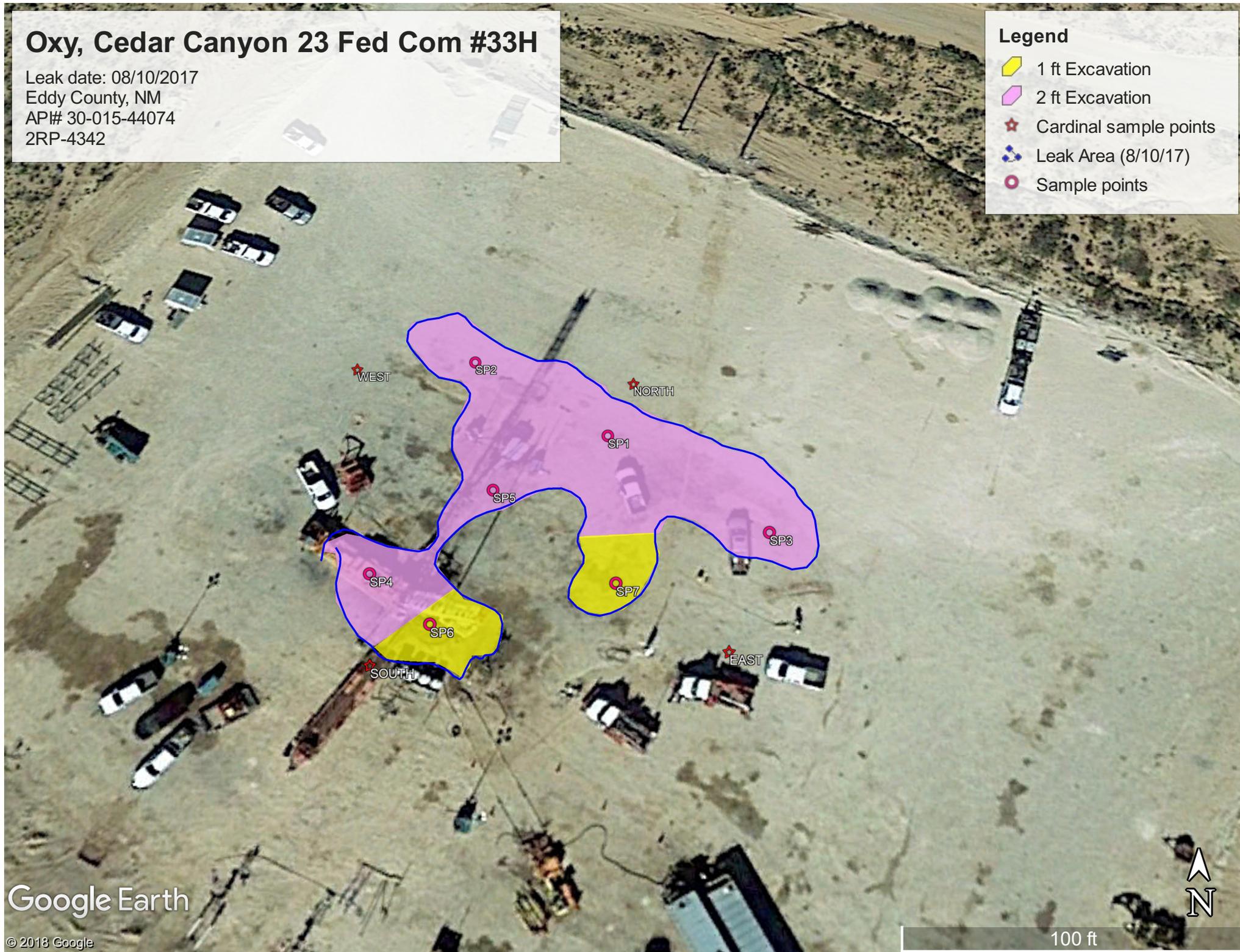
Wade Dittrich
Environmental Coordinator
Oxy Permian-New Mexico
575.390.2828 cell
Wade_Dittrich@Oxy.com

