

# Closure Report

RECEIVED

FEB 10 2014

NMOCD ARTESIA

## Site Description

Site Name:	Sand Dunes 34 Federal #2
Company:	Oxy Permian Ltd.
Legal Description:	U/L H, Section 34, T23S, R31E
County:	Eddy County, NM
GPS Coordinates:	N 32.26792° W 103.75925°

## Release Data

Date of Release:	03/25/2013
Type of Release:	Produced Water
Source of Release:	Power failure at the transfer pump caused frac tank overflow
Volume of Release:	20 bbls
Volume Recovered:	0 bbls

## Remediation Specifications

Remediation Parameters:	No remediation is required on the well pad. Per the verbal agreement between CJ Summers and Jennifer Van Curen: In the area represented by SP4-SP6, 2 feet of material will be removed, sidewall sampling will be performed, a liner will be installed, and the excavated area will be backfilled with topsoil.
Remediation Activities:	01/27/2014 to 01/30/2014

Plan Sent to OCD:	09/21/2013	Email from Cliff Brunson to Mike Bratcher
OCD Approval of Plan:	10/04/2013	Email from Mike Bratcher to Cliff Brunson
Plan Sent to BLM:	09/21/2013	Email from Cliff Brunson to J. Van Curen
BLM Approval of Plan:	01/07/2014	Email from J. Van Curen to Cliff Brunson

## Supporting Documentation

Initial C-141	Signed 03/27/2013
Final C-141	Signed 02/04/2014
Site Diagram	March 2013
Groundwater Plot	300'
TOPO Maps	March 2013
Lab Summary	04/03/2013-04/11/2013 and 01/27/2014
Lab Analysis	04/03/2013-04/11/2013 and 01/27/2014
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.

02/06/2014

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	Oxy Permian Ltd.	Contact	CJ Summers
Address	1017 W. Stanolind Rd, Hobbs, NM	Telephone No.	(575) 397-8216
Facility Name	Sand Dunes 34 Federal #2	Facility Type	Battery

Surface Owner	BLM	Mineral Owner		Lease No.	NM 43744
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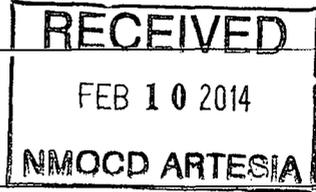
**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	34	23S	31E					Eddy

Latitude N 32.26192° Longitude W 103.75925°

**NATURE OF RELEASE**

Type of Release	Produced water	Volume of Release	20 bbls	Volume Recovered	0 bbls
Source of Release	Power failure at the transfer pump caused frac tank overflow	Date and Hour of Occurrence	03/25/2013	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Jennifer Van Curen, James Amos-BLM and Mike Bratcher-OCD		
By Whom?	Chancey Summers	Date and Hour	03/25/2013 @ 10:18 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.\*  
Power failure at the transfer pump caused the frac tank to overflow and spill 20 bbls of produced water onto the ground. No fluids were recovered and power to the transfer pump was restored.

Describe Area Affected and Cleanup Action Taken.\*  
Power failure at the transfer pump caused the frac tank to overflow and spill 20 bbls of produced water onto the ground. No fluids were recovered and power to the transfer pump was restored. Remediation will be performed in accordance with an approved plan from the 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:				<u>OIL CONSERVATION DIVISION</u>	
Printed Name:	Chancey Summers	Approved by District Supervisor:			
Title:	HES Specialist	Approval Date:		Expiration Date:	
E-mail Address:	Chancey.Summers@oxy.com	Conditions of Approval:			Attached <input type="checkbox"/>
Date:	3-27-13	Phone:	(575) 397-8216		

\* Attach Additional Sheets If Necessary

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
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State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised October 10, 2003

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

Submit 2 Copies to appropriate  
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side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	Oxy Permian Ltd.	Contact	CJ Summers
Address	1017 W. Stanolind Rd, Hobbs, NM	Telephone No.	(575) 397-8216
Facility Name	Sand Dunes 34 Federal #2	Facility Type	Battery

Surface Owner	BLM	Mineral Owner		Lease No.	NM 43744
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**LOCATION OF RELEASE**

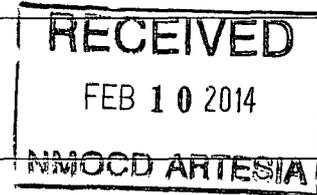
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	34	23S	31E					Eddy

Latitude N 32.26192° Longitude W 103.75925°

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Type of Release	Produced water	Volume of Release	20 bbls	Volume Recovered	0 bbls
Source of Release	Power failure at the transfer pump caused frac tank overflow	Date and Hour of Occurrence	03/25/2013	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Jennifer Van Curen, James Amos-BLM and Mike Bratcher-OCD		
By Whom?	Chancey Summers	Date and Hour	03/25/2013 @ 10:18 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.\*

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Describe Area Affected and Cleanup Action Taken.\*

Power failure at the transfer pump caused the frac tank to overflow and spill 20 bbls of produced water onto the ground. No fluids were recovered and power to the transfer pump was restored. Remediation was completed in accordance with a remediation plan approved by Mike Bratcher of NMOCD via email on 10/04/2013 and approved by Jennifer Van Curen of the BLM via email on 01/07/2014.

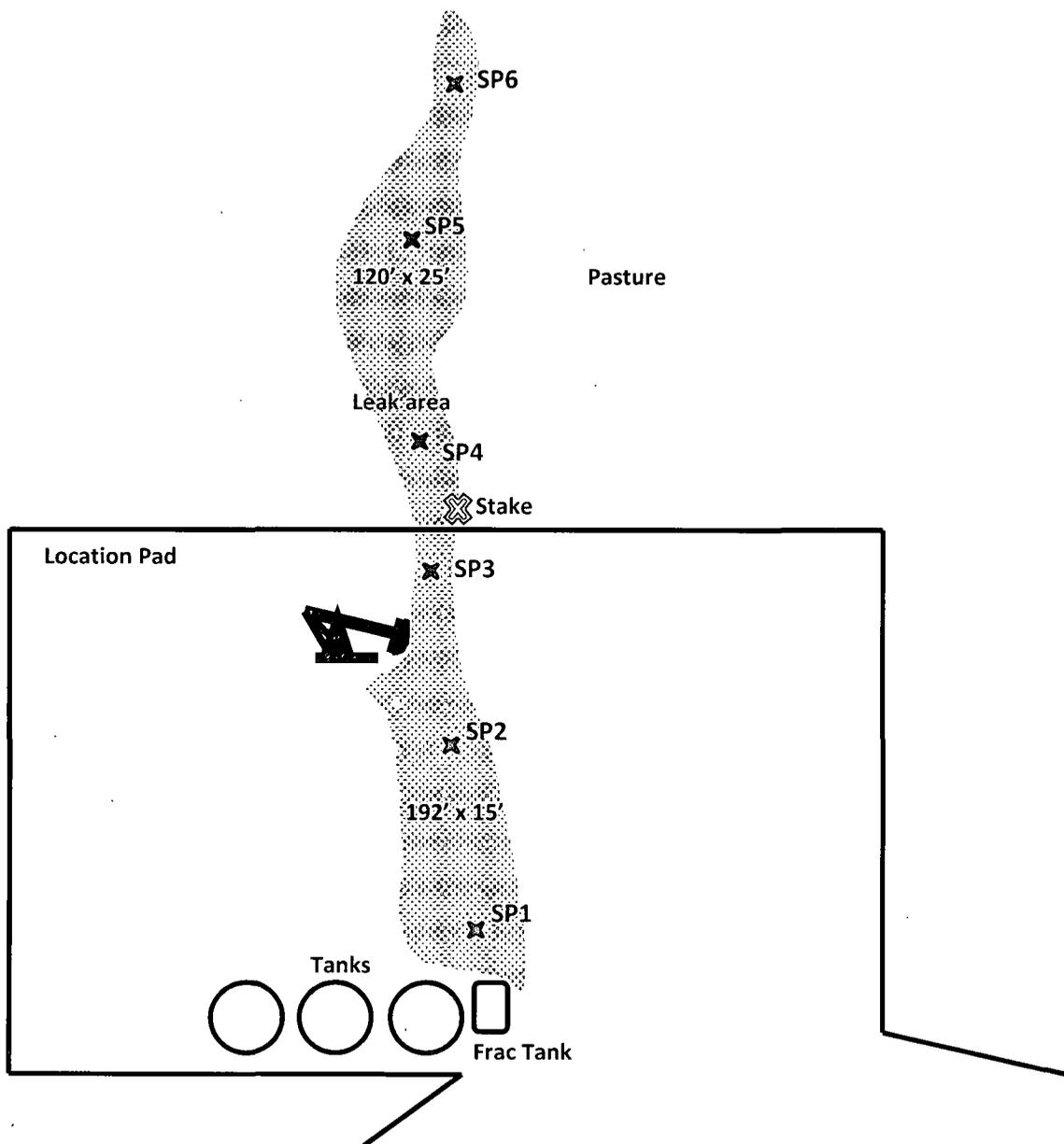
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Signature:	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Chancey Summers	Approved by District Supervisor:	
Title: HES Specialist	Approval Date:	Expiration Date:
E-mail Address: Chancey.Summers@oxy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 2-4-14 Phone: (575) 397-8216		

