



DELINEATION WORKPLAN

OXY – SPUDS 25 FEDERAL BATTERY (Leak Date: 1/10/17)

RP # 4091
API # 30-015-29882

This delineation workplan and remediation proposal addresses the release associated with RP #4091.

The following information includes:

1. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
2. GPS information for sample points and sample methodology
3. Depth to groundwater information (i.e., pdf of OSE search results and/or copy of Chevron groundwater trend map).
4. Laboratory analysis results summary table and original laboratory analysis reports
5. A copy of the initial C-141
6. Potentially other pertinent information as necessary for site specific purposes.

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

OXY will excavate the spill area as depicted on the following site diagram. The entire leak area will be excavated to a depth of 6 inches.

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.

Oxy, Spuds 25 Federal Battery

Leak Date: 01/10/2017, RP-4091, API # 30-015-29882

Legend

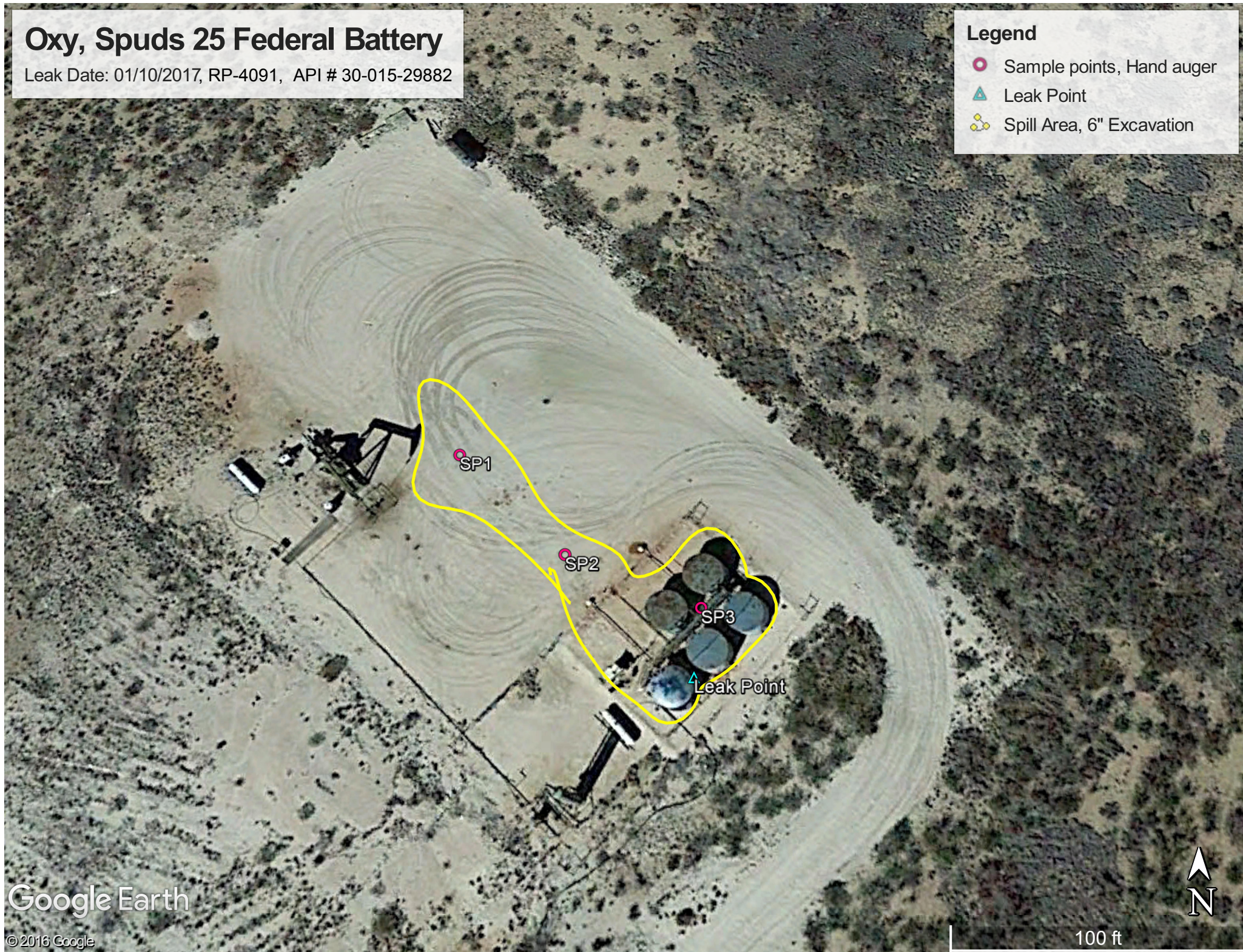
- Sample points, Hand auger
- Leak Point
- Spill Area, 6" Excavation

