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## DELINEATION/REMEDIATION WORKPLAN

## OXY – HEIGHT CC 6-7 FED COM 31H (Leak Date: 6/19/19)

## RP # 2RP-5524

This delineation workplan and remediation proposal addresses the releases associated with RP # 2RP-5524.

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 leak area near SP1 – SP3 and SP6 – SP7 (BLUE shade on diagram) will be excavated to a depth of 3 feet. The leak area near SP4 and SP5 (PURPLE shade on diagram) will be excavated to a depth of 2 feet. The leak area near SP8 (ORANGE shade on diagram) will be excavated to a depth of 5 feet.

### Bottom confirmation samples will be collected every 75 feet.

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.

## S6HI5-191121-C-1410

Form C-141	State of New Marian			
	State of New Mexico	Incident ID		
Page 3	Oil Conservation Division	District RP	2RP-5524	
		111 III III		

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?	52' (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🔳 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🔳 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)?	🗌 Yes 🔳 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🔳 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?	🗌 Yes 🔳 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🔳 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🔳 No
Are the lateral extents of the release within 300 feet of a wetland?	🗋 Yes 🔳 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🔳 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🔳 Yes 🗌 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🔳 No
Did the release impact areas not on an exploration, development, production, or storage site?	Yes 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

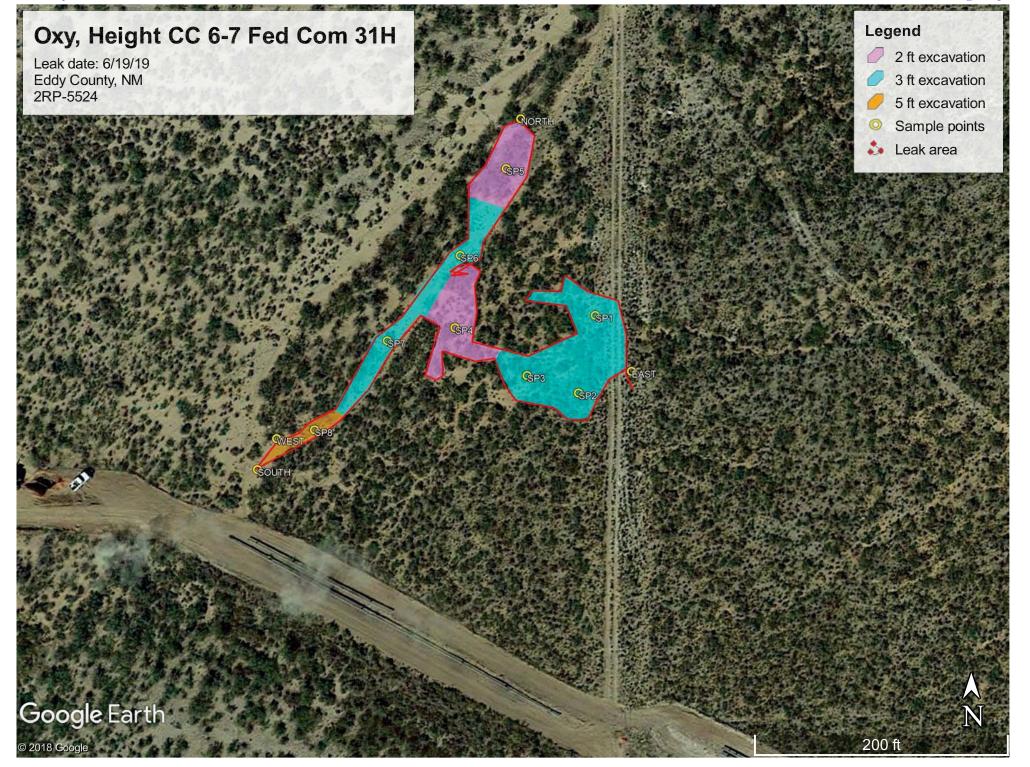
Laboratory data including chain of custody

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.

Form C-141 Page 4	State of New Mexico Oil Conservation Division	Di Fa	cident ID strict RP cility ID oplication ID	2RP-5524
regulations all operators are r public health or the environm failed to adequately investiga	mation given above is true and complete to the equired to report and/or file certain release no ent. The acceptance of a C-141 report by the te and remediate contamination that pose a the a C-141 report does not relieve the operator o	tifications and perform correct OCD does not relieve the oper eat to groundwater, surface wa	ive actions for rele ator of liability sho ater, human health	ases which may endanger ould their operations have or the environment. In
Printed Name: Wade	Dittrich	Title: Environme	ntal Coord	inator
Signature: 1 Yes	6 Ditte	Date: 11-2079		
email: wade_dittric	ch@oxy.com	Telephone: (575) 39	90-2828	
OCD Only				
Received by:		Date:		91