\* Attach Additional Sheets If Necessary



Oxy  
Sand Dunes 34 Federal #2



U/L H, Section 34, T23S, R31E  
Eddy County, NM

N 32.26192° W 103.75925°

BBC International, Inc.	
Oxy	
Sand Dunes 34 Federal #2	
Date: 03/28/2013	DRWG by: K. Purvis
NOT TO SCALE	File: Oxy 2013

# Oxy Sand Dunes 34 Federal #2 CTB

County Eddy      Unit Letter H      Section 34      Township 23S      Range 31E

Trend Map 300'

1

2

NW/NW <b>None</b>	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



# Groundwater Plot

## Oxy Sand Dunes 34 Federal #2 CTB

County  
Eddy County

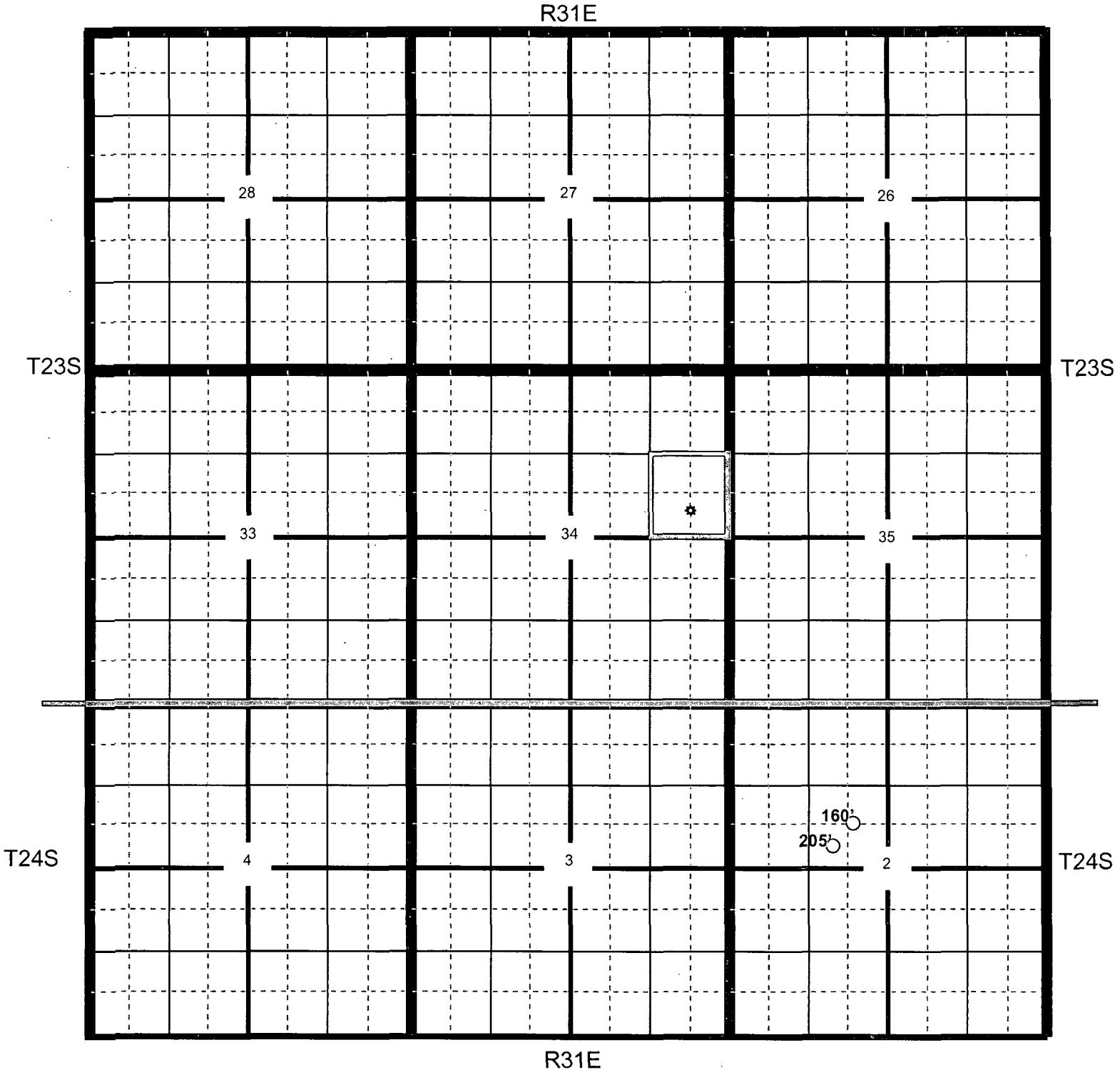
Unit Letter  
H

Section  
34

Township  
23S

Range  
31E

Trend Map 300'



