WORLD-WIDE ENVIRONMENTAL SPECIALISTS

BBC INTERNATIONAL INCORPORATED

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E-MAIL: cbrunson@bbcinternational.com

DELINEATION WORKPLAN

OXY – BRAVO DOME LEG 7
(Leak Date: 10/10/16)

RP # 4RP-11

This delineation workplan and remediation proposal addresses the releases associated with RP # 4RP-11.

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 entire site will be excavated to a depth of 4 feet with an impermeable liner placed in the bottom of the excavation and then backfilled.

OXY requests a variance from the requirements of 19.15.29 NMAC. This variance request consists of the utilization of an impermeable 20 mil plastic liner at 4 feet below ground surface. The variance is requested because of the need to limit the excavation depth to prevent the massive surface disturbance that will be required of an excavation deeper than 4 feet due to OSHA confined space sloping requirements and to respect the landowner in minimizing surface disturbance related to the excavation and transportation of the impacted soils to a disposal facility and the transportation of backfill materials.

In addition, the installation of an impermeable liner will be protective of not only groundwater which is greater than 100 feet, but also will be protective of nearby

surface water features since 4 feet of clean soil will be compacted on top of the liner and with the liner preventing upward migration of any chlorides left in place.

The horizontal edges of the excavation will be determined during the excavation process utilizing a field screening method of potassium chromate/sliver nitrate titration. The excavation will be stopped when the horizontal edges are determined to be no higher than 600 ppm in chlorides via field screening. Then sidewall samples will be collected via a composite sample plan that will not be representative of more than 200 square feet and analyzed at a lab for chlorides to verify that chloride content is less than 600 ppm. If lab analysis does not confirm 600 ppm has been achieved, then further excavation will be performed until lab analysis confirms below 600 ppm has been achieved.

Once laboratory confirmation is received, the liner will be placed into the excavation and backfilling with clean soil will commence.

In addition, upgradient and background soil samples will be analyzed. All laboratory results will be included in the closure report along with a site map of the excavation with depiction and GPS location of the confirmation sidewall sample points. Photographs of the excavation process, liner placement, and backfilled site will be included in the closure report as well.

The estimated volume of soil to be excavated is 450 cubic yards. The remediation will be completed within 90 days from receipt of the approval from the NMOCD.

The entire site will be 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.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	4RP-11
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?	182 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ■ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	■ Yes ☐ 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)?	☐ Yes ■ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ■ 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?	☐ Yes ■ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ■ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ■ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ■ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ■ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ■ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ■ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	■ Yes ☐ 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.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	4RP-11
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 Specialist

Signature: [signature] Date: 11-7-18

email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

Received by: [signature] Date: 08Nov18

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	4RP-11
Facility ID	
Application ID	

Remediation Plan

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

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] 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 Specialist

