

Closure Report

Site Description

Site Name:	Two Marks 36 State #4 SWD Battery
Company:	Oxy Permian Ltd.
Legal Description:	U/L M, Section 36, T21S, R24E
County:	Eddy County, NM
GPS Coordinates:	N 32.42960° W 104.45840°

Release Data

Date of Release:	06/24/2015 (Dump line leak) and 03/30/2015 (Talon leak)
Type of Release:	Oil and produced water, Produced water
Source of Release:	Line leak (both)
Volume of Release:	0.5 bbl oil and 14.5 bbls water, 10 bbls water
Volume Recovered:	0 bbls (both)

Remediation Specifications

Remediation Parameters:	Dumpline-Excavate the spill area to a depth of 6 inches and backfill the site with clean soil. Talon leak- Per Oxy-Excavate the area around SP1 to a depth of 1 foot and backfill the site with clean soil.
Remediation Activities:	11/17/2015 to 11/18/2015

Plan Sent to OCD:	08/10/2015	Email from Cliff Brunson to Mike Bratcher
OCD Approval of Plan:	08/19/2015	Email from Mike Bratcher to Cliff Brunson
Plan Sent to BLM:	n/a	n/a
BLM Approval of Plan:	n/a	n/a

Supporting Documentation

Initial C-141	Signed 07/13/2015 and 04/28/2015
Final C-141	Signed 11/20/2015 and 12/09/2015
Site Diagram	July 2015 and May 2015
Groundwater Plot	<50'
TOPO Maps	July 2015
Lab Summary	07/15/2015 and 04/29/2015
Lab Analysis	07/15/2015 and 04/29/2015
Correspondence	Request and approval of remediation plan via email

Request for Closure

Based on the completion of the remediation plan as agreed upon, BBC International requests closure approval from NMOCD.

Cliff Brunson, President of BBC International Inc.

12/11/2015

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	Chancey Summers
Address	6 Desta Drive, Midland, TX 79705	Telephone No.	(432) 685-5824
Facility Name	Two Marks 36 State #4 SWD Battery	Facility Type	Battery
Surface Owner	State	Mineral Owner	
		API No.	30-15-34833

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	36	21S	24E					Eddy County, NM

Latitude N 32.42960° Longitude W 104.45840°

NATURE OF RELEASE

Type of Release	Oil and produced water	Volume of Release	0.5 bbl oil, 14.5 bbls produced water	Volume Recovered	0 bbls
Source of Release	Leak in a 2.875" steel oil dump line	Date and Hour of Occurrence	06/24/2015	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher, Heather Patterson- NMOCD		
By Whom?	Kathy Purvis, BBC International	Date and Hour	06/25/2015 @ 11:17 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 leak in a 2.875" steel dump line spilled 0.5 bbl oil and 14.5 bbls of produced water onto the ground. The line was repaired or replaced and no fluids were recovered.

Describe Area Affected and Cleanup Action Taken.*
The affected area is approximately 60' x 60' on location. Remediation will be completed in accordance with a remediation plan approved by NMOCD.

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: Chancey Summers	Approved by Environmental Specialist:		
Title: HES Lead	Approval Date:	Expiration Date:	
E-mail Address: Chancey_Summers@oxy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 7-13-15	Phone: (432) 685-5824		

* Attach Additional Sheets If Necessary

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Oil Conservation Division
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Santa Fe, NM 87505

NM OIL CONSERVATION
ARTESIA DISTRICT

APR 29 2015

Form C-141
Revised August 8, 2011

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

RECEIVED

Release Notification and Corrective Action

NAB 1512156316

OPERATOR Initial Report Final Report

Name of Company: OXY USA INC <i>116696</i>	Contact: Chris Jones
Address: 102 S. Main St, Carlsbad, NM 88220	Telephone No.: 575-628-4121
Facility Name: Two Marks 36 State #4 SWD	Facility Type: SWD

Surface Owner: State	Mineral Owner:	API No.: 30-015-34833
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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
O	36	21S	24E	670'	South	1905'	East	Eddy

Latitude **32.430102 N** Longitude **-103.454029 W**

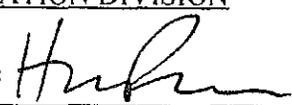
NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 10 bbls	Volume Recovered: 0 bbls
Source of Release: 4" Steel Line Leak	Date and Hour of Occurrence 3/30/2015	Date and Hour of Discovery 3/30/2015
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
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 4" steel salt water disposal line caused a 10 barrel release on location due to stress on the line. All fluids stayed on location.**

Describe Area Affected and Cleanup Action Taken.* The impacted area was on location only measuring approximately 60' x 80'. Talon/LPE was contracted to perform initial site assessment and soil sampling activities.

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: Chris Jones <small>Digitally signed by Chris Jones DN: cn=Chris Jones, o, ou, email=ckjones89@yahoo.com c=US Date: 2015.04.28 15:48:06 +05'00'</small>	OIL CONSERVATION DIVISION	
Printed Name: Chris Jones	Approved by Environmental Specialist: 	
Title: HES Specialist	Approval Date: 4/11/15	Expiration Date: N/A
E-mail Address: Christopher.Jones@oxy.com	Conditions of Approval: <input type="checkbox"/> Attached <input type="checkbox"/>	
Date: 4/28/2015 Phone: 575-628-4121	Remediation per O.C.D. Rules & Guidelines	

SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 4/11/15

* Attach Additional Sheets If Necessary

2RP-2977

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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	Dusty Wilson
Address	6 Desta Drive, Midland, TX 79705	Telephone No.	(432) 685-5771
Facility Name	Two Marks 36 State #4 SWD Battery	Facility Type	Battery
Surface Owner	State	Mineral Owner	API No. 30-15-34833

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	36	21S	24E					Eddy County, NM

Latitude N 32.42960° Longitude W 104.45840°

NATURE OF RELEASE

Type of Release	Oil and produced water	Volume of Release	0.5 bbl oil, 14.5 bbls produced water	Volume Recovered	0 bbls
Source of Release	Leak in a 2.875" steel oil dump line	Date and Hour of Occurrence	06/24/2015	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher, Heather Patterson- NMOCD		
By Whom?	Kathy Purvis, BBC International	Date and Hour	06/25/2015 @ 11:17 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.*

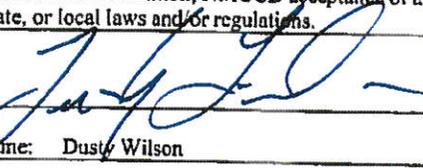
A leak in a 2.875" steel dump line spilled 0.5 bbl oil and 14.5 bbls of produced water onto the ground. The line was repaired or replaced and no fluids were recovered.