★ Location

○ OCD

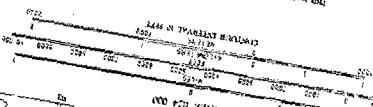
○ USGS

○ SEO

● All Databases

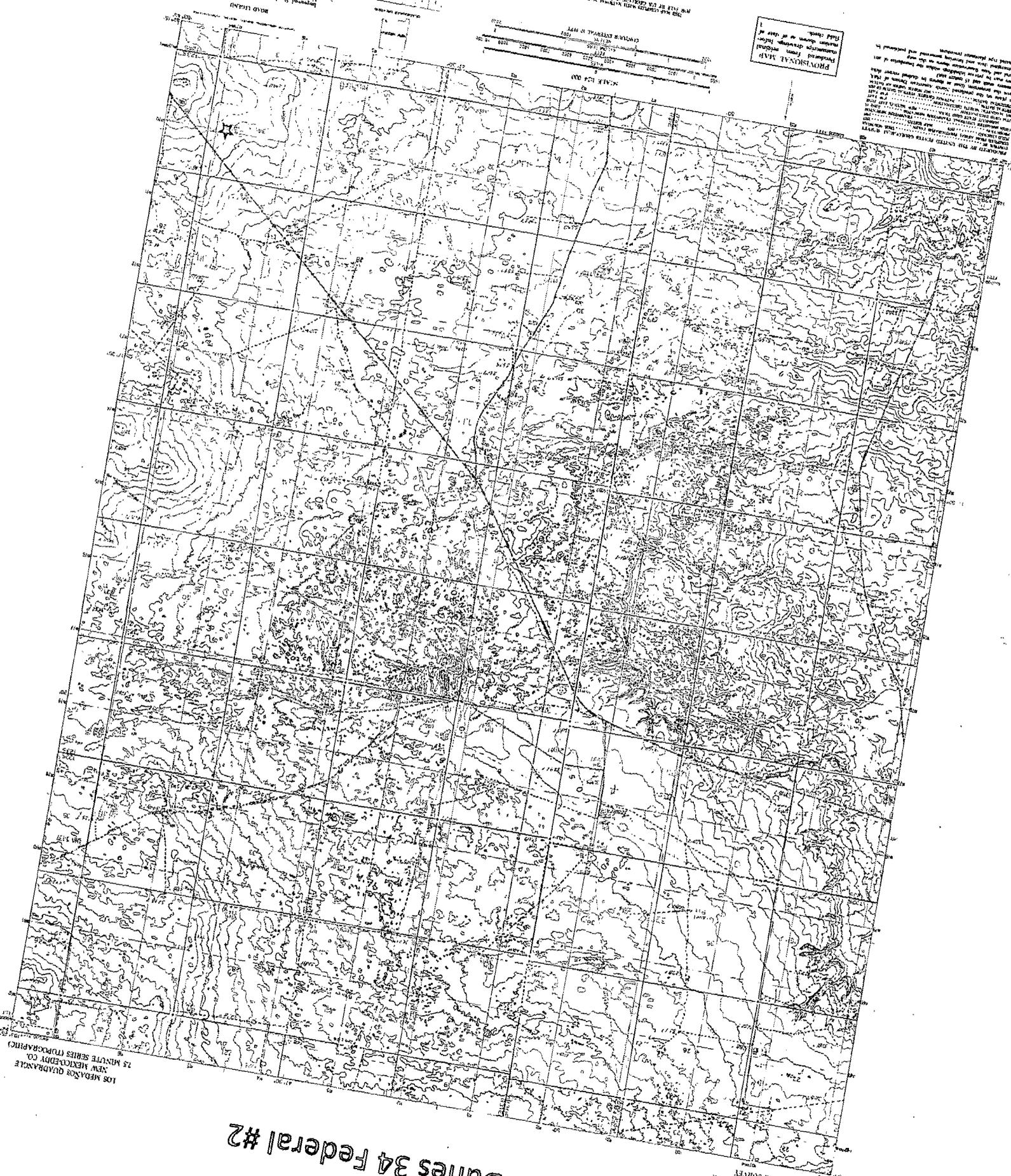
LOS ANGELES NEW MEXICO  
PROVISIONAL EDITION 1954

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



PROVISIONAL MAP  
This map is not for sale and is not to be used for any purpose other than that for which it was prepared. It is not to be used for any purpose other than that for which it was prepared.

PROVISIONAL MAP  
This map is not for sale and is not to be used for any purpose other than that for which it was prepared. It is not to be used for any purpose other than that for which it was prepared.



LOS ANGELES QUADRANGLE  
NEW MEXICO  
7.5 MINUTE SERIES (TOPOGRAPHIC)

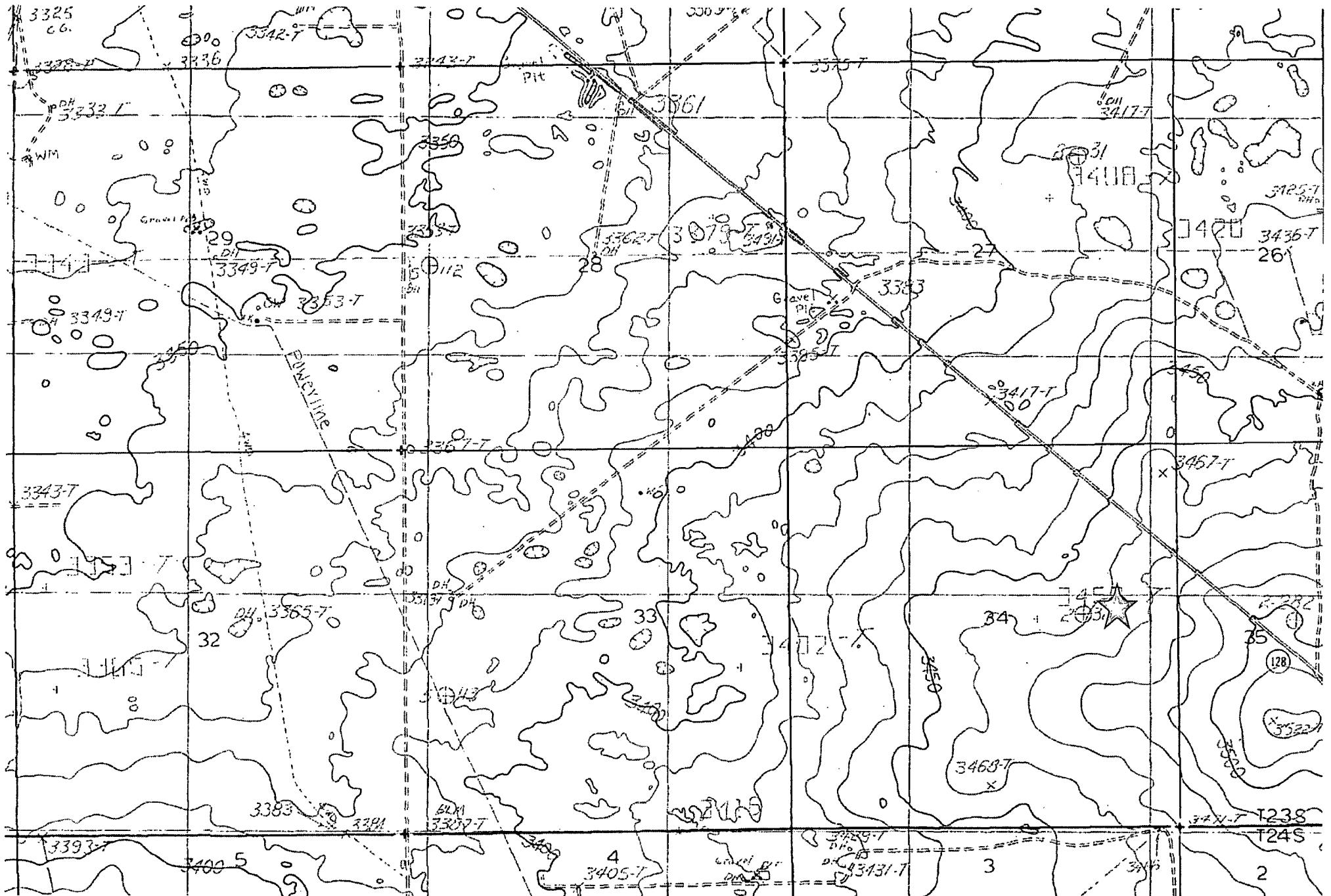
Sand Dunes 34 Federal #2

OXY

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Oxy

# Sand Dunes 34 Federal #2



**Laboratory Analytical Results Summary  
SAND DUNES 34 FED #2**

		Sample	SP1 @ 1'	SP1 @ 2'
Analyte	Method	Date	4/3/13	4/3/13
			mg/Kg	mg/Kg
Benzene	BTEX 8021B		n/a	<0.050
Toluene	BTEX 8021B		n/a	<0.050
Ethylbenzene	BTEX 8021B		n/a	<0.050
Total Xylenes	BTEX 8021B		n/a	<0.150
Total BTEX	BTEX 8021B		n/a	<0.300
Chloride	SM4500Cl-B		160	<16.0
GRO	TPH 8015M		n/a	<10.0
DRO	TPH 8015M		n/a	<10.0

		Sample	SP2 @ 1'	SP2 @ 2'
Analyte	Method	Date	4/3/13	4/3/13
			mg/Kg	mg/Kg
Benzene	BTEX 8021B		n/a	<0.050
Toluene	BTEX 8021B		n/a	<0.050
Ethylbenzene	BTEX 8021B		n/a	<0.050
Total Xylenes	BTEX 8021B		n/a	<0.150
Total BTEX	BTEX 8021B		n/a	<0.300
Chloride	SM4500Cl-B		176	<16.0
GRO	TPH 8015M		n/a	<10.0
DRO	TPH 8015M		n/a	24

		Sample	SP3 @ 1'	SP3 @ 2'
Analyte	Method	Date	4/3/13	4/3/13
			mg/Kg	mg/Kg
Benzene	BTEX 8021B		n/a	<0.050
Toluene	BTEX 8021B		n/a	<0.050
Ethylbenzene	BTEX 8021B		n/a	<0.050
Total Xylenes	BTEX 8021B		n/a	<0.150
Total BTEX	BTEX 8021B		n/a	<0.300
Chloride	SM4500Cl-B		192	<16.0
GRO	TPH 8015M		n/a	<10.0
DRO	TPH 8015M		n/a	<10.0