Signature: Wade Dittrich Date: 11-7-18

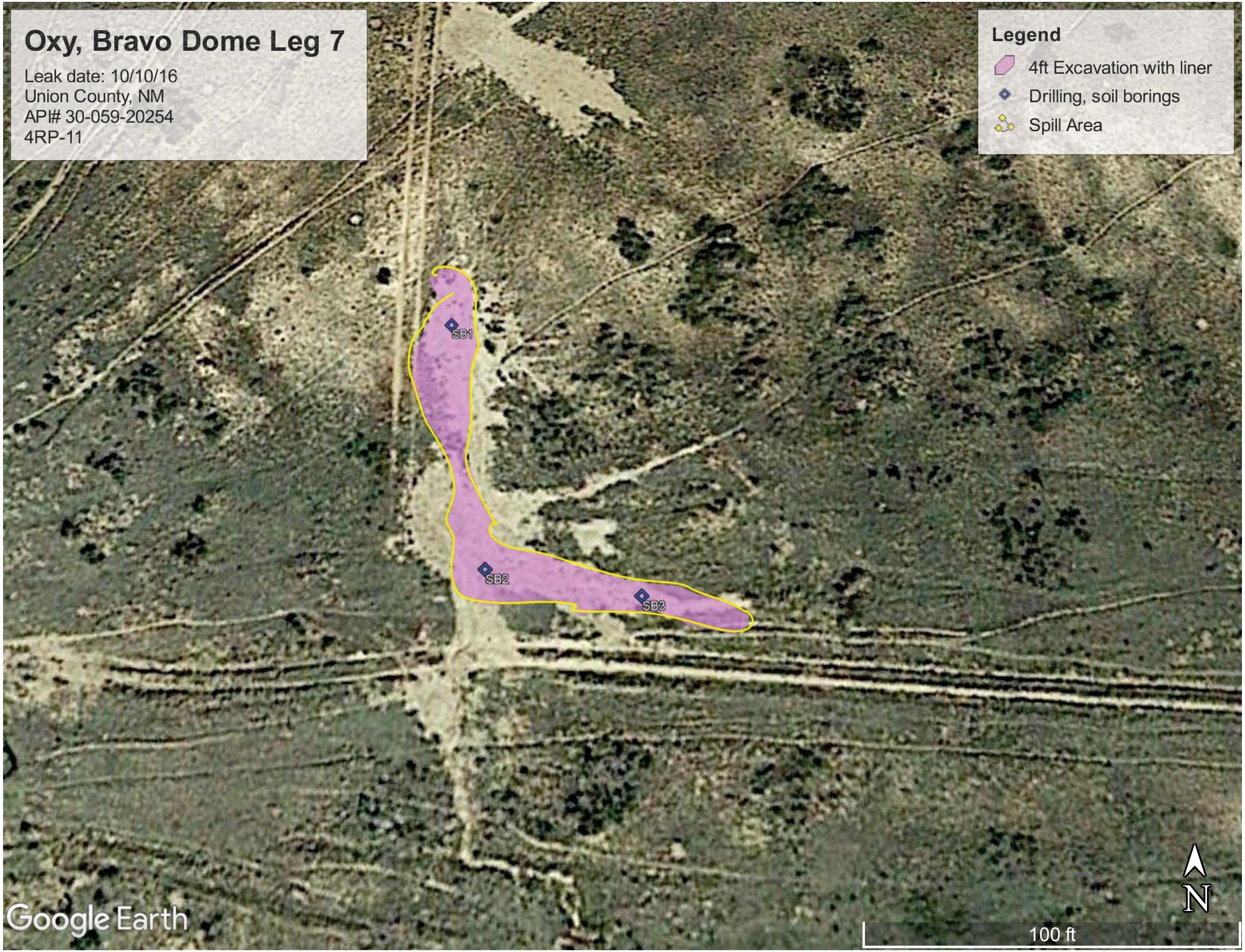
email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

Received by: Randolph Bayliss Date: 08Nov18

- [x] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: Randolph Bayliss Date: 08Nov18


Oxy, Bravo Dome Leg 7
Leak date: 10/10/16
Union County, NM
API# 30-059-20254
4RP-11
Legend
4ft Excavation with liner
Drilling, soil borings
Spill Area
SB1
SB2
SB3
Google Earth
N
100 ft

Oxy, Bravo Dome Leg 7

Soil Borings, drilling

SB1, N 35.76721 W-103.20268

SB2, N 35.76699 W-103.20264

SB3, N 35.76697 W-103.20248

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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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Groundwater levels for New Mexico

Well #1
Leg 7

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 354656103124501

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 354656103124501 18N.35E.22.111

Union County, New Mexico
Latitude 35°46'56", Longitude 103°12'45" NAD27
Land-surface elevation 4,615 feet above NGVD29
The depth of the well is 205 feet below land surface.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1981-02-11		D	182.60			2		U		U	A

Explanation

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

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
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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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Groundwater levels for New Mexico

Well #2
Leg 7

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 354618103112601

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 354618103112601 18N.35E.23.323

Union County, New Mexico
Latitude 35°46'18", Longitude 103°11'26" NAD27
Land-surface elevation 4,561 feet above NGVD29
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

