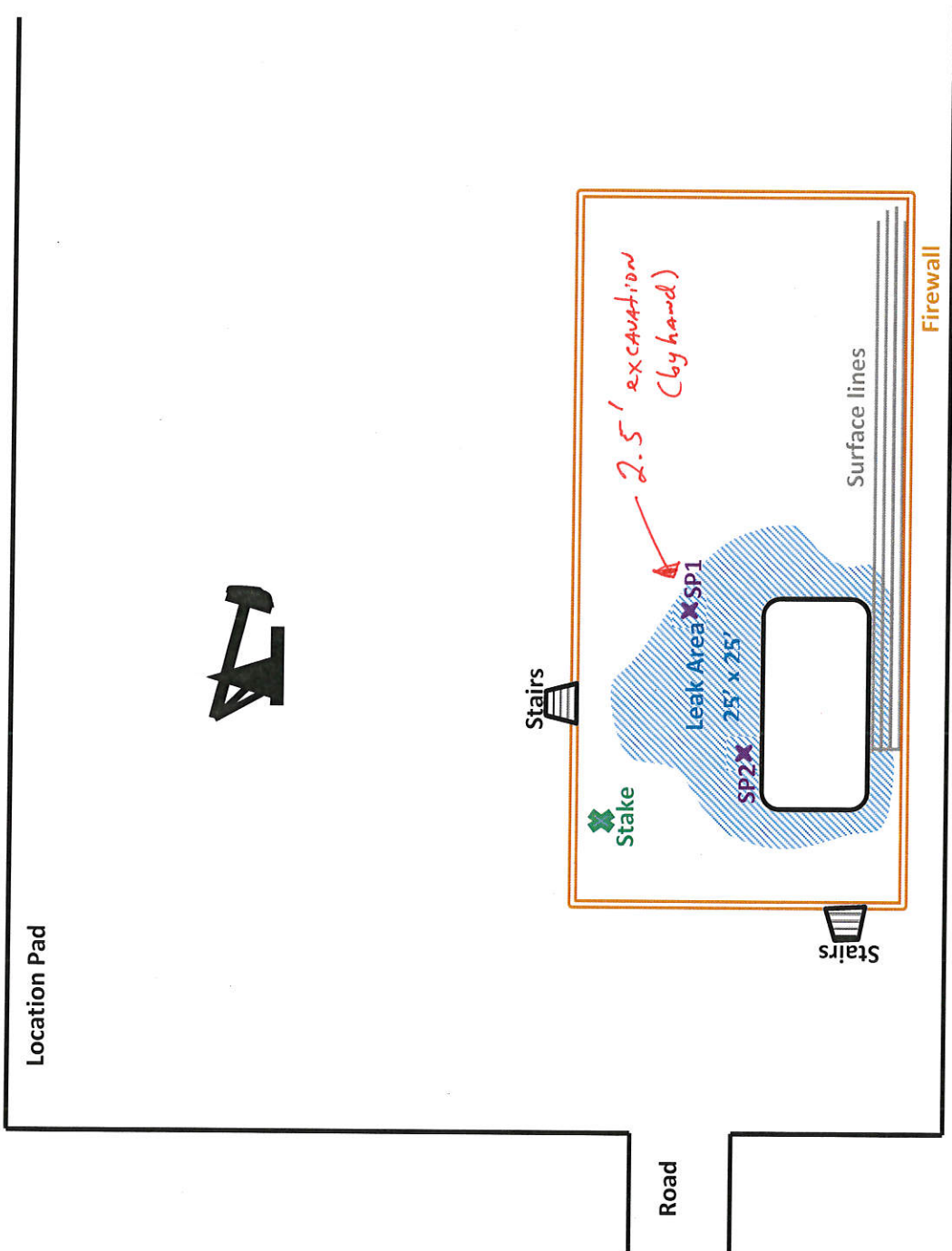




Oxy  
James Buchanan CTB



U/LI, Section 33, T18S, R28E  
Eddy County, NM  
N 32.70208° W 104.17474° at stake  
API# 30-015-29890

|                         |                    |  |  |
|-------------------------|--------------------|--|--|
| BBC International, Inc. |                    |  |  |
| Oxy                     |                    |  |  |
| James Buchanan CTB      |                    |  |  |
| Date: 11/17/14          | DRWG by: K. Purvis |  |  |
| NOT TO SCALE            | File: Oxy 2014     |  |  |