Oxy, Cedar Canyon 23 Fed Com #33H

Leak date: 08/10/2017
Eddy County, NM
AP# 30-015-44074
2RP-4342

Legend

-  1 ft Excavation
-  2 ft Excavation
-  Cardinal sample points
-  Leak Area (8/10/17)
-  Sample points



Oxy, Cedar Canyon 23 Fed Com #33H

Sample notes, hand auger/backhoe

SP1, N 32.20228 W-103.96744

SP2, N 32.20237 W-103.96760

SP3, N 32.20217 W-103.96726

SP4, N 32.20213 W-103.96770

SP5, N 32.20222 W-103.96757

SP6, N 32.20208 W-103.96763

SP7, N 32.20212 W-103.96743

NORTH, N 32.20234 W-103.96741

SOUTH, N 32.20204 W-103.96769

EAST, N 32.20205 W-103.96731

WEST, N 32.20236 W-103.96774

Oxy, Cedar Canyon 23 Federal #33H
U/L I, Section 22, T24S, R29E
Groundwater: 100'





New Mexico Office of the State Engineer
Water Column/Average Depth to Water

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

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 597468

Northing (Y): 3563195

Radius: 1700

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

10/3/17 4:40 PM

WATER COLUMN/ AVERAGE
DEPTH TO WATER

Public Land Survey System (PLSS)

Q64: Q16: NE Q4: SE Sec: 22 Tws: 24S Rng: 29E

State Plane Coordinate System - NAD27

X: ft Y: ft Zone:

State Plane Coordinate System - NAD83

X: ft Y: ft Zone:

Degrees/Minutes/Seconds

Longitude (X): Degrees: ° Minutes: ' Seconds: "

Latitude (Y): Degrees: ° Minutes: ' Seconds: "

UTM - NAD27

Easting (X): mtrs Northing (Y): mtrs Zone:

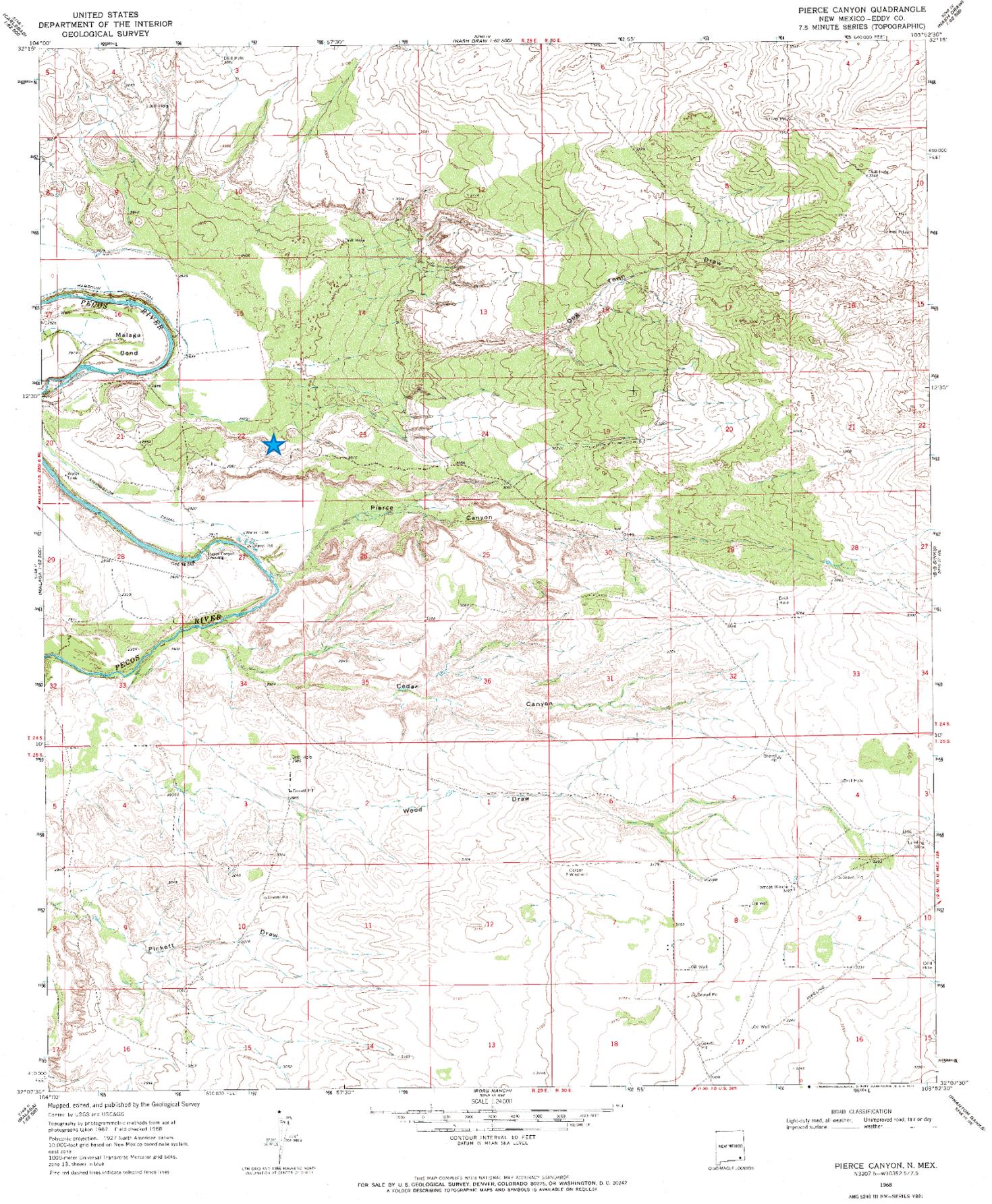
SUBMIT

All Conversion Results are displayed as **NAD 1983 UTM Zone 13**

Easting (X): mtrs Northing (Y): mtrs

~~ Please keep screen open to copy UTM values for Reports. ~~

Oxy, Cedar Canyon 23 Federal #33H



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Mapped, copied, and published by the Geological Survey
Control by USGS are USCGAS
Topography by photogrammetric methods from aerial
photostereos taken 1967. First checked 1968
Polyconic projection. 1927 South American datum
11,000-foot grid based on New York to second meridian
east 89° 12'
1000-meter Universal Transverse Mercator and ticks,
2000 12 stream in 1:63,000
Fire red dashed lines indicate selected fence lines

SCALE 1:24,000
CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION
Light-duty road, all weather
Improved surface
Unimproved road, fair or dry
weather

PIERCE CANYON, N. MEX.
1:24,000 7.5-MINUTE SERIES
1968
AMS 5240 III RW-SERIES 783

THIS MAP CONFORMS WITH NATIONAL MAP ACTING STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80219, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Oxy, Cedar Canyon 23 Federal #33H



Laboratory Analytical Results Summary
Cedar Canyon 23 Fed Com #033H

		Sample ID	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 4'	SP1 @ 9'
Analyte	Method	Date	10/16/17	10/16/17	10/16/17	10/16/17	10/16/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		4080	1420	384	160	48
GRO	TPH 8015M		<10.0	n/a	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	n/a	n/a	n/a

		Sample ID	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'	SP2 @ 9'
Analyte	Method	Date	10/16/17	10/16/17	10/16/17	10/16/17	10/16/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloride	SM4500Cl-B		4880	1280	368	144	32

		Sample ID	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 4'	SP3 @ 9'
Analyte	Method	Date	10/16/17	10/16/17	10/16/17	10/16/17	10/16/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloride	SM4500Cl-B		4960	832	496	80	32

		Sample ID	SP4 @ 1'	SP4 @ 2'	SP4 @ 3'	SP4 @ 8'
Analyte	Method	Date	10/16/17	10/16/17	10/16/17	10/16/17
			mg/kg	mg/kg	mg/kg	mg/kg
Chloride	SM4500Cl-B		800	864	192	48