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

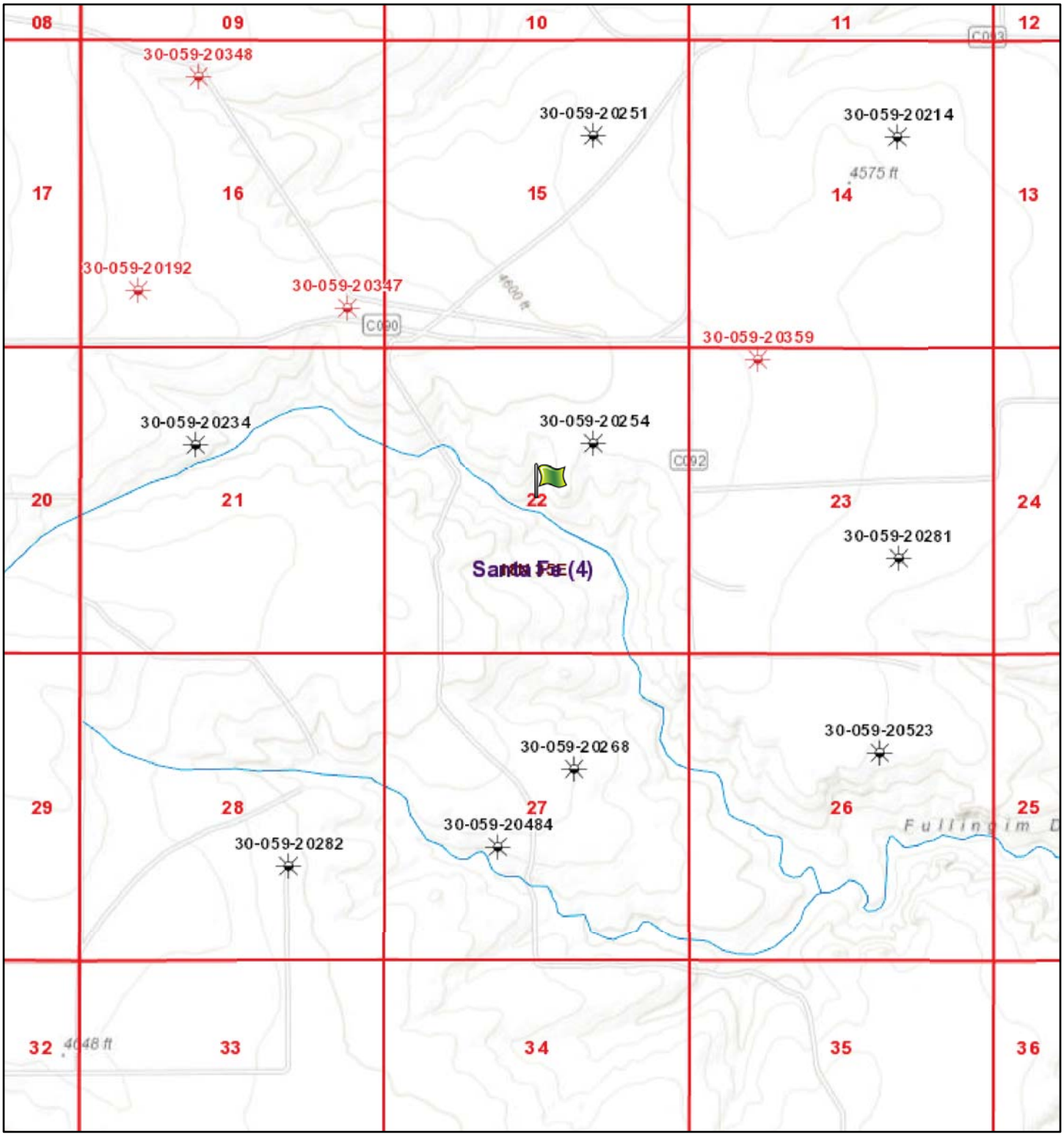
Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1981-02-11		D	200.98			2		U		U	A
1986-02-20		D	201.40			2		U		U	A

Explanation

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

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Surface Waters within 1/2 mile of site



11/7/2018, 3:55:56 PM

1:36,112

0 0.25 0.5 1 mi

0 0.4 0.8 1.6 km

Override 1

Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled

Temporarily Abandoned

Well Locations - Large Scale

- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New

CO2, Plugged

Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, OCD, BLM

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/: New Mexico Oil Conservation Division

Laboratory Analytical Results Summary
Bravo Dome Leg #7

		Sample	SB1 @ SURFACE	SB1 @ 5'	SB1 @ 10'	SB1 @ 15'	SB1 @ 17'	SB1 @ 22'
Analyte	Method	Date	6/6/17	6/6/17	6/6/17	6/6/17	6/6/17	6/6/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		**16400**	**1500**	**1180**	**496**	**80**	**96**

		Sample	SB2 @ SURFACE	SB2 @ 5'	SB2 @ 10'	SB2 @ 15'	SB2 @ 17'	SB2 @ 22'
Analyte	Method	Date	6/6/17	6/6/17	6/6/17	6/6/17	6/6/17	6/6/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		**15400**	**4400**	**1340**	**640**	**64**	**48**

		Sample	SB3 @ SURFACE	SB3 @ 5'	SB3 @ 10'	SB3 @ 15'	SB3 @ 17'	SB3 @ 22'
Analyte	Method	Date	6/6/17	6/6/17	6/6/17	6/6/17	6/6/17	6/6/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		**144**	**576**	**688**	**320**	<16.0	<16.0

CARDINAL Laboratories

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

June 13, 2017

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: BRAVO DOME LEG #7

Enclosed are the results of analyses for samples received by the laboratory on 06/07/17 16:40.

