



## DELINEATION WORKPLAN

### OXY – CORRAL FLY GUNBARREL AND AST FACILITY (Leak Date: 12/2/18)

#### RP # 2RP-5173

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This delineation workplan and remediation proposal addresses the releases associated with RP # 2RP-5173.

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 336 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-5173
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?	98 (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 checked="" type="checkbox"/> Yes <input 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.

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-6173
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 DittrichTitle: Environmental CoordinatorSignature: Date: 2-7-9email: wade\_dittrich@oxy.comTelephone: (575) 390-2828**OCD Only**

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-5173
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: 2-7-19  
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, Corral Fly Gunbarrel and AST Facility

Leak date: 12/2/18  
Eddy County, NM  
2RP-5173

## Legend

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



Google Earth

© 2018 Google



100 ft



# Oxy, Corral Fly Gunbarrel and AST Facility


Leak Date 12/2/18

Eddy County, NM

2RP-5173

Aerial drone picture taken 2/12/19 to verify leak is on caliche pad that does not exist in the current Google Earth Image.

## Legend

 Leak area



Google Earth

200 ft







## Oxy, Corral Fly Gunbarrel and AST Facility

### Sample points

SP1, N 32.15480 W-103.94755

SP2, N 32.15480 W-103.94740

SP3, N 32.15485 W-103.94719

SP4, N 32.15489 W-103.94698

SP5, N 32.15493 W-103.94676

SP6, N 32.15497 W-103.94654

SP7, N 32.15502 W-103.94632

NORTH, N 32.15494 W-103.94701

SOUTH, N 32.15484 W-103.94692

EAST, N 32.15504 W-103.94619

WEST, N 32.15477 W-103.94762



**Oxy, Corral Fly Gunbarrel & AST**

**U/L P, Section 2, T25S, R29E**

**Groundwater: 175'-200'**





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National Water Information System: Web Interface

USGS Water Resources

Data Category:  
Groundwater

Geographic Area:  
New Mexico

GO

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Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 320956103574301

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

USGS 320956103574301 25S.29E.02.11111

Eddy County, New Mexico  
Latitude 32°09'56", Longitude 103°57'43" NAD27  
Land-surface elevation 3,000 feet above NAVD88  
The depth of the well is 140 feet below land surface.  
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

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
1958-10-23		D	98.10			2		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
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.

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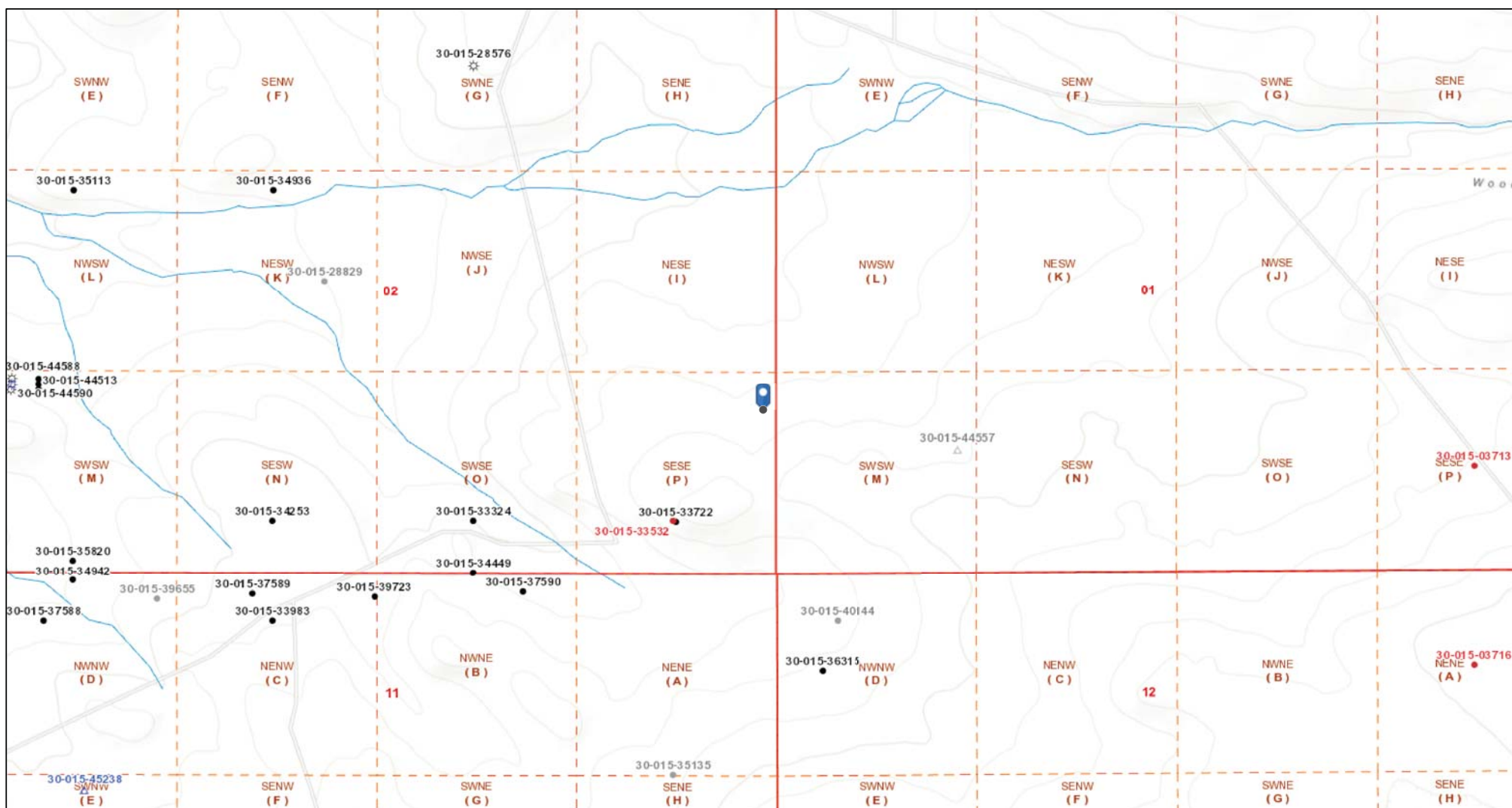
Accessibility   Plug-Ins   FOIA   Privacy   Policies and Notices  
[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)  
Title: Groundwater for New Mexico: Water Levels  
URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>



Page Contact Information: [New Mexico Water Data Maintainer](#)  
Page Last Modified: 2018-12-11 14:11:52 EST  
0.65 0.58 nadww01



# Corral Fly Gunbarrel & AST Facility, Topo Map with Water Features



12/11/2018, 11:03:01 AM

Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

Well Locations - Large Scale

- 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, Active
- Oil, Cancelled

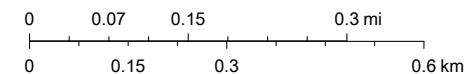
Oil, New

- 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

1:9,028






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


# Oxy, Corral Fly Gunbarrel & AST

Leak Date: 12/2/18  
Eddy County

## BLM CAVE KARST MAP

### Legend

-  Corral Fly Gunbarrel & AST
-  Low Potential
-  Medium Potential

 Corral Fly Gunbarrel & AST

Google Earth

© 2018 Google



1000 ft



# National Flood Hazard Layer FIRMMette



## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		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 Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
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 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
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 **12/11/2018 at 2:25:13 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.



Laboratory Analytical Results Summary  
Corral Fly Gunbarrel and AST Facility (12/2/18)

		Sample ID	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 4'
Analyte	Method	Date	12/18/18	12/18/18	12/18/18	12/18/18	12/18/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a
Chloride	SM4500Cl-B		24000	1260	2360	624	576
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a

		Sample ID	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'
Analyte	Method	Date	12/18/18	12/18/18	12/18/18	12/18/18	12/18/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a
Chloride	SM4500Cl-B		20800	2840	1390	640	608
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a

		Sample ID	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 4'
Analyte	Method	Date	12/18/18	12/18/18	12/18/18	12/18/18	12/18/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a
Chloride	SM4500Cl-B		20400	4000	944	576	560
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a

		Sample ID	SP4 @ SURFACE	SP4 @ 1'	SP4 @ 2'	SP4 @ 3'	SP4 @ 4'
Analyte	Method	Date	12/18/18	12/18/18	12/18/18	12/18/18	12/18/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a
Chloride	SM4500Cl-B		6500	2400	656	432	432
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a

		Sample ID	SP5 @ SURFACE	SP5 @ 1'	SP5 @ 2'	SP5 @ 3'	SP5 @ 4'	SP5 @ 5'	SP5 @ 6'
Analyte	Method	Date	12/18/18	12/19/18	12/19/18	12/19/18	12/19/18	12/19/18	12/19/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		5900	12000	848	544	1410	496	32
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a

		Sample ID	SP6 @ SURFACE	SP6 @ 1'	SP6 @ 2'	SP6 @ 3'	SP6 @ 4'	SP6 @ 5'
Analyte	Method	Date	12/19/18	12/19/18	12/19/18	12/19/18	12/19/18	12/19/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		0.295	<0.050	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		0.058	<0.050	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		0.318	<0.150	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		0.671	<0.300	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		7800	7120	784	768	608	16
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a

		Sample ID	SP7 @ SURFACE	SP7 @ 1'	SP7 @ 2'	SP7 @ 3'	SP7 @ 4'	SP7 @ 5'	SP7 @ 6'
Analyte	Method	Date	12/19/18	12/19/18	12/19/18	12/19/18	12/19/18	12/19/18	12/19/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		10000	8320	848	528	656	<16.0	16
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a

		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	WEST @ SURFACE	SOUTH @ SURFACE
Analyte	Method	Date	12/19/18	12/19/18	12/19/18	12/19/18
			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	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		32	16	16	<16.0
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0



January 07, 2019

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: CORRAL FLY GUNBARREL & AST FACILITY (12/2/18)

Enclosed are the results of analyses for samples received by the laboratory on 12/21/18 8:30.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 1 @ SURFACE (H803753-01)**

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	12/27/2018	ND	2.26	113	2.00	15.1	
Toluene*	<0.050	0.050	12/27/2018	ND	2.25	112	2.00	16.4	
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	2.21	111	2.00	14.3	
Total Xylenes*	<0.150	0.150	12/27/2018	ND	6.80	113	6.00	13.7	
Total BTEX	<0.300	0.300	12/27/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	24000	16.0	12/28/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2018	ND	196	97.8	200	1.34	
DRO >C10-C28*	<10.0	10.0	12/26/2018	ND	225	113	200	1.85	
EXT DRO >C28-C36	<10.0	10.0	12/26/2018	ND					

Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 103 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 1 @ 1' (H803753-02)**

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	12/28/2018	ND	1.93	96.3	2.00	2.30		
Toluene*	<0.050	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87		
Ethylbenzene*	<0.050	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706		
Total Xylenes*	<0.150	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276		
Total BTEx	<0.300	0.300	12/28/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1260	16.0	12/28/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2018	ND	196	97.8	200	1.34	
DRO >C10-C28*	<10.0	10.0	12/26/2018	ND	225	113	200	1.85	
EXT DRO >C28-C36	<10.0	10.0	12/26/2018	ND					

Surrogate: 1-Chlorooctane 104 % 41-142

Surrogate: 1-Chlorooctadecane 103 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

Received:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 1 @ 2' (H803753-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2360	16.0	12/28/2018	ND	416	104	400	3.77		

**Sample ID: SP 1 @ 3' (H803753-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	12/31/2018	ND	416	104	400	7.41	

**Sample ID: SP 1 @ 4' (H803753-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	576	16.0	12/30/2018	ND	416	104	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

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

Received:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 2 @ SURFACE (H803753-06)**

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/28/2018	ND	1.93	96.3	2.00	2.30		
Toluene*	<0.050	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87		
Ethylbenzene*	<0.050	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706		
Total Xylenes*	<0.150	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276		
Total BTX	<0.300	0.300	12/28/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 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	20800	16.0	12/30/2018	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	12/26/2018	ND	196	97.8	200	1.34	
DRO >C10-C28*	<10.0	10.0	12/26/2018	ND	225	113	200	1.85	
EXT DRO >C28-C36	<10.0	10.0	12/26/2018	ND					

Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 99.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

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

Received:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 2 @ 1' (H803753-07)**

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	12/28/2018	ND	1.93	96.3	2.00	2.30		
Toluene*	<0.050	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87		
Ethylbenzene*	<0.050	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706		
Total Xylenes*	<0.150	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276		
Total BTEx	<0.300	0.300	12/28/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 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	2840	16.0	12/30/2018	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	12/26/2018	ND	196	97.8	200	1.34	
DRO >C10-C28*	<10.0	10.0	12/26/2018	ND	225	113	200	1.85	
EXT DRO >C28-C36	<10.0	10.0	12/26/2018	ND					

Surrogate: 1-Chlorooctane 96.8 % 41-142

Surrogate: 1-Chlorooctadecane 95.3 % 37.6-147

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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:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 2 @ 2' (H803753-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1390	16.0	12/30/2018	ND	416	104	400	0.00		

**Sample ID: SP 2 @ 3' (H803753-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	12/30/2018	ND	416	104	400	0.00	

**Sample ID: SP 2 @ 4' (H803753-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	12/30/2018	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

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

Received:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 3 @ SURFACE (H803753-11)**

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/28/2018	ND	1.93	96.3	2.00	2.30		
Toluene*	<0.050	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87		
Ethylbenzene*	<0.050	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706		
Total Xylenes*	<0.150	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276		
Total BTX	<0.300	0.300	12/28/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 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	20400	16.0	12/30/2018	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	12/26/2018	ND	196	97.8	200	1.34	
DRO >C10-C28*	<10.0	10.0	12/26/2018	ND	225	113	200	1.85	
EXT DRO >C28-C36	<10.0	10.0	12/26/2018	ND					

Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 100 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 3 @ 1' (H803753-12)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/28/2018	ND	1.93	96.3	2.00	2.30	
Toluene*	<0.050	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87	
Ethylbenzene*	<0.050	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706	
Total Xylenes*	<0.150	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276	
Total BTX	<0.300	0.300	12/28/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 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	4000	16.0	12/30/2018	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	12/26/2018	ND	196	97.8	200	1.34	
DRO >C10-C28*	<10.0	10.0	12/26/2018	ND	225	113	200	1.85	
EXT DRO >C28-C36	<10.0	10.0	12/26/2018	ND					

Surrogate: 1-Chlorooctane 107 % 41-142

Surrogate: 1-Chlorooctadecane 106 % 37.6-147

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

Received:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 3 @ 2' (H803753-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	944	16.0	12/30/2018	ND	416	104	400	0.00		

**Sample ID: SP 3 @ 3' (H803753-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	12/30/2018	ND	416	104	400	0.00	

**Sample ID: SP 3 @ 4' (H803753-15)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	12/30/2018	ND	416	104	400	0.00	

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

Received:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 4 @ SURFACE (H803753-16)**

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	12/28/2018	ND	1.93	96.3	2.00	2.30		
Toluene*	<0.050	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87		
Ethylbenzene*	<0.050	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706		
Total Xylenes*	<0.150	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276		
Total BTEX	<0.300	0.300	12/28/2018	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	6500	16.0	12/30/2018	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	12/26/2018	ND	196	97.8	200	1.34	
DRO >C10-C28*	<10.0	10.0	12/26/2018	ND	225	113	200	1.85	
EXT DRO >C28-C36	<10.0	10.0	12/26/2018	ND					

Surrogate: 1-Chlorooctane 110 % 41-142

Surrogate: 1-Chlorooctadecane 108 % 37.6-147

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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:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 4 @ 1' (H803753-17)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/28/2018	ND	1.93	96.3	2.00	2.30	
Toluene*	<0.050	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87	
Ethylbenzene*	<0.050	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706	
Total Xylenes*	<0.150	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276	
Total BTX	<0.300	0.300	12/28/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 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	2400	16.0	12/30/2018	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	12/27/2018	ND	188	93.9	200	0.658	
DRO >C10-C28*	<10.0	10.0	12/27/2018	ND	214	107	200	8.03	
EXT DRO >C28-C36	<10.0	10.0	12/27/2018	ND					

Surrogate: 1-Chlorooctane 97.3 % 41-142

Surrogate: 1-Chlorooctadecane 99.4 % 37.6-147

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**Analytical Results For:**

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

Received:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 4 @ 2' (H803753-18)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	656	16.0	12/30/2018	ND	416	104	400	0.00		

**Sample ID: SP 4 @ 3' (H803753-19)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	12/30/2018	ND	416	104	400	0.00	

**Sample ID: SP 4 @ 4' (H803753-20)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	12/30/2018	ND	416	104	400	0.00	

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**Analytical Results For:**

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

Received:	12/21/2018	Sampling Date:	12/18/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 5 @ SURFACE (H803753-21)**

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/28/2018	ND	1.93	96.3	2.00	2.30		
Toluene*	<0.050	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87		
Ethylbenzene*	<0.050	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706		
Total Xylenes*	<0.150	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276		
Total BTX	<0.300	0.300	12/28/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 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	5900	16.0	12/30/2018	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	12/27/2018	ND	188	93.9	200	0.658	
DRO >C10-C28*	<10.0	10.0	12/27/2018	ND	214	107	200	8.03	
EXT DRO >C28-C36	<10.0	10.0	12/27/2018	ND					

Surrogate: 1-Chlorooctane 86.8 % 41-142

Surrogate: 1-Chlorooctadecane 85.9 % 37.6-147

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**Analytical Results For:**

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

Received:	12/21/2018	Sampling Date:	12/19/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 5 @ 1' (H803753-22)**

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	12/28/2018	ND	1.93	96.3	2.00	2.30		
Toluene*	<0.050	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87		
Ethylbenzene*	<0.050	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706		
Total Xylenes*	<0.150	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276		
Total BTEx	<0.300	0.300	12/28/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 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	12000	16.0	12/30/2018	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	12/27/2018	ND	188	93.9	200	0.658	
DRO >C10-C28*	<10.0	10.0	12/27/2018	ND	214	107	200	8.03	
EXT DRO >C28-C36	<10.0	10.0	12/27/2018	ND					

Surrogate: 1-Chlorooctane 106 % 41-142

Surrogate: 1-Chlorooctadecane 106 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	12/21/2018	Sampling Date:	12/19/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 5 @ 2' (H803753-23)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	848	16.0	12/30/2018	ND	416	104	400	0.00		

**Sample ID: SP 5 @ 3' (H803753-24)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	544	16.0	12/30/2018	ND	416	104	400	0.00		

**Sample ID: SP 5 @ 4' (H803753-25)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1410	16.0	12/30/2018	ND	416	104	400	0.00	QM-07	

**Sample ID: SP 5 @ 5' (H803753-26)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	496	16.0	12/30/2018	ND	416	104	400	0.00		

**Sample ID: SP 5 @ 6' (H803753-27)**

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	12/30/2018	ND	416	104	400	0.00		

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**Analytical Results For:**

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

Received:	12/21/2018	Sampling Date:	12/19/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 6 @ SURFACE (H803753-28)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/28/2018	ND	1.93	96.3	2.00	2.30	
Toluene*	0.295	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87	
Ethylbenzene*	0.058	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706	
Total Xylenes*	0.318	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276	
Total BTX	0.671	0.300	12/28/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 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	7800	16.0	12/30/2018	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	12/27/2018	ND	188	93.9	200	0.658	
DRO >C10-C28*	<10.0	10.0	12/27/2018	ND	214	107	200	8.03	
EXT DRO >C28-C36	<10.0	10.0	12/27/2018	ND					

Surrogate: 1-Chlorooctane 84.5 % 41-142

Surrogate: 1-Chlorooctadecane 82.9 % 37.6-147

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**Analytical Results For:**

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

Received:	12/21/2018	Sampling Date:	12/19/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 6 @ 1' (H803753-29)**

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/28/2018	ND	1.93	96.3	2.00	2.30		
Toluene*	<0.050	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87		
Ethylbenzene*	<0.050	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706		
Total Xylenes*	<0.150	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276		
Total BTX	<0.300	0.300	12/28/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	7120	16.0	12/30/2018	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	12/27/2018	ND	188	93.9	200	0.658	
DRO >C10-C28*	<10.0	10.0	12/27/2018	ND	214	107	200	8.03	
EXT DRO >C28-C36	<10.0	10.0	12/27/2018	ND					

Surrogate: 1-Chlorooctane 97.2 % 41-142

Surrogate: 1-Chlorooctadecane 96.8 % 37.6-147

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**Analytical Results For:**

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Cliff Brunson  
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Hobbs NM, 88241  
Fax To: (575) 397-0397

Received:	12/21/2018	Sampling Date:	12/19/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 6 @ 2' (H803753-30)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	784	16.0	12/30/2018	ND	416	104	400	0.00		

**Sample ID: SP 6 @ 3' (H803753-31)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	12/30/2018	ND	416	104	400	0.00	

**Sample ID: SP 6 @ 4' (H803753-32)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	608	16.0	12/30/2018	ND	416	104	400	0.00		

**Sample ID: SP 6 @ 5' (H803753-33)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	12/30/2018	ND	416	104	400	0.00	

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

Received:	12/21/2018	Sampling Date:	12/19/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 7 @ SURFACE (H803753-34)**

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/28/2018	ND	1.93	96.3	2.00	2.30		
Toluene*	<0.050	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87		
Ethylbenzene*	<0.050	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706		
Total Xylenes*	<0.150	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276		
Total BTX	<0.300	0.300	12/28/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 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	10000	16.0	12/30/2018	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	12/27/2018	ND	187	93.6	200	0.948	
DRO >C10-C28*	<10.0	10.0	12/27/2018	ND	202	101	200	6.58	
EXT DRO >C28-C36	<10.0	10.0	12/27/2018	ND					

Surrogate: 1-Chlorooctane 79.4 % 41-142

Surrogate: 1-Chlorooctadecane 84.8 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

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

Received:	12/21/2018	Sampling Date:	12/19/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 7 @ 1' (H803753-35)**

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	12/28/2018	ND	1.93	96.3	2.00	2.30		
Toluene*	<0.050	0.050	12/28/2018	ND	1.89	94.7	2.00	2.87		
Ethylbenzene*	<0.050	0.050	12/28/2018	ND	1.92	96.0	2.00	0.706		
Total Xylenes*	<0.150	0.150	12/28/2018	ND	5.84	97.4	6.00	0.276		
Total BTEx	<0.300	0.300	12/28/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 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	8320	16.0	12/30/2018	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	12/27/2018	ND	187	93.6	200	0.948	
DRO >C10-C28*	<10.0	10.0	12/27/2018	ND	202	101	200	6.58	
EXT DRO >C28-C36	<10.0	10.0	12/27/2018	ND					

Surrogate: 1-Chlorooctane 80.3 % 41-142

Surrogate: 1-Chlorooctadecane 82.6 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	12/21/2018	Sampling Date:	12/19/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SP 7 @ 2' (H803753-36)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	848	16.0	12/30/2018	ND	416	104	400	0.00		

**Sample ID: SP 7 @ 3' (H803753-37)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	12/30/2018	ND	416	104	400	0.00	

**Sample ID: SP 7 @ 4' (H803753-38)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	656	16.0	12/30/2018	ND	416	104	400	0.00		

**Sample ID: SP 7 @ 5' (H803753-39)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/31/2018	ND	416	104	400	0.00		

**Sample ID: SP 7 @ 6' (H803753-40)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	12/31/2018	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	12/21/2018	Sampling Date:	12/19/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: NORTH @ SURFACE (H803753-41)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/27/2018	ND	1.87	93.3	2.00	0.687		
Toluene*	<0.050	0.050	12/27/2018	ND	1.93	96.4	2.00	1.53		
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	1.91	95.7	2.00	1.51		
Total Xylenes*	<0.150	0.150	12/27/2018	ND	5.60	93.4	6.00	1.78		
Total BTX	<0.300	0.300	12/27/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 81.3-128

Chloride, SM4500CI-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	12/31/2018	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	12/27/2018	ND	187	93.6	200	0.948	
DRO >C10-C28*	<10.0	10.0	12/27/2018	ND	202	101	200	6.58	
EXT DRO >C28-C36	<10.0	10.0	12/27/2018	ND					

Surrogate: 1-Chlorooctane 75.1 % 41-142

Surrogate: 1-Chlorooctadecane 75.7 % 37.6-147

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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:	12/21/2018	Sampling Date:	12/19/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: EAST @ SURFACE (H803753-42)**

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	12/27/2018	ND	1.87	93.3	2.00	0.687		
Toluene*	<0.050	0.050	12/27/2018	ND	1.93	96.4	2.00	1.53		
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	1.91	95.7	2.00	1.51		
Total Xylenes*	<0.150	0.150	12/27/2018	ND	5.60	93.4	6.00	1.78		
Total BTEX	<0.300	0.300	12/27/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 81.3-128

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	12/31/2018	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	12/27/2018	ND	187	93.6	200	0.948	
DRO >C10-C28*	<10.0	10.0	12/27/2018	ND	202	101	200	6.58	
EXT DRO >C28-C36	<10.0	10.0	12/27/2018	ND					

Surrogate: 1-Chlorooctane 68.6 % 41-142

Surrogate: 1-Chlorooctadecane 65.9 % 37.6-147

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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:	12/21/2018	Sampling Date:	12/19/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: WEST @ SURFACE (H803753-43)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/27/2018	ND	1.87	93.3	2.00	0.687	
Toluene*	<0.050	0.050	12/27/2018	ND	1.93	96.4	2.00	1.53	
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	1.91	95.7	2.00	1.51	
Total Xylenes*	<0.150	0.150	12/27/2018	ND	5.60	93.4	6.00	1.78	
Total BTX	<0.300	0.300	12/27/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 81.3-128

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	12/31/2018	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	12/27/2018	ND	187	93.6	200	0.948	
DRO >C10-C28*	<10.0	10.0	12/27/2018	ND	202	101	200	6.58	
EXT DRO >C28-C36	<10.0	10.0	12/27/2018	ND					

Surrogate: 1-Chlorooctane 74.1 % 41-142

Surrogate: 1-Chlorooctadecane 72.5 % 37.6-147

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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:	12/21/2018	Sampling Date:	12/19/2018
Reported:	01/07/2019	Sampling Type:	Soil
Project Name:	CORRAL FLY GUNBARREL & AST FACILITY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO NM		

**Sample ID: SOUTH @ SURFACE (H803753-44)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/27/2018	ND	1.87	93.3	2.00	0.687	
Toluene*	<0.050	0.050	12/27/2018	ND	1.93	96.4	2.00	1.53	
Ethylbenzene*	<0.050	0.050	12/27/2018	ND	1.91	95.7	2.00	1.51	
Total Xylenes*	<0.150	0.150	12/27/2018	ND	5.60	93.4	6.00	1.78	
Total BTX	<0.300	0.300	12/27/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 81.3-128

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/31/2018	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	12/27/2018	ND	187	93.6	200	0.948	
DRO >C10-C28*	<10.0	10.0	12/27/2018	ND	202	101	200	6.58	
EXT DRO >C28-C36	<10.0	10.0	12/27/2018	ND					

Surrogate: 1-Chlorooctane 76.3 % 41-142

Surrogate: 1-Chlorooctadecane 72.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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



---

Celey D. Keene, Lab Director/Quality Manager



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

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**Relinquished By:** \_\_\_\_\_

Relinquished By: <i>Vett Omelas</i>		Date: <i>12/19/18</i>		Received By: <i>Grace Penn</i>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
		Time: <i>5:30pm</i>				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By: <i>Grace Penn</i>		Date: <i>12-21-18</i>		Received By: <i>Kamara Oldaker</i>		REMARKS:			
		Time: <i>8:30am</i>							
Delivered By: (Circle One)									
Sampler - UPS - Bus - Other:		<i>2.3c #97</i>		Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No		CHECKED BY: (Initials) <i>to</i>			

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



**CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

2 of 5

Company Name: BBC International, Inc.				<b>BILL TO</b>												<b>ANALYSIS REQUEST</b>													
Project Manager: Cliff Brunson				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center;"> <div>CI</div> <div>BTX</div> <div>TPH EXT</div> </div>																					
Address: P.O. Box 805				Company: Oxy																									
City: Hobbs		State: NM Zip: 88241		Attn: W. D. Frick																									
Phone #: 575-397-6388		Fax #: 575-397-0397		Address:																									
Project #:		Project Owner: Oxy		City:																									
Project Name: Corral Fly Gunbarrel & AST Facility (12/2/18)				State: Zip:																									
Project Location: Eddy County, NM				Phone #:																									
Sampler Name: Jeff Ornelas				Fax #:																									
FOR LAB USE ONLY																													
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER:		ACID/BASE:		ICE / COOL		OTHER:		DATE		TIME	
4803753				G		1						✓														12/18/18		1:11 PM	
11		SP3 @ SURFACE																								✓		✓	
12		SP3 @ 1'																								✓		✓	
13		SP3 @ 2'																								✓			
14		SP3 @ 3'																								✓			
15		SP3 @ 4'																								✓			
16		SP4 @ SURFACE																								✓		✓	
17		SP4 @ 1'																								✓		✓	
18		SP4 @ 2'																								✓			
19		SP4 @ 3'																								✓			
20		SP4 @ 4'																								✓			

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Relinquished By: Jeff Ornelas		Date: 12/19/18		Received By: Grace Hena		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
		Time: 5:30pm				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By: Grace Hena		Date: 12-21-18		Received By: Jannara Oldaker		REMARKS:			
		Time: 8:30am							
Delivered By: (Circle One)				CHECKED BY: (Initials)					
Sampler - UPS - Bus - Other: 2.3i #97		Sample Condition		Cool Intact					
		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		TO			

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

**CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

3025

Company Name: BBC International, Inc.				<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>											
Project Manager: Cliff Brunson				P.O. #:		<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CI</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH EXT</div> </div>											
Address: P.O. Box 805				Company: <i>Oxy</i>													
City: Hobbs		State: NM		Attn: <i>W. D. Frick</i>													
Phone #: 575-397-6388		Fax #: 575-397-0397		Address:													
Project #:		Project Owner: Oxy		City:													
Project Name: Corral Fly Gunbarrel & AST Facility (12/2/18)				State:      Zip:													
Project Location: Eddy County, NM				Phone #:													
Sampler Name: Jeff Ornelas				Fax #:													
FOR LAB USE ONLY																	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP. # CONTAINERS	MATRIX					PRESERV.			SAMPLING						
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME				
<i>H803753</i>																	
<i>21</i>	SP5 @ SURFACE	<i>G</i>			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			12/18/18	3:41 PM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<i>22</i>	SP5 @ 1'											12/19/18	9:19 AM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<i>23</i>	SP5 @ 2'											12/19/18	9:33 AM	<input checked="" type="checkbox"/>			
<i>24</i>	SP5 @ 3'											12/19/18	9:51 AM	<input checked="" type="checkbox"/>			
<i>25</i>	SP5 @ 4'											12/19/18	10:19 AM	<input checked="" type="checkbox"/>			
<i>26</i>	SP5 @ 5'											12/19/18	11:01 AM	<input checked="" type="checkbox"/>			
<i>27</i>	SP5 @ 6'											12/19/18	11:10 AM	<input checked="" type="checkbox"/>			
<i>28</i>	SP6 @ SURFACE											12/19/18	11:11 AM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<i>29</i>	SP6 @ 1'											12/19/18	11:19 AM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<i>30</i>	SP6 @ 2'											12/19/18	11:33 AM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

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Relinquished By: <i>Jeff Ornelas</i>	Date: <i>12-19-18</i> Time: <i>5:30p</i>	Received By: <i>Israel Pena</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: <i>Israel Pena</i>	Date: <i>12-21-18</i> Time: <i>8:30 AM</i>	Received By: <i>Samuel P. Delatorre</i>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)		Sample Condition	CHECKED BY:	
Sampler - UPS - Bus - Other: <i>2.30 #97</i>		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	(Initials)	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<i>T.O.</i>	

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



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

4 of 5

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Relinquished By: <i>Veff Onu Isag</i> Date: <i>12-19-18</i> Time: <i>5:30p</i>		Received By: <i>Braet Pena</i> Date: <i>12-21-18</i> Time: <i>8:30AM</i>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: _____ Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: _____ REMARKS: _____	
Relinquished By: <i>Braet Pena</i> Date: <i>12-21-18</i> Time: <i>8:30AM</i>		Received By: <i>Jamara Olds</i> Date: _____ Time: _____		CHECKED BY: _____ (Initials) <i>T.O.</i>	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/>		2.3°C #97	

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**CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

5 of 5

Company Name: BBC International, Inc.				<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>											
Project Manager: Cliff Brunson				P.O. #:		<div style="display: flex; justify-content: space-around;"> <div>CI</div> <div>BTEX</div> <div>TPH HLT</div> </div>											
Address: P.O. Box 805				Company: <i>OXG</i>													
City: Hobbs State: NM Zip: 88241				Attn: <i>W. Dittich</i>													
Phone #: 575-397-6388 Fax #: 575-397-0397				Address:													
Project #: Project Owner: Oxy				City:													
Project Name: Corral Fly Gunbarrel & AST Facility (12/2/18)				State: Zip:													
Project Location: Eddy County, NM				Phone #:													
Sampler Name: Jeff Ornelas				Fax #:													

Lab I.D.	Sample I.D.	FOR LAB USE ONLY	(GRAB OR C) COMP.	# CONTAINERS	MATRIX						PRESERV.			SAMPLING		DATE	TIME
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :				
<i>H803753</i>																	
<i>41</i>	NORTH @ SURFACE		<i>G</i>	<i>1</i>			<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>			12/19/18	2:45 PM	<input checked="" type="checkbox"/>
<i>42</i>	EAST @ SURFACE		<i>G</i>	<i>1</i>			<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>			12/19/18	2:53 PM	<input checked="" type="checkbox"/>
<i>43</i>	WEST @ SURFACE		<i>G</i>	<i>1</i>			<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>			12/19/18	3:01 PM	<input checked="" type="checkbox"/>
<i>44</i>	SOUTH @ SURFACE		<i>G</i>	<i>1</i>			<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>			12/19/18	3:15 PM	<input checked="" type="checkbox"/>
<i>KAP 12/20/18</i>																	

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Relinquished By: <i>Jeff Ornelas</i>	Date: <i>12/19/18</i>	Received By: <i>Shaeffena</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: <i>5:30 PM</i>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: <i>Shaeffena</i>	Date: <i>12-21-18</i>	Received By: <i>James Ornelas</i>	REMARKS:	
	Time: <i>8:30 AM</i>			
Delivered By: (Circle One)	Sample Condition		CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other: <i>2.3c #97</i>	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<i>TO</i>	

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