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## **OXY – MANDA B TRACT C TANK BATTERY**

**1RP – 3111**

**1RP – 3173**

### **REMEDIATION PLAN**

Oxy will excavate spill area as depicted on the attached site diagram. Two spills occurred shortly after one another and this plan addresses both spills. The area on the west side of the spill near SP1, SP2, and SP3 will be excavated to a depth of 2 feet. The area around SP2 and SP3 will have a liner installed after the excavation.

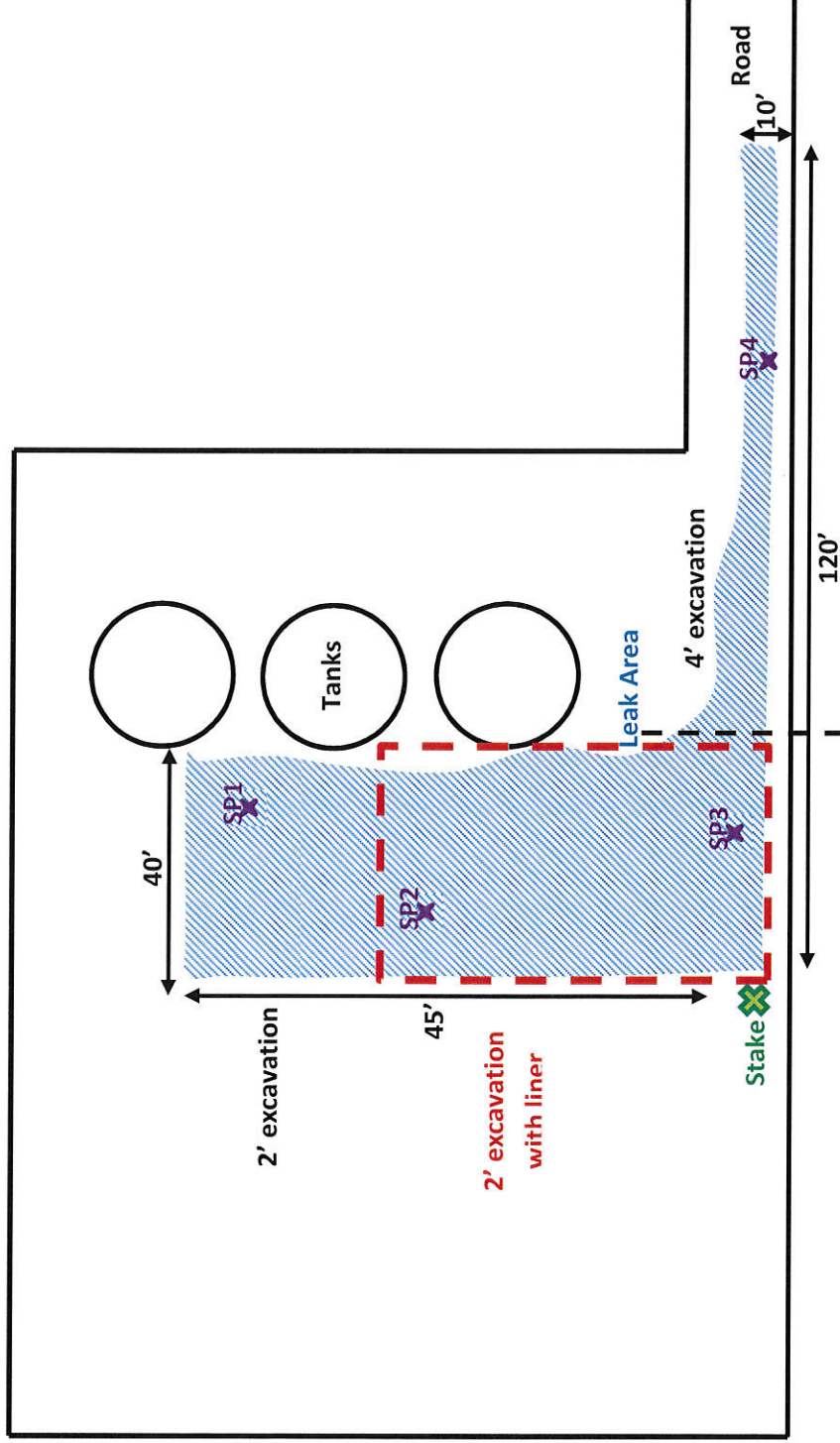
The southern part of the spill area will be excavated to a depth of 4 feet. This plan will remove the contaminants to OCD acceptable levels as agreed upon.

The site will then be backfilled with clean soil.



Oxy

# Manda B Tract C Tank Battery



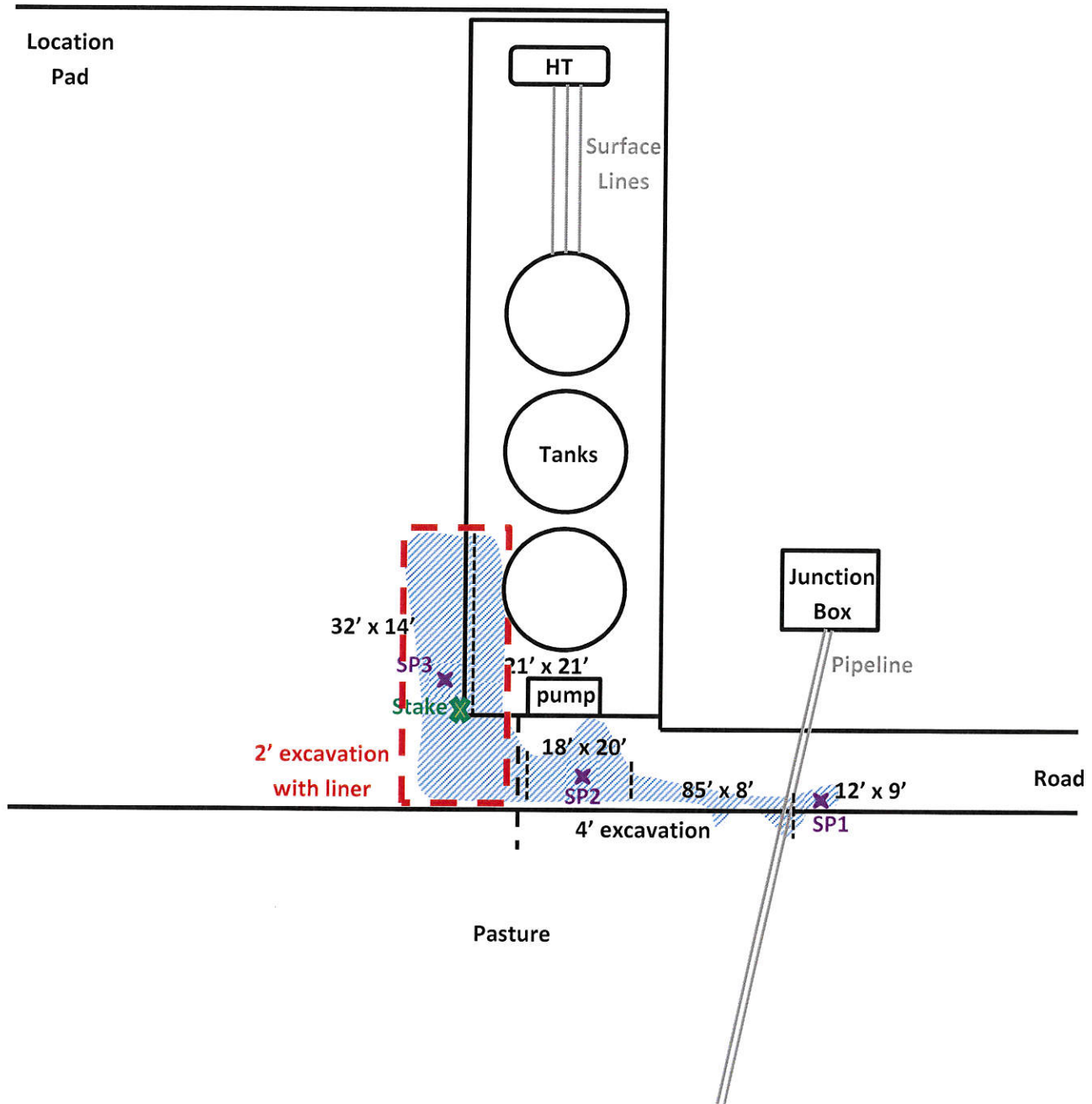
BBC International, Inc.	
Oxy	
Manda B Tract C Tank Battery	
Date: 03/28/14	DRWG by: K. Purvis
NOT TO SCALE	File: Oxy 2014

U/L C, Section 28, T22S, R37E  
Lea County, NM  
N 32.36877° W 103.16985°



Oxy

# Manda B Tract C Tank Battery (5/20/14)



U/L C, Section 28, T22S, R37E

Lea County, NM

N 32.36871° W 103.16980°

BBC International, Inc.

Oxy

Manda B Tract C Tank Battery

Date: 05/23/2014

DRWG by: K. Purvis

NOT TO SCALE

File: Oxy 2014

# Groundwater Plot

## Oxy Manda B Tract C Tank Battery

County  
Lea

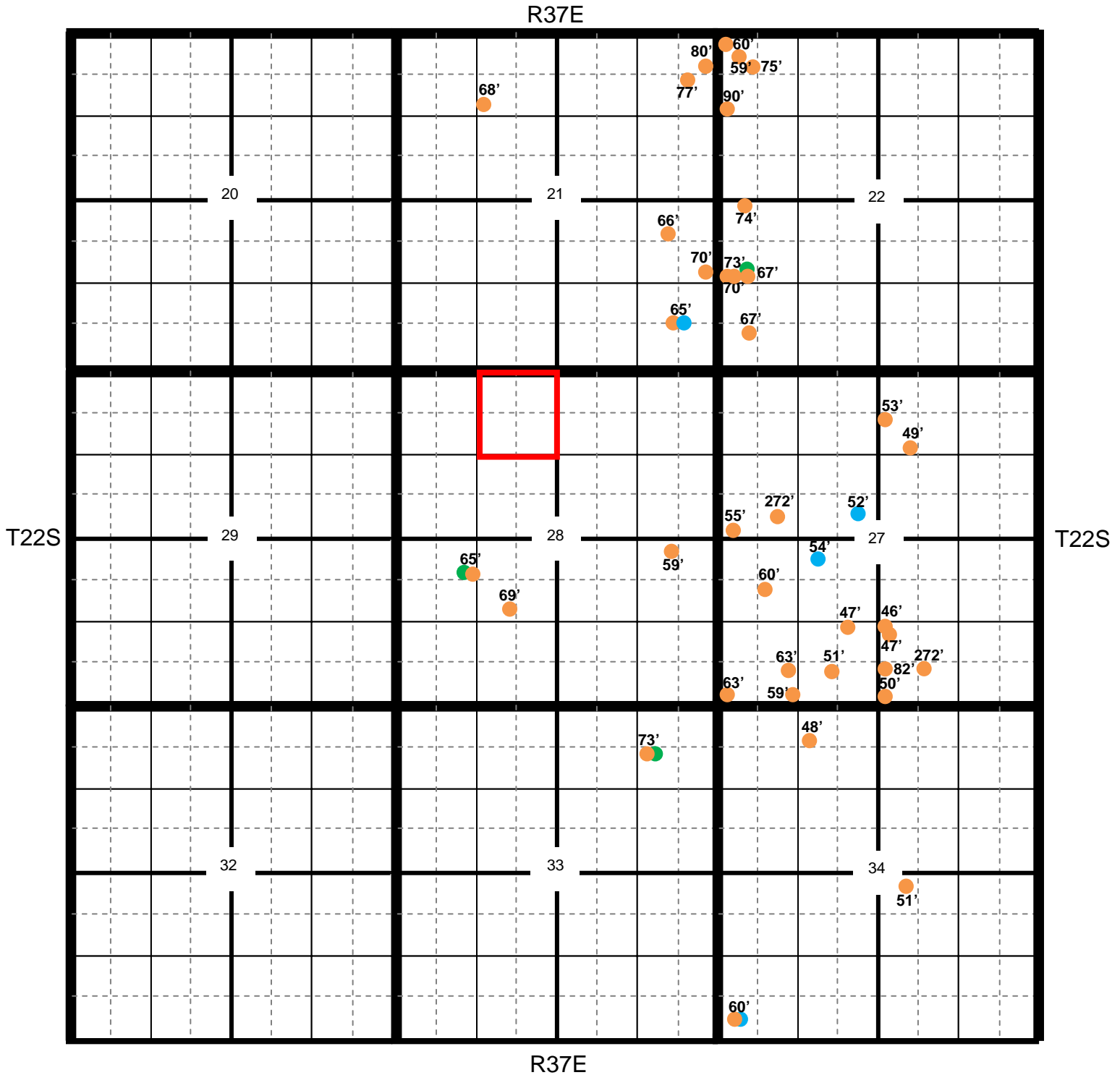
Unit Letter  
C

Section  
28

Township  
22S

Range  
37E

Trend Map 50'-100'



Location

OCD

USGS

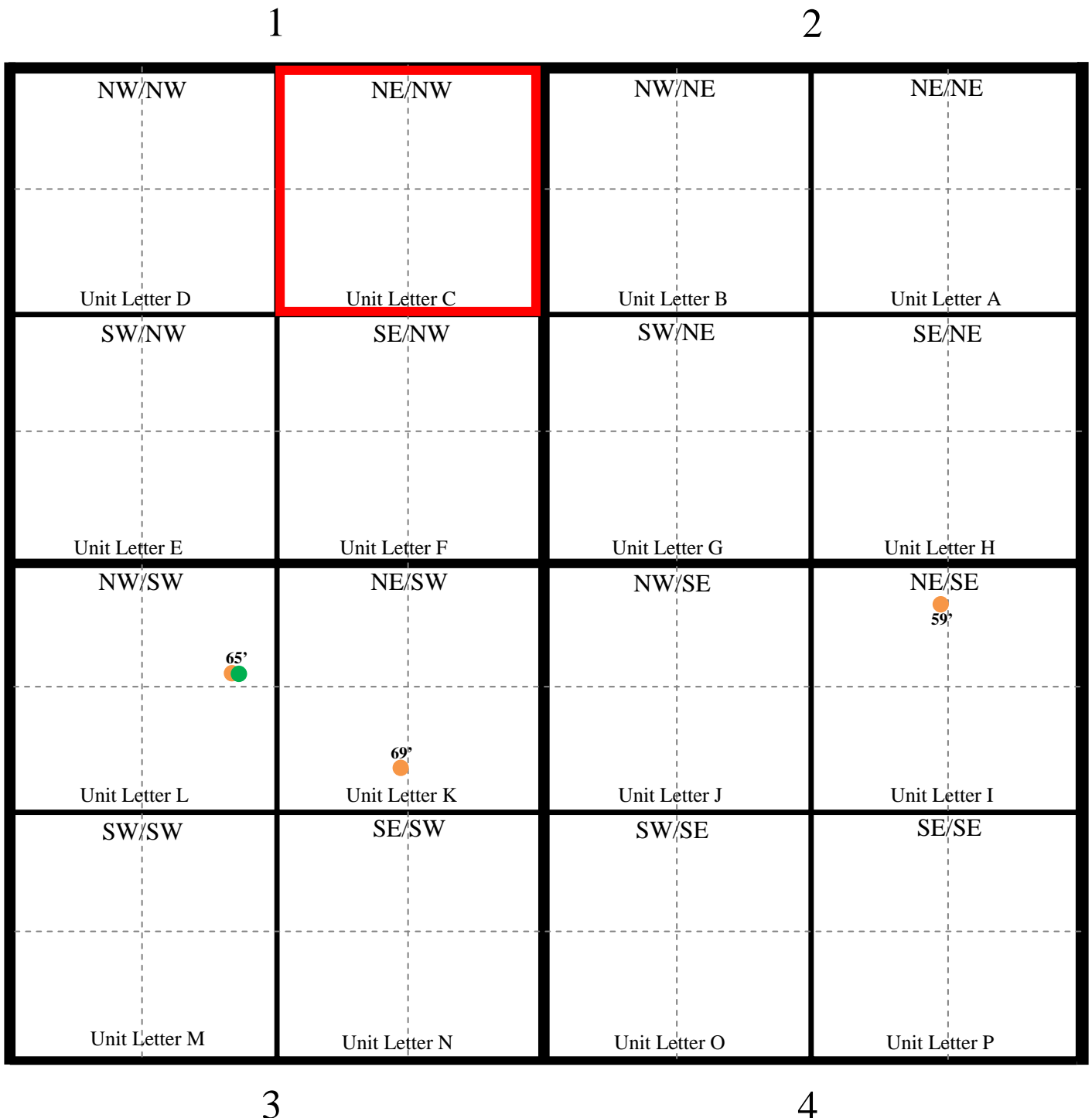
SEO

All Databases

## Oxy Manda B Tract C Tank Battery

County: Lea      Unit Letter: C      Section: 28      Township: 22S      Range: 37E

Trend Map 50'-100'



**Laboratory Analytical Results Summary**  
**Manda B Tract C Tank Battery**

		Sample	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 5'
Analyte	Method	Date	4/15/14	4/15/14	4/15/14	4/15/14
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
<b>Chloride</b>	SM4500CI-B		<b>32</b>	<b>368</b>	<b>640</b>	<b>160</b>
<b>GRO</b>	TPH 8015M		<10.0	<10.0	<10.0	<10.0
<b>DRO</b>	TPH 8015M		<10.0	<10.0	<10.0	<10.0

		Sample	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 6'	SP2 @ 9'
Analyte	Method	Date	4/15/14	4/15/14	4/15/14	4/17/14	4/17/14
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.100	<0.050	<0.050	<0.050	<0.050
<b>Toluene</b>	BTEX 8021B		<0.100	<0.050	<0.050	<0.050	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<b>0.113</b>	<0.050	<0.050	<0.050	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<b>0.506</b>	<0.150	<0.150	<0.150	<0.150
<b>Total BTEX</b>	BTEX 8021B		<b>0.62</b>	<0.300	<0.300	<0.300	<0.300
<b>Chloride</b>	SM4500CI-B		<b>96</b>	<b>320</b>	<b>528</b>	<b>752</b>	<b>288</b>
<b>GRO</b>	TPH 8015M		<b>14.8</b>	<10.0	<10.0	<10.0	<10.0
<b>DRO</b>	TPH 8015M		<b>492</b>	<b>35.8</b>	<10.0	<10.0	<10.0

		Sample	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 6'	SP3 @ 8'
Analyte	Method	Date	4/17/14	4/17/14	4/17/14	4/17/14	4/17/14
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300
<b>Chloride</b>	SM4500CI-B		<b>256</b>	<b>736</b>	<b>704</b>	<b>304</b>	<b>192</b>
<b>GRO</b>	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0
<b>DRO</b>	TPH 8015M		<10.0	<b>37</b>	<10.0	<b>30.4</b>	<10.0

		Sample	SP4 @ 1'	SP4 @ 2'	SP4 @ 3'	SP4 @ 5'	SP4 @ 7'
Analyte	Method	Date	4/17/14	4/17/14	4/17/14	4/17/14	4/17/14
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300
<b>Chloride</b>	SM4500CI-B		<b>5760</b>	<b>9120</b>	<b>8500</b>	<b>240</b>	<b>288</b>
<b>GRO</b>	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0
<b>DRO</b>	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0

**Laboratory Analytical Results Summary  
Manda B Tract C Tank Battery**

		Sample	SP1 @ 1'	SP1 @ 3'	SP1 @ 5'	SP1 @ 6'
Analyte	Method	Date	5/22/14	5/22/14	5/22/14	8/28/14
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500CI-B		<b>7920</b>	<b>1020</b>	<b>608</b>	<b>240</b>

		Sample	SP2 @ 1'	SP2 @ 3'	SP2 @ 4'	SP2 @ 5'
Analyte	Method	Date	5/22/14	5/22/14	5/22/14	8/28/14
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500CI-B		<b>544</b>	<b>592</b>	<b>368</b>	<b>288</b>

		Sample	SP3 @ 1'	SP3 @ 3'	SP3 @ 5'	SP3 @ 7'	SP3 @ 9'	SP3 @ 10'
Analyte	Method	Date	5/22/14	5/22/14	5/22/14	5/22/14	5/22/14	8/28/14
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500CI-B		<b>752</b>	<b>528</b>	<b>544</b>	<b>704</b>	<b>336</b>	<b>336</b>

April 28, 2014

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: MANDA B TRACT C

Enclosed are the results of analyses for samples received by the laboratory on 04/21/14 16:25.

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: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/15/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 1 @ 1 (H401194-01)**

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2014	ND	2.29	115	2.00	2.53	
Toluene*	<0.050	0.050	04/22/2014	ND	2.16	108	2.00	2.19	
Ethylbenzene*	<0.050	0.050	04/22/2014	ND	2.14	107	2.00	2.07	
Total Xylenes*	<0.150	0.150	04/22/2014	ND	6.22	104	6.00	1.49	
Total BTX	<0.300	0.300	04/22/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 89.4-126

Chloride, SM4500Cl-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	04/24/2014	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/22/2014	ND	184	91.9	200	5.44	
DRO >C10-C28	<10.0	10.0	04/22/2014	ND	195	97.7	200	3.58	

Surrogate: 1-Chlorooctane 114 % 65.2-140

Surrogate: 1-Chlorooctadecane 111 % 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:	04/21/2014	Sampling Date:	04/15/2014
Reported:	04/28/2014	Sampling Type:	Soil
Project Name:	MANDA B TRACT C	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EUNICE, NM		

**Sample ID: SP 1 @ 2 (H401194-02)**

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2014	ND	2.29	115	2.00	2.53	
Toluene*	<0.050	0.050	04/22/2014	ND	2.16	108	2.00	2.19	
Ethylbenzene*	<0.050	0.050	04/22/2014	ND	2.14	107	2.00	2.07	
Total Xylenes*	<0.150	0.150	04/22/2014	ND	6.22	104	6.00	1.49	
Total BTEx	<0.300	0.300	04/22/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	04/24/2014	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/22/2014	ND	184	91.9	200	5.44	
DRO >C10-C28	<10.0	10.0	04/22/2014	ND	195	97.7	200	3.58	

Surrogate: 1-Chlorooctane 106 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 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: 04/21/2014  
 Reported: 04/28/2014  
 Project Name: MANDA B TRACT C  
 Project Number: NONE GIVEN  
 Project Location: EUNICE, NM

 Sampling Date: 04/15/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: SP 1 @ 3 (H401194-03)**

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2014	ND	2.29	115	2.00	2.53	
Toluene*	<0.050	0.050	04/22/2014	ND	2.16	108	2.00	2.19	
Ethylbenzene*	<0.050	0.050	04/22/2014	ND	2.14	107	2.00	2.07	
Total Xylenes*	<0.150	0.150	04/22/2014	ND	6.22	104	6.00	1.49	
Total BTEx	<0.300	0.300	04/22/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	04/24/2014	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/22/2014	ND	184	91.9	200	5.44	
DRO >C10-C28	<10.0	10.0	04/22/2014	ND	195	97.7	200	3.58	

Surrogate: 1-Chlorooctane 83.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 91.6 % 63.6-154

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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:	04/21/2014	Sampling Date:	04/15/2014
Reported:	04/28/2014	Sampling Type:	Soil
Project Name:	MANDA B TRACT C	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EUNICE, NM		

**Sample ID: SP 1 @ 5 (H401194-04)**

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/22/2014	ND	2.29	115	2.00	2.53		
Toluene*	<0.050	0.050	04/22/2014	ND	2.16	108	2.00	2.19		
Ethylbenzene*	<0.050	0.050	04/22/2014	ND	2.14	107	2.00	2.07		
Total Xylenes*	<0.150	0.150	04/22/2014	ND	6.22	104	6.00	1.49		
Total BTEx	<0.300	0.300	04/22/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	04/24/2014	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/22/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<10.0	10.0	04/22/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 93.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 90.6 % 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: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/15/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 2 @ 1 (H401194-05)**

BTX 8021B		mg/kg	Analyzed By: CK					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	04/22/2014	ND	2.29	115	2.00	2.53	
Toluene*	<0.100	0.100	04/22/2014	ND	2.16	108	2.00	2.19	
Ethylbenzene*	<b>0.113</b>	0.100	04/22/2014	ND	2.14	107	2.00	2.07	
Total Xylenes*	<b>0.506</b>	0.300	04/22/2014	ND	6.22	104	6.00	1.49	
Total BTX	<b>0.620</b>	0.600	04/22/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 149 % 89.4-126

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>96.0</b>	16.0	04/24/2014	ND	416	104	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<b>14.8</b>	10.0	04/22/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<b>492</b>	10.0	04/22/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 120 % 65.2-140

Surrogate: 1-Chlorooctadecane 121 % 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: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/15/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 2 @ 2 (H401194-06)**

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2014	ND	2.29	115	2.00	2.53	
Toluene*	<0.050	0.050	04/22/2014	ND	2.16	108	2.00	2.19	
Ethylbenzene*	<0.050	0.050	04/22/2014	ND	2.14	107	2.00	2.07	
Total Xylenes*	<0.150	0.150	04/22/2014	ND	6.22	104	6.00	1.49	
Total BTEx	<0.300	0.300	04/22/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	04/24/2014	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/22/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	35.8	10.0	04/22/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 112 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 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: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/15/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 2 @ 3 (H401194-07)**

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/22/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/22/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/22/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/22/2014	ND	5.08	84.7	6.00	3.50		
Total BTX	<0.300	0.300	04/22/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	04/24/2014	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/22/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<10.0	10.0	04/22/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 97.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 97.0 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/17/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 2 @ 6 (H401194-08)**

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/23/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/23/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/23/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/23/2014	ND	5.08	84.7	6.00	3.50		
Total BTX	<0.300	0.300	04/23/2014	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	04/24/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/23/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<10.0	10.0	04/23/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 79.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 83.4 % 63.6-154

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

Received: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/17/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 2 @ 9 (H401194-09)**

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/24/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/24/2014	ND	5.08	84.7	6.00	3.50		
Total BTEX	<0.300	0.300	04/24/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	04/24/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/23/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<10.0	10.0	04/23/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 100 % 65.2-140

Surrogate: 1-Chlorooctadecane 97.9 % 63.6-154

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Fax To: (575) 397-0397

Received:	04/21/2014	Sampling Date:	04/17/2014
Reported:	04/28/2014	Sampling Type:	Soil
Project Name:	MANDA B TRACT C	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EUNICE, NM		

**Sample ID: SP 3 @ 1 (H401194-10)**

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/24/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/24/2014	ND	5.08	84.7	6.00	3.50		
Total BTX	<0.300	0.300	04/24/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	04/24/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/23/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<10.0	10.0	04/23/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 109 % 65.2-140

Surrogate: 1-Chlorooctadecane 110 % 63.6-154

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Fax To: (575) 397-0397

Received:	04/21/2014	Sampling Date:	04/17/2014
Reported:	04/28/2014	Sampling Type:	Soil
Project Name:	MANDA B TRACT C	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EUNICE, NM		

**Sample ID: SP 3 @ 2 (H401194-11)**

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/24/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/24/2014	ND	5.08	84.7	6.00	3.50		
Total BTEX	<0.300	0.300	04/24/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	04/24/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/23/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	37.0	10.0	04/23/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 101 % 65.2-140

Surrogate: 1-Chlorooctadecane 97.7 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

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

Received: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/17/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 3 @ 3 (H401194-12)**

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/24/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/24/2014	ND	5.08	84.7	6.00	3.50		
Total BTX	<0.300	0.300	04/24/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	04/24/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/23/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<10.0	10.0	04/23/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 104 % 65.2-140

Surrogate: 1-Chlorooctadecane 100 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

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

Received: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/17/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 3 @ 6 (H401194-13)**

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/24/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/24/2014	ND	5.08	84.7	6.00	3.50		
Total BTX	<0.300	0.300	04/24/2014	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	04/24/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/23/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	30.4	10.0	04/23/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 114 % 65.2-140

Surrogate: 1-Chlorooctadecane 112 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

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

Received: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/17/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 3 @ 8 (H401194-14)**

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/24/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/24/2014	ND	5.08	84.7	6.00	3.50		
Total BTX	<0.300	0.300	04/24/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	04/24/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/23/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<10.0	10.0	04/23/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 96.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 95.2 % 63.6-154

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

Received:	04/21/2014	Sampling Date:	04/17/2014
Reported:	04/28/2014	Sampling Type:	Soil
Project Name:	MANDA B TRACT C	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EUNICE, NM		

**Sample ID: SP 4 @ 1 (H401194-15)**

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/24/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/24/2014	ND	5.08	84.7	6.00	3.50		
Total BTX	<0.300	0.300	04/24/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5760	16.0	04/24/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/23/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<10.0	10.0	04/23/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 110 % 65.2-140

Surrogate: 1-Chlorooctadecane 109 % 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: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/17/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 4 @ 2 (H401194-16)**

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/24/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/24/2014	ND	5.08	84.7	6.00	3.50		
Total BTX	<0.300	0.300	04/24/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9120	16.0	04/24/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/23/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<10.0	10.0	04/23/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 105 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 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: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/17/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 4 @ 3 (H401194-17)**

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/24/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/24/2014	ND	5.08	84.7	6.00	3.50		
Total BTEX	<0.300	0.300	04/24/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8500	16.0	04/24/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/23/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<10.0	10.0	04/23/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 101 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 63.6-154

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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: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/17/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 4 @ 5 (H401194-18)**

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/24/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/24/2014	ND	5.08	84.7	6.00	3.50		
Total BTX	<0.300	0.300	04/24/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	04/24/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/23/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<10.0	10.0	04/23/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 98.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 92.0 % 63.6-154

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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: 04/21/2014  
Reported: 04/28/2014  
Project Name: MANDA B TRACT C  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 04/17/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: SP 4 @ 7 (H401194-19)**

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	2.47		
Toluene*	<0.050	0.050	04/24/2014	ND	1.71	85.4	2.00	3.28		
Ethylbenzene*	<0.050	0.050	04/24/2014	ND	1.70	85.1	2.00	2.80		
Total Xylenes*	<0.150	0.150	04/24/2014	ND	5.08	84.7	6.00	3.50		
Total BTX	<0.300	0.300	04/24/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	04/24/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/23/2014	ND	198	98.8	200	5.58	
DRO >C10-C28	<10.0	10.0	04/23/2014	ND	216	108	200	7.28	

Surrogate: 1-Chlorooctane 94.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 90.5 % 63.6-154

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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.
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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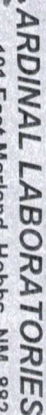
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---

Celey D. Keene, Lab Director/Quality Manager





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**BILL TO**

## ANALYSIS REQUEST

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



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]





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

---

May 29, 2014

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: MANDA B TRACT C TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/23/14 16:40.

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,

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

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:	05/23/2014	Sampling Date:	05/22/2014
Reported:	05/29/2014	Sampling Type:	Soil
Project Name:	MANDA B TRACT C TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Amanda Ponce
Project Location:	EUNICE, NM		

**Sample ID: SP 1 @ 1 (H401599-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7920	16.0	05/29/2014	ND	400	100	400	3.92	

**Sample ID: SP 1 @ 3 (H401599-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1020	16.0	05/29/2014	ND	400	100	400	3.92	

**Sample ID: SP 1 @ 5 (H401599-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	05/29/2014	ND	400	100	400	3.92	

**Sample ID: SP 2 @ 1 (H401599-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	05/29/2014	ND	400	100	400	3.92	

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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:	05/23/2014	Sampling Date:	05/22/2014
Reported:	05/29/2014	Sampling Type:	Soil
Project Name:	MANDA B TRACT C TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Amanda Ponce
Project Location:	EUNICE, NM		

**Sample ID: SP 2 @ 3 (H401599-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	592	16.0	05/29/2014	ND	400	100	400	3.92		

**Sample ID: SP 2 @ 4 (H401599-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	05/29/2014	ND	400	100	400	3.92	

**Sample ID: SP 3 @ 1 (H401599-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	05/29/2014	ND	400	100	400	3.92	

**Sample ID: SP 3 @ 3 (H401599-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	05/29/2014	ND	400	100	400	3.92	

**Sample ID: SP 3 @ 5 (H401599-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	05/29/2014	ND	400	100	400	3.92	

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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:	05/23/2014	Sampling Date:	05/22/2014
Reported:	05/29/2014	Sampling Type:	Soil
Project Name:	MANDA B TRACT C TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Amanda Ponce
Project Location:	EUNICE, NM		

**Sample ID: SP 3 @ 7 (H401599-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	704	16.0	05/29/2014	ND	400	100	400	3.92		

**Sample ID: SP 3 @ 9 (H401599-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	05/28/2014	ND	416	104	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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Cardinal Laboratories

\*=Accredited Analyte

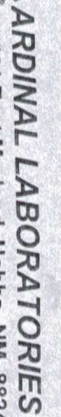
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Celey D. Keene, Lab Director/Quality Manager





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(505) 393-2326 FAX (505) 393-2476

# BILL TO

## ANALYSIS REQUEST

Phone Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Phone #:
Fax Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Fax #:
REMARKS:			

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





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 7 of 7



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

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September 05, 2014

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: MANDA B TRACT C

Enclosed are the results of analyses for samples received by the laboratory on 08/28/14 16:50.

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,

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:	08/28/2014	Sampling Date:	08/28/2014
Reported:	09/05/2014	Sampling Type:	Soil
Project Name:	MANDA B TRACT C	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EUNICE, NM		

**Sample ID: SP 1 @ 6 (H402670-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	09/04/2014	ND	432	108	400	3.77	

**Sample ID: SP 2 @ 5 (H402670-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	09/04/2014	ND	432	108	400	3.77	

**Sample ID: SP 3 @ 10 (H402670-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	09/04/2014	ND	432	108	400	3.77	

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

**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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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: BBC International, Inc.  
Project Manager: Cliff Brunson  
Address: P.O. Box 805  
City: Hobbs  
Phone #: 575-397-6388  
State: NM Zip: 88241  
Fax #: 575-397-0397

P.O. #:

Company:

Attn:

Address:

City:

State:

Zip:

Phone #:

Fax #:

Project Name:

Project Location:

Sample Name:

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

(G)RAB OR (C)OMP

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER:

ACID/BASE:

ICE / COOL

OTHER:

DATE

TIME

REMARKS

ANALYSIS REQUEST

Phone Result:

Fax Result:

REMARKS:

Yes

No

Add'l Phone #:

Add'l Fax #:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

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

Relinquished By:

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Relinquished By:

Relinquished By:

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Relinquished By:

Relinquished By:



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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

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

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Oxy Permian Ltd.	Contact	Chancey Summers
Address	1017 W. Stanolind Rd, Hobbs, NM 88240	Telephone No.	(575) 397-8216
Facility Name	Manda B Tract C Tank Battery	Facility Type	Tank Battery
Surface Owner	BLM	Mineral Owner	
		API No.	

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	28	22S	37E					Lea County, NM

Latitude N 32.36877°

Longitude W 103.16985°

#### NATURE OF RELEASE

Type of Release	Oil and Produced water	Volume of Release	40 bbls mix	Volume Recovered	0 bbls
Source of Release	Water dump on separator malfunctioned and caused the oil tanks to overflow	Date and Hour of Occurrence	03/17/2014	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?	Geoffrey Leking, NMOCD and Jennifer VanCuren, BLM		
By Whom?	Kathy Purvis	Date and Hour	03/17/2014 @ 3:08 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.\*

The water dump on the separator malfunctioned and caused the oil tanks to overflow spilling 40 bbls of oil and produced water onto the ground. No fluids were recovered and the water dump issue was resolved.

Describe Area Affected and Cleanup Action Taken.\*

The affected area is approximately 8' x 80' on location. Remediation will be completed in accordance with a remediation plan approved by 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: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Chancey Summers	Approved by Environmental Specialist:		
Title: HES Specialist	Approval Date:	Expiration Date:	
E-mail Address: Chancey.Summers@oxy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 4-15-14	Phone: (575) 397-8216		

\* Attach Additional Sheets If Necessary

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

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1220 South St. Francis Dr.  
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Form C-141  
Revised August 8, 2011

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

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Oxy Permian Ltd.	Contact	Chancey Summers
Address	1017 W. Stanolind Rd, Hobbs, NM 88240	Telephone No.	(575) 397-8216
Facility Name	Manda B Tract C Tank Battery	Facility Type	Tank Battery
Surface Owner	BLM	Mineral Owner	API No.

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	28	22S	37E					Lea County, NM

Latitude N 32.36877° Longitude W 103.16985°

#### NATURE OF RELEASE

Type of Release	Produced water	Volume of Release	30 bbls	Volume Recovered	0 bbls
Source of Release	Trash collected in transfer pump meter and caused it to plug up triggering the tanks to spill over	Date and Hour of Occurrence	05/20/2014	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?	Geoffrey Leking and Tomas Oberding, NMOCD		
By Whom?	Kathy Purvis	Date and Hour	05/21/2014 @ 11:57 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.\*

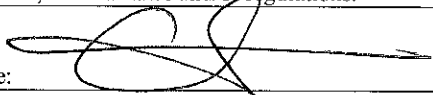
Describe Cause of Problem and Remedial Action Taken.\*

Trash collected in the transfer pump and plugged it up triggering the tanks to spill over and leak 30 bbls of produced water onto the ground. No fluids were recovered and the transfer pump was cleared of debris.

Describe Area Affected and Cleanup Action Taken.\*

The affected area is approximately 35' x 50' on location and down the road. Remediation will be completed in accordance with a remediation plan approved by 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: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Chancey Summers	Approved by Environmental Specialist:		
Title: HES Specialist	Approval Date:	Expiration Date:	
E-mail Address: Chancey.Summers@oxy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 6-2-14	Phone: (575) 397-8216		

\* Attach Additional Sheets If Necessary