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 accreditated through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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:	06/07/2017	Sampling Date:	06/06/2017
Reported:	06/13/2017	Sampling Type:	Soil
Project Name:	BRAVO DOME LEG #7	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

Sample ID: SB1 @ SURFACE (H701506-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16400**	16.0	06/09/2017	ND	432	108	400	3.77	

Sample ID: SB1 @ 5' (H701506-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1500**	16.0	06/09/2017	ND	432	108	400	3.77	

Sample ID: SB1 @ 10' (H701506-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1180**	16.0	06/09/2017	ND	432	108	400	3.77	

Sample ID: SB1 @ 15' (H701506-04)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**496**	16.0	06/09/2017	ND	432	108	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	06/07/2017	Sampling Date:	06/06/2017
Reported:	06/13/2017	Sampling Type:	Soil
Project Name:	BRAVO DOME LEG #7	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

Sample ID: SB1 @ 17' (H701506-05)

Chloride, SM4500Cl-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	06/09/2017	ND	432	108	400	3.77	

Sample ID: SB1 @ 22' (H701506-06)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	06/09/2017	ND	432	108	400	3.77	

Sample ID: SB2 @ SURFACE (H701506-07)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**15400**	16.0	06/09/2017	ND	432	108	400	3.77	

Sample ID: SB2 @ 5' (H701506-08)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4400**	16.0	06/09/2017	ND	432	108	400	3.77	

Sample ID: SB2 @ 10' (H701506-09)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1340**	16.0	06/09/2017	ND	432	108	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	06/07/2017	Sampling Date:	06/06/2017
Reported:	06/13/2017	Sampling Type:	Soil
Project Name:	BRAVO DOME LEG #7	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

Sample ID: SB2 @ 15' (H701506-10)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	06/09/2017	ND	432	108	400	3.77	

Sample ID: SB2 @ 17' (H701506-11)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	06/09/2017	ND	432	108	400	3.77	

Sample ID: SB2 @ 22' (H701506-12)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	06/09/2017	ND	432	108	400	3.77	

Sample ID: SB3 @ SURFACE (H701506-13)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	06/09/2017	ND	432	108	400	3.77	

Sample ID: SB3 @ 5' (H701506-14)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**576**	16.0	06/09/2017	ND	432	108	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	06/07/2017	Sampling Date:	06/06/2017
Reported:	06/13/2017	Sampling Type:	Soil
Project Name:	BRAVO DOME LEG #7	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

Sample ID: SB3 @ 10' (H701506-15)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**688**	16.0	06/09/2017	ND	448	112	400	3.64	

Sample ID: SB3 @ 15' (H701506-16)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**320**	16.0	06/09/2017	ND	448	112	400	3.64	

Sample ID: SB3 @ 17' (H701506-17)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/09/2017	ND	448	112	400	3.64	

Sample ID: SB3 @ 22' (H701506-18)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/09/2017	ND	448	112	400	3.64	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 2

		BILL TO	
Company Name:	BBC International, Inc.	P.O. #:	
Project Manager:	Cliff Brunson	Company:	
Address:	P.O. Box 805	Attn:	
City:	Hobbs	State: NM Zip: 88241	Address:
Phone #:	575-397-6388	Fax #: 575-397-0397	City:
Project #:		Project Owner: Oxy	State: Zip:
Project Name:	BRADDOCK LEG #7		Phone #:
Project Location:			Fax #:
Sampler Name:	ROGER HERNANDEZ		

ANALYSIS REQUEST: Chlorides

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	Chlorides
H701506															
1	SB1 @ SURFACE	G	1			✓					✓		6.6.17	1145	✓
2	@ 5'	C	1			✓					✓		6.6.17	1157	✓
3	@ 10'	C	1			✓					✓		6.6.17	1208	✓
4	@ 15'	C	1			✓					✓		6.6.17	1214	✓
5	@ 17'	C	1			✓					✓		6.6.17	1227	✓
6	@ 22'	C	1			✓					✓		6.6.17	1245	✓
7	SB2 @ SURFACE	C	1			✓					✓		6.6.17	100	✓
8	@ 5'	C	1			✓					✓		6.6.17	108	✓
9	@ 10'	C	1			✓					✓		6.6.17	115	✓
10	@ 15'	C	1			✓					✓		6.6.17	124	✓

Relinquished By: Roger Hernandez	Date: 6.7.17 Time:	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: 6-7-17 Time: 4:40	Received By: Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials) T.O. #75	REMARKS:

4.9°C

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 2

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

Company Name:	BBC International, Inc.
Project Manager:	Cliff Brunson
Address:	P.O. Box 805
City:	Hobbs State: NM Zip: 88241
Phone #:	575-397-6388 Fax #: 575-397-0397
Project #:	Project Owner: ONE
Project Name:	Bravo Dome LEG #7
Project Location:	
Sampler Name:	Roger Hernandez

BILL TO

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

ANALYSIS REQUEST

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	CHLORIDE
H701506															
11	SB2 @ 17	G	1			✓					✓		6.6.17	135	✓
12	@ 22	G	1			✓					✓		6.6.17	147	✓
13	SB3 @ Surface	G	1			✓					✓		6.6.17	200	✓
14	@ 5'	G	1			✓					✓		6.6.17	210	✓
15	@ 10'	G	1			✓					✓		6.6.17	217	✓
16	@ 15'	G	1			✓					✓		6.6.17	228	✓
17	@ 17'	G	1			✓					✓		6.6.17	236	✓
18	@ 22'	G	1			✓					✓		6.6.17	245	✓

Relinquished By: Roger Hernandez	Date: 6-7-17 Time:	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: 6-7-17 Time: 4:40	Received By: Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	CHECKED BY: (Initials) TO-#15	REMARKS:

4.9°C

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

4RP-11

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company OXY USA Inc.	Contact Eric Maestas
Address770 Rosebud Rd. Amistad NM 88410	Telephone No. 575-420-7825
Facility Name Bravo Dome Gathering System	Facility Type Carbon Dioxide Gathering System

Surface Owner Banta	Mineral Owner Banta	API No. 30-059-20254

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	22	18	35	1650	North	1650	East	Union

Latitude N 35.767236 **Longitude** W -103.202734

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 6 bbls	Volume Recovered None
Source of Release: 6 in steel Pipeline	Date and Hour of Occurrence 10/10/2016 10:00 AM	Date and Hour of Discovery 10/10/2016 9:00AM
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? N/A	
By Whom? Eric Maestas	Date and Hour 10/10/2016 4:00 PM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*N/A

Describe Cause of Problem and Remedial Action Taken.*
Produced water was spilled on the ground after a 6" steel pipeline developed a leak. There was approximately 6 bbls of produced water that ran out of the pipe onto the ground. Area has been delineated in preparation for remediation.

Describe Area Affected and Cleanup Action Taken.*
Affected area has been delineated, Safety Environmental Solutions Inc. will be assisting with the remediation plan submittal.

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:	OIL CONSERVATION DIVISION
Printed Name: Eric Maestas	Approved by Environmental Specialist:
Title: HES Coordinator	Approval Date: 10/12/16 Expiration Date:
E-mail Address: eric_maestas@oxy.com	Conditions of Approval: Attached ☐
Date: 10/12/16 Phone:575-420-7825	

* Attach Additional Sheets If Necessary

Talked to Eric M. 10/13/16. OCD Waiting on rmd. plan.

From:	Lowe, Leonard, EMNRD
To:	"Eric_Maestas@oxy.com"
Cc:	Jones, William V, EMNRD
Subject:	4RP-11
Date:	Monday, October 17, 2016 9:40:00 AM
Importance:	High

Mr. Maestas,

OCD has categorized your 6 bbl release as 4RP-11. Any submitted information of this release to the OCD shall reference this 4RP-11 number.

OXY has an active environmental release that needs to be addressed and resolved.

OCD is waiting on a plan of remediation from OXY as of **Friday, October 14, 2016**.

Leonard Lowe

Engineering Bureau
Oil **C**onservation **D**ivision
Energy **M**inerals and **N**atural **R**esources **D**epartment
1220 South St. Frances
Santa Fe, New Mexico 87004
Office: 505-476-3492
Cell: 505-930-6717
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/