orm C-141	State of New Mex	ico	Incident ID	
age 5	Oil Conservation Div	vision	District RP	2RP-5524
			Facility ID	
			Application ID	
	Rem	ediation Pla	n	
Remediation Plan Chee	cklist: Each of the following items n	nust be included in the	plan.	
Scaled sitemap with	of proposed remediation technique GPS coordinates showing delineatior	n points		
	f material to be remediated	5 00 10(0)(4) NB (4 0		
	Table 1 specifications subject to 19.1 or remediation (note if remediation pl		n 90 days OCD approval is	required)
			upp.o.ul 15	······
Deferral Requests Only	: Each of the following items must	be confirmed as part o	f any request for deferral o	f remediation.
Contamination must deconstruction.	be in areas immediately under or aro	und production equipm	ent where remediation coul	d cause a major facility
Extents of contamina	ation must be fully delineated.			
Contamination does	not cause an imminent risk to human	health, the environmen	t, or groundwater.	
rules and regulations all which may endanger pub liability should their ope surface water, human hea	information given above is true and co operators are required to report and/o plic health or the environment. The ac rations have failed to adequately inve alth or the environment. In addition, ance with any other federal, state, or	r file certain release not cceptance of a C-141 re stigate and remediate c OCD acceptance of a C	tifications and perform corr port by the OCD does not r ontamination that pose a the 2-141 report does not relieve	ective actions for release elieve the operator of reat to groundwater,
Printed Name: Wade			ronmental Coord	inator
rinted Name:		Title:		
Signature: <u>Wode</u>	Littes	Date:	2019	
mail: wade_dittr	ich@oxy.com	Telenhone:	575) 390-2828	
OCD Only				
Received by:		Date:		
Approved [	Approved with Attached Condition			ferral Approved
			-	

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Oxy, Height CC 6-7 Fed Com 31H

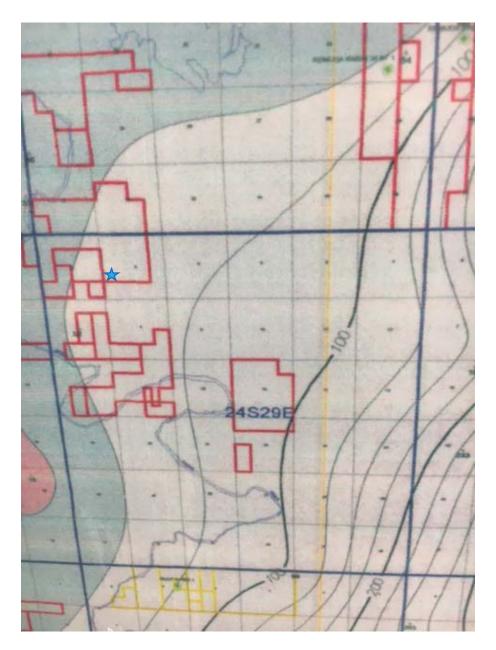
Sample points

SP1, N 32.24353 W-104.01334 SP2, N 32.24336 W-104.01338 SP3, N 32.24340 W-104.01352 SP4, N 32.24350 W-104.01370 SP5, N 32.24385 W-104.01357 SP6, N 32.24366 W-104.01369 SP7, N 32.24347 W-104.01388 SP8, N 32.24328 W-104.01406 NORTH, N 32.24396 W-104.01353

SOUTH, N 32.24319 W-104.01421 EAST, N 32.24341 W-104.01325

WEST, N 32.24326 W-104.01416

# Oxy, Height CC 6-7 Fed Com 31H U/L L, Section 5, T24S, R29E Groundwater: 50'-75'





National Water Information System: Web Interface USGS Water Resources USGS Home Contact USGS Search USGS

 Data Category:
 Geographic Area:

 Groundwater
 V

Click to hideNews Bulletins

Introducing The Next Generation of USGS Water Data for the Nation

• Full News 🔊

Groundwater levels for New Mexico

Click to hide state-specific text

#### Search Results -- 1 sites found

Agency code = usgs

site\_no list = • 321355104012001

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

#### USGS 321355104012001 24S.29E.07.14444

Eddy County, New Mexico Latitude 32°13'55", Longitude 104°01'20" NAD27 Land-surface elevation 2,983 feet above NAVD88 The depth of the well is 160 feet below land surface. This well is completed in the Castile Formation (312CSTL) 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 measureme
1983-02-01		D	47.14			2		U		
1987-10-16		D	51.84			2		U		
1988-02-11		D	52.19			2		U		
1992-10-20		D	51.78			2		S		

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	S	Steel-tape measurement.						
Method of measurement	U	Unknown method.						
Measuring agency		Not determined						
Source of measurement	U	Source is unknown.						
Water-level approval status	А	Approved for publication Processing and review completed.						