Describe Area Affected and Cleanup Action Taken.*

The affected area is approximately 60' x 60' on location. Remediation was completed in accordance with a remediation plan approved by Mike Bratcher of NMOCD via email on 08/19/2015.

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.

OIL CONSERVATION DIVISION

Signature:			
Printed Name:	Dusty Wilson	Approved by Environmental Specialist:	
Title:	Environmental Advisor	Approval Date:	Expiration Date:
E-mail Address:	Dusty.Wilson@oxy.com	Conditions of Approval:	
Date:	11/20/15	Phone:	(432) 685-5771
			Attached <input type="checkbox"/>

* Attach Additional Sheets If Necessary

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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	Dusty Wilson
Address	6 Desta Drive, Midland, TX 79705	Telephone No.	(432) 685-5771
Facility Name	Two Marks 36 State #4 SWD	Facility Type	SWD
Surface Owner	State	Mineral Owner	API No. 30-15-34833

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	36	21S	24E					Eddy County, NM

Latitude N 32.43010° Longitude W 103.45402°

NATURE OF RELEASE

Type of Release	Produced water	Volume of Release	10 bbls	Volume Recovered	0 bbls
Source of Release	4" steel line leak	Date and Hour of Occurrence	03/30/2015	Date and Hour of Discovery	
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?		Date and Hour	06/25/2015 @ 11:17 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 4" steel saltwater disposal line caused a 10 barrel release on location due to stress on the line. All fluids stayed on location.

Describe Area Affected and Cleanup Action Taken.*

The impacted area was on location only measuring approximately 60' x 80'. Remediation was completed in accordance with the remediation plan.

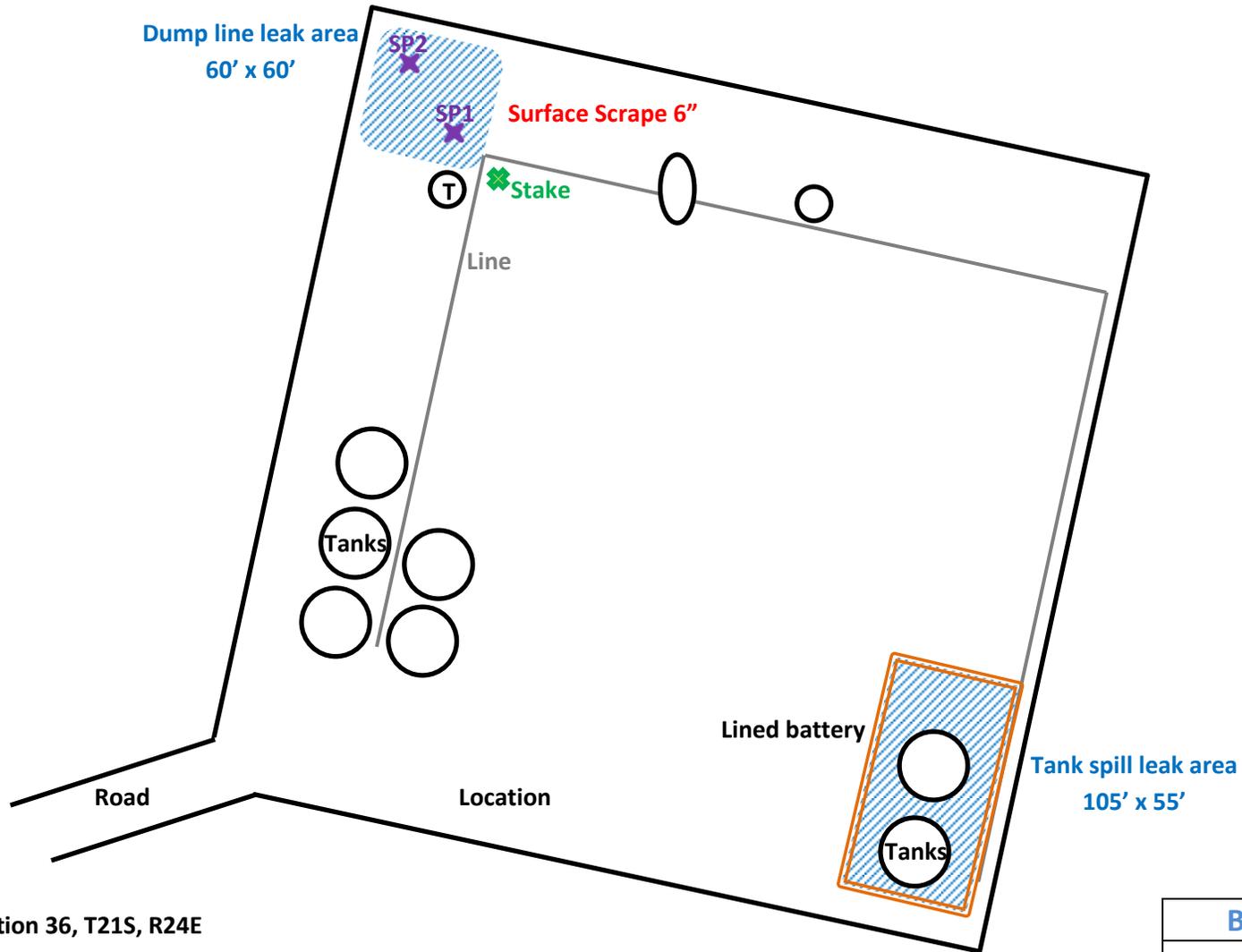
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger 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:	Attached <input type="checkbox"/>
Date:	12-9-15	Phone:	(575)513-8289