Google Earth

© 2016 Google



100 ft



Oxy, Spuds 25 Federal Battery

Samples, Hand Auger

SP1, GPS POINT: N 32.18353 W-103.94383

SP2, GPS POINT: N 32.18342 W-103.94369

SP3, GPS POINT: N 32.18336 W-103.94353





No records found.

Radius: 1700

WATER COLUMN/ AVERAGE
DEPTH TO WATER

Public Land Survey System (PLSS)

Q64:Q16: SWQ4: SWSec: 25Tws: 24SRng: 29E

State Plane Coordinate System - NAD27

X:ftY:ftZone:

State Plane Coordinate System - NAD83

X:ftY:ftZone:

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):599498.0mtrsNorthing (Y):3561198.0mtrs

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

Groundwater Plot

Oxy Spuds 25 Federal Battery

County
Eddy

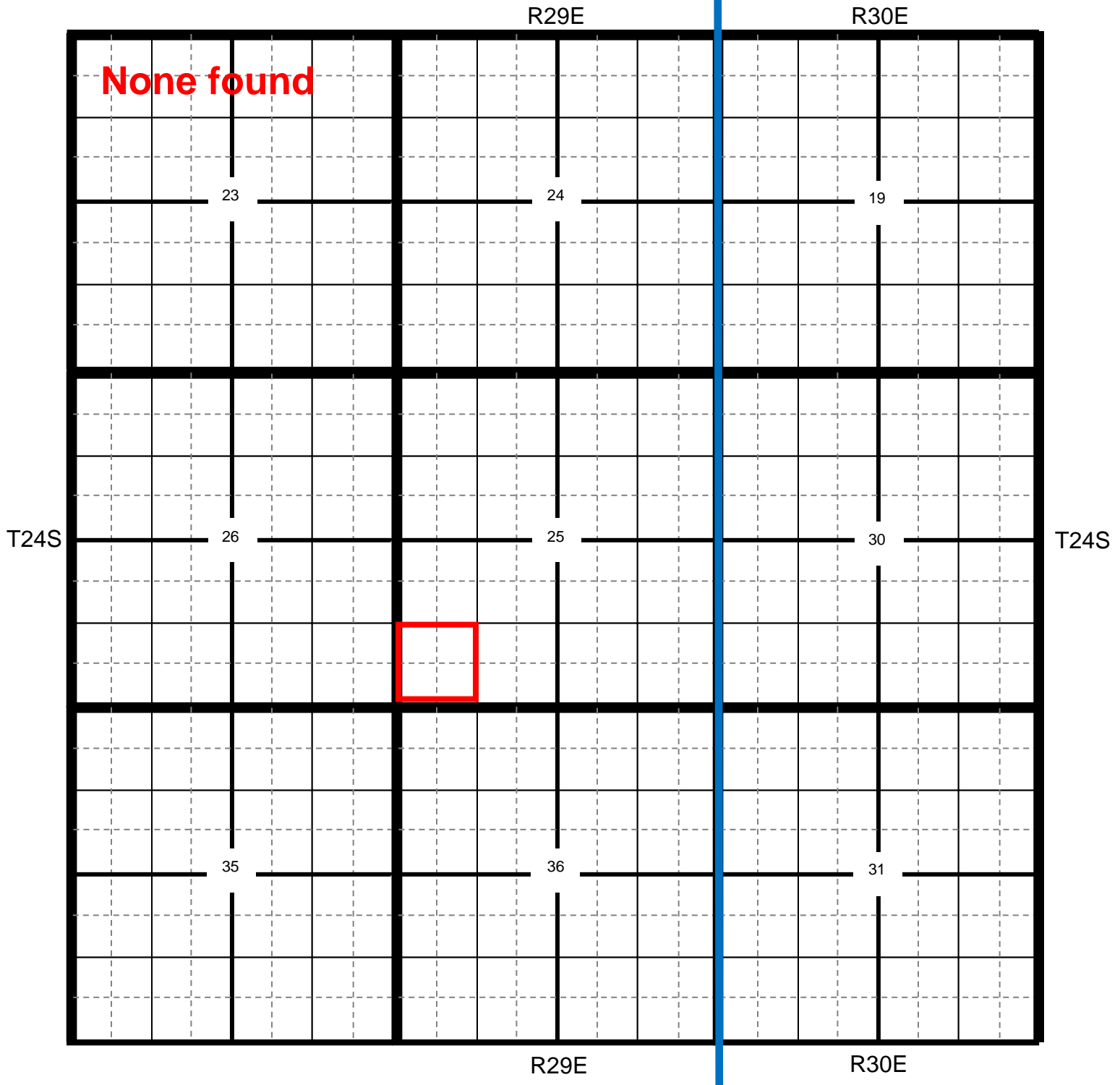
Unit Letter
M

Section
25

Township
24S

Range
29E

Trend Map 150'



★ Location

● OCD

● USGS

● SEO

● All Databases

Oxy Spuds 25 Federal Battery

County Eddy **Unit Letter** M **Section** 25 **Township** 24S **Range** 29E

Trend Map 150'

1

2

NW/NW None found	NE/NW	NW/NE	NE/NE
Unit Letter D	Unit Letter C	Unit Letter B	Unit Letter A
SW/NW	SE/NW	SW/NE	SE/NE
Unit Letter E	Unit Letter F	Unit Letter G	Unit Letter H
NW/SW	NE/SW	NW/SE	NE/SE
Unit Letter L	Unit Letter K	Unit Letter J	Unit Letter I
SW/SW	SE/SW	SW/SE	SE/SE
Unit Letter M	Unit Letter N	Unit Letter O	Unit Letter P

3

4

**Laboratory Analytical Results Summary
Spuds 25 Federal Battery**

		Sample	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'
Analyte	Method	Date	1/30/17	1/30/17	1/30/17	1/30/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		18400	576	144	32

		Sample	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'