**Laboratory Analytical Results Summary  
SAND DUNES 34 FED #2**

		Sample	SP4 @ 2'	SP4 @ 4'	SP4 @ 7'	SP4 @ 9'
Analyte	Method	Date	4/3/13	4/3/13	4/11/13	4/11/13
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Toluene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Total Xylenes</b>	BTEX 8021B		<0.150	n/a	n/a	n/a
<b>Total BTEX</b>	BTEX 8021B		<0.300	n/a	n/a	n/a
<b>Chloride</b>	SM4500Cl-B		<b>21000</b>	<b>26400</b>	<b>1490</b>	<b>1120</b>
<b>GRO</b>	TPH 8015M		<10.0	n/a	n/a	n/a
<b>DRO</b>	TPH 8015M		<10.0	n/a	n/a	n/a

		Sample	SP5 @ 1'	SP5 @ 4'	SP5 @ 7'	SP5 @ 9'
Analyte	Method	Date	4/3/13	4/3/13	4/11/13	4/11/13
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Toluene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Total Xylenes</b>	BTEX 8021B		<0.150	n/a	n/a	n/a
<b>Total BTEX</b>	BTEX 8021B		<0.300	n/a	n/a	n/a
<b>Chloride</b>	SM4500Cl-B		<b>12200</b>	<b>24800</b>	<b>1440</b>	<b>1260</b>
<b>GRO</b>	TPH 8015M		<10.0	n/a	n/a	n/a
<b>DRO</b>	TPH 8015M		<10.0	n/a	n/a	n/a

		Sample	SP6 @ 2'	SP6 @ 4'	SP6 @ 7'	SP6 @ 9'
Analyte	Method	Date	4/3/13	4/3/13	4/11/13	4/11/13
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Toluene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Total Xylenes</b>	BTEX 8021B		<0.150	n/a	n/a	n/a
<b>Total BTEX</b>	BTEX 8021B		<0.300	n/a	n/a	n/a
<b>Chloride</b>	SM4500Cl-B		<b>18400</b>	<b>19200</b>	<b>1440</b>	<b>1010</b>
<b>GRO</b>	TPH 8015M		10	n/a	n/a	n/a
<b>DRO</b>	TPH 8015M		10	n/a	n/a	n/a

Laboratory Analytical Results Summary  
Sand Dunes 34 Federal #2 CTB

		Sample	SP1	SP2	SP3	SP4
Analyte	Method	Date	1/27/14	1/27/14	1/27/14	1/27/14
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		<16.0	<16.0	<16.0	<16.0

April 12, 2013

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

RE: 34 FED #2 CTB

Enclosed are the results of analyses for samples received by the laboratory on 04/09/13 9:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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](http://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:**

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

 Received: 04/09/2013  
 Reported: 04/12/2013  
 Project Name: 34 FED #2 CTB  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 04/03/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @1' (H300843-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	04/10/2013	ND	432	108	400	0.00		

**Sample ID: SP 1 @2' (H300843-02)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/11/2013	ND	1.99	99.3	2.00	4.07		
Toluene*	<0.050	0.050	04/11/2013	ND	2.29	115	2.00	4.40		
Ethylbenzene*	<0.050	0.050	04/11/2013	ND	2.52	126	2.00	4.27		
Total Xylenes*	<0.150	0.150	04/11/2013	ND	7.34	122	6.00	4.96		
Total BTEX	<0.300	0.300	04/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/10/2013	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/11/2013	ND	222	111	200	5.04		
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	218	109	200	5.96		

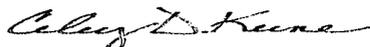
Surrogate: 1-Chlorooctane 92.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 113 % 63.6-154

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:	04/09/2013	Sampling Date:	04/03/2013
Reported:	04/12/2013	Sampling Type:	Soil
Project Name:	34 FED #2 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 2 @1' (H300843-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	04/10/2013	ND	432	108	400	0.00		

**Sample ID: SP 2 @2' (H300843-04)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/11/2013	ND	1.99	99.3	2.00	4.07		
Toluene*	<0.050	0.050	04/11/2013	ND	2.29	115	2.00	4.40		
Ethylbenzene*	<0.050	0.050	04/11/2013	ND	2.52	126	2.00	4.27		
Total Xylenes*	<0.150	0.150	04/11/2013	ND	7.34	122	6.00	4.96		
Total BTEX	<0.300	0.300	04/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PII) 100 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/10/2013	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/11/2013	ND	222	111	200	5.04		
DRO >C10-C28	24.0	10.0	04/11/2013	ND	218	109	200	5.96		

Surrogate: 1-Chlorooctane 94.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 117 % 63.6-154

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: 04/09/2013  
 Reported: 04/12/2013  
 Project Name: 34 FED #2 CTB  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 04/03/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 3 @1' (H300843-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	04/10/2013	ND	432	108	400	0.00		

**Sample ID: SP 3 @2' (H300843-06)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/11/2013	ND	1.99	99.3	2.00	4.07		
Toluene*	<0.050	0.050	04/11/2013	ND	2.29	115	2.00	4.40		
Ethylbenzene*	<0.050	0.050	04/11/2013	ND	2.52	126	2.00	4.27		
Total Xylenes*	<0.150	0.150	04/11/2013	ND	7.34	122	6.00	4.96		
Total BTEX	<0.300	0.300	04/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/10/2013	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/11/2013	ND	222	111	200	5.04		
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	218	109	200	5.96		

Surrogate: 1-Chlorooctane 92.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 113 % 63.6-154

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: 04/09/2013  
 Reported: 04/12/2013  
 Project Name: 34 FED #2 CTB  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 04/03/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 4 @2' (H300843-07)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/11/2013	ND	1.99	99.3	2.00	4.07		
Toluene*	<0.050	0.050	04/11/2013	ND	2.29	115	2.00	4.40		
Ethylbenzene*	<0.050	0.050	04/11/2013	ND	2.52	126	2.00	4.27		
Total Xylenes*	<0.150	0.150	04/11/2013	ND	7.34	122	6.00	4.96		
Total BTEX	<0.300	0.300	04/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 103 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	21000	16.0	04/10/2013	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/11/2013	ND	222	111	200	5.04		
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	218	109	200	5.96		

Surrogate: 1-Chlorooctane 92.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 112 % 63.6-154

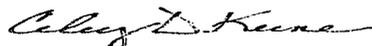
**Sample ID: SP 4 @4' (H300843-08)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	26400	16.0	04/10/2013	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:	04/09/2013	Sampling Date:	04/03/2013
Reported:	04/12/2013	Sampling Type:	Soil
Project Name:	34 FED #2 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 5 @1' (H300843-09)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/11/2013	ND	1.99	99.3	2.00	4.07		
Toluene*	<0.050	0.050	04/11/2013	ND	2.29	115	2.00	4.40		
Ethylbenzene*	<0.050	0.050	04/11/2013	ND	2.52	126	2.00	4.27		
Total Xylenes*	<0.150	0.150	04/11/2013	ND	7.34	122	6.00	4.96		
Total BTEX	<0.300	0.300	04/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12200	16.0	04/10/2013	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/11/2013	ND	214	107	200	1.94		
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26		

Surrogate: 1-Chlorooctane 90.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 115 % 63.6-154

**Sample ID: SP 5 @4' (H300843-10)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	24800	16.0	04/10/2013	ND	432	108	400	3.77		

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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:	04/09/2013	Sampling Date:	04/03/2013
Reported:	04/12/2013	Sampling Type:	Soil
Project Name:	34 FED #2 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 6 @2' (H300843-11)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/11/2013	ND	1.99	99.3	2.00	4.07		
Toluene*	<0.050	0.050	04/11/2013	ND	2.29	115	2.00	4.40		
Ethylbenzene*	<0.050	0.050	04/11/2013	ND	2.52	126	2.00	4.27		
Total Xylenes*	<0.150	0.150	04/11/2013	ND	7.34	122	6.00	4.96		
Total BTEX	<0.300	0.300	04/11/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIC) 102 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>18400</b>	16.0	04/10/2013	ND	432	108	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	04/11/2013	ND	214	107	200	1.94		
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26		