		Sample ID	SP5 @ 1'	SP5 @ 2'	SP5 @ 3'	SP5 @ 8'
Analyte	Method	Date	10/16/17	10/17/17	10/17/17	10/17/17
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a
Chloride	SM4500Cl-B		608	848	176	48
GRO	TPH 8015M		<10.0	n/a	n/a	n/a
DRO	TPH 8015M		17.3	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	n/a	n/a

		Sample ID	SP6 @ 1'	SP6 @ 2'	SP6 @ 7'
Analyte	Method	Date	10/17/17	10/16/17	10/16/17
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500Cl-B		560	192	112
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	n/a

		Sample ID	SP7 @ Surface	SP7 @ 1'	SP7 @ 6'
Analyte	Method	Date	10/16/17	10/16/17	10/16/17
			mg/kg	mg/kg	mg/kg
Chloride	SM4500Cl-B		992	160	80

CARDINAL POINTS		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	WEST @ SURFACE	SOUTH @ SURFACE
Analyte	Method	Date	10/16/17	10/17/17	10/17/17	10/17/17
			mg/kg	mg/kg	mg/kg	mg/kg
Chloride	SM4500Cl-B		128	112	112	112



October 27, 2017

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: CEDAR CANYON 23 FED 33H

Enclosed are the results of analyses for samples received by the laboratory on 10/20/17 16:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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,

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

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:	10/20/2017	Sampling Date:	10/16/2017
Reported:	10/27/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 23 FED 33H	Sampling Condition:	Cool & Intact
Project Number:	08/10/17	Sample Received By:	Jodi Henson
Project Location:	MALAGA		

Sample ID: SP1 @ 1 (H702887-01)

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	10/25/2017	ND	1.83	91.3	2.00	1.51	
Toluene*	<0.050	0.050	10/25/2017	ND	1.84	91.9	2.00	2.45	
Ethylbenzene*	<0.050	0.050	10/25/2017	ND	1.81	90.7	2.00	1.94	
Total Xylenes*	<0.150	0.150	10/25/2017	ND	5.42	90.3	6.00	1.92	
Total BTEX	<0.300	0.300	10/25/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4080	16.0	10/25/2017	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	10/24/2017	ND	174	86.8	200	4.40	
DRO >C10-C28	<10.0	10.0	10/24/2017	ND	185	92.6	200	5.21	
EXT DRO >C28-C36	<10.0	10.0	10/24/2017	ND					

Surrogate: 1-Chlorooctane 69.2 % 28.3-164
Surrogate: 1-Chlorooctadecane 77.0 % 34.7-157

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

Analytical Results For:

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

Received:	10/20/2017	Sampling Date:	10/16/2017
Reported:	10/27/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 23 FED 33H	Sampling Condition:	Cool & Intact
Project Number:	08/10/17	Sample Received By:	Jodi Henson
Project Location:	MALAGA		

Sample ID: SP1 @ 2 (H702887-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1420	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP1 @ 3 (H702887-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP1 @ 4 (H702887-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP1 @ 9 (H702887-05)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/25/2017	ND	432	108	400	0.00	QR-03

Sample ID: SP2 @ 1 (H702887-06)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4880	16.0	10/25/2017	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:	10/20/2017	Sampling Date:	10/16/2017
Reported:	10/27/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 23 FED 33H	Sampling Condition:	Cool & Intact
Project Number:	08/10/17	Sample Received By:	Jodi Henson
Project Location:	MALAGA		

Sample ID: SP2 @ 2 (H702887-07)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1280	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP2 @ 3 (H702887-08)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP2 @ 4 (H702887-09)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP2 @ 9 (H702887-10)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP3 @ 1 (H702887-11)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4960	16.0	10/25/2017	ND	432	108	400	0.00	

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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:	10/20/2017	Sampling Date:	10/16/2017
Reported:	10/27/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 23 FED 33H	Sampling Condition:	Cool & Intact
Project Number:	08/10/17	Sample Received By:	Jodi Henson
Project Location:	MALAGA		

Sample ID: SP3 @ 2 (H702887-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP3 @ 3 (H702887-13)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP3 @ 4 (H702887-14)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP3 @ 9 (H702887-15)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP4 @ 1 (H702887-16)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	10/25/2017	ND	432	108	400	0.00	

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

Received:	10/20/2017	Sampling Date:	10/16/2017
Reported:	10/27/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 23 FED 33H	Sampling Condition:	Cool & Intact
Project Number:	08/10/17	Sample Received By:	Jodi Henson
Project Location:	MALAGA		

Sample ID: SP4 @ 2 (H702887-17)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP4 @ 3 (H702887-18)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP4 @ 8 (H702887-19)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/25/2017	ND	432	108	400	0.00	

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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:	10/20/2017	Sampling Date:	10/16/2017
Reported:	10/27/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 23 FED 33H	Sampling Condition:	Cool & Intact
Project Number:	08/10/17	Sample Received By:	Jodi Henson
Project Location:	MALAGA		

Sample ID: SP5 @ 1 (H702887-20)

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	10/25/2017	ND	1.83	91.3	2.00	1.51		
Toluene*	<0.050	0.050	10/25/2017	ND	1.84	91.9	2.00	2.45		
Ethylbenzene*	<0.050	0.050	10/25/2017	ND	1.81	90.7	2.00	1.94		
Total Xylenes*	<0.150	0.150	10/25/2017	ND	5.42	90.3	6.00	1.92		
Total BTEX	<0.300	0.300	10/25/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	608	16.0	10/25/2017	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	10/24/2017	ND	174	86.8	200	4.40		
DRO >C10-C28	17.3	10.0	10/24/2017	ND	185	92.6	200	5.21		
EXT DRO >C28-C36	<10.0	10.0	10/24/2017	ND						

Surrogate: 1-Chlorooctane 65.8 % 28.3-164
Surrogate: 1-Chlorooctadecane 75.2 % 34.7-157

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Analytical Results For:

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 Cliff Brunson
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Received:	10/20/2017	Sampling Date:	10/17/2017
Reported:	10/27/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 23 FED 33H	Sampling Condition:	Cool & Intact
Project Number:	08/10/17	Sample Received By:	Jodi Henson
Project Location:	MALAGA		

Sample ID: SP5 @ 2 (H702887-21)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	848	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP5 @ 3 (H702887-22)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	10/25/2017	ND	432	108	400	0.00	

Sample ID: SP5 @ 8 (H702887-23)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/25/2017	ND	432	108	400	0.00	

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Received:	10/20/2017	Sampling Date:	10/17/2017
Reported:	10/27/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 23 FED 33H	Sampling Condition:	Cool & Intact
Project Number:	08/10/17	Sample Received By:	Jodi Henson
Project Location:	MALAGA		

Sample ID: SP6 @ 1 (H702887-24)

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	10/25/2017	ND	1.83	91.3	2.00	1.51	
Toluene*	<0.050	0.050	10/25/2017	ND	1.84	91.9	2.00	2.45	
Ethylbenzene*	<0.050	0.050	10/25/2017	ND	1.81	90.7	2.00	1.94	
Total Xylenes*	<0.150	0.150	10/25/2017	ND	5.42	90.3	6.00	1.92	
Total BTEX	<0.300	0.300	10/25/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	10/25/2017	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	10/24/2017	ND	174	86.8	200	4.40	
DRO >C10-C28	<10.0	10.0	10/24/2017	ND	185	92.6	200	5.21	
EXT DRO >C28-C36	<10.0	10.0	10/24/2017	ND					

Surrogate: 1-Chlorooctane 61.1 % 28.3-164

Surrogate: 1-Chlorooctadecane 67.4 % 34.7-157

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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:	10/20/2017	Sampling Date:	10/16/2017
Reported:	10/27/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 23 FED 33H	Sampling Condition:	Cool & Intact
Project Number:	08/10/17	Sample Received By:	Jodi Henson
Project Location:	MALAGA		

Sample ID: SP6 @ 2 (H702887-25)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	10/23/2017	ND	448	112	400	0.00	

Sample ID: SP6 @ 7 (H702887-26)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/23/2017	ND	448	112	400	0.00	

Sample ID: SP7 @ SURFACE (H702887-27)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	10/23/2017	ND	448	112	400	0.00	

Sample ID: SP7 @ 1 (H702887-28)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	10/23/2017	ND	448	112	400	0.00	

Sample ID: SP7 @ 6 (H702887-29)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/23/2017	ND	448	112	400	0.00	

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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:	10/20/2017	Sampling Date:	10/16/2017
Reported:	10/27/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 23 FED 33H	Sampling Condition:	Cool & Intact
Project Number:	08/10/17	Sample Received By:	Jodi Henson
Project Location:	MALAGA		

Sample ID: NORTH @ SURFACE (H702887-30)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/23/2017	ND	448	112	400	0.00	

Sample ID: EAST @ SURFACE (H702887-31)

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	10/23/2017	ND	448	112	400	0.00	

Sample ID: WEST @ SURFACE (H702887-32)

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	10/23/2017	ND	448	112	400	0.00	

Sample ID: SOUTH @ SURFACE (H702887-33)

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	10/23/2017	ND	448	112	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCS/D recovery and/or RPD values.
- 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





ARDINAL LABORATORIES
 101 East Marland, Hobbs, NM 88240
 (505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: BBC International, Inc.
 Project Manager: Cliff Brunson
 Address: P.O. Box 805
 City: Hobbs
 Phone #: 575-397-6388
 Project #:

State: NM Zip: 88241
 Fax #: 575-397-0397
 Project Owner: OXY
 Project Name: Cedar Canyon 23 Feb 53 # (0.1017)

Project Location: Cedar Canyon
 Sampler Name: PH

FOR LAB USE ONLY

P.O. #:
 Company: OXY
 Attn: Wade Dittick

Address:
 City:
 State: Zip:

Fax #:
 Phone #:

Lab I.D. Sample I.D.

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TPH Extended	STE X	CI
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
H1D2987	SP10Z	A	1	X	X	X	X	X	X	10-6	920	X	X	X
	SP20Z	A	1	X	X	X	X	X	X		940	X	X	X
	SP20Z	A	1	X	X	X	X	X	X		1005	X	X	X
	SP20Z	A	1	X	X	X	X	X	X		1030	X	X	X
	SP20Z	A	1	X	X	X	X	X	X		1056	X	X	X
	SP20Z	A	1	X	X	X	X	X	X		1117	X	X	X
	SP20Z	A	1	X	X	X	X	X	X		1131	X	X	X
	SP20Z	A	1	X	X	X	X	X	X		1145	X	X	X
	SP20Z	A	1	X	X	X	X	X	X		1206	X	X	X
	SP20Z	A	1	X	X	X	X	X	X		1236	X	X	X

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Relinquished By: [Signature]
 Date: 10-20-17
 Received By: [Signature]
 Date: 10-20-17
 Time: 8:06
 Retinquished By: [Signature]
 Date: 10-20-17
 Time: 7:15
 Delivered By: (Circle One) #715 - 7.859 / 8.12
 Sampler - UPS - Bus - Other: []
 Sample Condition: Cool Intact
 Checked By: [Signature]

REMARKS:
 Phone Result: Yes No
 Add'l Phone #:
 Fax Result: Yes No
 Add'l Fax #:
 Corrected + 250

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2/4

BILL TO

ANALYSIS REQUEST

Company Name: BBC International, Inc. P.O. #:
 Project Manager: Cliff Brunson Company:
 Address: P.O. Box 805 State: NM Zip: 88241
 City: Hobbs Attn:
 Phone #: 575-397-6388 Fax #: 575-397-0397 Address:
 Project #: Project Owner: OKY City:
 Project Name: Cedar Canyon 23 Feb/35H State: Zip:
 Project Location: PCH/253 Phone #:
 Sampler Name: PCH Fax #:
 FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
HTD2897	SP301								10/16	104	TPH Extended BTEX CL	
11	SP301											
12	SP301											
13	SP301											
14	SP301											
15	SP301											
16	SP301											
17	SP301											
18	SP301											
19	SP301											
20	SP301											