* Attach Additional Sheets If Necessary



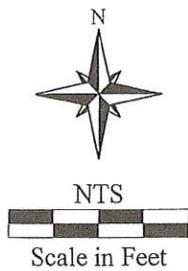
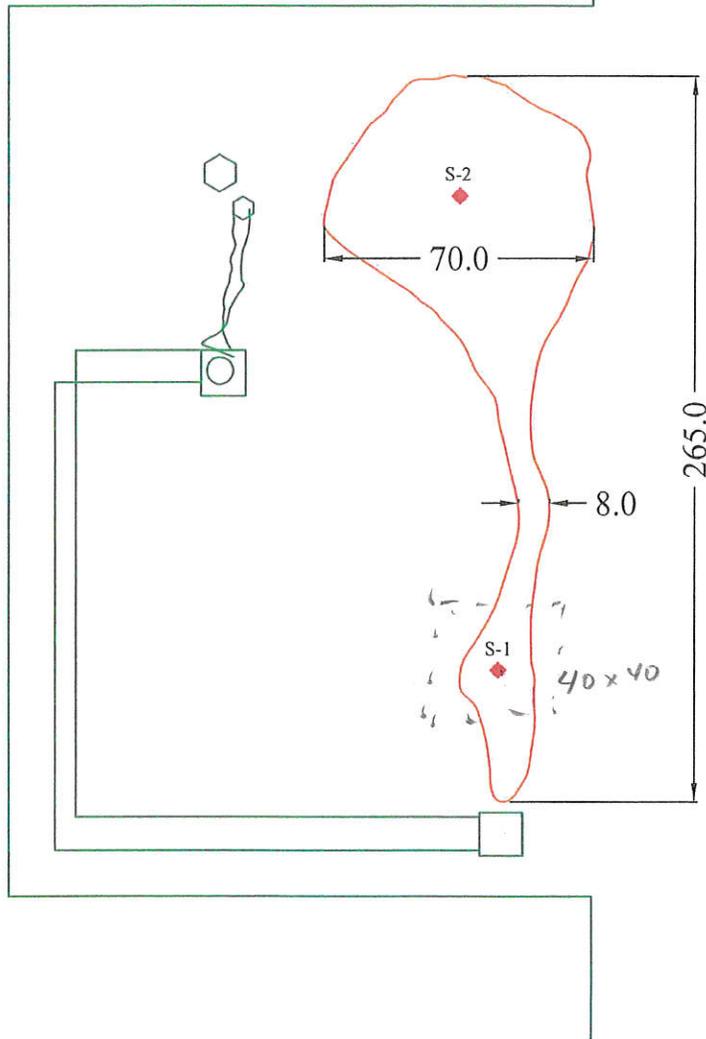
Oxy
Two Marks 36 State #4 SWD Battery



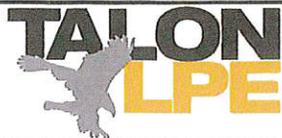
U/L M, Section 36, T21S, R24E
Eddy County, NM
N 32.42960° W 104.45840°
API# 30-015-34833

BBC International, Inc.	
Oxy	
Two Marks 36 State #4 Battery	
Date: 07/08/2015	DRWG by: K. Purvis
NOT TO SCALE	File: Oxy 2015

Two marks
Talon



Legend	
	- Impacted Area
	- Sample Location



Date: 05/26/2015

Scale: NTS

Drawn By: TJS

Two Marks 36 State 04
Oxy - NM - North
Eddy County, New Mexico
Figure 1 - Site Plan