# Groundwater Plot

Oxy James Buchanan CTB

County  
Eddy

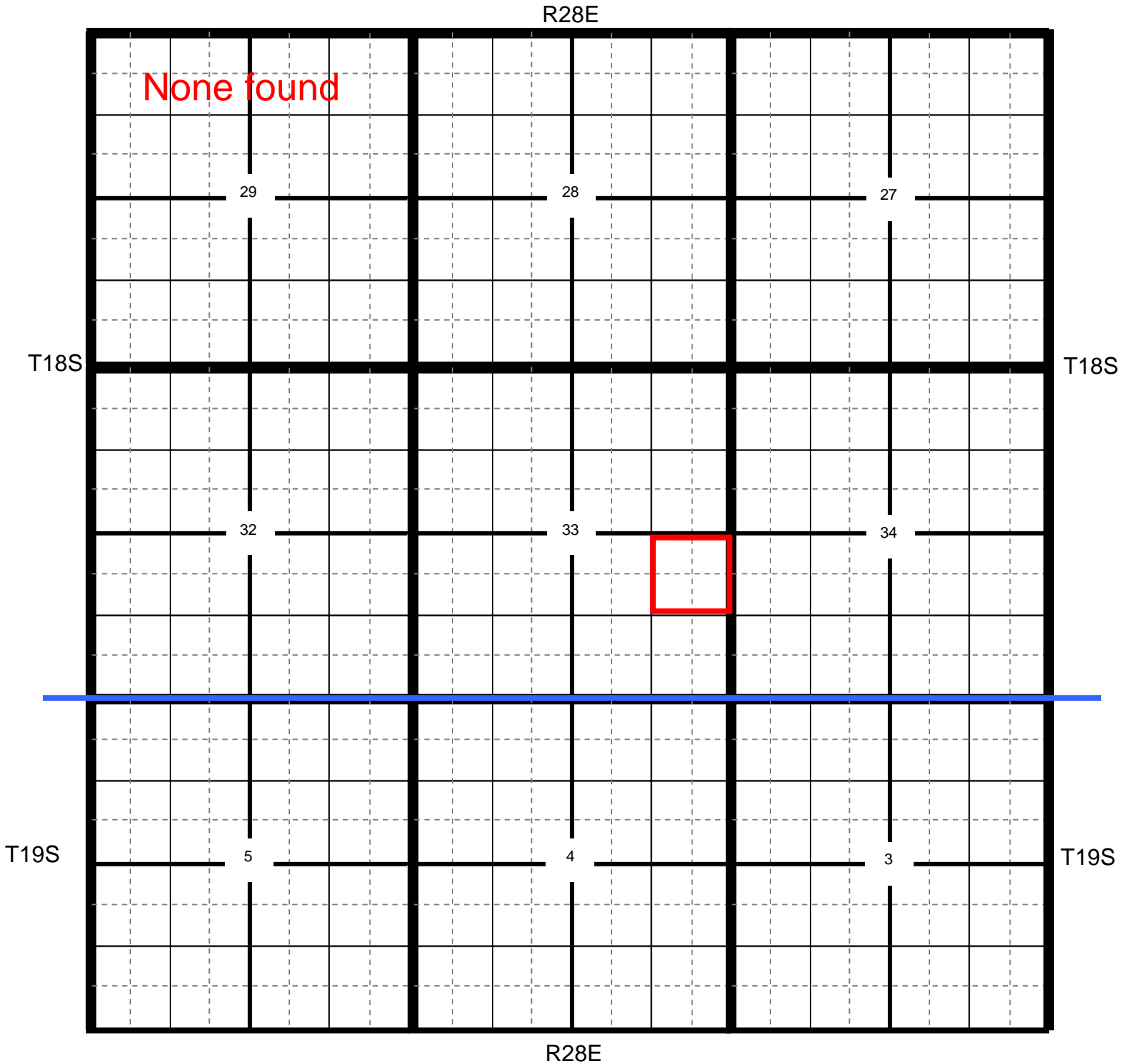
Unit Letter  
I

Section  
33

Township  
18S

Range  
28E

Trend Map 150'



📍 Location

● OCD

● USGS

● SEO

● All Databases

# Oxy James Buchanan CTB

County Eddy      Unit Letter I      Section 33      Township 18S      Range 28E

Trend Map 150'

1

2

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

3

4

**Laboratory Analytical Results Summary**  
**James Buchanan CTB**

|                      |            | Sample | SP1 @ 1'     | SP1 @ 2'    | SP1 @ 3'    | SP1 @ 4' |
|----------------------|------------|--------|--------------|-------------|-------------|----------|
| Analyte              | Method     | Date   | 1/8/15       | 1/8/15      | 1/8/15      | 1/8/15   |
|                      |            |        | mg/Kg        | mg/Kg       | mg/Kg       | mg/Kg    |
| <b>Benzene</b>       | BTEX 8021B |        | <0.200       | <0.050      | <0.050      | <0.050   |
| <b>Toluene</b>       | BTEX 8021B |        | <0.200       | <0.050      | <0.050      | <0.050   |
| <b>Ethylbenzene</b>  | BTEX 8021B |        | <b>0.424</b> | <0.050      | <0.050      | <0.050   |
| <b>Total Xylenes</b> | BTEX 8021B |        | <b>5.95</b>  | <0.150      | <0.150      | <0.150   |
| <b>Total BTEX</b>    | BTEX 8021B |        | <b>6.38</b>  | <0.300      | <0.300      | <0.300   |
| <b>Chloride</b>      | SM4500Cl-B |        | <b>224</b>   | <b>1250</b> | <b>368</b>  | <16.0    |
| <b>GRO</b>           | TPH 8015M  |        | <b>365</b>   | <10.0       | <10.0       | <10.0    |
| <b>DRO</b>           | TPH 8015M  |        | <b>3310</b>  | <b>139</b>  | <b>14.5</b> | <10.0    |

|                      |            | Sample | SP2 @ 1'     | SP2 @ 2'    | SP2 @ 3'    | SP2 @ 4' |
|----------------------|------------|--------|--------------|-------------|-------------|----------|
| Analyte              | Method     | Date   | 1/8/15       | 1/8/15      | 1/8/15      | 1/8/15   |
|                      |            |        | mg/Kg        | mg/Kg       | mg/Kg       | mg/Kg    |
| <b>Benzene</b>       | BTEX 8021B |        | <0.200       | <0.050      | <0.050      | <0.200   |
| <b>Toluene</b>       | BTEX 8021B |        | <0.200       | <0.050      | <0.050      | <0.200   |
| <b>Ethylbenzene</b>  | BTEX 8021B |        | <b>0.306</b> | <0.050      | <0.050      | <0.200   |
| <b>Total Xylenes</b> | BTEX 8021B |        | <b>4.88</b>  | <0.150      | <0.150      | <0.600   |
| <b>Total BTEX</b>    | BTEX 8021B |        | <b>5.19</b>  | <0.300      | <0.300      | <1.20    |
| <b>Chloride</b>      | SM4500Cl-B |        | <b>256</b>   | <b>1420</b> | <b>240</b>  | <16.0    |
| <b>GRO</b>           | TPH 8015M  |        | <b>348</b>   | <b>12.1</b> | <10.0       | <10.0    |
| <b>DRO</b>           | TPH 8015M  |        | <b>3130</b>  | <b>301</b>  | <b>45.1</b> | <10.0    |



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

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January 14, 2015

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: JAMES BUCHANAN

Enclosed are the results of analyses for samples received by the laboratory on 01/09/15 15:25.

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,

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:         | 01/09/2015     | Sampling Date:      | 01/08/2015    |
| Reported:         | 01/14/2015     | Sampling Type:      | Soil          |
| Project Name:     | JAMES BUCHANAN | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN     | Sample Received By: | Jodi Henson   |
| Project Location: | CARLSBAD, NM   |                     |               |

**Sample ID: SP 1 @ 1' (H500078-01)**

| BTX 8021B             |              |                 | mg/kg      |              | Analyzed By: CK |            |               |      |           |
|-----------------------|--------------|-----------------|------------|--------------|-----------------|------------|---------------|------|-----------|
| Analyte               | Result       | Reporting Limit | Analyzed   | Method Blank | BS              | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*              | <0.200       | 0.200           | 01/13/2015 | ND           | 1.74            | 86.8       | 2.00          | 2.77 |           |
| Toluene*              | <0.200       | 0.200           | 01/13/2015 | ND           | 1.70            | 84.9       | 2.00          | 2.67 |           |
| Ethylbenzene*         | <b>0.424</b> | 0.200           | 01/13/2015 | ND           | 1.64            | 82.0       | 2.00          | 2.15 |           |
| <b>Total Xylenes*</b> | <b>5.95</b>  | 0.600           | 01/13/2015 | ND           | 4.93            | 82.1       | 6.00          | 2.57 |           |
| <b>Total BTX</b>      | <b>6.38</b>  | 1.20            | 01/13/2015 | ND           |                 |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 105 % 61-154

| 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>224</b> | 16.0            | 01/13/2015 | ND           | 400             | 100        | 400           | 3.92 |           |

| 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>365</b>  | 10.0            | 01/13/2015 | ND           | 198             | 98.8       | 200           | 3.28 |           |
| <b>DRO &gt;C10-C28</b> | <b>3310</b> | 10.0            | 01/13/2015 | ND           | 208             | 104        | 200           | 2.79 |           |

Surrogate: 1-Chlorooctane 140 % 47.2-157

Surrogate: 1-Chlorooctadecane 141 % 52.1-176

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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: 01/09/2015  
Reported: 01/14/2015  
Project Name: JAMES BUCHANAN  
Project Number: NONE GIVEN  
Project Location: CARLSBAD, NM

Sampling Date: 01/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 2' (H500078-02)**

| 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           | 01/13/2015 | ND              | 1.73 | 86.5       | 2.00          | 5.88 |           |  |
| Toluene*       | <0.050 | 0.050           | 01/13/2015 | ND              | 1.69 | 84.7       | 2.00          | 5.60 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 01/13/2015 | ND              | 1.64 | 82.1       | 2.00          | 6.18 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 01/13/2015 | ND              | 4.96 | 82.7       | 6.00          | 6.13 |           |  |
| Total BTX      | <0.300 | 0.300           | 01/13/2015 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 100 % 61-154

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1250   | 16.0            | 01/13/2015 | ND              | 400 | 100        | 400           | 0.00 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 01/13/2015 | ND              | 198 | 98.8       | 200           | 3.28 |           |
| DRO >C10-C28 | 139    | 10.0            | 01/13/2015 | ND              | 208 | 104        | 200           | 2.79 |           |

Surrogate: 1-Chlorooctane 90.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 88.8 % 52.1-176

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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: 01/09/2015  
Reported: 01/14/2015  
Project Name: JAMES BUCHANAN  
Project Number: NONE GIVEN  
Project Location: CARLSBAD, NM

Sampling Date: 01/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 3' (H500078-03)**

| 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           | 01/13/2015 | ND              | 1.73 | 86.5       | 2.00          | 5.88 |           |  |
| Toluene*       | <0.050 | 0.050           | 01/13/2015 | ND              | 1.69 | 84.7       | 2.00          | 5.60 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 01/13/2015 | ND              | 1.64 | 82.1       | 2.00          | 6.18 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 01/13/2015 | ND              | 4.96 | 82.7       | 6.00          | 6.13 |           |  |
| Total BTX      | <0.300 | 0.300           | 01/13/2015 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 61-154

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 368    | 16.0            | 01/13/2015 | ND              | 400 | 100        | 400           | 0.00 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 01/13/2015 | ND              | 198 | 98.8       | 200           | 3.28 |           |
| DRO >C10-C28 | 14.5   | 10.0            | 01/13/2015 | ND              | 208 | 104        | 200           | 2.79 |           |

Surrogate: 1-Chlorooctane 86.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 92.6 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

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

Received: 01/09/2015  
Reported: 01/14/2015  
Project Name: JAMES BUCHANAN  
Project Number: NONE GIVEN  
Project Location: CARLSBAD, NM

Sampling Date: 01/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 4' (H500078-04)**

| 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           | 01/13/2015 | ND              | 1.73 | 86.5       | 2.00          | 5.88 |           |
| Toluene*       | <0.050 | 0.050           | 01/13/2015 | ND              | 1.69 | 84.7       | 2.00          | 5.60 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 01/13/2015 | ND              | 1.64 | 82.1       | 2.00          | 6.18 |           |
| Total Xylenes* | <0.150 | 0.150           | 01/13/2015 | ND              | 4.96 | 82.7       | 6.00          | 6.13 |           |
| Total BTX      | <0.300 | 0.300           | 01/13/2015 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 61-154

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 01/13/2015 | ND              | 400 | 100        | 400           | 0.00 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 01/13/2015 | ND              | 198 | 98.8       | 200           | 3.28 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 01/13/2015 | ND              | 208 | 104        | 200           | 2.79 |           |

Surrogate: 1-Chlorooctane 89.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 88.6 % 52.1-176

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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: 01/09/2015  
Reported: 01/14/2015  
Project Name: JAMES BUCHANAN  
Project Number: NONE GIVEN  
Project Location: CARLSBAD, NM

Sampling Date: 01/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 1' (H500078-05)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: CK |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.200 | 0.200           | 01/13/2015 | ND              | 1.73 | 86.5       | 2.00          | 5.88 |           |
| Toluene*       | <0.200 | 0.200           | 01/13/2015 | ND              | 1.69 | 84.7       | 2.00          | 5.60 |           |
| Ethylbenzene*  | 0.306  | 0.200           | 01/13/2015 | ND              | 1.64 | 82.1       | 2.00          | 6.18 |           |
| Total Xylenes* | 4.88   | 0.600           | 01/13/2015 | ND              | 4.96 | 82.7       | 6.00          | 6.13 |           |
| Total BTX      | 5.19   | 1.20            | 01/13/2015 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 102 % 61-154

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 256    | 16.0            | 01/13/2015 | ND              | 400 | 100        | 400           | 0.00 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | 348    | 10.0            | 01/13/2015 | ND              | 198 | 98.8       | 200           | 3.28 |           |
| DRO >C10-C28 | 3130   | 10.0            | 01/13/2015 | ND              | 208 | 104        | 200           | 2.79 |           |

Surrogate: 1-Chlorooctane 138 % 47.2-157

Surrogate: 1-Chlorooctadecane 137 % 52.1-176

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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: 01/09/2015  
Reported: 01/14/2015  
Project Name: JAMES BUCHANAN  
Project Number: NONE GIVEN  
Project Location: CARLSBAD, NM

Sampling Date: 01/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 2' (H500078-06)**

| 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           | 01/13/2015 | ND              | 1.73 | 86.5       | 2.00          | 5.88 |           |
| Toluene*       | <0.050 | 0.050           | 01/13/2015 | ND              | 1.69 | 84.7       | 2.00          | 5.60 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 01/13/2015 | ND              | 1.64 | 82.1       | 2.00          | 6.18 |           |
| Total Xylenes* | <0.150 | 0.150           | 01/13/2015 | ND              | 4.96 | 82.7       | 6.00          | 6.13 |           |
| Total BTX      | <0.300 | 0.300           | 01/13/2015 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 61-154