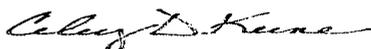
*Surrogate: 1-Chlorooctane 82.7 % 63.2-140*
*Surrogate: 1-Chlorooctadecane 111 % 63.6-154*
**Sample ID: SP 6 @4' (H300843-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>19200</b>	16.0	04/10/2013	ND	432	108	400	3.77		

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

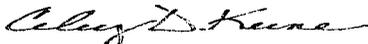
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported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

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Celey D. Keene, Lab Director/Quality Manager



**CARDINAL LABORATORIES**101 East Marland, Hobbs, NM 88240  
(505) 393-2326 FAX (505) 393-2476**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

2 of 2

Company Name: BBC International, Inc.		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>																					
Project Manager: Cliff Brunson		P.O. #:																							
Address: P.O. Box 805		Company:																							
City: Hobbs State: NM Zip: 88241		Attn:																							
Phone #: 575-397-6388 Fax #: 575-397-0397		Address: <b>SAME</b>																							
Project #: Project Owner: <b>OKY</b>		City:																							
Project Name: <b>34 FED #2 CTB</b>		State: Zip:																							
Project Location:		Phone #:																							
Sampler Name:		Fax #:																							
FOR LAB USE ONLY																									
Lab I.D.		Sample I.D.		# CONTAINERS	MATRIX			PRESERV.			SAMPLING														
				(G)RAB OR (C)OMP.	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME										
H300843		SP6 02'		6	1		✓				✓			4.3.13	2.21										
12		04'		1			✓				✓			4.3.13	2.44										
										<b>CHLORIDE</b>															
										<b>TPH</b>															
										<b>BTEX</b>															

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Relinquished By: <i>[Signature]</i>		Date: <b>4.9.13</b>		Received By: <i>[Signature]</i>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Time: <b>9:05</b>						Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS:			
Time:									
Delivered By: (Circle One)				Sample Condition		CHECKED BY:			
Sampler - UPS - Bus - Other:				Cool Intact		(Initials)			
				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<i>[Signature]</i>			
				<input type="checkbox"/> No <input type="checkbox"/> No					

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

#26



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

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April 19, 2013

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

RE: SAND DUNES 34 FED #2 CTB

Enclosed are the results of analyses for samples received by the laboratory on 04/15/13 9:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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](http://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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, prominent initial 'C'.

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: 04/15/2013  
 Reported: 04/19/2013  
 Project Name: SAND DUNES 34 FED #2 CTB  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 04/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 4 @ 7' (H300896-01)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1490	16.0	04/17/2013	ND	432	108	400	0.00		

**Sample ID: SP 4 @ 9' (H300896-02)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1120	16.0	04/17/2013	ND	432	108	400	0.00		

**Sample ID: SP 5 @ 7' (H300896-03)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1440	16.0	04/17/2013	ND	432	108	400	0.00		

**Sample ID: SP 5 @ 9' (H300896-04)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1260	16.0	04/17/2013	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:	04/15/2013	Sampling Date:	04/11/2013
Reported:	04/19/2013	Sampling Type:	Soil
Project Name:	SAND DUNES 34 FED #2 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 6 @ 7' (H300896-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1440	16.0	04/17/2013	ND	432	108	400	0.00		

**Sample ID: SP 6 @ 9' (H300896-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1010	16.0	04/17/2013	ND	432	108	400	0.00		

Cardinal Laboratories

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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

---

Cardinal Laboratories

\*=Accredited Analyte

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---

Celey D. Keene, Lab Director/Quality Manager





January 29, 2014

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

RE: SAND DUNES 34 FED #2 CTB

Enclosed are the results of analyses for samples received by the laboratory on 01/28/14 8:05.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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:	01/28/2014	Sampling Date:	01/27/2014
Reported:	01/29/2014	Sampling Type:	Soil
Project Name:	SAND DUNES 34 FED #2 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 1 (H400264-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/29/2014	ND	416	104	400	0.00		

**Sample ID: SP 2 (H400264-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/29/2014	ND	416	104	400	0.00		

**Sample ID: SP 3 (H400264-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/29/2014	ND	416	104	400	0.00		

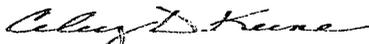
**Sample ID: SP 4 (H400264-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/29/2014	ND	416	104	400	0.00		

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

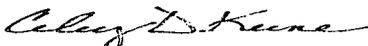
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received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

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



## Kathy Purvis

---

**From:** Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>  
**Sent:** Friday, October 04, 2013 2:42 PM  
**To:** Cliff P. Brunson  
**Cc:** C J Summers; Ken Swinney; Jennifer Gilkey; Kathy Purvis  
**Subject:** RE: OXY-Sand Dunes 34 Federal #2-Remediation Plan

Reference: OXY USA \* Sand Dunes 34 Fed 2 \* 30-015-27239 \* H-34-23s-31e \* Eddy County, New Mexico  
OCD Tracking Number: 2RP-1610 \* Date of release: 3/25/2013

Cliff,

Your proposal for remediation of the above referenced produced fluid release is approved. Please notify OCD prior to commencement of remedial activities. BLM approval is also required on federal sites.

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

---

**From:** Cliff P. Brunson [<mailto:cbrunson@bbcinternational.com>]  
**Sent:** Saturday, September 21, 2013 4:35 PM  
**To:** Bratcher, Mike, EMNRD  
**Cc:** C J Summers; Ken Swinney; Jennifer Gilkey; Kathy Purvis  
**Subject:** OXY-Sand Dunes 34 Federal #2-Remediation Plan

Mike,

This e-mail is to confirm our conversation the other day about the remediation plan for the above referenced site. I have attached the materials that we used in our discussion. As discussed, in the former pit area located to the north of the well pad, Oxy will remove 2 feet and then backfill with 1 foot of caliche and 2 feet of top soil. This area is represented by sample points SP4-SP6. The area on the well pad will not require any remediation as the sample data shows no impact.

If you would please e-mail your concurrence with this remediation plan, it would be greatly appreciated.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS  
President  
BBC International, Inc.  
World-Wide Environmental Specialists

Mailing Address:  
P. O. Box 805  
Hobbs, NM 88241-0805 USA  
Shipping Address:  
1324 W. Marland St.  
Hobbs, NM 88240 USA  
Phone: (575) 397-6388  
Fax: (575) 397-0397  
E-Mail: [cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)

\*\*\*\*\*

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\*\*\*\*\*

## Kathy Purvis

---

**From:** Van Curen, Jennifer <jvancure@blm.gov>  
**Sent:** Tuesday, January 07, 2014 4:02 PM  
**To:** Cliff P. Brunson  
**Cc:** C J Summers; Ken Swinney; Jennifer Gilkey; Kathy Purvis  
**Subject:** Re: OXY-Sand Dunes 34 Federal #2-Remediation Plan

This one might have been mixed up with the CTB. This one has high chlorides below the 2'. BLM requires 4' of clean material. If contaminants are still hot below that point, a barrier will need to be utilized. Caliche will be sufficient. You can backfill with half caliche and half topsoil. Well pad results are good and no further work is required.

If you have any questions please let me know. Thanks.

JENNIFER E VAN CUREN  
ENVIRONMENTAL PROTECTION SPECIALIST  
DOI-BLM-CARLSBAD FIELD OFFICE  
320 E GREENE ST. CARLSBAD, NM 88220  
OFFICE- 575-234-5905  
CELL - 575-361-0042  
FAX - 575-234-5927

On Sat, Sep 21, 2013 at 4:30 PM, Cliff P. Brunson <[cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)> wrote:  
Jennifer,

This e-mail is to request the BLM's approval for the following remediation plan for the above referenced site. I have attached the materials that pertain to the site and the plan. This plan has already been approved by Mike Bratcher of the NMOCD. In the former pit area located to the north of the well pad, Oxy will remove 2 feet and then backfill with 1 foot of caliche and 2 feet of top soil. This area is represented by sample points SP4-SP6. The area on the well pad will not require any remediation as the sample data shows no impact.