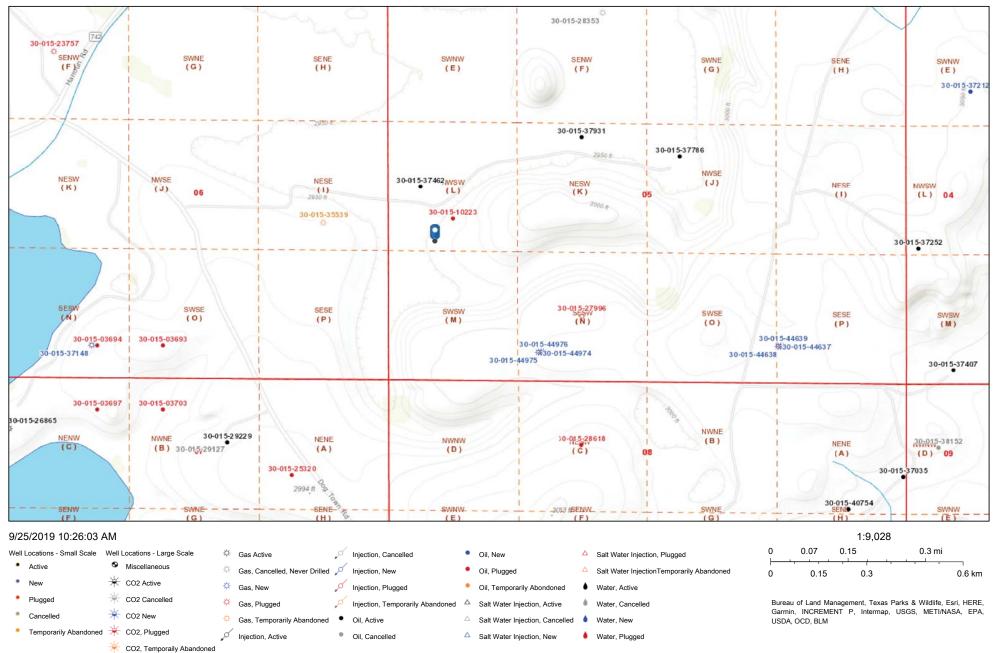
Questions about sites/data? Feedback on this web site Automated retrievals Help Data Tips Explanation of terms Subscribe for system changes News

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

Page Contact Information: <u>New Mexico Water Data Maintainer</u> Page Last Modified: 2019-09-25 12:31:42 EDT 0.53 0.5 nadww02 USA.gov

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## Oxy, Height CC 6-7 Fed Com 31H



New Mexico Oil Conservation Division NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/: New Mexico Oil Conservation Division Received by OCD: 11/21/2019 4:47:28 PM

## Oxy, Height CC 6-7 Fed Com 31H

Leak date: 6/19/19 Eddy County, NM 2RP-5524

## **BLM CAVE KARST**

Legend

🚴 Leak area

Medium potential

Google Earth

© 2018 Google

Dog town by

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32°14'51.78"N

250

500

1,000

1,500

"-8

## National Flood Hazard Layer FIRMette



Page 12 of 53 Legend SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT Without Base Flood Elevation (BFE) With BFE or Depth Zone AE, AO, AH, VE, AR SPECIAL FLOOD HAZARD AREAS **Regulatory Floodway** 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 OTHER AREAS OF Area with Flood Risk due to Levee Zone D FLOOD HAZARD NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs OTHER AREAS Area of Undetermined Flood Hazard Zone D GENERAL - - - Channel, Culvert, or Storm Sewer STRUCTURES LIIII Levee, Dike, or Floodwall 20.2 Cross Sections with 1% Annual Chance 17.5 Water Surface Elevation - - Coastal Transect (8)-Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary --- Coastal Transect Baseline OTHER Profile Baseline FEATURES Hydrographic Feature **Digital Data Available** No Digital Data Available MAP PANELS  $\mathbf{X}$ Unmapped The pin displayed on the map is an approximate 0 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 9/25/2019 at 12:48:24 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.

32°14'21.35"N



Feet

2,000

1:6,000

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#### Laboratory Analytical Results Summary Height CC 6-7 Fed Com 31H (6/19/19)

		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	WEST @ SURFACE	SOUTH @ SURFACE
Analyte	Method	Date	10/22/19	10/22/19	10/22/19	10/22/19
			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	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500CI-B		16	<16.0	<16.0	32
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

			SP1 @				
		Sample ID	SURFACE	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 4'
Analyte	Method	Date	10/22/19	10/22/19	10/22/19	10/22/19	10/23/19
			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	SM4500CI-B		4720	3880	2480	640	32
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

