



PHONE (575) 397-6388 • FAX (575) 397- 0397 • 1324 W. MARLAND • P.O. BOX 805 • HOBBS, NM 88241-0805  
E-MAIL: cbrunson@bbcinternational.com

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## **OXY – McKITTRICK HILLS CTB**

### **REMEDIATION PLAN**

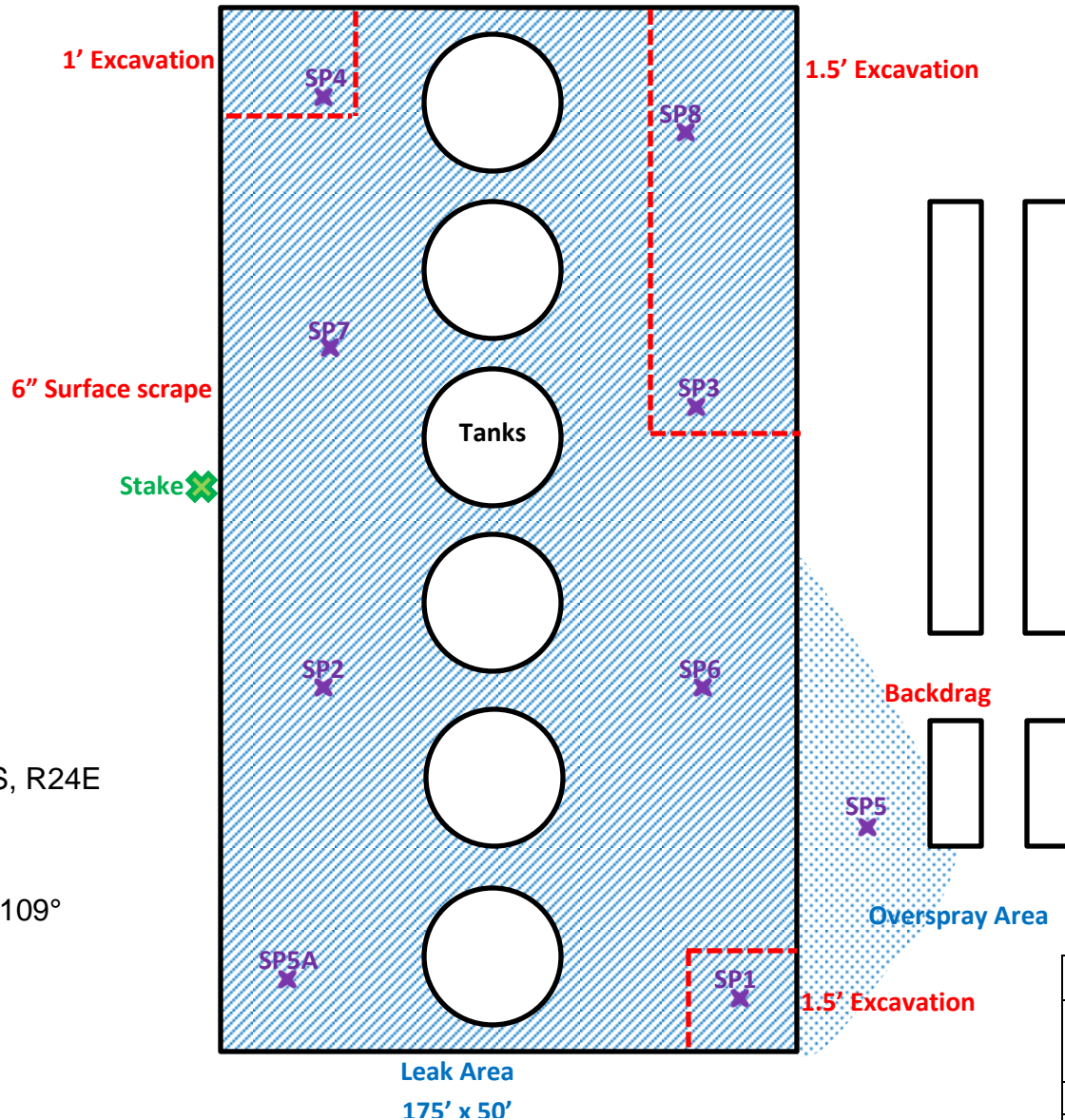
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OXY will excavate the spill area as depicted on the following site diagram. The spill area near sample points SP1, SP3, and SP8 will be excavated to a depth of 1.5 feet. In the area of sample point SP4, 1 foot will be excavated. The remaining spill area will be excavated to a depth of 6 inches. The overspray area near SP5 will be backdragged. The entire site will be backfilled with clean soil.

All excavated materials will be disposed of at an NMOCD-approved disposal facility.



Oxy  
McKittrick Hills CTB



U/L A, Section 14, T22S, R24E  
Eddy County, NM  
N 32.39755° W 104.46109°  
API#30-015-21010

BBC International, Inc.	
Oxy McKittrick Hills CTB	
Date: 01/08/2016	DRWG by: K. Purvis
NOT TO SCALE	File: Oxy 2015



# Groundwater Plot

## Oxy McKittrick Hills CTB

County  
Eddy

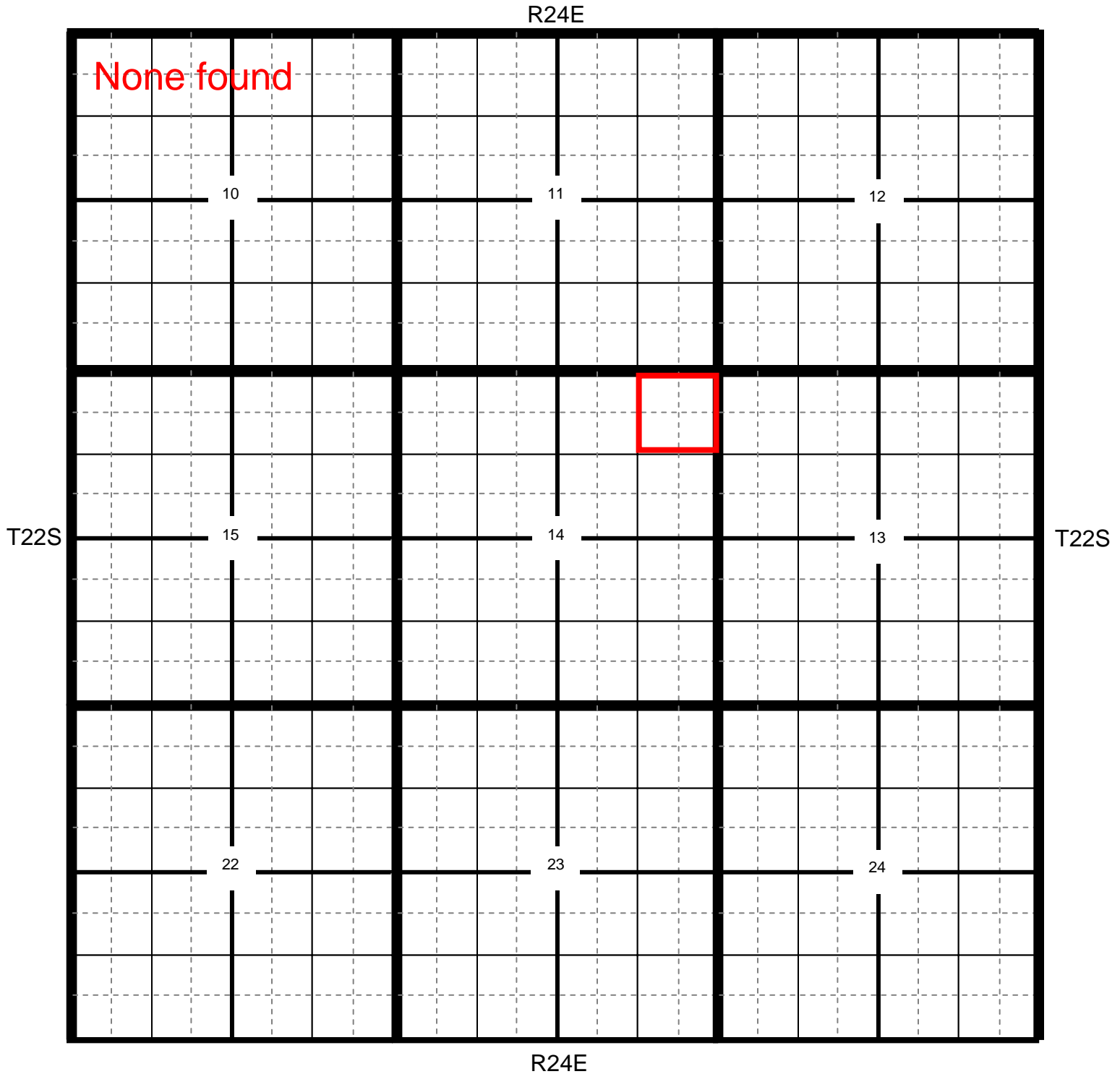
Unit Letter  
A

Section  
14

Township  
22S

Range  
24E

Trend Map 100'-125'



📍 Location

● OCD

● USGS

● SEO

● All Databases

## Oxy McKittrick Hills CTB

**County** Eddy      **Unit Letter** A      **Section** 14      **Township** 22S      **Range** 24E

Trend Map 100'-125'

1

2

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

3

4

**Laboratory Analytical Results Summary  
McKittrick Hills CTB**

		Sample	SP1 @ 1'	SP1 @ 2'
Analyte	Method	Date	2/2/16	2/4/16
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<2.00	<0.050
<b>Toluene</b>	BTEX 8021B		<2.00	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<b>2.51</b>	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<b>13.3</b>	<0.150
<b>Total BTEX</b>	BTEX 8021B		<b>15.8</b>	<0.300
<b>Chloride</b>	SM4500Cl-B		<b>80</b>	<b>32</b>
<b>GRO</b>	TPH 8015M		<b>3650</b>	<10.0
<b>DRO</b>	TPH 8015M		<b>27000</b>	<10.0

		Sample	SP2 @ 1'	SP2 @ 2'
Analyte	Method	Date	2/2/16	2/4/16
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300
<b>Chloride</b>	SM4500Cl-B		<b>144</b>	<16.0
<b>GRO</b>	TPH 8015M		<10.0	<10.0
<b>DRO</b>	TPH 8015M		<b>118</b>	<10.0

		Sample	SP3 @ 1'	SP3 @ 2'
Analyte	Method	Date	2/2/16	2/4/16
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<2.00	<0.050
<b>Toluene</b>	BTEX 8021B		<b>2.05</b>	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<b>3.43</b>	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<b>30.8</b>	<0.150
<b>Total BTEX</b>	BTEX 8021B		<b>36.3</b>	<0.300
<b>Chloride</b>	SM4500Cl-B		<b>128</b>	<16.0
<b>GRO</b>	TPH 8015M		<b>2890</b>	<10.0
<b>DRO</b>	TPH 8015M		<b>14200</b>	<10.0

		Sample	SP4 @ 1'	SP4 @ 2'
Analyte	Method	Date	2/2/16	2/4/16
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<2.00	<0.050
<b>Toluene</b>	BTEX 8021B		<b>0.424</b>	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<b>1.27</b>	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<b>7.58</b>	<0.150
<b>Total BTEX</b>	BTEX 8021B		<b>9.27</b>	<0.300
<b>Chloride</b>	SM4500Cl-B		<16.0	<16.0
<b>GRO</b>	TPH 8015M		<b>526</b>	<10.0
<b>DRO</b>	TPH 8015M		<b>4510</b>	<10.0

		Sample	SP5 @ 1'
Analyte	Method	Date	2/2/16
			mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050
<b>Toluene</b>	BTEX 8021B		<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<0.050
<b>Total Xylenes</b>	BTEX 8021B		<0.150
<b>Total BTEX</b>	BTEX 8021B		<0.300
<b>Chloride</b>	SM4500Cl-B		<b>64</b>
<b>GRO</b>	TPH 8015M		<10.0
<b>DRO</b>	TPH 8015M		<b>2070</b>

		Sample	SP5A @ 1'	SP5A @ 2'
Analyte	Method	Date	3/15/16	3/15/16
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300
<b>Chloride</b>	SM4500Cl-B		<b>48</b>	<16.0
<b>GRO</b>	TPH 8015M		<10.0	<10.0
<b>DRO</b>	TPH 8015M		<b>72</b>	<b>10.9</b>

		Sample	SP6 @ 1'	SP6 @ 2'
Analyte	Method	Date	3/15/16	3/15/16
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300
<b>Chloride</b>	SM4500Cl-B		<b>96</b>	<16.0
<b>GRO</b>	TPH 8015M		<10.0	<10.0
<b>DRO</b>	TPH 8015M		<b>79.6</b>	<10.0

		Sample	SP7 @ 1'	SP7 @ 2'
Analyte	Method	Date	3/16/16	3/16/16
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300
<b>Chloride</b>	SM4500Cl-B		<b>144</b>	<16.0
<b>GRO</b>	TPH 8015M		<10.0	<10.0
<b>DRO</b>	TPH 8015M		<b>56.1</b>	<10.0

		Sample	SP8 @ 1'	SP8 @ 2'
Analyte	Method	Date	3/16/16	3/16/16
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.500	<0.050
<b>Toluene</b>	BTEX 8021B		<0.500	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<0.500	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<b>9.76</b>	<b>0.321</b>
<b>Total BTEX</b>	BTEX 8021B		<b>9.76</b>	<b>0.321</b>
<b>Chloride</b>	SM4500Cl-B		<b>64</b>	<16.0
<b>GRO</b>	TPH 8015M		<b>820</b>	<b>11.9</b>
<b>DRO</b>	TPH 8015M		<b>9070</b>	<b>86.1</b>



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

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February 14, 2016

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: MCKITTRICK HILLS CTB

Enclosed are the results of analyses for samples received by the laboratory on 02/09/16 8:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing 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:	02/09/2016	Sampling Date:	02/02/2016
Reported:	02/14/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 1 @ 1' (H600283-01)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.00	2.00	02/11/2016	ND	2.10	105	2.00	2.38	
Toluene*	<2.00	2.00	02/11/2016	ND	2.08	104	2.00	2.62	
Ethylbenzene*	<b>2.51</b>	2.00	02/11/2016	ND	1.90	95.0	2.00	2.16	
<b>Total Xylenes*</b>	<b>13.3</b>	6.00	02/11/2016	ND	5.71	95.2	6.00	2.49	
<b>Total BTX</b>	<b>15.8</b>	12.0	02/11/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	02/11/2016	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>3650</b>	200	02/10/2016	ND	221	110	200	2.06		
<b>DRO &gt;C10-C28</b>	<b>27000</b>	200	02/10/2016	ND	207	103	200	2.26		

Surrogate: 1-Chlorooctane 275 % 35-147

Surrogate: 1-Chlorooctadecane 752 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	02/09/2016	Sampling Date:	02/04/2016
Reported:	02/14/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 1 @ 2' (H600283-02)**

BTX 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	02/11/2016	ND	2.10	105	2.00	2.38		
Toluene*	<0.050	0.050	02/11/2016	ND	2.08	104	2.00	2.62		
Ethylbenzene*	<0.050	0.050	02/11/2016	ND	1.90	95.0	2.00	2.16		
Total Xylenes*	<0.150	0.150	02/11/2016	ND	5.71	95.2	6.00	2.49		
Total BTX	<0.300	0.300	02/11/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/11/2016	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	02/10/2016	ND	221	110	200	2.06		
DRO >C10-C28	<10.0	10.0	02/10/2016	ND	207	103	200	2.26		

Surrogate: 1-Chlorooctane 84.2 % 35-147

Surrogate: 1-Chlorooctadecane 91.5 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

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

Received:	02/09/2016	Sampling Date:	02/02/2016
Reported:	02/14/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 2 @ 1' (H600283-03)**

BTX 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	02/11/2016	ND	2.10	105	2.00	2.38		
Toluene*	<0.050	0.050	02/11/2016	ND	2.08	104	2.00	2.62		
Ethylbenzene*	<0.050	0.050	02/11/2016	ND	1.90	95.0	2.00	2.16		
Total Xylenes*	<0.150	0.150	02/11/2016	ND	5.71	95.2	6.00	2.49		
Total BTX	<0.300	0.300	02/11/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	02/11/2016	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	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	118	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane 91.1 % 35-147

Surrogate: 1-Chlorooctadecane 102 % 28-171

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

Received:	02/09/2016	Sampling Date:	02/04/2016
Reported:	02/14/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 2 @ 2' (H600283-04)**

BTX 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	02/11/2016	ND	2.10	105	2.00	2.38		
Toluene*	<0.050	0.050	02/11/2016	ND	2.08	104	2.00	2.62		
Ethylbenzene*	<0.050	0.050	02/11/2016	ND	1.90	95.0	2.00	2.16		
Total Xylenes*	<0.150	0.150	02/11/2016	ND	5.71	95.2	6.00	2.49		
Total BTX	<0.300	0.300	02/11/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

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	02/11/2016	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	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	<10.0	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane 80.5 % 35-147

Surrogate: 1-Chlorooctadecane 86.3 % 28-171

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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:	02/09/2016	Sampling Date:	02/02/2016
Reported:	02/14/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 3 @ 1' (H600283-05)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.00	2.00	02/11/2016	ND	2.10	105	2.00	2.38	
Toluene*	2.05	2.00	02/11/2016	ND	2.08	104	2.00	2.62	
Ethylbenzene*	3.43	2.00	02/11/2016	ND	1.90	95.0	2.00	2.16	
Total Xylenes*	30.8	6.00	02/11/2016	ND	5.71	95.2	6.00	2.49	
Total BTEX	36.3	12.0	02/11/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 73.6-140

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	02/11/2016	ND	432	108	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						S-06

Surrogate: 1-Chlorooctane 241 % 35-147

Surrogate: 1-Chlorooctadecane 326 % 28-171

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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:	02/09/2016	Sampling Date:	02/04/2016
Reported:	02/14/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 3 @ 2' (H600283-06)**

BTX 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	02/11/2016	ND	2.10	105	2.00	2.38		
Toluene*	<0.050	0.050	02/11/2016	ND	2.08	104	2.00	2.62		
Ethylbenzene*	<0.050	0.050	02/11/2016	ND	1.90	95.0	2.00	2.16		
Total Xylenes*	<0.150	0.150	02/11/2016	ND	5.71	95.2	6.00	2.49		
Total BTX	<0.300	0.300	02/11/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

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	02/11/2016	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	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	<10.0	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane 74.5 % 35-147

Surrogate: 1-Chlorooctadecane 81.2 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	02/09/2016	Sampling Date:	02/02/2016
Reported:	02/14/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 4 @ 1' (H600283-07)**

BTX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	02/11/2016	ND	2.10	105	2.00	2.38	
<b>Toluene*</b>	<b>0.424</b>	0.200	02/11/2016	ND	2.08	104	2.00	2.62	
<b>Ethylbenzene*</b>	<b>1.27</b>	0.200	02/11/2016	ND	1.90	95.0	2.00	2.16	
<b>Total Xylenes*</b>	<b>7.58</b>	0.600	02/11/2016	ND	5.71	95.2	6.00	2.49	
<b>Total BTX</b>	<b>9.27</b>	1.20	02/11/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 133 % 73.6-140

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	02/11/2016	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
<b>GRO C6-C10</b>	<b>526</b>	10.0	02/10/2016	ND	221	110	200	2.06	
<b>DRO &gt;C10-C28</b>	<b>4510</b>	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane 138 % 35-147

Surrogate: 1-Chlorooctadecane 158 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	02/09/2016	Sampling Date:	02/04/2016
Reported:	02/14/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 4 @ 2' (H600283-08)**

BTX 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	02/11/2016	ND	2.10	105	2.00	2.38	
Toluene*	<0.050	0.050	02/11/2016	ND	2.08	104	2.00	2.62	
Ethylbenzene*	<0.050	0.050	02/11/2016	ND	1.90	95.0	2.00	2.16	
Total Xylenes*	<0.150	0.150	02/11/2016	ND	5.71	95.2	6.00	2.49	
Total BTX	<0.300	0.300	02/11/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

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	02/11/2016	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	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	<10.0	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane 68.6 % 35-147

Surrogate: 1-Chlorooctadecane 77.1 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	02/09/2016	Sampling Date:	02/02/2016
Reported:	02/14/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 5 @ 1' (H600283-09)**

BTX 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	02/11/2016	ND	2.10	105	2.00	2.38		
Toluene*	<0.050	0.050	02/11/2016	ND	2.08	104	2.00	2.62		
Ethylbenzene*	<0.050	0.050	02/11/2016	ND	1.90	95.0	2.00	2.16		
Total Xylenes*	<0.150	0.150	02/11/2016	ND	5.71	95.2	6.00	2.49		
Total BTX	<0.300	0.300	02/11/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/11/2016	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	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	2070	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane 86.5 % 35-147

Surrogate: 1-Chlorooctadecane 138 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
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

**BILL TO**

**ANALYSIS REQUEST**

Company Name: BBC International, Inc.

Project Manager: Cliff Brunson

Address: P.O. Box 805

City: Hobbs

Phone #: 575-397-6388

Project #:

Project Name: McKittrick Hills

Project Location: Jackson Hills

Sample Name: Jeff Campbell

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

H0002843

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST									
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :												
	SP 181	(C)	1			X				2-2	930	X	X	X							
	SP 201	(C)	1			X				2-2	949	X	X	X							
	SP 202	(C)	1			X				2-2	1045	X	X	X							
	SP 301	(C)	1			X				2-2	1129	X	X	X							
	SP 401	(C)	1			X				2-2	1200	X	X	X							
	SP 501	(C)	1			X				2-2	1215	X	X	X							
	SP 502	(C)	1			X				2-2	111	X	X	X							
	SP 503	(C)	1			X				2-2	123	X	X	X							

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Relinquished By:

Date: 8-16-01

Received By:

Relinquished By:

Date: 8-16-01

Received By:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Sample Condition  
Cool ☒ Intact ☒  
Yes ☒ No ☐

CHECKED BY:

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

#54



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

---

March 24, 2016

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: MCKITTRICK HILLS CTB

Enclosed are the results of analyses for samples received by the laboratory on 03/18/16 10:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing 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:	03/18/2016	Sampling Date:	03/15/2016
Reported:	03/24/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 5 @ 1' (H600598-01)**

BTX 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	03/21/2016	ND	2.17	109	2.00	8.02	
Toluene*	<0.050	0.050	03/21/2016	ND	2.09	104	2.00	8.09	
Ethylbenzene*	<0.050	0.050	03/21/2016	ND	1.87	93.6	2.00	9.35	
Total Xylenes*	<0.150	0.150	03/21/2016	ND	5.76	96.0	6.00	8.33	
Total BTX	<0.300	0.300	03/21/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.6-140

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/21/2016	ND	432	108	400	11.8	

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	03/18/2016	ND	177	88.7	200	0.503	
DRO >C10-C28	72.0	10.0	03/18/2016	ND	178	89.2	200	0.477	

Surrogate: 1-Chlorooctane 95.5 % 35-147

Surrogate: 1-Chlorooctadecane 95.5 % 28-171

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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:	03/18/2016	Sampling Date:	03/15/2016
Reported:	03/24/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 5 @ 2' (H600598-02)**

BTX 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	03/21/2016	ND	2.17	109	2.00	8.02	
Toluene*	<0.050	0.050	03/21/2016	ND	2.09	104	2.00	8.09	
Ethylbenzene*	<0.050	0.050	03/21/2016	ND	1.87	93.6	2.00	9.35	
Total Xylenes*	<0.150	0.150	03/21/2016	ND	5.76	96.0	6.00	8.33	
Total BTX	<0.300	0.300	03/21/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.6-140

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	03/21/2016	ND	432	108	400	11.8		

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	03/18/2016	ND	177	88.7	200	0.503	
DRO >C10-C28	10.9	10.0	03/18/2016	ND	178	89.2	200	0.477	

Surrogate: 1-Chlorooctane 78.6 % 35-147

Surrogate: 1-Chlorooctadecane 74.2 % 28-171

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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:	03/18/2016	Sampling Date:	03/15/2016
Reported:	03/24/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 6 @ 1' (H600598-03)**

BTX 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	03/21/2016	ND	2.17	109	2.00	8.02		
Toluene*	<0.050	0.050	03/21/2016	ND	2.09	104	2.00	8.09		
Ethylbenzene*	<0.050	0.050	03/21/2016	ND	1.87	93.6	2.00	9.35		
Total Xylenes*	<0.150	0.150	03/21/2016	ND	5.76	96.0	6.00	8.33		
Total BTX	<0.300	0.300	03/21/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	03/21/2016	ND	432	108	400	11.8	

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	03/18/2016	ND	177	88.7	200	0.503	
DRO >C10-C28	79.6	10.0	03/18/2016	ND	178	89.2	200	0.477	

Surrogate: 1-Chlorooctane 93.3 % 35-147

Surrogate: 1-Chlorooctadecane 93.5 % 28-171

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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:	03/18/2016	Sampling Date:	03/15/2016
Reported:	03/24/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 6 @ 2' (H600598-04)**

BTX 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	03/21/2016	ND	2.17	109	2.00	8.02		
Toluene*	<0.050	0.050	03/21/2016	ND	2.09	104	2.00	8.09		
Ethylbenzene*	<0.050	0.050	03/21/2016	ND	1.87	93.6	2.00	9.35		
Total Xylenes*	<0.150	0.150	03/21/2016	ND	5.76	96.0	6.00	8.33		
Total BTX	<0.300	0.300	03/21/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.6-140

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	03/21/2016	ND	432	108	400	11.8		

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	03/18/2016	ND	177	88.7	200	0.503	
DRO >C10-C28	<10.0	10.0	03/18/2016	ND	178	89.2	200	0.477	

Surrogate: 1-Chlorooctane 93.3 % 35-147

Surrogate: 1-Chlorooctadecane 89.2 % 28-171

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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:	03/18/2016	Sampling Date:	03/16/2016
Reported:	03/24/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 7 @ 1' (H600598-05)**

BTX 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	03/21/2016	ND	2.17	109	2.00	8.02	
Toluene*	<0.050	0.050	03/21/2016	ND	2.09	104	2.00	8.09	
Ethylbenzene*	<0.050	0.050	03/21/2016	ND	1.87	93.6	2.00	9.35	
Total Xylenes*	<0.150	0.150	03/21/2016	ND	5.76	96.0	6.00	8.33	
Total BTX	<0.300	0.300	03/21/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	03/21/2016	ND	432	108	400	11.8	

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	03/18/2016	ND	177	88.7	200	0.503	
DRO >C10-C28	56.1	10.0	03/18/2016	ND	178	89.2	200	0.477	

Surrogate: 1-Chlorooctane 84.5 % 35-147

Surrogate: 1-Chlorooctadecane 81.4 % 28-171

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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:	03/18/2016	Sampling Date:	03/16/2016
Reported:	03/24/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 7 @ 2' (H600598-06)**

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	03/23/2016	ND	2.01	100	2.00	1.37		
Toluene*	<0.050	0.050	03/23/2016	ND	1.91	95.5	2.00	1.66		
Ethylbenzene*	<0.050	0.050	03/23/2016	ND	1.66	83.0	2.00	0.895		
Total Xylenes*	<0.150	0.150	03/23/2016	ND	5.21	86.9	6.00	2.69		
Total BTEx	<0.300	0.300	03/23/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.6-140

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	03/21/2016	ND	432	108	400	11.8		

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	03/22/2016	ND	199	99.4	200	1.20	
DRO >C10-C28	<10.0	10.0	03/22/2016	ND	182	91.2	200	8.62	

Surrogate: 1-Chlorooctane 101 % 35-147

Surrogate: 1-Chlorooctadecane 110 % 28-171

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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:	03/18/2016	Sampling Date:	03/16/2016
Reported:	03/24/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 8 @ 1' (H600598-07)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	03/23/2016	ND	2.01	100	2.00	1.37	
Toluene*	<0.500	0.500	03/23/2016	ND	1.91	95.5	2.00	1.66	
Ethylbenzene*	<0.500	0.500	03/23/2016	ND	1.66	83.0	2.00	0.895	
Total Xylenes*	9.76	1.50	03/23/2016	ND	5.21	86.9	6.00	2.69	
Total BTX	9.76	3.00	03/23/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 127 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/21/2016	ND	432	108	400	11.8	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	820	10.0	03/22/2016	ND	199	99.4	200	1.20	
DRO >C10-C28	9070	10.0	03/22/2016	ND	182	91.2	200	8.62	

Surrogate: 1-Chlorooctane 205 % 35-147

Surrogate: 1-Chlorooctadecane 242 % 28-171

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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:	03/18/2016	Sampling Date:	03/16/2016
Reported:	03/24/2016	Sampling Type:	Soil
Project Name:	MCKITTRICK HILLS CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	INDIAN HILLS		

**Sample ID: SP 8 @ 2' (H600598-08)**

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	03/23/2016	ND	2.01	100	2.00	1.37	
Toluene*	<0.050	0.050	03/23/2016	ND	1.91	95.5	2.00	1.66	
Ethylbenzene*	<0.050	0.050	03/23/2016	ND	1.66	83.0	2.00	0.895	
<b>Total Xylenes*</b>	<b>0.321</b>	0.150	03/23/2016	ND	5.21	86.9	6.00	2.69	
<b>Total BTEX</b>	<b>0.321</b>	0.300	03/23/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.6-140

Chloride, SM4500Cl-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	03/21/2016	ND	432	108	400	11.8	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	11.9	10.0	03/22/2016	ND	199	99.4	200	1.20	
DRO >C10-C28	86.1	10.0	03/22/2016	ND	182	91.2	200	8.62	

Surrogate: 1-Chlorooctane 80.6 % 35-147

Surrogate: 1-Chlorooctadecane 79.7 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager







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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

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

## Release Notification and Corrective Action

### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Oxy Permian Ltd.	Contact	Casey Summers
Address	6 Desta Drive, Midland, TX 79705	Telephone No.	(575) 513-8289
Facility Name	McKittrick Hills Central Tank Battery	Facility Type	Battery

Surface Owner	BLM	Mineral Owner		API No.	30-015-21010
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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
A	14	22S	24E					Eddy County, NM

Latitude N 32.39755° Longitude W 104.46109°

### NATURE OF RELEASE

Type of Release	Oil and Produced water	Volume of Release	20 bbls oil, 160 bbls produced water	Volume Recovered	160 bbls
Source of Release	Lack of alarms to warn of a tank overflow	Date and Hour of Occurrence	12/09/2015	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher-NMOCD; Shelly Tucker-BLM		
By Whom?	Cliff Brunson @ BBC International	Date and Hour	12/10/2015 @ 5:00 pm		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

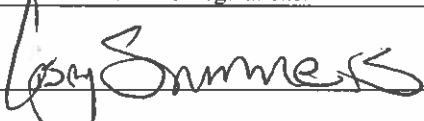
Describe Cause of Problem and Remedial Action Taken.\*

Lack of alarms caused a tank to overflow spilling 20 bbls of oil and 160 bbls of produced water onto the ground. A vacuum truck recovered 160 bbls of fluids and the alarm issue was corrected.

Describe Area Affected and Cleanup Action Taken.\*

The affected area is approximately 75' x 50' on location. Remediation will be completed in accordance with a remediation plan approved by both NMOCD and the BLM.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:				<u>OIL CONSERVATION DIVISION</u>	
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:	12/30/15			Phone:	(575) 513-8289

\* Attach Additional Sheets If Necessary