Groundwater Plot

Oxy Two Marks 36 State #4 SWD Battery

County
Eddy

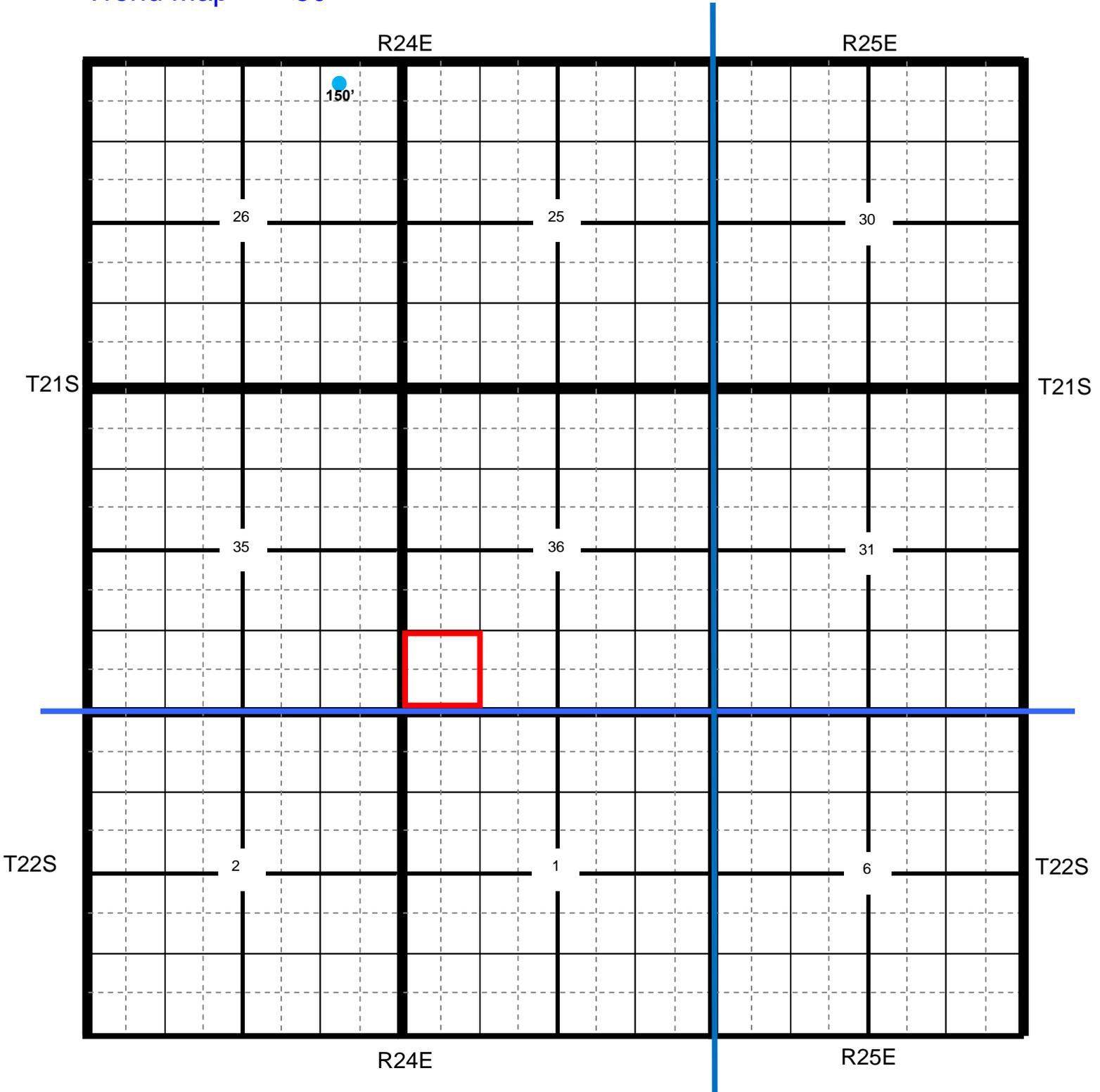
Unit Letter
M

Section
36

Township
21S

Range
24E

Trend Map <50'



📍 Location

● OCD

● USGS

● SEO

● All Databases

Section Quarters

Oxy Two Marks 36 State #4 SWD Battery

County Eddy Unit Letter M Section 36 Township 21S Range 24E

Trend Map <50'

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
Two Marks 36 State #4 SWD Battery, Dump Line

		Sample	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'
Analyte	Method	Date	7/15/15	7/15/15	7/15/15	7/15/15
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		896	128	320	320
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

		Sample	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'
Analyte	Method	Date	7/15/15	7/15/15	7/15/15	7/15/15
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		1410	224	320	320
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

Incident Description

A 4-inch steel salt water disposal line failed causing a release of 10bbbls of produced water. All of the fluid was contained on the location. Talon mobilized personnel to conduct a site assessment and perform soil sampling within the impacted area utilizing a backhoe. Due to the shallow soils and rockiness of this area, refusal was encountered with the backhoe at depths between 2-feet and 4-feet below ground surface. Laboratory results from the above referenced sampling activities are summarized in the table below.

Laboratory Results

See [Appendix III](#) for complete report of laboratory results.

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0	ND	5200	ND	ND
S-1	1	ND	256	ND	ND
S-1	1.5	ND	240	ND	ND
S-1 REFUSAL	2	ND	192	ND	ND
S-2	0	ND	272	ND	ND
S-2	1	ND	304	ND	ND
S-2	2	ND	224	ND	ND
S-2	3	ND	304	ND	ND
S-2 REFUSAL	4	ND	512	ND	ND

(ND) Analyte Not Detected

Based upon the site ranking of **0**, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, and 5,000 mg/kg for TPH.



July 22, 2015

Cliff Brunson
BBC International, Inc.
P.O. Box 805
Hobbs, NM 88241

RE: TWO MARKS 36 STATE #4 SWD BATTERY, DUMP LINE

Enclosed are the results of analyses for samples received by the laboratory on 07/16/15 11:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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:	07/16/2015	Sampling Date:	07/15/2015
Reported:	07/22/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE #4 SWD BATTER	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY,NM		

Sample ID: SP 1 @ SURFACE (H501824-01)

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	07/21/2015	ND	1.91	95.6	2.00	2.71	
Toluene*	<0.050	0.050	07/21/2015	ND	1.90	94.9	2.00	2.58	
Ethylbenzene*	<0.050	0.050	07/21/2015	ND	1.99	99.3	2.00	3.99	
Total Xylenes*	<0.150	0.150	07/21/2015	ND	5.20	86.7	6.00	3.71	
Total BTEX	<0.300	0.300	07/21/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	07/22/2015	ND	416	104	400	3.77	

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	07/18/2015	ND	183	91.3	200	5.04	
DRO >C10-C28	<10.0	10.0	07/18/2015	ND	189	94.6	200	7.58	

Surrogate: 1-Chlorooctane 75.7 % 47.2-157
Surrogate: 1-Chlorooctadecane 62.3 % 52.1-176

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:	07/16/2015	Sampling Date:	07/15/2015
Reported:	07/22/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE #4 SWD BATTER	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

Sample ID: SP1 @ 1' (H501824-02)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/21/2015	ND	1.91	95.6	2.00	2.71	
Toluene*	<0.050	0.050	07/21/2015	ND	1.90	94.9	2.00	2.58	
Ethylbenzene*	<0.050	0.050	07/21/2015	ND	1.99	99.3	2.00	3.99	
Total Xylenes*	<0.150	0.150	07/21/2015	ND	5.20	86.7	6.00	3.71	
Total BTEX	<0.300	0.300	07/21/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	07/22/2015	ND	416	104	400	3.77	

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	07/20/2015	ND	196	97.8	200	0.213	
DRO >C10-C28	<10.0	10.0	07/20/2015	ND	213	107	200	14.6	

Surrogate: 1-Chlorooctane 79.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 86.7 % 52.1-176

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:	07/16/2015	Sampling Date:	07/15/2015
Reported:	07/22/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE #4 SWD BATTER	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

Sample ID: SP 1 @ 2' (H501824-03)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/21/2015	ND	1.91	95.6	2.00	2.71	
Toluene*	<0.050	0.050	07/21/2015	ND	1.90	94.9	2.00	2.58	
Ethylbenzene*	<0.050	0.050	07/21/2015	ND	1.99	99.3	2.00	3.99	
Total Xylenes*	<0.150	0.150	07/21/2015	ND	5.20	86.7	6.00	3.71	
Total BTEX	<0.300	0.300	07/21/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	07/22/2015	ND	416	104	400	3.77	

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	07/20/2015	ND	196	97.8	200	0.213	
DRO >C10-C28	<10.0	10.0	07/20/2015	ND	213	107	200	14.6	

Surrogate: 1-Chlorooctane 74.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 80.9 % 52.1-176

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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:	07/16/2015	Sampling Date:	07/15/2015
Reported:	07/22/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE #4 SWD BATTER	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY,NM		

Sample ID: SP 1 @ 3' (H501824-04)

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	07/21/2015	ND	1.91	95.6	2.00	2.71	
Toluene*	<0.050	0.050	07/21/2015	ND	1.90	94.9	2.00	2.58	
Ethylbenzene*	<0.050	0.050	07/21/2015	ND	1.99	99.3	2.00	3.99	
Total Xylenes*	<0.150	0.150	07/21/2015	ND	5.20	86.7	6.00	3.71	
Total BTEX	<0.300	0.300	07/21/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	07/22/2015	ND	416	104	400	3.77	

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	07/20/2015	ND	196	97.8	200	0.213	
DRO >C10-C28	<10.0	10.0	07/20/2015	ND	213	107	200	14.6	

Surrogate: 1-Chlorooctane 73.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 65.6 % 52.1-176

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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:	07/16/2015	Sampling Date:	07/15/2015
Reported:	07/22/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE #4 SWD BATTER	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

Sample ID: SP 2 @ SURFACE (H501824-05)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/21/2015	ND	1.91	95.6	2.00	2.71		
Toluene*	<0.050	0.050	07/21/2015	ND	1.90	94.9	2.00	2.58		
Ethylbenzene*	<0.050	0.050	07/21/2015	ND	1.99	99.3	2.00	3.99		
Total Xylenes*	<0.150	0.150	07/21/2015	ND	5.20	86.7	6.00	3.71		
Total BTEX	<0.300	0.300	07/21/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1410	16.0	07/22/2015	ND	416	104	400	3.77		

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	07/20/2015	ND	196	97.8	200	0.213		
DRO >C10-C28	<10.0	10.0	07/20/2015	ND	213	107	200	14.6		

Surrogate: 1-Chlorooctane 71.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 79.8 % 52.1-176

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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:	07/16/2015	Sampling Date:	07/15/2015
Reported:	07/22/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE #4 SWD BATTER	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY,NM		

Sample ID: SP2 @ 1' (H501824-06)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/21/2015	ND	1.91	95.6	2.00	2.71		
Toluene*	<0.050	0.050	07/21/2015	ND	1.90	94.9	2.00	2.58		
Ethylbenzene*	<0.050	0.050	07/21/2015	ND	1.99	99.3	2.00	3.99		
Total Xylenes*	<0.150	0.150	07/21/2015	ND	5.20	86.7	6.00	3.71		
Total BTEX	<0.300	0.300	07/21/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	07/22/2015	ND	416	104	400	3.77		

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	07/20/2015	ND	196	97.8	200	0.213		
DRO >C10-C28	<10.0	10.0	07/20/2015	ND	213	107	200	14.6		

Surrogate: 1-Chlorooctane 70.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 68.9 % 52.1-176

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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:	07/16/2015	Sampling Date:	07/15/2015
Reported:	07/22/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE #4 SWD BATTER	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY,NM		

Sample ID: SP2 @ 2' (H501824-07)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/21/2015	ND	1.91	95.6	2.00	2.71	
Toluene*	<0.050	0.050	07/21/2015	ND	1.90	94.9	2.00	2.58	
Ethylbenzene*	<0.050	0.050	07/21/2015	ND	1.99	99.3	2.00	3.99	
Total Xylenes*	<0.150	0.150	07/21/2015	ND	5.20	86.7	6.00	3.71	
Total BTEX	<0.300	0.300	07/21/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	07/22/2015	ND	416	104	400	3.77	

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	07/20/2015	ND	196	97.8	200	0.213	
DRO >C10-C28	<10.0	10.0	07/20/2015	ND	213	107	200	14.6	

Surrogate: 1-Chlorooctane 72.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 68.0 % 52.1-176

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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:	07/16/2015	Sampling Date:	07/15/2015
Reported:	07/22/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE #4 SWD BATTER	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

Sample ID: SP2 @ 3' (H501824-08)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/21/2015	ND	1.91	95.6	2.00	2.71	
Toluene*	<0.050	0.050	07/21/2015	ND	1.90	94.9	2.00	2.58	
Ethylbenzene*	<0.050	0.050	07/21/2015	ND	1.99	99.3	2.00	3.99	
Total Xylenes*	<0.150	0.150	07/21/2015	ND	5.20	86.7	6.00	3.71	
Total BTEX	<0.300	0.300	07/21/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	07/22/2015	ND	416	104	400	3.77	

