



DELINEATION WORKPLAN

OXY – CHRISTOPHER FEDERAL 2 CTB (Leak Date: 11/14/18)

RP # 2RP-5175

This delineation workplan and remediation proposal addresses the releases associated with RP # 2RP-5175.

The following information includes:

1. Appropriate completed and signed C-141 pages.
2. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
3. GPS information for sample points and sample methodology.
4. Depth to groundwater information (i.e., pdf of OSE search results, USGS search results, and/or copy of Chevron groundwater trend map).
5. Watercourse/features map within 1000 feet.
6. BLM Cave Karst map.
7. FEMA National Flood map.
8. Laboratory analysis results summary table and original laboratory analysis reports.
9. Potentially other pertinent information as necessary for site specific purposes.

Based on the information included in this package and the NMOCD rules, the following remediation is proposed:

OXY will excavate the spill area as depicted on the following site diagram. The entire leak area (BLUE shade on diagram) will be excavated to a depth of 1 foot.

Bottom confirmation samples will be collected at no greater than 50 ft. intervals. Estimated volume of material to be removed is 137 cubic yards. The remediation will be completed within 90 days of plan approval.

The entire site will then be backfilled with clean soil and revegetated (if warranted) to the standards of the appropriate regulatory agency or private surface owner.

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

| | |
|----------------|----------|
| Incident ID | |
| District RP | 2RP-5175 |
| Facility ID | |
| Application ID | |

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

| | |
|---|---|
| What is the shallowest depth to groundwater beneath the area affected by the release? | 140 (ft bgs) |
| Did this release impact groundwater or surface water? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a wetland? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying a subsurface mine? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying an unstable area such as karst geology? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within a 100-year floodplain? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Did the release impact areas not on an exploration, development, production, or storage site? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

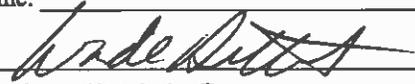
Characterization Report Checklist: *Each of the following items must be included in the report.*

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

| | |
|----------------|----------|
| Incident ID | |
| District RP | 2RP-5175 |
| Facility ID | |
| Application ID | |

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Wade Dittrich Title: Environmental Coordinator
 Signature:  Date: 2-12-19
 email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

Received by: _____ Date: _____

| | |
|----------------|----------|
| Incident ID | |
| District RP | 2RP-5175 |
| Facility ID | |
| Application ID | |

Remediation Plan

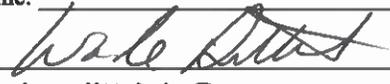
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- Detailed description of proposed remediation technique
- Scaled sitemap with GPS coordinates showing delineation points
- Estimated volume of material to be remediated
- Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Wade Dittrich Title: Environmental Coordinator
 Signature:  Date: 2-12-19
 email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

Received by: _____ Date: _____

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

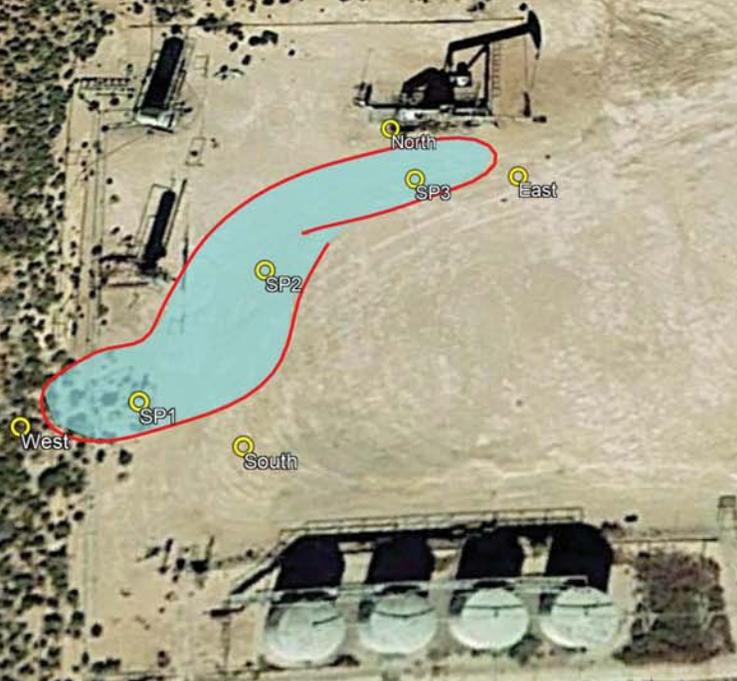
Signature: _____ Date: _____

Oxy, Christopher Federal 2 CTB

Leak date: 11/14/18
Eddy County, NM
AP# 30-015-27617
2RP-5175

Legend

-  1 ft across entire leak area
-  Sample points
-  Leak Area



Oxy, Christopher Federal 2 CTB

Sample points:

SP1, N 32.26247 W-103.80975

SP2, N 32.26258 W-103.80965

SP3, N 32.26267 W-103.80952

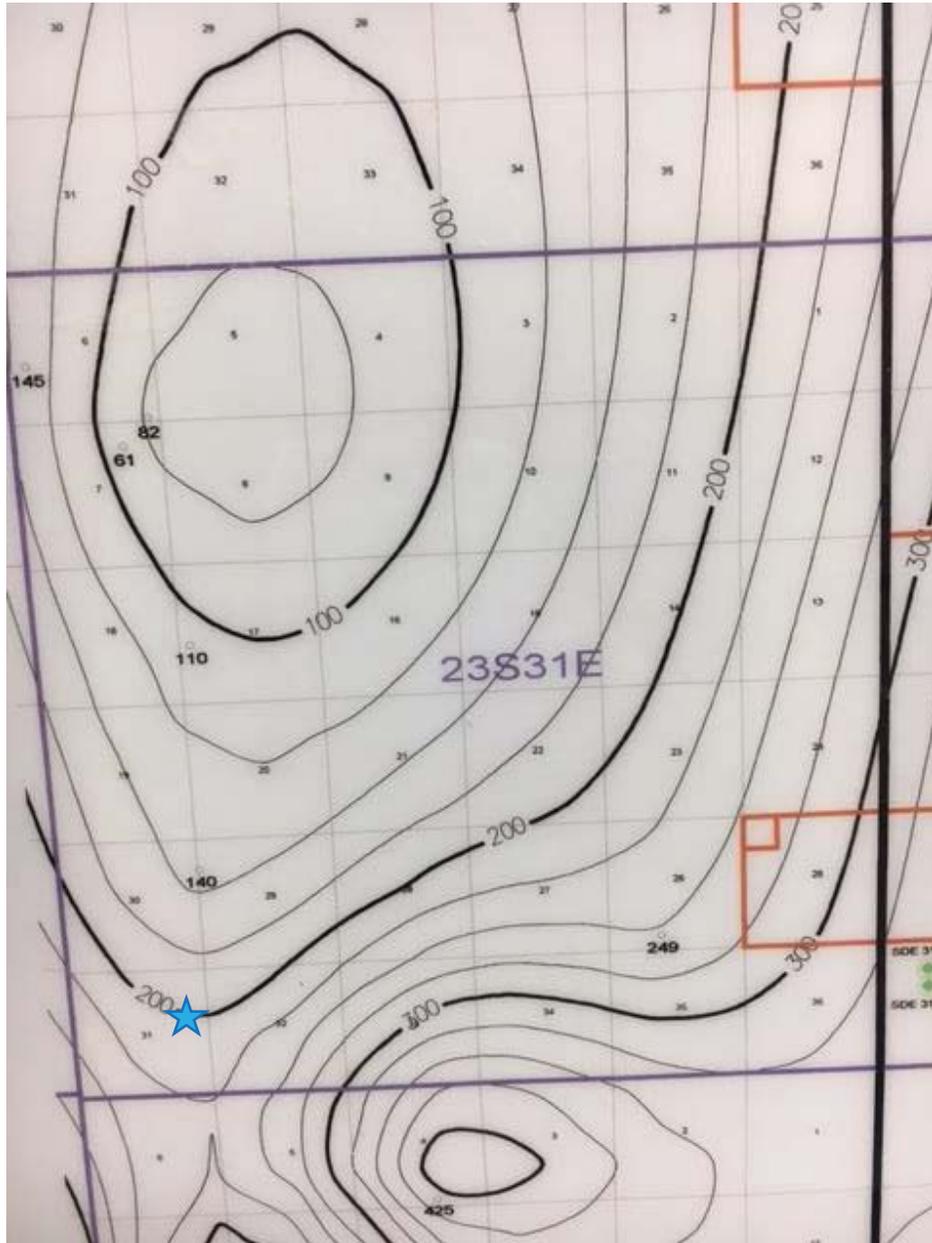
NORTH, N 32.26271 W-103.80954

SOUTH, N 32.26244 W-103.80966

EAST, N 32.26267 W-103.80943

WEST, N 32.26245 W-103.80984

Oxy, Christopher Federal 2 CTB
U/L H, Section 31, T23S, R31E
Groundwater: 200'





USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:
Groundwater

Geographic Area:
New Mexico

GO

Click to hide News Bulletins

- [Please see news on new formats](#)
- [Full News](#)

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 321648103482101

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321648103482101 23S.31E.29.11333

Eddy County, New Mexico

Latitude 32°16'48", Longitude 103°48'21" NAD27

Land-surface elevation 3,336 feet above NAVD88

The depth of the well is 220 feet below land surface.

This well is completed in the Dewey Lake Redbeds (312DYLK) local aquifer.

Output formats

| |
|------------------------------------|
| Table of data |
| Tab-separated data |
| Graph of data |
| Reselect period |

| Date | Time | Water-level date-time accuracy | Water level, feet below land surface | Water level, feet above specific vertical datum | Referenced vertical datum | Water-level accuracy | Status | Method of measurement | Measuring agency | Source of measurement | Water-level approval status |
|------------|------|--------------------------------|--------------------------------------|---|---------------------------|----------------------|--------|-----------------------|------------------|-----------------------|-----------------------------|
| 1959-03-26 | | D | 138.43 | | | 2 | | U | | U | A |
| 1972-09-20 | | D | 139.90 | | | 2 | R | U | | U | A |

Explanation

| Section | Code | Description |
|--------------------------------|------|--|
| Water-level date-time accuracy | D | Date is accurate to the Day |
| Water-level accuracy | 2 | Water level accuracy to nearest hundredth of a foot |
| Status | | The reported water-level measurement represents a static level |
| Status | R | Site had been pumped recently. |
| Method of measurement | U | Unknown method. |
| Measuring agency | | Not determined |
| Source of measurement | U | Source is unknown. |
| Water-level approval status | A | Approved for publication -- Processing and review completed. |

[Questions about sites/data?](#)

[Feedback on this web site](#)

[Automated retrievals](#)

[Help](#)

[Data Tips](#)

[Explanation of terms](#)

[Subscribe for system changes](#)

[News](#)

Accessibility Plug-Ins FOIA Privacy Policies and Notices

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for New Mexico: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>

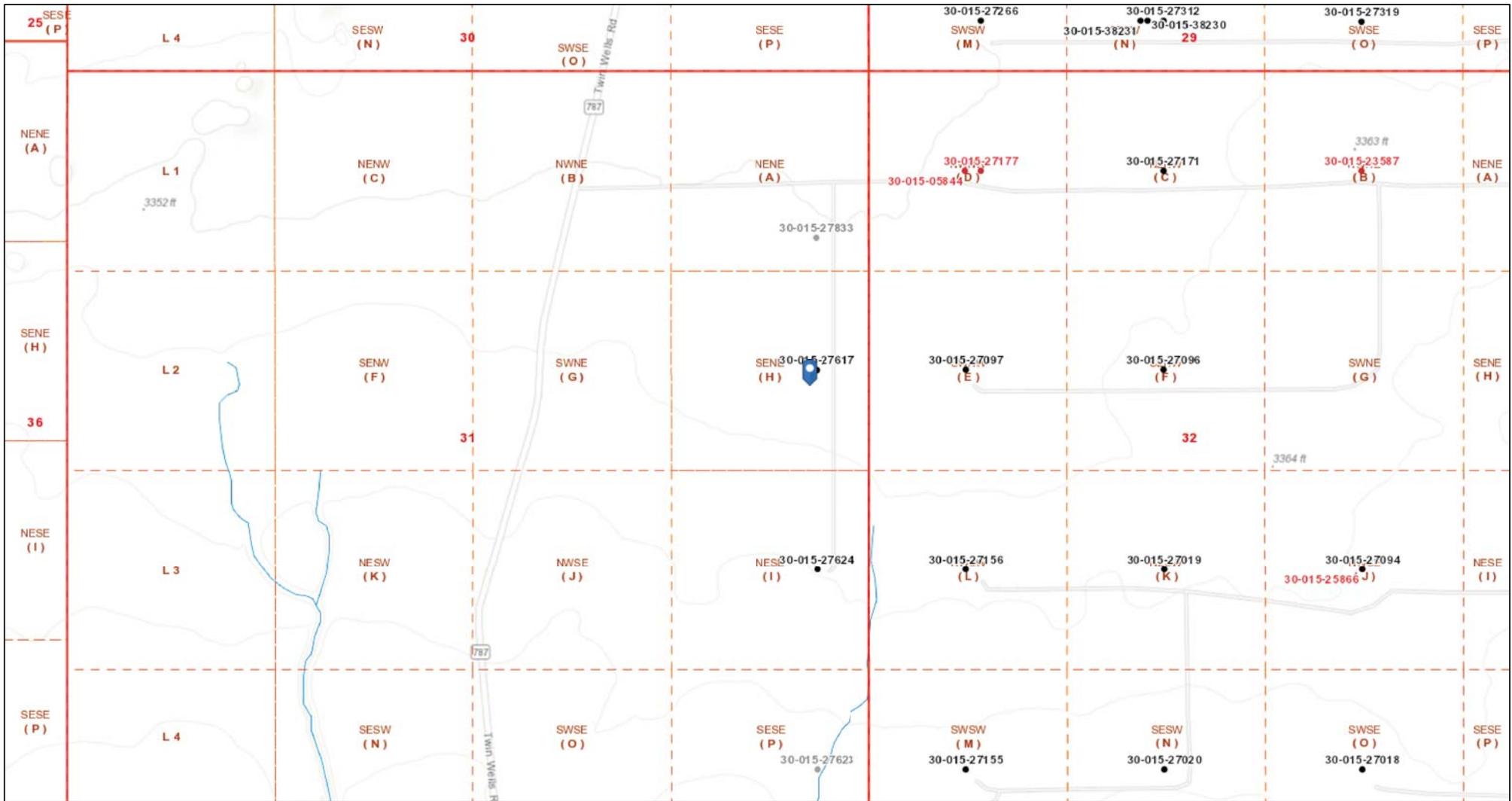


Page Contact Information: [New Mexico Water Data Maintainer](#)

Page Last Modified: 2019-01-31 15:03:42 EST

0.52 0.46 nadw01

Christopher Federal 2 CTB, Topo Map w/ Water Features



1/31/2019, 12:48:05 PM

1:9,028

Well Locations - Small Scale

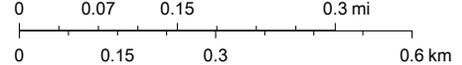
Well Locations - Large Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned
- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2 Plugged
- CO2 Temporarily Abandoned

- ☆ Gas Active
- ☆ Gas, Cancelled, Never Drilled
- ☆ Gas, New
- ☆ Gas, Plugged
- ☆ Gas, Temporarily Abandoned
- ⚡ Injection, Active
- ⚡ Injection, Cancelled
- ⚡ Injection, New
- ⚡ Injection, Plugged
- ⚡ Injection, Temporarily Abandoned

- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- △ Salt Water Injection, Active
- △ Salt Water Injection, Cancelled
- △ Salt Water Injection, New

- △ Salt Water Injection, Plugged
- △ Salt Water Injection Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged



Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA, OCD, BLM

Christopher Federal 2 CTB

Leak Date 11-14-18
Eddy Co
API # 30-015-27617
2RP-5175

BLM CAVE KARST MAP

Legend

-  Leak area
-  Low Potential



National Flood Hazard Layer FIRMette



32° 16' 0.03" N



USGS The National Map: Orthoimagery. Data refreshed October, 2017. 0 250 500 1,000 1,500 2,000 Feet 1:6,000 32° 15' 29.61" N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

| | | |
|----------------------------|--|---|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i> |
| | | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> |
| | | Regulatory Floodway |

| | | |
|-----------------------------|--|--|
| OTHER AREAS OF FLOOD HAZARD | | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i> |
| | | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i> |
| | | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i> |
| | | Area with Flood Risk due to Levee <i>Zone D</i> |

| | | |
|-------------|--|--|
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i> |
| | | Effective LOMRs |
| | | Area of Undetermined Flood Hazard <i>Zone D</i> |

| | | |
|--------------------|--|----------------------------------|
| GENERAL STRUCTURES | | Channel, Culvert, or Storm Sewer |
| | | Levee, Dike, or Floodwall |

| | | |
|----------------|--|---|
| OTHER FEATURES | | 20.2 Cross Sections with 1% Annual Chance Water Surface Elevation |
| | | 17.5 Coastal Transect |
| | | Base Flood Elevation Line (BFE) |
| | | Limit of Study |
| | | Jurisdiction Boundary |
| | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |

| | | |
|------------|--|---------------------------|
| MAP PANELS | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **1/31/2019 at 3:16:35 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

103° 48' 15.80" W

Laboratory Analytical Results Summary
Christopher Federal #2 CTB (11/14/18)

| Analyte | Method | Sample ID | SP1 @ | SP1 @ 1' | SP1 @ 2' |
|---------------|------------|-----------|--------------|------------|------------|
| | | | SURFACE | | |
| Date | | | 1/28/19 | 1/28/19 | 1/28/19 |
| | | | mg/kg | mg/kg | mg/kg |
| Benzene | BTEX 8021B | | <0.050 | <0.050 | <0.050 |
| Toluene | BTEX 8021B | | 0.486 | <0.050 | <0.050 |
| Ethylbenzene | BTEX 8021B | | 3.39 | <0.050 | <0.050 |
| Total Xylenes | BTEX 8021B | | 9.78 | <0.150 | <0.150 |
| Total BTEX | BTEX 8021B | | 13.7 | <0.300 | <0.300 |
| Chloride | SM4500Cl-B | | 1740 | 32 | 64 |
| GRO | TPH 8015M | | 697 | <10.0 | <10.0 |
| DRO | TPH 8015M | | 13000 | 711 | 629 |
| EXT DRO | TPH 8015M | | 2320 | 419 | 439 |

| Analyte | Method | Sample ID | SP2 @ | SP2 @ 1' | SP2 @ 2' | SP2 @ 3' | SP2 @ 4' |
|---------------|------------|-----------|--------------|-------------|-------------|-------------|-------------|
| | | | SURFACE | | | | |
| Date | | | 1/28/19 | 1/28/19 | 1/28/19 | 1/28/19 | 1/28/19 |
| | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| Benzene | BTEX 8021B | | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| Toluene | BTEX 8021B | | 0.462 | <0.050 | <0.050 | <0.050 | <0.050 |
| Ethylbenzene | BTEX 8021B | | 3.48 | <0.050 | <0.050 | <0.050 | <0.050 |
| Total Xylenes | BTEX 8021B | | 10.1 | <0.150 | <0.150 | <0.150 | <0.150 |
| Total BTEX | BTEX 8021B | | 14 | <0.300 | <0.300 | <0.300 | <0.300 |
| Chloride | SM4500Cl-B | | 2480 | 32 | 48 | 48 | 64 |
| GRO | TPH 8015M | | 502 | <10.0 | <10.0 | <10.0 | <10.0 |
| DRO | TPH 8015M | | 11200 | 62.9 | 137 | 44.8 | 72.6 |
| EXT DRO | TPH 8015M | | 2900 | 11.2 | 18.4 | <10.0 | 17.6 |

| Analyte | Method | Sample ID | SP3 @ | SP3 @ 1' | SP3 @ 2' | SP3 @ 3' | SP3 @ 4' |
|---------------|------------|-----------|--------------|-------------|-----------|-------------|-------------|
| | | | SURFACE | | | | |
| Date | | | 1/28/19 | 1/28/19 | 1/28/19 | 1/28/19 | 1/28/19 |
| | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| Benzene | BTEX 8021B | | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| Toluene | BTEX 8021B | | 0.634 | <0.050 | <0.050 | <0.050 | <0.050 |
| Ethylbenzene | BTEX 8021B | | 4.83 | <0.050 | <0.050 | <0.050 | <0.050 |
| Total Xylenes | BTEX 8021B | | 15 | <0.150 | <0.150 | <0.150 | <0.150 |
| Total BTEX | BTEX 8021B | | 20.4 | <0.300 | <0.300 | <0.300 | <0.300 |
| Chloride | SM4500Cl-B | | 2520 | 48 | 80 | 96 | 96 |
| GRO | TPH 8015M | | 847 | <10.0 | <10.0 | <10.0 | <10.0 |
| DRO | TPH 8015M | | 19900 | 92.8 | <10.0 | 62.7 | 155 |
| EXT DRO | TPH 8015M | | 4960 | 36 | <10.0 | 29.7 | 78.7 |

| Analyte | Method | Sample ID | NORTH @ | EAST @ | WEST @ | SOUTH @ |
|---------------|------------|-----------|------------|-----------|--------------|------------|
| | | | SURFACE | SURFACE | SURFACE | SURFACE |
| Date | | | 1/28/19 | 1/28/19 | 1/28/19 | 1/28/19 |
| | | | mg/kg | mg/kg | mg/kg | mg/kg |
| Benzene | BTEX 8021B | | <0.050 | <0.050 | <0.050 | <0.050 |
| Toluene | BTEX 8021B | | <0.050 | <0.050 | <0.050 | <0.050 |
| Ethylbenzene | BTEX 8021B | | <0.050 | <0.050 | <0.050 | <0.050 |
| Total Xylenes | BTEX 8021B | | <0.150 | <0.150 | 0.168 | <0.150 |
| Total BTEX | BTEX 8021B | | <0.300 | <0.300 | <0.300 | <0.300 |
| Chloride | SM4500Cl-B | | 48 | 16 | 32 | 32 |
| GRO | TPH 8015M | | <50.0 | <10.0 | <50.0 | <50.0 |
| DRO | TPH 8015M | | 675 | <10.0 | 702 | 549 |
| EXT DRO | TPH 8015M | | 300 | <10.0 | 355 | 141 |

February 07, 2019

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: CHRISTOPHER FEDERAL #2 CTB

Enclosed are the results of analyses for samples received by the laboratory on 01/31/19 9:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



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: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 1 @ SURFACE (H900353-01)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|-----------------------|--------------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | |
| Toluene* | 0.486 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | |
| Ethylbenzene* | 3.39 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | |
| Total Xylenes* | 9.78 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | |
| Total BTEX | 13.7 | 0.300 | 02/05/2019 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 80.3 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1740 | 16.0 | 02/04/2019 | ND | 400 | 100 | 400 | 3.92 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | | S-06 |
|----------------------------|--------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| GRO C6-C10* | 697 | 100 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | | |
| DRO >C10-C28* | 13000 | 100 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | QM-07 | |
| EXT DRO >C28-C36 | 2320 | 100 | 02/02/2019 | ND | | | | | | |

Surrogate: 1-Chlorooctane 112 % 41-142

Surrogate: 1-Chlorooctadecane 605 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 1 @ 1' (H900353-02)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | |
| Total Xylenes* | <0.150 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 32.0 | 16.0 | 02/04/2019 | 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 |
| GRO C6-C10* | <10.0 | 10.0 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | |
| DRO >C10-C28* | 711 | 10.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | |
| EXT DRO >C28-C36 | 419 | 10.0 | 02/02/2019 | ND | | | | | |

Surrogate: 1-Chlorooctane 86.6 % 41-142

Surrogate: 1-Chlorooctadecane 119 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 1 @ 2' (H900353-03)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | |
| Total Xylenes* | <0.150 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 64.0 | 16.0 | 02/04/2019 | 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 |
| GRO C6-C10* | <10.0 | 10.0 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | |
| DRO >C10-C28* | 629 | 10.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | |
| EXT DRO >C28-C36 | 439 | 10.0 | 02/02/2019 | ND | | | | | |

Surrogate: 1-Chlorooctane 93.5 % 41-142

Surrogate: 1-Chlorooctadecane 116 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 2 @ SURFACE (H900353-04)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|-----------------------|--------------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | |
| Toluene* | 0.462 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | |
| Ethylbenzene* | 3.48 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | |
| Total Xylenes* | 10.1 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | |
| Total BTEX | 14.0 | 0.300 | 02/05/2019 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 87.8 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 2480 | 16.0 | 02/04/2019 | ND | 400 | 100 | 400 | 3.92 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | | S-06 |
|----------------------------|--------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| GRO C6-C10* | 502 | 100 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | | |
| DRO >C10-C28* | 11200 | 100 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | | |
| EXT DRO >C28-C36 | 2900 | 100 | 02/02/2019 | ND | | | | | | |

Surrogate: 1-Chlorooctane 110 % 41-142

Surrogate: 1-Chlorooctadecane 516 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 2 @ 1' (H900353-05)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | | |
| Total Xylenes* | <0.150 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | 32.0 | 16.0 | 02/04/2019 | ND | 416 | 104 | 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 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | | |
| DRO >C10-C28* | 62.9 | 10.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | | |
| EXT DRO >C28-C36 | 11.2 | 10.0 | 02/02/2019 | ND | | | | | | |

Surrogate: 1-Chlorooctane 93.3 % 41-142

Surrogate: 1-Chlorooctadecane 94.2 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 2 @ 2' (H900353-06)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | |
| Total Xylenes* | <0.150 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 90.7 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 48.0 | 16.0 | 02/04/2019 | ND | 416 | 104 | 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 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | |
| DRO >C10-C28* | 137 | 10.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | |
| EXT DRO >C28-C36 | 18.4 | 10.0 | 02/02/2019 | ND | | | | | |

Surrogate: 1-Chlorooctane 92.8 % 41-142

Surrogate: 1-Chlorooctadecane 98.1 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 2 @ 3' (H900353-07)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | | |
| Total Xylenes* | <0.150 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | 48.0 | 16.0 | 02/04/2019 | ND | 416 | 104 | 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 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | | |
| DRO >C10-C28* | 44.8 | 10.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 02/02/2019 | ND | | | | | | |

Surrogate: 1-Chlorooctane 95.5 % 41-142

Surrogate: 1-Chlorooctadecane 96.8 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 2 @ 4' (H900353-08)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | |
| Total Xylenes* | <0.150 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 92.2 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 64.0 | 16.0 | 02/04/2019 | ND | 416 | 104 | 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 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | |
| DRO >C10-C28* | 72.6 | 10.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | |
| EXT DRO >C28-C36 | 17.6 | 10.0 | 02/02/2019 | ND | | | | | |

Surrogate: 1-Chlorooctane 91.8 % 41-142

Surrogate: 1-Chlorooctadecane 96.2 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 3 @ SURFACE (H900353-09)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|-----------------------|--------------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | |
| Toluene* | 0.634 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | |
| Ethylbenzene* | 4.83 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | |
| Total Xylenes* | 15.0 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | |
| Total BTEX | 20.4 | 0.300 | 02/05/2019 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 83.8 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 2520 | 16.0 | 02/04/2019 | ND | 416 | 104 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | | S-06 |
|----------------------------|--------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| GRO C6-C10* | 847 | 100 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | | |
| DRO >C10-C28* | 19900 | 100 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | | |
| EXT DRO >C28-C36 | 4960 | 100 | 02/02/2019 | ND | | | | | | |

Surrogate: 1-Chlorooctane 125 % 41-142

Surrogate: 1-Chlorooctadecane 842 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 3 @ 1' (H900353-10)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | |
| Total Xylenes* | <0.150 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 48.0 | 16.0 | 02/04/2019 | ND | 416 | 104 | 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 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | |
| DRO >C10-C28* | 92.8 | 10.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | |
| EXT DRO >C28-C36 | 36.0 | 10.0 | 02/02/2019 | ND | | | | | |

Surrogate: 1-Chlorooctane 96.4 % 41-142

Surrogate: 1-Chlorooctadecane 101 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 3 @ 2' (H900353-11)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | | |
| Total Xylenes* | <0.150 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 93.5 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | 80.0 | 16.0 | 02/04/2019 | ND | 416 | 104 | 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 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | | |
| DRO >C10-C28* | <10.0 | 10.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 02/02/2019 | ND | | | | | | |

Surrogate: 1-Chlorooctane 89.9 % 41-142

Surrogate: 1-Chlorooctadecane 90.1 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 3 @ 3' (H900353-12)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | |
| Total Xylenes* | <0.150 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 96.0 | 16.0 | 02/04/2019 | ND | 416 | 104 | 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 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | |
| DRO >C10-C28* | 62.7 | 10.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | |
| EXT DRO >C28-C36 | 29.7 | 10.0 | 02/02/2019 | ND | | | | | |

Surrogate: 1-Chlorooctane 92.8 % 41-142

Surrogate: 1-Chlorooctadecane 93.6 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SP 3 @ 4' (H900353-13)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | | |
| Total Xylenes* | <0.150 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | 96.0 | 16.0 | 02/04/2019 | ND | 416 | 104 | 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 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | | |
| DRO >C10-C28* | 155 | 10.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | | |
| EXT DRO >C28-C36 | 78.7 | 10.0 | 02/02/2019 | ND | | | | | | |

Surrogate: 1-Chlorooctane 96.8 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: NORTH @ SURFACE (H900353-14)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | |
| Total Xylenes* | <0.150 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 48.0 | 16.0 | 02/04/2019 | ND | 416 | 104 | 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* | <50.0 | 50.0 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | |
| DRO >C10-C28* | 675 | 50.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | |
| EXT DRO >C28-C36 | 300 | 50.0 | 02/02/2019 | ND | | | | | |

Surrogate: 1-Chlorooctane 86.4 % 41-142

Surrogate: 1-Chlorooctadecane 114 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: EAST @ SURFACE (H900353-15)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|-----------------------|--------------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | |
| Total Xylenes* | 0.168 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 32.0 | 16.0 | 02/04/2019 | ND | 416 | 104 | 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* | <50.0 | 50.0 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | |
| DRO >C10-C28* | 702 | 50.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | |
| EXT DRO >C28-C36 | 355 | 50.0 | 02/02/2019 | ND | | | | | |

Surrogate: 1-Chlorooctane 90.9 % 41-142

Surrogate: 1-Chlorooctadecane 124 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: WEST @ SURFACE (H900353-16)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.86 | 93.0 | 2.00 | 2.12 | |
| Toluene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.88 | 94.1 | 2.00 | 2.58 | |
| Ethylbenzene* | <0.050 | 0.050 | 02/05/2019 | ND | 1.85 | 92.6 | 2.00 | 4.94 | |
| Total Xylenes* | <0.150 | 0.150 | 02/05/2019 | ND | 5.40 | 89.9 | 6.00 | 4.62 | |
| Total BTEX | <0.300 | 0.300 | 02/05/2019 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 32.0 | 16.0 | 02/04/2019 | ND | 416 | 104 | 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* | <50.0 | 50.0 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | |
| DRO >C10-C28* | 549 | 50.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | |
| EXT DRO >C28-C36 | 141 | 50.0 | 02/02/2019 | ND | | | | | |

Surrogate: 1-Chlorooctane 94.3 % 41-142

Surrogate: 1-Chlorooctadecane 117 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

| | | | |
|-------------------|----------------------------|---------------------|----------------|
| Received: | 01/31/2019 | Sampling Date: | 01/28/2019 |
| Reported: | 02/07/2019 | Sampling Type: | Soil |
| Project Name: | CHRISTOPHER FEDERAL #2 CTB | Sampling Condition: | Cool & Intact |
| Project Number: | (11/14/18) | Sample Received By: | Tamara Oldaker |
| Project Location: | OXY - EDDY CO NM | | |

Sample ID: SOUTH @ SURFACE (H900353-17)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Benzene* | <0.050 | 0.050 | 02/04/2019 | ND | 1.98 | 98.9 | 2.00 | 0.149 | | |
| Toluene* | <0.050 | 0.050 | 02/04/2019 | ND | 2.00 | 100 | 2.00 | 0.858 | | |
| Ethylbenzene* | <0.050 | 0.050 | 02/04/2019 | ND | 1.95 | 97.3 | 2.00 | 1.61 | | |
| Total Xylenes* | <0.150 | 0.150 | 02/04/2019 | ND | 5.62 | 93.6 | 6.00 | 0.885 | | |
| Total BTEX | <0.300 | 0.300 | 02/04/2019 | ND | | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | 32.0 | 16.0 | 02/04/2019 | ND | 416 | 104 | 400 | 0.00 | | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | | | S-06 |
|----------------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | | |
| GRO C6-C10* | <50.0 | 50.0 | 02/02/2019 | ND | 213 | 106 | 200 | 1.95 | | | |
| DRO >C10-C28* | 2590 | 50.0 | 02/02/2019 | ND | 257 | 129 | 200 | 20.4 | | | |
| EXT DRO >C28-C36 | 1110 | 50.0 | 02/02/2019 | ND | | | | | | | |

Surrogate: 1-Chlorooctane 93.6 % 41-142

Surrogate: 1-Chlorooctadecane 158 % 37.6-147

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

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report





CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 2

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---------------------|--|---------------------|-------------|----------------------|-------------------------------------|-------------------------|----------|--------|-------------------------------------|------------|--------|---------|---------|-------------------------------------|-------------------------------------|-------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Company Name: BBC International, Inc. | | | | BILL TO | | | | ANALYSIS REQUEST | | | | | | | | | | | | | | | | | | | | | | |
| Project Manager: Cliff Brunson | | | | P.O. #: | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address: P.O. Box 805 | | | | Company: <i>Oxy</i> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City: Hobbs | | State: NM | | Zip: 88241 | | Attn: <i>Ditrich</i> | | | | | | | | | | | | | | | | | | | | | | | | |
| Phone #: 575-397-6388 | | Fax #: 575-397-0397 | | Address: | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project #: | | Project Owner: Oxy | | City: | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Name: Christopher Federal #2 CTB (11/14/18) | | | | State: | | | | Zip: | | | | | | | | | | | | | | | | | | | | | | |
| Project Location: Eddy County, NM | | | | Phone #: | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sampler Name: Jeff Ornelas | | | | Fax #: | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FOR LAB USE ONLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab I.D. | | Sample I.D. | | # CONTAINERS | MATRIX | | | | PRESERV. | | SAMPLING | | | | | | | | | | | | | | | | | | | |
| | | | | (GRAB OR C)COMP. | GROUNDWATER | WASTEWATER | SOIL | OIL | SLUDGE | OTHER: | ACID/BASE: | ICE / COOL | OTHER: | DATE | TIME | <i>STEX</i> | <i>CI</i> | <i>TPA-EXT</i> | | | | | | | | | | | | |
| <i>H900353</i> | | | | <i>6</i> | | | <input checked="" type="checkbox"/> | | | | <input checked="" type="checkbox"/> | | | 1/28/19 | 1:09 PM | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | |
| <i>11</i> | | SP3 @ 2' | | | | | | | | | | | | 1/28/19 | 1:30 PM | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | |
| <i>12</i> | | SP3 @ 3' | | | | | | | | | | | | 1/28/19 | 1:48 PM | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | |
| <i>13</i> | | SP3 @ 4' | | | | | | | | | | | | 1/28/19 | 1:50 PM | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | |
| <i>14</i> | | NORTH @ SURFACE | | | | | | | | | | | | 1/28/19 | 1:59 PM | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | |
| <i>15</i> | | EAST @ SURFACE | | | | | | | | | | | | 1/28/19 | 2:15 PM | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | |
| <i>16</i> | | WEST @ SURFACE | | | | | | | | | | | | 1/28/19 | 2:22 PM | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | |
| <i>17</i> | | SOUTH @ SURFACE | | | | | | | | | | | | 1/28/19 | 2:22 PM | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | |
| | | <i>1/28/19</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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 the client for the 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 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

| | | | | | | |
|---|--|----------------------|---|--|--|----------------|
| Relinquished By: <i>Jeff Ornelas</i> | | Date: <i>1/28/19</i> | Received By: <i>Cliff Brunson</i> | | Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No | Add'l Phone #: |
| | | Time: <i>5:00pm</i> | | | Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No | Add'l Fax #: |
| Relinquished By: <i>Cliff Brunson</i> | | Date: <i>1-31-19</i> | Received By: <i>Jamara Oldaker</i> | | REMARKS: | |
| | | Time: <i>0900</i> | | | | |
| Delivered By: (Circle One) | | | Sample Condition | | CHECKED BY: | |
| Sampler - UPS - Bus - Other: <i>UPS #97</i> | | | Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No | | (Initials) <i>TO.</i> | |

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