If you would please e-mail your concurrence with this remediation plan, it would be greatly appreciated. If you have any questions, please let us know.

Thanks, Cliff

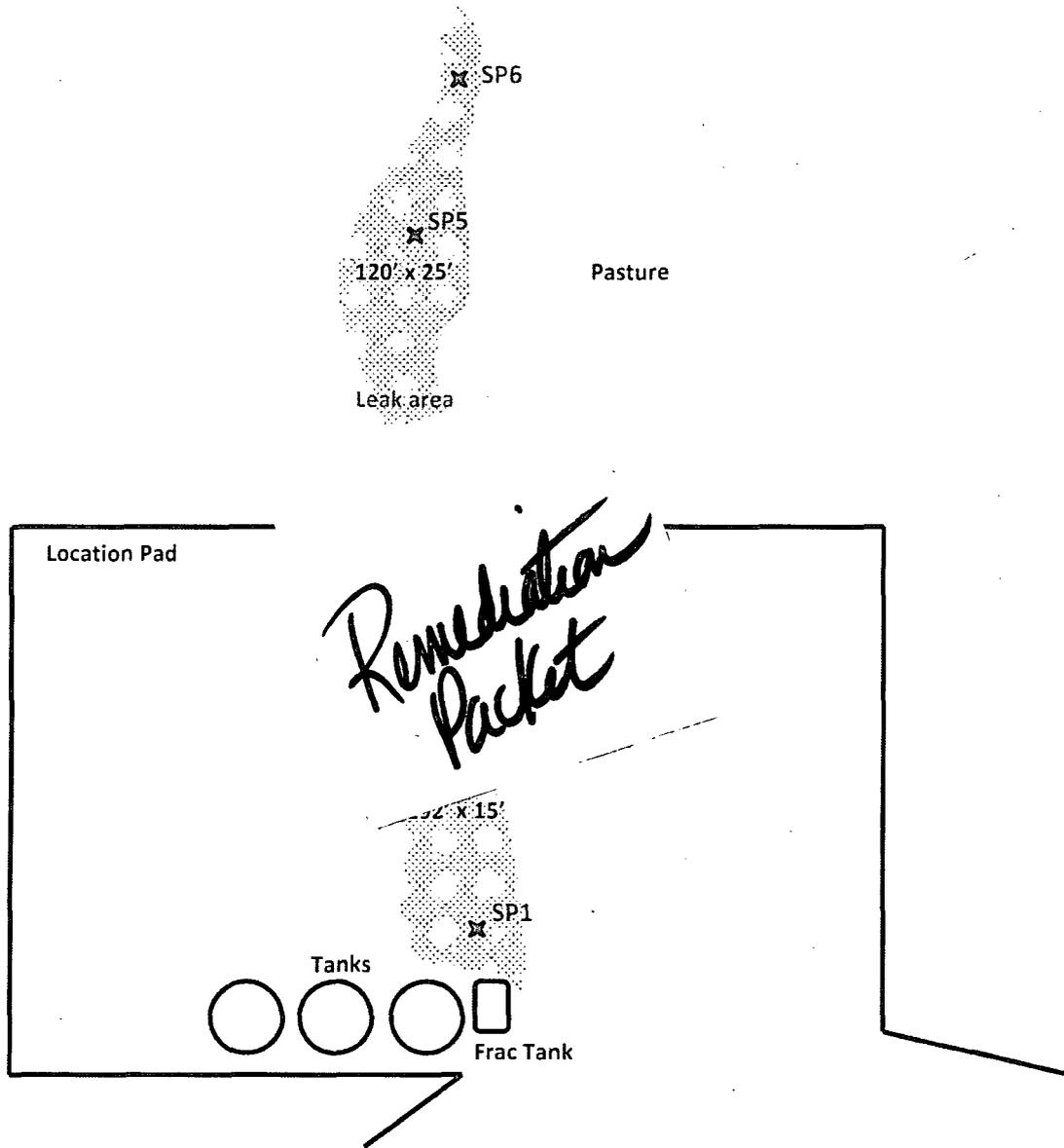
Cliff P. Brunson, CEI, CRS  
President  
BBC International, Inc.  
World-Wide Environmental Specialists  
Mailing Address:  
P. O. Box 805  
Hobbs, NM 88241-0805 USA  
Shipping Address:  
1324 W. Marland St.  
Hobbs, NM 88240 USA  
Phone: (575) 397-6388  
Fax: (575) 397-0397  
E-Mail: [cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)

\*\*\*\*\*

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Oxy  
Sand Dunes 34 Federal #2



U/L H, Section 34, T23S, R31E  
Eddy County, NM

N 32.26192° W 103.75925°

BBC International, Inc.	
Oxy	
Sand Dunes 34 Federal #2	
Date: 03/28/2013	DRWG by: K. Purvis
NOT TO SCALE	File: Oxy 2013

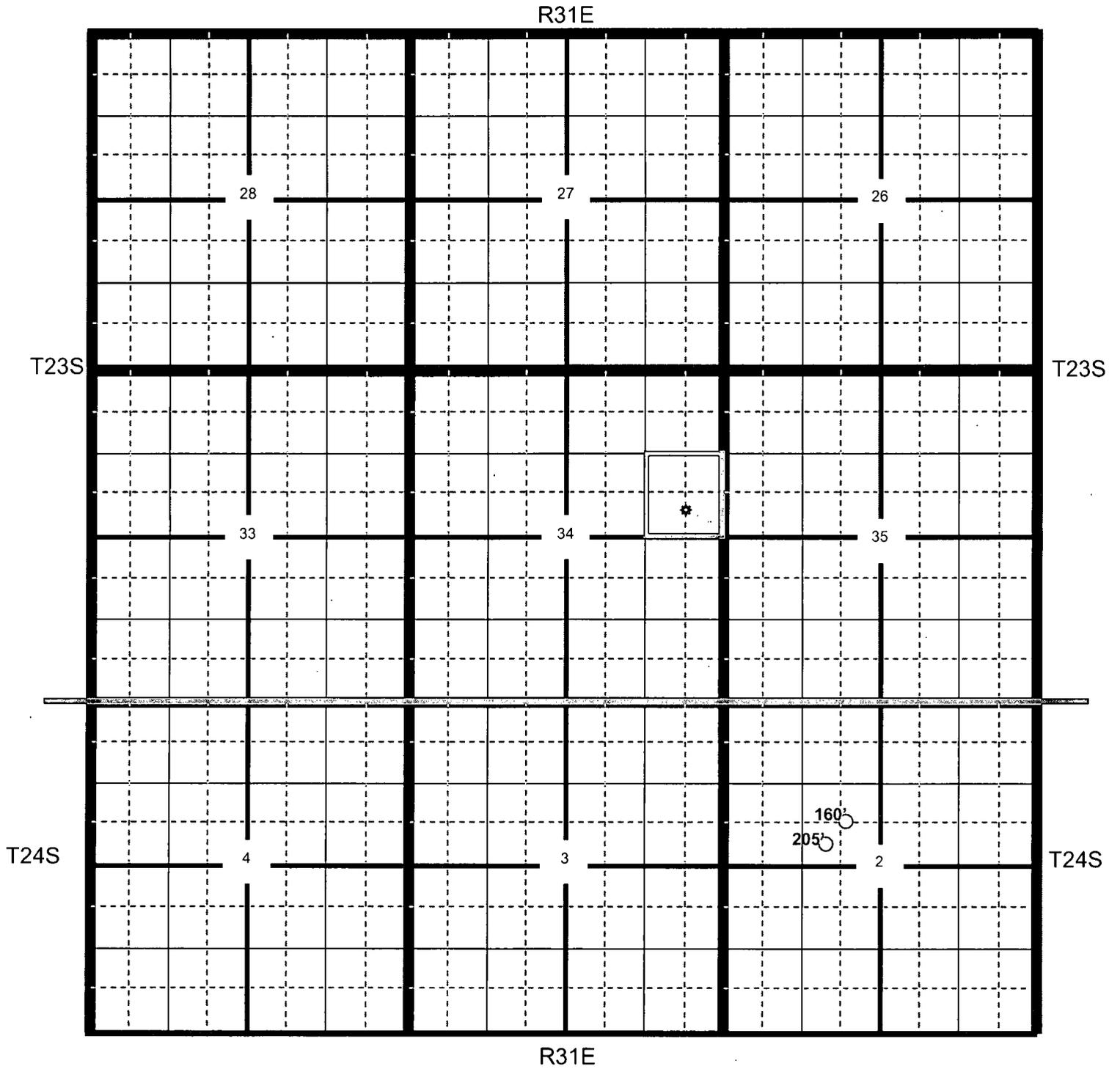


# Groundwater Plot

## Oxy Sand Dunes 34 Federal #2 CTB

County: Eddy County      Unit Letter: H      Section: 34      Township: 23S      Range: 31E

Trend Map      300'



★ Location      ○ OCD      ○ USGS      ○ SEO      ● All Databases



Section Quarters

Oxy Sand Dunes 34 Federal #2 CTB

<b>County</b> Eddy	<b>Unit Letter</b> H	<b>Section</b> 34	<b>Township</b> 23S	<b>Range</b> 31E
-----------------------	-------------------------	----------------------	------------------------	---------------------

Trend Map 300'

1

2

NW/NW <b>None</b>	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

 Location     
  OCD     
  USGS     
  SEO     
  All Databases

**Laboratory Analytical Results Summary  
SAND DUNES 34 FED #2**

		Sample	SP1 @ 1'	SP1 @ 2'
Analyte	Method	Date	4/3/13	4/3/13
			mg/Kg	mg/Kg
Benzene	BTEX 8021B		n/a	<0.050
Toluene	BTEX 8021B		n/a	<0.050
Ethylbenzene	BTEX 8021B		n/a	<0.050
Total Xylenes	BTEX 8021B		n/a	<0.150
Total BTEX	BTEX 8021B		n/a	<0.300
Chloride	SM4500Cl-B		160	<16.0
GRO	TPH 8015M		n/a	<10.0
DRO	TPH 8015M		n/a	<10.0

		Sample	SP2 @ 1'	SP2 @ 2'
Analyte	Method	Date	4/3/13	4/3/13
			mg/Kg	mg/Kg
Benzene	BTEX 8021B		n/a	<0.050
Toluene	BTEX 8021B		n/a	<0.050
Ethylbenzene	BTEX 8021B		n/a	<0.050
Total Xylenes	BTEX 8021B		n/a	<0.150
Total BTEX	BTEX 8021B		n/a	<0.300
Chloride	SM4500Cl-B		176	<16.0
GRO	TPH 8015M		n/a	<10.0
DRO	TPH 8015M		n/a	24

		Sample	SP3 @ 1'	SP3 @ 2'
Analyte	Method	Date	4/3/13	4/3/13
			mg/Kg	mg/Kg
Benzene	BTEX 8021B		n/a	<0.050
Toluene	BTEX 8021B		n/a	<0.050
Ethylbenzene	BTEX 8021B		n/a	<0.050
Total Xylenes	BTEX 8021B		n/a	<0.150
Total BTEX	BTEX 8021B		n/a	<0.300
Chloride	SM4500Cl-B		192	<16.0
GRO	TPH 8015M		n/a	<10.0
DRO	TPH 8015M		n/a	<10.0

**Laboratory Analytical Results Summary  
SAND DUNES 34 FED #2**

		Sample	SP4 @ 2'	SP4 @ 4'	SP4 @ 7'	SP4 @ 9'
Analyte	Method	Date	4/3/13	4/3/13	4/11/13	4/11/13
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Toluene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Total Xylenes</b>	BTEX 8021B		<0.150	n/a	n/a	n/a
<b>Total BTEX</b>	BTEX 8021B		<0.300	n/a	n/a	n/a
<b>Chloride</b>	SM4500CI-B		<b>21000</b>	<b>26400</b>	<b>1490</b>	<b>1120</b>
<b>GRO</b>	TPH 8015M		<10.0	n/a	n/a	n/a
<b>DRO</b>	TPH 8015M		<10.0	n/a	n/a	n/a

		Sample	SP5 @ 1'	SP5 @ 4'	SP5 @ 7'	SP5 @ 9'
Analyte	Method	Date	4/3/13	4/3/13	4/11/13	4/11/13
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Toluene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Total Xylenes</b>	BTEX 8021B		<0.150	n/a	n/a	n/a
<b>Total BTEX</b>	BTEX 8021B		<0.300	n/a	n/a	n/a
<b>Chloride</b>	SM4500CI-B		<b>12200</b>	<b>24800</b>	<b>1440</b>	<b>1260</b>
<b>GRO</b>	TPH 8015M		<10.0	n/a	n/a	n/a
<b>DRO</b>	TPH 8015M		<10.0	n/a	n/a	n/a

		Sample	SP6 @ 2'	SP6 @ 4'	SP6 @ 7'	SP6 @ 9'
Analyte	Method	Date	4/3/13	4/3/13	4/11/13	4/11/13
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Toluene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	n/a	n/a	n/a
<b>Total Xylenes</b>	BTEX 8021B		<0.150	n/a	n/a	n/a
<b>Total BTEX</b>	BTEX 8021B		<0.300	n/a	n/a	n/a
<b>Chloride</b>	SM4500CI-B		<b>18400</b>	<b>19200</b>	<b>1440</b>	<b>1010</b>
<b>GRO</b>	TPH 8015M		10	n/a	n/a	n/a
<b>DRO</b>	TPH 8015M		10	n/a	n/a	n/a

April 12, 2013

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: 34 FED #2 CTB

Enclosed are the results of analyses for samples received by the laboratory on 04/09/13 9:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



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: 04/09/2013  
 Reported: 04/12/2013  
 Project Name: 34 FED #2 CTB  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 04/03/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @1' (H300843-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	04/10/2013	ND	432	108	400	0.00		

**Sample ID: SP 1 @2' (H300843-02)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/11/2013	ND	1.99	99.3	2.00	4.07		
Toluene*	<0.050	0.050	04/11/2013	ND	2.29	115	2.00	4.40		
Ethylbenzene*	<0.050	0.050	04/11/2013	ND	2.52	126	2.00	4.27		
Total Xylenes*	<0.150	0.150	04/11/2013	ND	7.34	122	6.00	4.96		
Total BTEX	<0.300	0.300	04/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/10/2013	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/11/2013	ND	222	111	200	5.04		
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	218	109	200	5.96		

Surrogate: 1-Chlorooctane 92.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 113 % 63.6-154

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\*=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:	04/09/2013	Sampling Date:	04/03/2013
Reported:	04/12/2013	Sampling Type:	Soil
Project Name:	34 FED #2 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 2 @1' (H300843-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	04/10/2013	ND	432	108	400	0.00		

**Sample ID: SP 2 @2' (H300843-04)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/11/2013	ND	1.99	99.3	2.00	4.07		
Toluene*	<0.050	0.050	04/11/2013	ND	2.29	115	2.00	4.40		
Ethylbenzene*	<0.050	0.050	04/11/2013	ND	2.52	126	2.00	4.27		
Total Xylenes*	<0.150	0.150	04/11/2013	ND	7.34	122	6.00	4.96		
Total BTEX	<0.300	0.300	04/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 100 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/10/2013	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/11/2013	ND	222	111	200	5.04		
DRO >C10-C28	24.0	10.0	04/11/2013	ND	218	109	200	5.96		

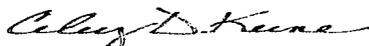
Surrogate: 1-Chlorooctane 94.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 117 % 63.6-154

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\*=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:	04/09/2013	Sampling Date:	04/03/2013
Reported:	04/12/2013	Sampling Type:	Soil
Project Name:	34 FED #2 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 3 @1' (H300843-05)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	04/10/2013	ND	432	108	400	0.00	

**Sample ID: SP 3 @2' (H300843-06)**

BTEX 8021B	mg/kg	Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/11/2013	ND	1.99	99.3	2.00	4.07	
Toluene*	<0.050	0.050	04/11/2013	ND	2.29	115	2.00	4.40	
Ethylbenzene*	<0.050	0.050	04/11/2013	ND	2.52	126	2.00	4.27	
Total Xylenes*	<0.150	0.150	04/11/2013	ND	7.34	122	6.00	4.96	
Total BTEX	<0.300	0.300	04/11/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 101 % 89.4-126

Chloride, SM4500CI-B	mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/10/2013	ND	432	108	400	0.00	

TPH 8015M	mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/11/2013	ND	222	111	200	5.04	
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	218	109	200	5.96	

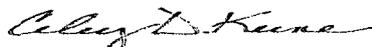
Surrogate: 1-Chlorooctane 92.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 113 % 63.6-154

Cardinal Laboratories

\* = Accredited Analyte

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Caley 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: 04/09/2013  
 Reported: 04/12/2013  
 Project Name: 34 FED #2 CTB  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 04/03/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 4 @2' (H300843-07)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/11/2013	ND	1.99	99.3	2.00	4.07		
Toluene*	<0.050	0.050	04/11/2013	ND	2.29	115	2.00	4.40		
Ethylbenzene*	<0.050	0.050	04/11/2013	ND	2.52	126	2.00	4.27		
Total Xylenes*	<0.150	0.150	04/11/2013	ND	7.34	122	6.00	4.96		
Total BTEX	<0.300	0.300	04/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	21000	16.0	04/10/2013	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/11/2013	ND	222	111	200	5.04		
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	218	109	200	5.96		

Surrogate: 1-Chlorooctane 92.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 112 % 63.6-154

**Sample ID: SP 4 @4' (H300843-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	26400	16.0	04/10/2013	ND	432	108	400	0.00		

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Caley 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:	04/09/2013	Sampling Date:	04/03/2013
Reported:	04/12/2013	Sampling Type:	Soil
Project Name:	34 FED #2 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 5 @1' (H300843-09)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/11/2013	ND	1.99	99.3	2.00	4.07		
Toluene*	<0.050	0.050	04/11/2013	ND	2.29	115	2.00	4.40		
Ethylbenzene*	<0.050	0.050	04/11/2013	ND	2.52	126	2.00	4.27		
Total Xylenes*	<0.150	0.150	04/11/2013	ND	7.34	122	6.00	4.96		
Total BTEX	<0.300	0.300	04/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12200	16.0	04/10/2013	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/11/2013	ND	214	107	200	1.94		
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26		

Surrogate: 1-Chlorooctane 90.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 115 % 63.6-154

**Sample ID: SP 5 @4' (H300843-10)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	24800	16.0	04/10/2013	ND	432	108	400	3.77		

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\* = Accredited Analyte

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Caley 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: 04/09/2013  
 Reported: 04/12/2013  
 Project Name: 34 FED #2 CTB  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 04/03/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 6 @2' (H300843-11)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/11/2013	ND	1.99	99.3	2.00	4.07		
Toluene*	<0.050	0.050	04/11/2013	ND	2.29	115	2.00	4.40		
Ethylbenzene*	<0.050	0.050	04/11/2013	ND	2.52	126	2.00	4.27		
Total Xylenes*	<0.150	0.150	04/11/2013	ND	7.34	122	6.00	4.96		
Total BTEX	<0.300	0.300	04/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	18400	16.0	04/10/2013	ND	432	108	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	04/11/2013	ND	214	107	200	1.94		
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26		

Surrogate: 1-Chlorooctane 82.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 111 % 63.6-154

**Sample ID: SP 6 @4' (H300843-12)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	19200	16.0	04/10/2013	ND	432	108	400	3.77		

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

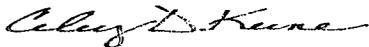
ND Analyte NOT DETECTED at or above the reporting limit  
RPD Relative Percent Difference  
\*\* Samples not received at proper temperature of 6°C or below.  
\*\*\* Insufficient time to reach temperature.  
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported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

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Celey D. Keene, Lab Director/Quality Manager





# CARDINAL LABORATORIES

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 2

Company Name: BBC International, Inc.		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>																							
Project Manager: Cliff Brunson		P.O. #:																									
Address: P.O. Box 805		Company:																									
City: Hobbs State: NM Zip: 88241		Attn:																									
Phone #: 575-397-6388 Fax #: 575-397-0397		Address: <b>SAME</b>																									
Project #: Project Owner: <b>OKY</b>		City:																									
Project Name: <b>34 FED #2 CTB</b>		State: Zip:																									
Project Location:		Phone #:																									
Sampler Name:		Fax #:																									
FOR LAB USE ONLY													CHLORIDE	TPH	BTEX												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX					PRESERV		SAMPLING					DATE	TIME										
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:															
H300843	11 SP6 @ 2'	6	1			✓					✓		4.3.13	2:21	✓	✓	✓										
12	04'	1	1			✓					✓		4.3.13	2:44	✓												

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Relinquished By: <i>RgH</i>	Date: <b>4.9.13</b>	Received By: <i>Jodi Henson</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: <b>9:05</b>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:			
Delivered By: (Circle One)	Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other:	Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Inject <input type="checkbox"/> Yes <input type="checkbox"/> No	<i>JH</i>		

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

#26



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

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April 19, 2013

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

RE: SAND DUNES 34 FED #2 CTB

Enclosed are the results of analyses for samples received by the laboratory on 04/15/13 9:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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](http://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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, prominent initial "C".

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: 04/15/2013  
 Reported: 04/19/2013  
 Project Name: SAND DUNES 34 FED #2 CTB  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 04/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 4 @ 7' (H300896-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1490	16.0	04/17/2013	ND	432	108	400	0.00		

**Sample ID: SP 4 @ 9' (H300896-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1120	16.0	04/17/2013	ND	432	108	400	0.00		

**Sample ID: SP 5 @ 7' (H300896-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1440	16.0	04/17/2013	ND	432	108	400	0.00		

**Sample ID: SP 5 @ 9' (H300896-04)**

Chloride; SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1260	16.0	04/17/2013	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:	04/15/2013	Sampling Date:	04/11/2013
Reported:	04/19/2013	Sampling Type:	Soil
Project Name:	SAND DUNES 34 FED #2 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 6 @ 7' (H300896-05)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1440	16.0	04/17/2013	ND	432	108	400	0.00	

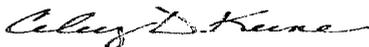
**Sample ID: SP 6 @ 9' (H300896-06)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1010	16.0	04/17/2013	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

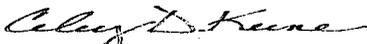
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported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

---

Cardinal Laboratories

\*=Accredited Analyte

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---

Celey D. Keene, Lab Director/Quality Manager



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	Oxy Permian Ltd.	Contact	CJ Summers
Address	1017 W. Stanolind Rd, Hobbs, NM	Telephone No.	(575) 397-8216
Facility Name	Sand Dunes 34 Federal #2	Facility Type	Battery
Surface Owner	BLM	Mineral Owner	
		Lease No.	NM 43744

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	34	23S	31E					Eddy

Latitude N 32.26192° Longitude W 103.75925°

**NATURE OF RELEASE**

Type of Release	Produced water	Volume of Release	20 bbls	Volume Recovered	0 bbls
Source of Release	Power failure at the transfer pump caused frac tank overflow	Date and Hour of Occurrence	03/25/2013	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Jennifer Van Curen, James Amos-BLM and Mike Bratcher-OCD		
By Whom?	Chancey Summers	Date and Hour	03/25/2013 @ 10:18 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.\*  
Power failure at the transfer pump caused the frac tank to overflow and spill 20 bbls of produced water onto the ground. No fluids were recovered and power to the transfer pump was restored.

Describe Area Affected and Cleanup Action Taken.\*  
Power failure at the transfer pump caused the frac tank to overflow and spill 20 bbls of produced water onto the ground. No fluids were recovered and power to the transfer pump was restored. Remediation will be performed in accordance with an approved plan from the 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:	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Chancey Summers	Approved by District Supervisor:		
Title: HES Specialist	Approval Date:	Expiration Date:	
E-mail Address: Chancey.Summers@oxy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 3-27-13	Phone: (575) 397-8216		

\* Attach Additional Sheets If Necessary