			SP2 @					
		Sample ID	SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'	SP2 @ 5'
Analyte	Method	Date	10/22/19	10/22/19	10/22/19	10/22/19	10/30/19	10/30/19
			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		<0.050	<0.050	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a
Chloride	SM4500CI-B		4960	1260	1970	688	<16.0	32
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	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 4'	SP3 @ 5'
Analyte	Method	Date	10/23/19	10/23/19	10/23/19	10/23/19	10/30/19	10/30/19
			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		<0.050	<0.050	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a
Chloride	SM4500CI-B		4960	720	1920	720	16	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

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#### Laboratory Analytical Results Summary Height CC 6-7 Fed Com 31H (6/19/19)

		Sample ID	SP4 @ SURFACE	SP4 @ 1'	SP4 @ 2'
Analyte	Method	Date	10/23/19	10/23/19	10/23/19
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a
Chloride	SM4500CI-B		32	1070	112
GRO	TPH 8015M		<10.0	<10.0	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a

			SP5 @					
		Sample ID	SURFACE	SP5 @ 1'	SP5 @ 2'	SP5 @ 3'	SP5 @ 4'	SP5 @ 5'
Analyte	Method	Date	10/30/19	10/30/19	10/30/19	10/30/19	10/30/19	10/30/19
			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		<0.050	<0.050	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a
Chloride	SM4500CI-B		6160	1800	512	592	<16.0	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

			SP6 @					
		Sample ID	SURFACE	SP6 @ 1'	SP6 @ 2'	SP6 @ 3'	SP6 @ 4'	SP6 @ 5'
Analyte	Method	Date	10/30/19	10/30/19	10/30/19	10/30/19	10/30/19	10/30/19
			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		<0.050	<0.050	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a
Chloride	SM4500CI-B		6320	1090	560	608	32	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

			SP7 @					
		Sample ID	SURFACE	SP7 @ 1'	SP7 @ 2'	SP7 @ 3'	SP7 @ 4'	SP7 @ 5'
Analyte	Method	Date	10/30/19	10/30/19	10/30/19	10/30/19	10/30/19	10/30/19
			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		<0.050	<0.050	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a
Chloride	SM4500CI-B		5200	1170	1310	1340	16	<16.0
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

#### Laboratory Analytical Results Summary Height CC 6-7 Fed Com 31H (6/19/19)

			SP8 @						
		Sample ID	SURFACE	SP8 @ 1'	SP8 @ 2'	SP8 @ 3'	SP8 @ 4'	SP8 @ 5'	SP8 @ 6'
Analyte	Method	Date	10/30/19	10/30/19	10/30/19	10/30/19	10/30/19	10/30/19	10/30/19
			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	SM4500CI-B		4480	1340	1360	1260	1070	16	<16.0
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



November 05, 2019

Cliff Brunson BBC International, Inc. P.O. Box 805 Hobbs, NM 88241

RE: HEIGHT CC 6-7 FED COM 31H

Enclosed are the results of analyses for samples received by the laboratory on 10/30/19 17:02.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accred certif.html.

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	10/30/2019	Sampling Date:	10/22/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: NORTH @ SURFACE (H903712-01)

BTEX 8021B	mg,	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID 101 % 73.3-129

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/04/2019	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	228	114	200	7.39	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	226	113	200	8.27	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	102	% 41-142							
Surrogate: 1-Chlorooctadecane	105	% 37.6-14	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/30/2019	Sampling Date:	10/22/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: EAST @ SURFACE (H903712-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	6 73.3-12	9						
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	11/04/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	228	114	200	7.39	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	226	113	200	8.27	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	96.3 9	% 41-142	,						
Surrogate: 1-Chlorooctadecane	99.4	% 37.6-14	7						

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



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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:	10/30/2019	Sampling Date:	10/22/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: WEST @ SURFACE (H903712-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	73.3-12	9						
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	11/04/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	228	114	200	7.39	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	226	113	200	8.27	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	100 \$	% 41-142	,						
Surrogate: 1-Chlorooctadecane	103 9	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/30/2019	Sampling Date:	10/22/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SOUTH @ SURFACE (H903712-04)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/04/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	228	114	200	7.39	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	226	113	200	8.27	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	107 %	6 41-142	,						
Surrogate: 1-Chlorooctadecane	110 %	6 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/30/2019	Sampling Date:	10/22/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 1 @ SURFACE (H903712-05)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.6	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4720	16.0	11/04/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	222	111	200	3.50	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	221	111	200	2.54	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	103 9	% 41-142	,						
Surrogate: 1-Chlorooctadecane	104 9	% 37.6-14	7						

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



## **CARDINAL** Laboratories

#### Analytical Results For:

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

Received:	10/30/2019	Sampling Date:	10/22/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 1 @ 1' (H903712-06)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3880	16.0	11/04/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	222	111	200	3.50	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	221	111	200	2.54	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	102 9	% 41-142	,						
Surrogate: 1-Chlorooctadecane	104 9	% 37.6-14	7						

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/30/2019	Sampling Date:	10/22/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 1 @ 2' (H903712-07)

Chloride, SM4500Cl-B	hloride, SM4500Cl-B mg/kg		Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2480	16.0	11/04/2019	ND	432	108	400	0.00	

#### Sample ID: SP 1 @ 3' (H903712-08)

Chloride, SM4500Cl-B mg/kg		Analyze	d By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	11/04/2019	ND	432	108	400	0.00	

#### Sample ID: SP 1 @ 4' (H903712-09)

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	11/04/2019	ND	432	108	400	0.00	

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



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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:	10/30/2019	Sampling Date:	10/22/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 2 @ SURFACE (H903712-10)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 \$	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4960	16.0	11/04/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	222	111	200	3.50	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	221	111	200	2.54	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	99.4	% 41-142							
Surrogate: 1-Chlorooctadecane	102 9	37.6-14	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/30/2019	Sampling Date:	10/22/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 2 @ 1' (H903712-11)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1260	16.0	11/04/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	222	111	200	3.50	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	221	111	200	2.54	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	92.3	% 41-142							
Surrogate: 1-Chlorooctadecane	94.4	% 37.6-14	7						

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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:	10/30/2019	Sampling Date:	10/22/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 2 @ 2' (H903712-12)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1970	16.0	11/04/2019	ND	400	100	400	7.69	

#### Sample ID: SP 2 @ 3' (H903712-13)

Chloride, SM4500Cl-B mg/kg			Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	11/04/2019	ND	400	100	400	7.69	

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/30/2019	Sampling Date:	10/23/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 3 @ SURFACE (H903712-14)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4960	16.0	11/04/2019	ND	400	100	400	7.69	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	222	111	200	3.50	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	221	111	200	2.54	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	97.9 \$	% 41-142	,						
Surrogate: 1-Chlorooctadecane	102 9	6 37.6-14	7						

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#### \*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Page 12 of 20



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

Received:	10/30/2019	Sampling Date:	10/23/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 3 @ 1' (H903712-15)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	11/04/2019	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	222	111	200	3.50	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	221	111	200	2.54	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	90.7	% 41-142							
Surrogate: 1-Chlorooctadecane	91.5	% 37.6-14	7						

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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:	10/30/2019	Sampling Date:	10/23/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 3 @ 2' (H903712-16)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1920	16.0	11/04/2019	ND	400	100	400	7.69	

#### Sample ID: SP 3 @ 3' (H903712-17)

Chloride, SM4500Cl-B mg/kg			Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	11/04/2019	ND	400	100	400	7.69	

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/30/2019	Sampling Date:	10/23/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 4 @ SURFACE (H903712-18)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.2	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/04/2019	ND	400	100	400	7.69	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	222	111	200	3.50	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	221	111	200	2.54	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	99.2	% 41-142	,						
Surrogate: 1-Chlorooctadecane	103 9	% 37.6-14	7						

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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:	10/30/2019	Sampling Date:	10/23/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 4 @ 1' (H903712-19)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 \$	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1070	16.0	11/04/2019	ND	400	100	400	7.69	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	222	111	200	3.50	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	221	111	200	2.54	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	101 9	% 41-142							
Surrogate: 1-Chlorooctadecane	105 9	% 37.6-14	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/30/2019	Sampling Date:	10/23/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	6-19-19	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 4 @ 2' (H903712-20)

Chloride, SM4500CI-B	mg,	/kg	Analyze	zed By: AC										
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier					
Chloride	112	16.0	11/04/2019	ND	400	100	400	7.69						

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Celey D. Keene, Lab Director/Quality Manager



#### **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager





ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

	(505) 393-2326 FAX (505) 393-247	6											5											
Company Name	e: BBC International, Inc.									B	377	LTO						ANA	LYSI	S RE	QUE	ST		
Project Manage	er: Cliff Brunson							P.O. #:																
Address: P.O	. Box 805							Company: 🔿 🗴 🧹																
City: Hobbs	State: NM	Zip	o: 8	882					Attn: W. D, Hrich															
Phone #: 575-	-397-6388 Fax #: 575	-39	7-0						dres					1										
Project #:	Project Owner	r: 0	ху					Cit	y:					1										
Project Name:	HEIGHT CC 6-7 FED COM 31H -			9				Sta	ate:		2	Zip:												
Project Locatio	n:							Ph	one	#:				17		× ×								
Sampler Name:	JEFF ORNELAS							Fa	x #:					2		W								
FOR LAB USE ONLY					Ν	IATRI	X		PRE	SER	V.	SAMPL	NG	, 0	×									
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	UITER.	DATE	TIME	Chlor	÷	TPH							2	
(	NORTH @ SURFACE	G	1					_		1		10-22-19		1	1	1								
2	EAST @ SURFACE	$\square$	1							1	_	10-22-19	SALE AND AND A	$\checkmark$	$\checkmark$	$\checkmark$								
3	WEST @ SURFACE	11	11					_	_		-	10-22-19		$\checkmark$	$\checkmark$	$\checkmark$								
4	SOUTH @ SURFACE	11	11			$\square$					-	10-22-19	TRUE WARDEN CONTRACTOR	$\checkmark$	$\checkmark$	$\checkmark$								
S	SP1 @ SURFACE	$\square$	11	-		1		_			-	10-22-19		$\checkmark$	$\checkmark$	1								
9	SP1 @ 1'	$\mathbb{H}$	H		_	1	_	-		1	-	10-22-19		1	~	$\checkmark$				ļ				
	SP1 @ 2'	$\square$	₽			1				-	-	10-22-19	Contraction and Contraction of Contr	1			-							
Š 9	SP1 @ 3' SP1 @ 4'	H	╟	-							-	10-22-19		V									 	
			1			1		_		1	_	10-23-19		1									 	
10	SP2 @ SURFACE	11	1			4			1 3	J		10-22-19	11:35	1	1	1								

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or fort, 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 consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its substaliaries,

affiliates or successors arising-out of or related to the performance of services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: Received By: 10-30-19 Fime: 17:02 Date: Received By:	Phone Result: Fax Result: REMARKS:	□ Yes □ Yes	□ No □ No	Add'I Phone #: Add'I Fax #:
	Time:				
Delivered By: (Circle One) 573	S #97 Sample Condition CHECKED BY:	-			
Sampler - UPS - Bus - Other:	Natural 5.9 Pres res Va				
	Will Ore No No Y				

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

Page 20 of 20

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### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES

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

	BBC International, Inc.							BILL TO								D.	ANA	LYSIS	S RE	QUE	ST			
Project Manage	er: Cliff Brunson							Ρ.	O. #:	0														
Address: P.O	. Box 805							Company:																
City: Hobbs	State: NM	Zip	): {	38241 A					Attn:															
Phone #: 575-	397-6388 Fax #: 575-	-39	7-0	and the second se					dres	ss:														
Project #:	Project Owner	: 0	ху	/					y:															
Project Name:	HEIGHT CC 6-7 FED COM 31H -	6-1	9-1	9				Sta	ate:	0	j.	Zip:												
Project Locatio	n:							Ph	one	#:				2		X								
Sampler Name:	JEFF ORNELAS							Fa	x #:					10		¥								
FOR LAB USE ONLY			1		M	ATRI	x		PRE	SER	V.	SAMPLI	NG	~ 10	~	M								
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SUL	SLUDGE	DTHER :	ACID/BASE:	CE / COOL	UIHEK:	DATE	TIME	Chloridos	BTEX	TPH								
11	SP2 @ 1'	B	1			/				1		10-22-19	11:51	1	1	1								
12	SP2 @ 2'	1	1			1				1		10-22-19	1:11	$\checkmark$				-						
13	SP2 @ 3'	Π	Π									10-22-19	1:41	1										
14	SP3 @ SURFACE		$\prod$									10-23-19	9:10	1	1	$\checkmark$								
15	SP3 @ 1'		Ц									10-23-19	9:30	$\checkmark$	$\checkmark$	1								
	SP3 @ 2'											10-23-19	9:49	$\checkmark$										
	SP3 @ 3'											10-23-19	10:10	1										
	SP4 @ SURFACE											10-23-19	10:30	$\checkmark$	$\checkmark$	$\checkmark$	0							
	SP4 @ 1'		$\prod$									10-23-19	10:50	$\checkmark$	$\checkmark$	1								
20	SP4 @ 2'	1	1			ł				4		10-23-19	11:15	1										

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Relinquished By:	Date: 20 19	Received By:		Phone Result:	Yes	□ No	Add'I Phone #:
1 n 1	10-20-17	D	11/1/1	Fax Result:	Yes	🗆 No	Add'I Fax #:
1/ the to	Time:	nunka	Winton	REMARKS:			
Relinguished By:	Date:	Received By:	and ge				
		licoonica by.					
	Time:						
Delivered By: (Circle One)	-0	10- Comple Cond					
Delivered by. (Circle Offe) 5.5	2 2	#97 Sample Condi Cool Intact	tion CHECKED BY: (Initials)				
Sampler - UPS - Bus - Other:	· + A.	The Pres Fr					
1	rected	5, 92 NO NO					

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

-14



November 05, 2019

Cliff Brunson BBC International, Inc. P.O. Box 805 Hobbs, NM 88241

RE: HEIGHT CC 6-7 FED COM 31H

Enclosed are the results of analyses for samples received by the laboratory on 10/31/19 16:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accred certif.html.

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

#### Sample ID: SP 2 @ 4' (H903727-01)

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	11/04/2019	ND	416	104	400	0.00	

## Sample ID: SP 2 @ 5' (H903727-02)

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	11/04/2019	ND	416	104	400	0.00	

### Sample ID: SP 3 @ 4' (H903727-03)

Chloride, SM4500Cl-B	mg	/kg	Analyzed By						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/04/2019	ND	416	104	400	0.00	

## Sample ID: SP 3 @ 5' (H903727-04)

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	11/04/2019	ND	416	104	400	0.00	

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

## Sample ID: SP 5 @ SURFACE (H903727-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6160	16.0	11/04/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	222	111	200	3.50	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	221	111	200	2.54	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	83.9	% 41-142	2						

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Celey D. Keene, Lab Director/Quality Manager



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Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

## Sample ID: SP 5 @ 1' (H903727-06)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.8	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1800	16.0	11/04/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2019	ND	222	111	200	3.50	
DRO >C10-C28*	<10.0	10.0	11/01/2019	ND	221	111	200	2.54	
EXT DRO >C28-C36	<10.0	10.0	11/01/2019	ND					
Surrogate: 1-Chlorooctane	82.2	% 41-142	,						
Surrogate: 1-Chlorooctadecane	81.5	% 37.6-14	7						

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Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

## Sample ID: SP 5 @ 2' (H903727-07)

Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	11/04/2019	ND	416	104	400	0.00	

## Sample ID: SP 5 @ 3' (H903727-08)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	592	16.0	11/04/2019	ND	416	104	400	0.00			

#### Sample ID: SP 5 @ 4' (H903727-09)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/04/2019	ND	416	104	400	0.00	

## Sample ID: SP 5 @ 5' (H903727-10)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/04/2019	ND	416	104	400	0.00	

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Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

## Sample ID: SP 6 @ SURFACE (H903727-11)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6320	16.0	11/04/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2019	ND	226	113	200	0.366	
DRO >C10-C28*	<10.0	10.0	11/04/2019	ND	225	113	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	11/04/2019	ND					
Surrogate: 1-Chlorooctane	100 9	% 41-142	,						
Surrogate: 1-Chlorooctadecane	103	% 37.6-14	7						

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Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

## Sample ID: SP 6 @ 1' (H903727-12)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.91	95.7	2.00	0.880	
Toluene*	<0.050	0.050	11/04/2019	ND	1.92	95.9	2.00	0.915	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.95	97.7	2.00	0.787	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.83	97.2	6.00	0.829	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.4	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1090	16.0	11/04/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2019	ND	226	113	200	0.366	
DRO >C10-C28*	<10.0	10.0	11/04/2019	ND	225	113	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	11/04/2019	ND					
Surrogate: 1-Chlorooctane	99.3	% 41-142	2						
Surrogate: 1-Chlorooctadecane	102 9	% 37.6-14	7						

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Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

## Sample ID: SP 6 @ 2' (H903727-13)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	11/04/2019	ND	416	104	400	0.00	

## Sample ID: SP 6 @ 3' (H903727-14)

Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	11/04/2019	ND	416	104	400	0.00	

#### Sample ID: SP 6 @ 4' (H903727-15)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/04/2019	ND	400	100	400	3.92	

## Sample ID: SP 6 @ 5' (H903727-16)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/04/2019	ND	400	100	400	3.92	

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Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

## Sample ID: SP 7 @ SURFACE (H903727-17)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.94	97.2	2.00	4.64	
Toluene*	<0.050	0.050	11/04/2019	ND	1.65	82.3	2.00	8.51	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.66	83.1	2.00	11.0	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.37	89.4	6.00	5.15	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5200	16.0	11/04/2019	ND	400	100	400	3.92	
TPH 8015M	mg/	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2019	ND	226	113	200	0.366	
DRO >C10-C28*	<10.0	10.0	11/04/2019	ND	225	113	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	11/04/2019	ND					
Surrogate: 1-Chlorooctane	94.8	% 41-142	,						
Surrogate: 1-Chlorooctadecane	96.4	% 37.6-14	7						

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Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

## Sample ID: SP 7 @ 1' (H903727-18)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.94	97.2	2.00	4.64	
Toluene*	<0.050	0.050	11/04/2019	ND	1.65	82.3	2.00	8.51	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.66	83.1	2.00	11.0	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.37	89.4	6.00	5.15	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1170	16.0	11/04/2019	ND	400	100	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2019	ND	226	113	200	0.366	
DRO >C10-C28*	<10.0	10.0	11/04/2019	ND	225	113	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	11/04/2019	ND					
Surrogate: 1-Chlorooctane	93.3	% 41-142							
Surrogate: 1-Chlorooctadecane	94.8	% 37.6-14	7						

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Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

## Sample ID: SP 7 @ 2' (H903727-19)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1310	16.0	11/04/2019	ND	400	100	400	3.92	