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	07/20/2015	ND	196	97.8	200	0.213	
DRO >C10-C28	<10.0	10.0	07/20/2015	ND	213	107	200	14.6	

Surrogate: 1-Chlorooctane 73.1 % 47.2-157

Surrogate: 1-Chlorooctadecane 77.8 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report



Celey D. Keene, Lab Director/Quality Manager



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 State: NM Zip: 88241
 Phone #: 575-397-6388 Fax #: 575-397-0397
 Project #: Project Owner: Oxy
 Project Name: Two Marks 36 State #4 SWD Battery, Dump line
 Project Location: Eddy County, NM
 Sampler Name: Price Brunson
 P.O. #: _____ Company: _____
 Attn: _____ Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	BTEX	CI	TPH
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:					
H501824														
01	SP1 @ SURFACE	(G)	1	✓	✓	✓	✓	✓	7/15/15	11:00 AM	✓	✓	✓	
02	SP1 @ 1'	(G)	1	✓	✓	✓	✓	✓	7/15/15	11:10 AM	✓	✓	✓	
03	SP1 @ 2'	(G)	1	✓	✓	✓	✓	✓	7/15/15	11:20 AM	✓	✓	✓	
04	SP1 @ 3'	(G)	1	✓	✓	✓	✓	✓	7/15/15	11:30 AM	✓	✓	✓	
05	SP2 @ SURFACE	(G)	1	✓	✓	✓	✓	✓	7/15/15	1:10 PM	✓	✓	✓	
06	SP2 @ 1'	(G)	1	✓	✓	✓	✓	✓	7/15/15	1:30 PM	✓	✓	✓	
07	SP2 @ 2'	(G)	1	✓	✓	✓	✓	✓	7/15/15	1:50 PM	✓	✓	✓	
08	SP2 @ 3'	(G)	1	✓	✓	✓	✓	✓	7/15/15	2:10 PM	✓	✓	✓	

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Relinquished By: _____ Date: 7/15/15 Time: 11:00
 Received By: _____ Date: 7/15/15 Time: 11:00
 Delivered By: (Circle One) UPS Bus Other: 0.6°C
 Sample Condition: Intact Yes No
 Checked By: _____ (initials)
 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



May 07, 2015

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: TWO MARKS 36 STATE 4

Enclosed are the results of analyses for samples received by the laboratory on 04/30/15 11:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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/ga/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:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	04/30/2015	Sampling Date:	04/29/2015
Reported:	05/07/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE 4	Sampling Condition:	Cool & Intact
Project Number:	70060843701	Sample Received By:	Jodi Henson
Project Location:	EDDY		

Sample ID: S - 1 0 ' (H501128-01)

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	05/01/2015	ND	2.03	101	2.00	5.73		
Toluene*	<0.050	0.050	05/01/2015	ND	2.25	112	2.00	5.72		
Ethylbenzene*	<0.050	0.050	05/01/2015	ND	2.05	103	2.00	5.17		
Total Xylenes*	<0.150	0.150	05/01/2015	ND	6.19	103	6.00	5.71		
Total BTEX	<0.300	0.300	05/01/2015	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 108 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5200	16.0	05/05/2015	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/01/2015	ND	196	98.0	200	1.79		
DRO >C10-C28	<10.0	10.0	05/01/2015	ND	203	101	200	0.456		

Surrogate: 1-Chlorooctane 93.1 % 47.2-157

Surrogate: 1-Chlorooctadecane 88.3 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	04/30/2015	Sampling Date:	04/29/2015
Reported:	05/07/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE 4	Sampling Condition:	Cool & Intact
Project Number:	70060843701	Sample Received By:	Jodi Henson
Project Location:	EDDY		

Sample ID: S - 1 1' (H501128-02)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/04/2015	ND	1.96	98.2	2.00	3.34	
Toluene*	<0.050	0.050	05/04/2015	ND	1.77	88.5	2.00	3.77	
Ethylbenzene*	<0.050	0.050	05/04/2015	ND	1.69	84.5	2.00	4.85	
Total Xylenes*	<0.150	0.150	05/04/2015	ND	5.59	93.2	6.00	5.02	
Total BTEX	<0.300	0.300	05/04/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 107% 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	05/05/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/02/2015	ND	196	98.0	200	1.79	
DRO >C10-C28	<10.0	10.0	05/02/2015	ND	203	101	200	0.456	

Surrogate: 1-Chlorooctane 96.1% 47.2-157

Surrogate: 1-Chlorooctadecane 93.1% 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	04/30/2015	Sampling Date:	04/29/2015
Reported:	05/07/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE 4	Sampling Condition:	Cool & Intact
Project Number:	70060843701	Sample Received By:	Jodi Henson
Project Location:	EDDY		

Sample ID: S - 1 1.5' (H501128-03)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/04/2015	ND	1.96	98.2	2.00	3.34		
Toluene*	<0.050	0.050	05/04/2015	ND	1.77	88.5	2.00	3.77		
Ethylbenzene*	<0.050	0.050	05/04/2015	ND	1.69	84.5	2.00	4.85		
Total Xylenes*	<0.150	0.150	05/04/2015	ND	5.59	93.2	6.00	5.02		
Total BTEX	<0.300	0.300	05/04/2015	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 110% 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	05/05/2015	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/04/2015	ND	197	98.4	200	0.528		
DRO >C10-C28	<10.0	10.0	05/04/2015	ND	203	102	200	1.44		

Surrogate: 1-Chlorooctane 91.8% 47.2-157
Surrogate: 1-Chlorooctadecane 88.2% 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	04/30/2015	Sampling Date:	04/29/2015
Reported:	05/07/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE 4	Sampling Condition:	Cool & Intact
Project Number:	70060843701	Sample Received By:	Jodi Henson
Project Location:	EDDY		