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1420   | 16.0            | 01/13/2015 | ND              | 400 | 100        | 400           | 0.00 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | 12.1   | 10.0            | 01/13/2015 | ND              | 198 | 98.8       | 200           | 3.28 |           |
| DRO >C10-C28 | 301    | 10.0            | 01/13/2015 | ND              | 208 | 104        | 200           | 2.79 |           |

Surrogate: 1-Chlorooctane 88.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 92.9 % 52.1-176

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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: 01/09/2015  
Reported: 01/14/2015  
Project Name: JAMES BUCHANAN  
Project Number: NONE GIVEN  
Project Location: CARLSBAD, NM

Sampling Date: 01/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 3' (H500078-07)**

| 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           | 01/13/2015 | ND              | 1.73 | 86.5       | 2.00          | 5.88 |           |
| Toluene*       | <0.050 | 0.050           | 01/13/2015 | ND              | 1.69 | 84.7       | 2.00          | 5.60 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 01/13/2015 | ND              | 1.64 | 82.1       | 2.00          | 6.18 |           |
| Total Xylenes* | <0.150 | 0.150           | 01/13/2015 | ND              | 4.96 | 82.7       | 6.00          | 6.13 |           |
| Total BTX      | <0.300 | 0.300           | 01/13/2015 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 61-154

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 240    | 16.0            | 01/13/2015 | ND              | 400 | 100        | 400           | 0.00 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 01/13/2015 | ND              | 198 | 98.8       | 200           | 3.28 |           |
| DRO >C10-C28 | 45.1   | 10.0            | 01/13/2015 | ND              | 208 | 104        | 200           | 2.79 |           |

Surrogate: 1-Chlorooctane 91.2 % 47.2-157

Surrogate: 1-Chlorooctadecane 90.7 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 01/09/2015  
Reported: 01/14/2015  
Project Name: JAMES BUCHANAN  
Project Number: NONE GIVEN  
Project Location: CARLSBAD, NM

Sampling Date: 01/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 4' (H500078-08)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: CK |      |            |               |      |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |  |
| Benzene*       | <0.200 | 0.200           | 01/13/2015 | ND              | 1.73 | 86.5       | 2.00          | 5.88 |           |  |
| Toluene*       | <0.200 | 0.200           | 01/13/2015 | ND              | 1.69 | 84.7       | 2.00          | 5.60 |           |  |
| Ethylbenzene*  | <0.200 | 0.200           | 01/13/2015 | ND              | 1.64 | 82.1       | 2.00          | 6.18 |           |  |
| Total Xylenes* | <0.600 | 0.600           | 01/13/2015 | ND              | 4.96 | 82.7       | 6.00          | 6.13 |           |  |
| Total BTX      | <1.20  | 1.20            | 01/13/2015 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 61-154

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 01/13/2015 | ND              | 400 | 100        | 400           | 0.00 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 01/12/2015 | ND              | 209 | 105        | 200           | 3.44 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 01/12/2015 | ND              | 205 | 102        | 200           | 2.49 |           |

Surrogate: 1-Chlorooctane 75.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 76.1 % 52.1-176

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

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Celey D. Keene, Lab Director/Quality Manager



# ARDINAL LABORATORIES

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

|  |  |   |  |                          |  |  |  |  |  |   |  |  |  |  |  |  |  |
|--|--|---|--|--------------------------|--|--|--|--|--|---|--|--|--|--|--|--|--|
| <b>Company Name:</b> BBC International, Inc.   |  | <b>P.O. #:</b>  |  | <b>ANALYSIS REQUEST</b>  |  |  |  |  |  |   |  |  |  |  |  |  |  |
| <b>Project Manager:</b> Cliff Brunson  |  | <b>Company:</b>   |  |                          |  |  |  |  |  |   |  |  |  |  |  |  |  |
| <b>Address:</b> P.O. Box 805   |  | <b>Attn:</b>  |  |                          |  |  |  |  |  |   |  |  |  |  |  |  |  |
| <b>City:</b> Hobbs   |  | <b>State:</b> NM  |  | <b>Zip:</b> 88241        |  |  |  |  |  |   |  |  |  |  |  |  |  |
| <b>Phone #:</b> 575-397-6388   |  | <b>Fax #:</b> 575-397-0397  |  | <b>Address:</b>          |  |  |  |  |  |   |  |  |  |  |  |  |  |
| <b>Project #:</b>  |  | <b>City:</b>  |  | <b>State:</b>            |  | <b>Zip:</b>  |  |  |  |   |  |  |  |  |  |  |  |
| <b>Project Name:</b> James Buchanan  |  | <b>Project Owner:</b> ATY   |  | <b>Phone #:</b>          |  |  |  |  |  |   |  |  |  |  |  |  |  |
| <b>Project Location:</b> Carlisle  |  | <b>Phone #:</b>   |  |                          |  |  |  |  |  |   |  |  |  |  |  |  |  |
| <b>Sampler Name:</b> Price Brunson   |  | <b>Fax #:</b>   |  |                          |  |  |  |  |  |   |  |  |  |  |  |  |  |
| <b>FOR LAB USE ONLY</b>  |  |   |  |                          |  |  |  |  |  |   |  |  |  |  |  |  |  |
| <b>Lab I.D.</b>  |  | <b>Sample I.D.</b>  |  | <b>(G)RAB OR (C)OMP.</b> |  | <b># CONTAINERS</b>                                      |  | <b>MATRIX</b>  |  | <b>PRESERV</b>  |  | <b>SAMPLING</b>  |  |  |  |  |  |
|  |  |   |  |                          |  |  |  | <input type="checkbox"/> GROUNDWATER<br><input type="checkbox"/> WASTEWATER<br><input type="checkbox"/> SOIL<br><input type="checkbox"/> OIL<br><input type="checkbox"/> SLUDGE<br><input type="checkbox"/> OTHER: |  | <input type="checkbox"/> ACID/BASE:<br><input type="checkbox"/> ICE / COOL<br><input type="checkbox"/> OTHER: |  |  |  |  |  |  |  |
| H500078  |  | 1   |  | G                        |  | 1  |  | ✓  |  | ✓   |  | 1/8/15 1030  |  | ✓  |  | TPH  |  |
| 2  |  | 2   |  | G                        |  | 1  |  | ✓  |  | ✓   |  | 1/8/15 1040  |  | ✓  |  | BTEX   |  |
| 3  |  | 3   |  | G                        |  | 1  |  | ✓  |  | ✓   |  | 1/8/15 1050  |  | ✓  |  | ✓  |  |
| 4  |  | 4   |  | G                        |  | 1  |  | ✓  |  | ✓   |  | 1/8/15 1120  |  | ✓  |  | ✓  |  |
| 5  |  | 5   |  | G                        |  | 1  |  | ✓  |  | ✓   |  | 1/8/15 1155  |  | ✓  |  | ✓  |  |
| 6  |  | 6   |  | G                        |  | 1  |  | ✓  |  | ✓   |  | 1/8/15 1230  |  | ✓  |  | ✓  |  |
| 7  |  | 7   |  | G                        |  | 1  |  | ✓  |  | ✓   |  | 1/8/15 1245  |  | ✓  |  | ✓  |  |
| 8  |  | 8   |  | G                        |  | 1  |  | ✓  |  | ✓   |  | 1/8/15 1300  |  | ✓  |  | ✓  |  |
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| <b>Relinquished By:</b>  |  | <b>Date:</b> 1/9/15   |  | <b>Received By:</b>      |  | <b>Time:</b> 3:25  |  | <b>Relinquished By:</b>  |  | <b>Date:</b> 1/9/15   |  | <b>Received By:</b>                                      |  | <b>Time:</b> 3:25  |  | <b>Relinquished By:</b>                                  |  |
| <b>Relinquished By:</b>  |  | <b>Date:</b>  |  | <b>Received By:</b>      |  | <b>Time:</b>   |  | <b>Relinquished By:</b>  |  | <b>Date:</b>  |  | <b>Received By:</b>                                      |  | <b>Time:</b>   |  | <b>Relinquished By:</b>                                  |  |
| <b>Delivered By: (Circle One)</b>  |  | <b>Sample Condition</b>   |  | <b>CHECKED BY:</b>       |  | <b>Phone Result:</b>                                     |  | <b>Fax Result:</b>   |  | <b>Phone Result:</b>  |  | <b>Fax Result:</b>                                       |  | <b>Phone Result:</b>                                     |  | <b>Fax Result:</b>                                       |  |
| <b>Sampler - UPS - Bus - Other:</b>  |  | <input type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No |  | <b>Checked By:</b>       |  | <input type="checkbox"/> Yes <input type="checkbox"/> No |  | <input type="checkbox"/> Yes <input type="checkbox"/> No   |  | <input type="checkbox"/> Yes <input type="checkbox"/> No  |  | <input type="checkbox"/> Yes <input type="checkbox"/> No |  | <input type="checkbox"/> Yes <input type="checkbox"/> No |  | <input type="checkbox"/> Yes <input type="checkbox"/> No |  |
| -10.60   |  | -10.60  |  | -10.60                   |  | -10.60   |  | -10.60   |  | -10.60  |  | -10.60   |  | -10.60   |  | -10.60   |  |
| #54  |  | #54   |  | #54                      |  | #54  |  | #54  |  | #54   |  | #54  |  | #54  |  | #54  |  |

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



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

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

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☐ Final Report

|                 |                                    |               |                   |
|-----------------|------------------------------------|---------------|-------------------|
| Name of Company | Oxy Permian Ltd.                   | Contact       | Christopher Jones |
| Address         | 1502 W. Commerce Dr., Carlsbad, NM | Telephone No. | (575) 628-4121    |
| Facility Name   | James Buchanan CTB                 | Facility Type | Battery           |

|               |       |               |  |         |              |
|---------------|-------|---------------|--|---------|--------------|
| Surface Owner | State | Mineral Owner |  | API No. | 30-015-29890 |
|---------------|-------|---------------|--|---------|--------------|

#### LOCATION OF RELEASE

|             |         |          |       |               |                  |               |                |                 |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|-----------------|
| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County          |
| I           | 33      | 18S      | 28E   |               |                  |               |                | Eddy County, NM |

Latitude N 32.70211° Longitude W 104.17430°

#### NATURE OF RELEASE

|                             |   |   |  |                            |        |
|-----------------------------|---|---|--|----------------------------|--------|
| Type of Release             | Oil   | Volume of Release                         | 15 bbls                                | Volume Recovered           | 0 bbls |
| Source of Release           | Corrosion of 3" steel line  | Date and Hour of Occurrence               | 11/10/2014                             | 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?                          | Mike Bratcher, Heather Patterson-NMOCD |                            |        |
| By Whom?                    | Kathy Purvis, BBC International   | Date and Hour                             | 11/10/2014 @ 12:26 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.\*

Corrosion of a 3" steel line leaked 15 bbls of oil onto the ground. No fluids were recovered and the line was repaired/replaced.

Describe Area Affected and Cleanup Action Taken.\*

The affected area is approximately 15' x 20' on location. Remediation will be completed in accordance with a plan approved by NMOCD.

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

|   |                                  |                  |                                   |
|---|----------------------------------|------------------|-----------------------------------|
| Signature:                                | <b>OIL CONSERVATION DIVISION</b> |                  |                                   |
| Printed Name: Christopher Jones           | Approved by District Supervisor: |                  |                                   |
| Title: HES Specialist                     | Approval Date:                   | Expiration Date: |                                   |
| E-mail Address: Christopher.Jones@oxy.com | Conditions of Approval:          |                  | Attached <input type="checkbox"/> |
| Date: 11-11-14                            | Phone: (575) 628-4121            |                  |                                   |

\* Attach Additional Sheets If Necessary