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 the client for the 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 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: [Signature] Date: 10-20-17 Received By: [Signature]
 Relinquished By: [Signature] Date: 10-20-17 Received By: [Signature]
 Delivered By: (Circle One) #175 - 7.884 - 8.10 Sample Condition: Cool Intact Yes No No
 Sampler - UPS - Bus - Other: [Initials] CHECKED BY: [Initials]
 REMARKS: Phone Result: Yes No Add'l Phone #: Fax Result: Yes No Add'l Fax #:

+ Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476 corrected +.250



ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ANALYSIS REQUEST

BILL TO

Company Name: BBC International, Inc. P.O. #:
Project Manager: Cliff Brunson Company:
Address: P.O. Box 805 State: NM Zip: 88241 Attn:
City: Hobbs Address:
Phone #: 575-397-6388 Fax #: 575-397-0397 City:
Project #: Project Owner: Oxy
Project Name: Peter Logan 23 33# State: Zip:
Project Location: Phoenix Fax #:
Sample Name: PH

FOR LAB USE ONLY
Lab I.D. Sample I.D. (G)RAB OR (C)OMP. # CONTAINERS
MATRIX: GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER:
PRESERV: ACID/BASE, ICE/COOL, OTHER:
SAMPLING: DATE, TIME

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV	SAMPLING	DATE	TIME	TPH Extended	BTEX	CL
HTD2867	SP50 2	G	1	X	X	X	10-17	328	X	X	X
	SP40 1	G	1	X	X	X	10-16	400	X	X	X
	SP70 512	G	1	X	X	X	10-16	991	X	X	X
	SP40 2	G	1	X	X	X	10-16	1005	X	X	X
	SP70 512	G	1	X	X	X	10-21	1040	X	X	X
	SP70 512	G	1	X	X	X	10-27	1057	X	X	X
	SP70 512	G	1	X	X	X	11-09	1109	X	X	X
	SP70 512	G	1	X	X	X	11-26	1126	X	X	X

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Relinquished By: *[Signature]* Date: 10-20-14 Received By: *[Signature]* Date: 10-20-14
 Relinquished By: *[Signature]* Date: 10-20-14 Received By: *[Signature]* Date: 10-20-14
 Delivered By: (Circle One) *[Signature]* #75-78298.10
 Sampler - UPS - Bus - Other: UPS Bus Other
 Sample Condition: Cool Intact
 Checked By: *[Signature]* (Initials) *[Signature]*
 Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:
 REMARKS:
 + Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

5/4



ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Handwritten initials/signature

BILL TO

ANALYSIS REQUEST

Company Name: BBC International, Inc.
Project Manager: Cliff Brunson

Address: P.O. Box 805
City: Hobbs
Phone #: 575-397-6388
State: NM Zip: 88241

Fax #: 575-397-0397
Project Owner: DRY

Project #:
Project Name: Cedar Canyon 23-33H
Project Location:

Sampler Name:
FOR LAB USE ONLY

P.O. #:
Company: DRY
Attn:
Address:
City:
State:
Zip:
Phone #:
Fax #:

Lab I.D. Sample I.D.
ATD2887

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					DATE	TIME	TPH Extended	BTEX	CL
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE					
31	East @ SWK	(G)	1			X			10/7	1140			X
32	West @ SWK	(G)	1			X			1235				X
33	South @ SWK	(C)	1			X			1245				X

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Relinquished By: [Signature] Date: 10-30-17
 Received By: [Signature] Date: 6-20-17
 Delivered By: (Circle One) #75
 Sampler - UPS - Bus - Other: []
 Sample Condition: Cool Intact
 CHECKED BY: [Signature] (Initials) [Signature]

Relinquished By: [Signature] Date: 10-30-17
 Received By: [Signature] Date: 6-20-17
 Delivered By: (Circle One) #75
 Sampler - UPS - Bus - Other: []
 Sample Condition: Cool Intact
 CHECKED BY: [Signature] (Initials) [Signature]

Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:
 REMARKS:
 + Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476
 certified + 25%

From: Bratcher, Mike, EMNRD
To: [Cliff Brunson](#); [Shelly Tucker](#)
Cc: [Weaver, Crystal, EMNRD](#); [Wade Dittrich](#); Jennifer_Smith@oxy.com; [Ken Swinney](#); [Jennifer Gilkey](#); [Kathy Purvis](#)
Subject: RE: OXY Cedar Canyon 23 Fed Com #33H (2RP-4342) - Delineation Workplan
Date: Monday, March 5, 2018 10:37:07 AM

RE: OXY USA * Cedar Canyon 23 Fed Com 22H * **2RP-4342** * DOR: 8/10/17

Cliff,

Your proposal for remediation of the above referenced release is approved. Federal sites will require like approval from BLM.

Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210
575-748-1283 Ext 108

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Cliff Brunson [mailto:cbrunson@bbcinternational.com]
Sent: Saturday, November 25, 2017 3:16 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Shelly Tucker <stucker@blm.gov>
Cc: Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; Wade Dittrich <Wade_Dittrich@oxy.com>; Jennifer_Smith@oxy.com; [Ken Swinney](#) <kswinney@bbcinternational.com>; [Jennifer Gilkey](#) <jgilkey@bbcinternational.com>; [Kathy Purvis](#) <kathy@bbcinternational.com>
Subject: OXY Cedar Canyon 23 Fed Com #33H (2RP-4342) - Delineation Workplan

Mike and Shelly,

Please find the attached Delineation Workplan and remediation proposal for the OXY Cedar Canyon 23 Fed Com #33H (2RP-4342). OXY is requesting that you review this plan and is looking forward to both the OCD's and BLM's approval.

If you have any questions, please let me know.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS
President

BBC International, Inc.
World-Wide Environmental Specialists
Mailing Address:
P. O. Box 805
Hobbs, NM 88241-0805 USA
Shipping Address:
1324 W. Marland St.
Hobbs, NM 88240 USA
Phone: (575) 397-6388
Fax: (575) 397-0397
E-Mail: cbrunson@bbcinternational.com



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From: Tucker, Shelly
To: [Cliff Brunson](#)
Cc: [Mike Bratcher](#); [Crystal Weaver](#); [Wade Dittrich](#); [Jennifer_Smith@oxy.com](#); [Ken Swinney](#); [Jennifer Gilkey](#); [Kathy Purvis](#)
Subject: Re: OXY Cedar Canyon 23 Fed Com #33H (2RP-4342) - Delineation Workplan
Date: Tuesday, December 26, 2017 4:10:35 PM

BLM approves your delineation plan for the OXY Cedar Canyon 23 Fed Com #33H (2RP-4342)

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Shelly J Tucker

Environmental Protection Specialist
O&G Spill/Release Coordinator

Bureau of Land Management
620 E. Greene St
Carlsbad, NM 88220

575.234.5905 - Direct
575.361.0084 - Cellular
575.234.6235 - Emergency Spill Number

stucker@blm.gov

The **BLM acceptance/approval does not** relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not revegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

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On Sat, Nov 25, 2017 at 3:15 PM, Cliff Brunson <cbrunson@bbcinternational.com> wrote:

Mike and Shelly,

Please find the attached Delineation Workplan and remediation proposal for the OXY Cedar Canyon 23 Fed Com #33H (2RP-4342). OXY is requesting that you review this plan and is looking forward to both the OCD's and BLM's approval.

If you have any questions, please let me know.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS

President

BBC International, Inc.

World-Wide Environmental Specialists

Mailing Address:

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Hobbs, NM 88241-0805 USA

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1324 W. Marland St.

Hobbs, NM 88240 USA

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E-Mail: cbrunson@bbcinternational.com



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