Sample ID: S - 1 2' REFUSAL (R) (H501128-04)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/04/2015	ND	1.96	98.2	2.00	3.34	
Toluene*	<0.050	0.050	05/04/2015	ND	1.77	88.5	2.00	3.77	
Ethylbenzene*	<0.050	0.050	05/04/2015	ND	1.69	84.5	2.00	4.85	
Total Xylenes*	<0.150	0.150	05/04/2015	ND	5.59	93.2	6.00	5.02	
Total BTEX	<0.300	0.300	05/04/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	05/05/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/04/2015	ND	197	98.4	200	0.528	
DRO >C10-C28	<10.0	10.0	05/04/2015	ND	203	102	200	1.44	

Surrogate: 1-Chlorooctane 86.2 % 47.2-157

Surrogate: 1-Chlorooctadecane 82.9 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	04/30/2015	Sampling Date:	04/29/2015
Reported:	05/07/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE 4	Sampling Condition:	Cool & Intact
Project Number:	70060843701	Sample Received By:	Jodi Henson
Project Location:	EDDY		

Sample ID: S - 2 0 ' (H501128-05)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/04/2015	ND	1.96	98.2	2.00	3.34		
Toluene*	<0.050	0.050	05/04/2015	ND	1.77	88.5	2.00	3.77		
Ethylbenzene*	<0.050	0.050	05/04/2015	ND	1.69	84.5	2.00	4.85		
Total Xylenes*	<0.150	0.150	05/04/2015	ND	5.59	93.2	6.00	5.02		
Total BTEX	<0.300	0.300	05/04/2015	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	05/05/2015	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/04/2015	ND	197	98.4	200	0.528		
DRO >C10-C28	<10.0	10.0	05/04/2015	ND	203	102	200	1.44		

Surrogate: 1-Chlorooctane 89.9 % 47.2-157
Surrogate: 1-Chlorooctadecane 85.5 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	04/30/2015	Sampling Date:	04/29/2015
Reported:	05/07/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE 4	Sampling Condition:	Cool & Intact
Project Number:	70060843701	Sample Received By:	Jodi Henson
Project Location:	EDDY		

Sample ID: S - 2 1' (H501128-06)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2015	ND	1.96	98.2	2.00	3.34		
Toluene*	<0.050	0.050	05/05/2015	ND	1.77	88.5	2.00	3.77		
Ethylbenzene*	<0.050	0.050	05/05/2015	ND	1.69	84.5	2.00	4.85		
Total Xylenes*	<0.150	0.150	05/05/2015	ND	5.59	93.2	6.00	5.02		
Total BTEX	<0.300	0.300	05/05/2015	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 109 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	05/05/2015	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/04/2015	ND	197	98.4	200	0.528		
DRO >C10-C28	<10.0	10.0	05/04/2015	ND	203	102	200	1.44		

Surrogate: 1-Chlorooctane 86.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 80.3 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	04/30/2015	Sampling Date:	04/29/2015
Reported:	05/07/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE 4	Sampling Condition:	Cool & Intact
Project Number:	70060843701	Sample Received By:	Jodi Henson
Project Location:	EDDY		

Sample ID: S - 2 2 ' (H501128-07)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2015	ND	1.96	98.2	2.00	3.34		
Toluene*	<0.050	0.050	05/05/2015	ND	1.77	88.5	2.00	3.77		
Ethylbenzene*	<0.050	0.050	05/05/2015	ND	1.69	84.5	2.00	4.85		
Total Xylenes*	<0.150	0.150	05/05/2015	ND	5.59	93.2	6.00	5.02		
Total BTX	<0.300	0.300	05/05/2015	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 108 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	05/05/2015	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/04/2015	ND	197	98.4	200	0.528		
DRO >C10-C28	<10.0	10.0	05/04/2015	ND	203	102	200	1.44		

Surrogate: 1-Chlorooctane 93.4 % 47.2-157
Surrogate: 1-Chlorooctadecane 86.7 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	04/30/2015	Sampling Date:	04/29/2015
Reported:	05/07/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE 4	Sampling Condition:	Cool & Intact
Project Number:	70060843701	Sample Received By:	Jodi Henson
Project Location:	EDDY		

Sample ID: S - 2 3 '(H501128-08)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2015	ND	1.90	95.2	2.00	0.220		
Toluene*	<0.050	0.050	05/05/2015	ND	1.71	85.6	2.00	0.421		
Ethylbenzene*	<0.050	0.050	05/05/2015	ND	1.64	82.0	2.00	2.17		
Total Xylenes*	<0.150	0.150	05/05/2015	ND	5.39	89.8	6.00	2.17		
Total BTEX	<0.300	0.300	05/05/2015	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	05/05/2015	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/04/2015	ND	197	98.4	200	0.528		
DRO >C10-C28	<10.0	10.0	05/04/2015	ND	203	102	200	1.44		

Surrogate: 1-Chlorooctane 93.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 88.3 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	04/30/2015	Sampling Date:	04/29/2015
Reported:	05/07/2015	Sampling Type:	Soil
Project Name:	TWO MARKS 36 STATE 4	Sampling Condition:	Cool & Intact
Project Number:	70060843701	Sample Received By:	Jodi Henson
Project Location:	EDDY		

Sample ID: S - 2 4 ' REFUSAL (R) (H501128-09)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/05/2015	ND	1.90	95.2	2.00	0.220	
Toluene*	<0.050	0.050	05/05/2015	ND	1.71	85.6	2.00	0.421	
Ethylbenzene*	<0.050	0.050	05/05/2015	ND	1.64	82.0	2.00	2.17	
Total Xylenes*	<0.150	0.150	05/05/2015	ND	5.39	89.8	6.00	2.17	
Total BTEX	<0.300	0.300	05/05/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 103 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	05/05/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/04/2015	ND	197	98.4	200	0.528	
DRO >C10-C28	<10.0	10.0	05/04/2015	ND	203	102	200	1.44	

Surrogate: 1-Chlorooctane 87.7 % 47.2-157
Surrogate: 1-Chlorooctadecane 82.5 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- 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

Kathy Purvis

From: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Sent: Wednesday, August 19, 2015 3:59 PM
To: Cliff Brunson; Patterson, Heather, EMNRD
Cc: C J Summers; Ken Swinney; Jennifer Gilkey; Kathy Purvis
Subject: RE: OXY Two Marks 36 State #4 SWD Battery - Remediation Plan

RE: OXY USA * Two Marks 36 St 4 SWD * 30-015-34833 * M-36-21s-24e

2RP-3122 * Date of release: 6/24/15

2RP-3125 * Date of release: 6/24/15 (in Battery)

Cliff,

Your proposal for remediation of the above referenced release is approved. Please submit a C-141 Final Report for each RP number upon completion of remedial activities.