## Sample ID: SP 7 @ 3' (H903727-20)

Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1340	16.0	11/04/2019	ND	400	100	400	3.92	

## Sample ID: SP 7 @ 4' (H903727-21)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/04/2019	ND	400	100	400	3.92	

## Sample ID: SP 7 @ 5' (H903727-22)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/04/2019	ND	400	100	400	3.92	

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Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

## Sample ID: SP 8 @ SURFACE (H903727-23)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.94	97.2	2.00	4.64	
Toluene*	<0.050	0.050	11/04/2019	ND	1.65	82.3	2.00	8.51	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.66	83.1	2.00	11.0	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.37	89.4	6.00	5.15	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4480	16.0	11/04/2019	ND	400	100	400	3.92	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2019	ND	212	106	200	4.55	
DRO >C10-C28*	<10.0	10.0	11/04/2019	ND	206	103	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/04/2019	ND					
Surrogate: 1-Chlorooctane	83.5	% 41-142							
Surrogate: 1-Chlorooctadecane	86.6	% 37.6-14	7						

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Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

## Sample ID: SP 8 @ 1' (H903727-24)

BTEX 8021B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/04/2019	ND	1.94	97.2	2.00	4.64	
Toluene*	<0.050	0.050	11/04/2019	ND	1.65	82.3	2.00	8.51	
Ethylbenzene*	<0.050	0.050	11/04/2019	ND	1.66	83.1	2.00	11.0	
Total Xylenes*	<0.150	0.150	11/04/2019	ND	5.37	89.4	6.00	5.15	
Total BTEX	<0.300	0.300	11/04/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1340	16.0	11/04/2019	ND	400	100	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2019	ND	212	106	200	4.55	
DRO >C10-C28*	<10.0	10.0	11/04/2019	ND	206	103	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/04/2019	ND					
Surrogate: 1-Chlorooctane	82.3	% 41-142	,						
Surrogate: 1-Chlorooctadecane	82.9	% 37.6-14	7						

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Received:	10/31/2019	Sampling Date:	10/30/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	HEIGHT CC 6-7 FED COM 31H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

## Sample ID: SP 8 @ 2' (H903727-25)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1360	16.0	11/04/2019	ND	400	100	400	3.92	

## Sample ID: SP 8 @ 3' (H903727-26)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1260	16.0	11/04/2019	ND	400	100	400	3.92	

#### Sample ID: SP 8 @ 4' (H903727-27)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1070	16.0	11/04/2019	ND	400	100	400	3.92	

## Sample ID: SP 8 @ 5' (H903727-28)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/04/2019	ND	400	100	400	3.92	

### Sample ID: SP 8 @ 6' (H903727-29)

Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/04/2019	ND	400	100	400	3.92	

#### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

## **Notes and Definitions**

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.
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 SM4500CI-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**

#### \*=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

# Page 16 of 18



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

RDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240

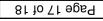
	(505) 393-2326 FAX (505) 393-2476 any Name: BBC International. Inc. BILL TO																					
Company Name	BBC International, Inc.								BIL	LTO	a 🚺 I.				A	NAL	YSIS	REC	QUES	т		
Project Manager	Cliff Brunson					F	P.O.	#:														
Address: P.O.	Box 805							pany		Qiy												
city: Hobbs	State: NM	Zip	: 8	8241		1	Attn	: W	2.	Di Hrich	n											
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FOR LAB USE ONLY		O. MATF						RESE	RV.	SAMPLI	١G	10	7									
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† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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101 East Marland, Hobbs, NM 88240

	(505) 393-2326 FAX (505) 393-2476 BBC International, Inc. BILL TO													-	_	_							
Company Name:	BBC International, Inc.								B	IL	LTO					A	NAL	YSIS	REC	QUES	ST	 	
	: Cliff Brunson						P.0	D. #:		_													
Address: P.O.	Box 805						_	mpa			Ody												
City: Hobbs	State: NM	Zip	: 8	824	1		At	tn: \	N-	0	i thrick	\											
Phone #: 575-3	97-6388 Fax #: 575-	397	7-03	397			Ad	dres	s:		Marine -	·											
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19	5P7@2' SP7@3'	V	N		V	-	-		V		10.30	1:52	15										
10	50 70 3	4	1 1		V		_	1	18 Y.	_	10 00	1.1							-			 	

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affiliates or successors arising out of or related to the performance	of services hereunder by C	ardinal, regardless of whether such claims	s based upon any of the doore blates is	Diseas Desults	Yes	🗆 No	Add'l Phone #:	
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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 18 of 18



ARDINAL LABORATORIES

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name	BBC International, Inc.									BI	LL TO						YSIS	RE	QUE	ST		 
Project Manage	r: Cliff Brunson						F	P.O.	#:				T									_
Address: P.O	Box 805						c	Com	pany	:	Ox 1		1									
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