Analyte	Method	Date	1/30/17	1/30/17	1/30/17	1/30/17	1/30/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		34000	768	576	1070	240

		Sample	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'
Analyte	Method	Date	1/30/17	1/30/17	1/30/17
			mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		10000	240	288

February 09, 2017

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: SPUDS 25 FEDERAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 02/02/17 15:00.

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,



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:	02/02/2017	Sampling Date:	01/30/2017
Reported:	02/09/2017	Sampling Type:	Soil
Project Name:	SPUDS 25 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Brittany Feller
Project Location:	EDDY COUNTY, NM		

Sample ID: SP1 @ SURFACE (H700257-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	18400	16.0	02/06/2017	ND	432	108	400	0.00	

Sample ID: SP1 @ 1' (H700257-02)

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	02/06/2017	ND	432	108	400	0.00	

Sample ID: SP1 @ 2' (H700257-03)

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	02/06/2017	ND	432	108	400	0.00	

Sample ID: SP1 @ 3' (H700257-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/06/2017	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/02/2017	Sampling Date:	01/30/2017
Reported:	02/09/2017	Sampling Type:	Soil
Project Name:	SPUDS 25 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Brittany Feller
Project Location:	EDDY COUNTY, NM		

Sample ID: SP2 @ SURFACE (H700257-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	34000	16.0	02/06/2017	ND	432	108	400	0.00		