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.

If you have any questions or concerns, and for notification, please contact me.

Mike Bratcher
NMOCD District 2
811 S. First Street
Artesia, NM 88210
O: 575-748-1283 X108
C: 575-626-0857
F: 575-748-9720

From: Cliff Brunson [<mailto:cbrunson@bbcinternational.com>]
Sent: Monday, August 10, 2015 7:33 PM
To: Bratcher, Mike, EMNRD; Patterson, Heather, EMNRD
Cc: C J Summers; Ken Swinney; Jennifer Gilkey; Kathy Purvis
Subject: OXY Two Marks 36 State #4 SWD Battery - Remediation Plan

Mike,

This e-mail is to confirm our discussion on Wednesday, July 29, 2015 concerning the remediation plan for the Oxy Two Marks 36 State #4 SWD Battery. I have attached the information packet that we used in our discussion with a cover page describing the remediation plan that we agreed upon.

If you would please reply back via e-mail with your concurrence on this plan, it would be greatly appreciated.

Thanks, Cliff

President
BBC International, Inc.
World-Wide Environmental Specialists
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May 14, 2015

Ms. Heather Patterson
NMOCD District 2
811 S. 1st Street
Artesia, NM 88210

AMARILLO
921 North Bivins
Amarillo, Texas 79107
Phone 806.467.0607
Fax 806.467.0622

ARTESIA
408 West Texas Ave.
Artesia, New Mexico 88210
Phone 575.746.8768
Fax 575.746.8905

Subject: **Soil Assessment and Remediation Work Plan**
Oxy USA, INC
Two Marks 36 State #004 SWD
30-015-34833
2RP-2977

Dear Ms. Patterson

HOBBS
318 East Taylor Street
Hobbs, New Mexico 88240
Phone 575.393.4261
Fax 575.393.4658

Oxy USA, INC (Oxy) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The results of our soil assessment and proposed remediation activities consist of the following.

Background Information

MIDLAND
2901 State Hwy 349
Midland, Texas 79706
Phone 432.522.2133
Fax 432.522.2180

The Two Marks 36 St. #004 SWD is located approximately thirty-three (33) miles southeast of Artesia, New Mexico. The legal location for this location is Unit Letter O, Section 36, Township 21 South, and Range 24 East in Eddy County, New Mexico. More specifically the latitude and longitude for this release are 32.430102 North and -103.454029 West. A site plan is presented in [Appendix I](#).

OKLAHOMA CITY
7700 North Hudson Avenue
Suite 10
Oklahoma City, Oklahoma 73116
Phone 405.486.7030
Fax 806.467.0622

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Ector extremely rocky loam with 9 to 25 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is comprised of the Seven Rivers formation consisting of gypsum, anhydrite, salt, dolomite, and siltstone. Drainage courses in this area are normally dry. Ground water in the project vicinity is approximately 28-feet below ground surface (bgs), according to the New Mexico Office of the State Engineer. The referenced groundwater data is presented in [Appendix II](#).

SAN ANTONIO
13111 Lookout Way
San Antonio, Texas 78233
Phone 210.265.8025
Fax 210.568.2191

The ranking for this site is **20** Based on the following:

ENVIRONMENTAL CONSULTING	Depth to ground water	<50'
ENGINEERING	Wellhead Protection Area	>1000'
DRILLING	Distance to surface water body	>1000'
CONSTRUCTION		
SPILL MANAGEMENT		
GENERAL CONTRACTING		

Incident Description

A 4-inch steel salt water disposal line failed causing a release of 10bbbls of produced water. All of the fluid was contained on the location. Talon mobilized personnel to conduct a site assessment and perform soil sampling within the impacted area utilizing a backhoe. Due to the shallow soils and rockiness of this area, refusal was encountered with the backhoe at depths between 2-feet and 4-feet below ground surface. Laboratory results from the above referenced sampling activities are summarized in the table below.

Laboratory Results

See [Appendix III](#) for complete report of laboratory results.

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0	ND	5200	ND	ND
S-1	1	ND	256	ND	ND
S-1	1.5	ND	240	ND	ND
S-1 REFUSAL	2	ND	192	ND	ND
S-2	0	ND	272	ND	ND
S-2	1	ND	304	ND	ND
S-2	2	ND	224	ND	ND
S-2	3	ND	304	ND	ND
S-2 REFUSAL	4	ND	512	ND	ND

(ND) Analyte Not Detected

Based upon the site ranking of **0**, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, and 5,000 mg/kg for TPH.

Proposed Remedial Actions

- The impacted area in the vicinity of sample location S-1 will be excavated to a depth of 1-foot bgs.
- All of the excavated material will be hauled to an NMOCD approved solid waste disposal facility.
- The excavation will be backfilled with caliche and contoured to match the surrounding terrain.

Should you have any questions or if further information is required, please do not hesitate to contact our office at (575)-746-8768

Respectfully submitted,

TALON/LPE


Sheldon L. Hitchcock
Project Manager


David J. Adkins
District Manager