Sample ID: SP2 @ 1' (H700257-06)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	02/06/2017	ND	432	108	400	0.00	

Sample ID: SP2 @ 2' (H700257-07)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	576	16.0	02/06/2017	ND	432	108	400	0.00		

Sample ID: SP2 @ 3' (H700257-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1070	16.0	02/06/2017	ND	432	108	400	0.00	

Sample ID: SP2 @ 4' (H700257-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	02/06/2017	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:	02/02/2017	Sampling Date:	01/30/2017
Reported:	02/09/2017	Sampling Type:	Soil
Project Name:	SPUDS 25 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Brittany Feller
Project Location:	EDDY COUNTY, NM		

Sample ID: SP3 @ SURFACE (H700257-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10000	16.0	02/06/2017	ND	432	108	400	0.00		

Sample ID: SP3 @ 1' (H700257-11)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	02/06/2017	ND	416	104	400	0.00	

Sample ID: SP3 @ 2' (H700257-12)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	02/06/2017	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

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

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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

Company Name: BBC International, Inc.

Project Manager: Cliff Brunson

Address: P.O. Box 805

City: Hobbs

Phone #: 575-397-6388

Project #:

Project Name: Spuds 25 Federal Battery

Project Location: Eddy County, NM

Sampler Name: Price Brunson

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

H700257

01 SP1 @ SURFACE

02 SP1 @ 1'

03 SP1 @ 2'

04 SP1 @ 3'

05 SP2 @ SURFACE

06 SP2 @ 1'

07 SP2 @ 2'

08 SP2 @ 3'

09 SP2 @ 4'

10 SP3 @ SURFACE

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

PRESERV.

SAMPLING

DATE TIME

BILL TO

ANALYSIS REQUEST

P.O. #:

Company: OKY

Attn: Cassidy

Address:

City:

State:

Zip:

Phone #:

Fax #:

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Relinquished By:

Date: 1/30/17

Received By:

Phone Result: ☐ Yes ☐ No

Fax Result: ☐ Yes ☐ No

Add'l Phone #:

Add'l Fax #:

REMARKS:

Relinquished By:

Date: 1/30/17

Received By:

Phone Result: ☐ Yes ☐ No

Fax Result: ☐ Yes ☐ No

Add'l Phone #:

Add'l Fax #:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Sample Condition

Cool ☒ Intact ☒

CHECKED BY: (Initials)

BF

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



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

202

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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 Permian Ltd.	Contact	Casey Summers
Address	PO Box 4294; Houston, TX 77210	Telephone No.	(575) 513-8289
Facility Name	Spuds 25 Federal Battery	Facility Type	Battery

Surface Owner	BLM	Mineral Owner		API No.	30-015-29882
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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
M	25	24S	29E					Eddy County, NM

Latitude N 32.18353° Longitude W 103.94360°

NATURE OF RELEASE

Type of Release	Produced water	Volume of Release	20 bbls	Volume Recovered	15 bbls
Source of Release	3 rd Party trucking company struck a tank causing it to spill	Date and Hour of Occurrence	01/10/2017	Date and Hour of Discovery	
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher, Crystal Weaver- NMOCD; Shelly Tucker- BLM		
By Whom?	Kathy Purvis @ BBC International	Date and Hour	01/12/2017 @ 11:36 am		
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.*

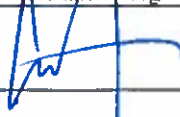
Describe Cause of Problem and Remedial Action Taken.*

A third party trucking company struck a tank causing it to spill 20 bbls of produced water. A vacuum truck recovered 15 bbls of produced water.

Describe Area Affected and Cleanup Action Taken.*

The affected area is approximately 75' x 150' on location. Remediation will be completed in accordance with a remediation plan approved by both NMOCD and the BLM.

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: Casey Summers		Approved by Environmental Specialist:	
Title: NM Environmental Advisor		Approval Date:	Expiration Date:
E-mail Address: Casey_Summers@oxy.com		Conditions of Approval:	
Date: <u>1-25-17</u> Phone: (575) 513-8289		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary