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## DELINEATION/REMEDATION WORKPLAN

### OXY – MESQUITE MOUTRAY SWD (Leak Date: 7/6/19)

#### RP # 2RP-5584

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This delineation workplan and remediation proposal addresses the releases associated with RP # 2RP-5584.

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 near SP1, SP2, SP5 and SP6 (BLUE shade on diagram) will be excavated to a depth of 2 feet. The leak area near SP3 (PURPLE shade on diagram) will be excavated to a depth of 3 feet. The leak area near SP4 (GREEN shade on diagram) will be excavated to a depth of 4 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.

Form C-141

Page 3

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-5584
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?	<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 checked="" type="checkbox"/> Yes <input 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 <b>not</b> 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.

Form C-141

Page 4

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-5584
Facility ID	
Application ID	

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

Printed Name: Wade Dittrich Title: Environmental CoordinatorSignature: Date: 11-15-19email: wade\_dittrich@oxy.comTelephone: (575) 390-2828**OCD Only**

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

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

Form C-141

Page 5

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-5584
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: 11-5-19  
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: \_\_\_\_\_

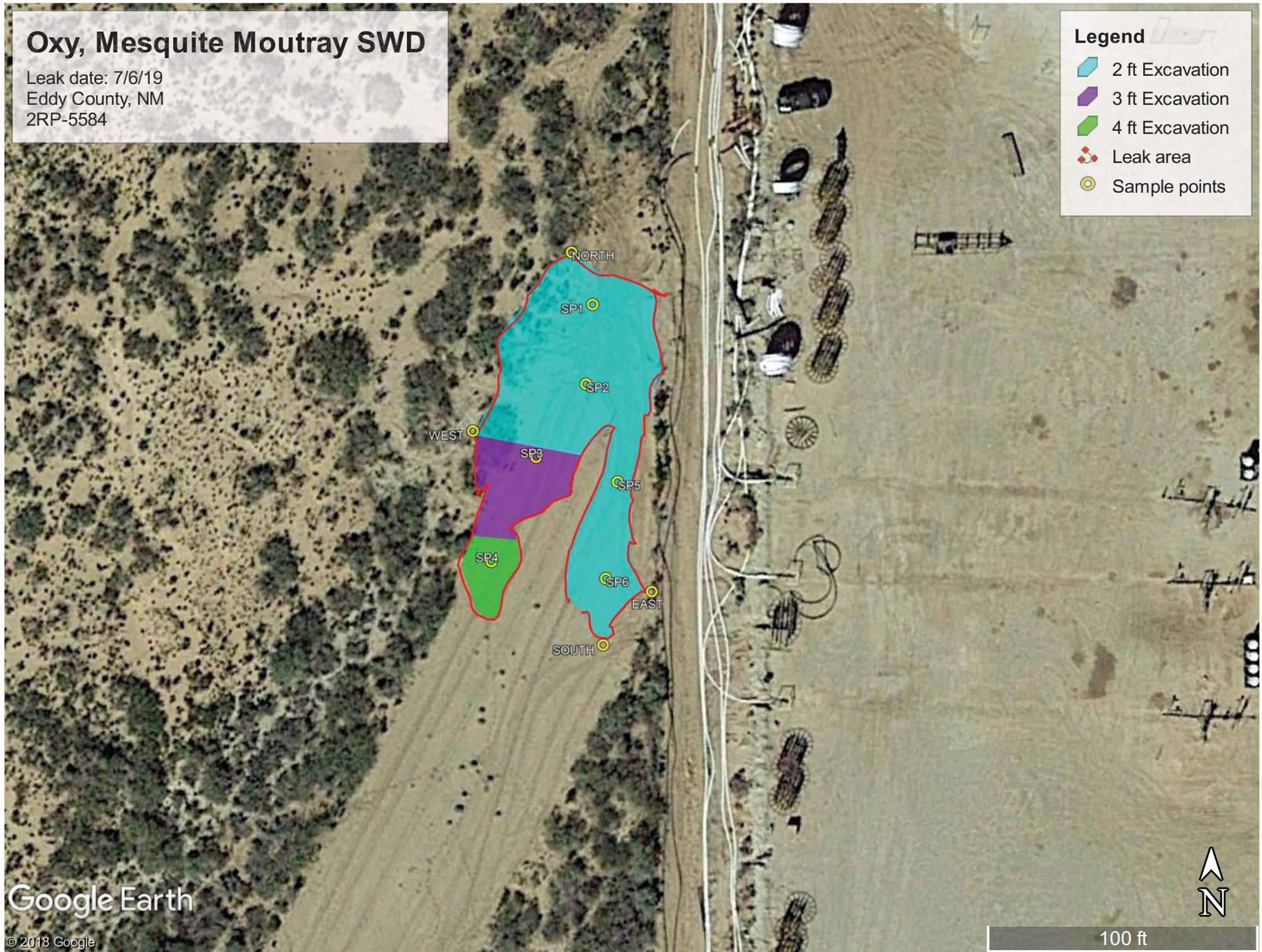


# Oxy, Mesquite Moutray SWD

Leak date: 7/6/19  
Eddy County, NM  
2RP-5584

## Legend

-  2 ft Excavation
-  3 ft Excavation
-  4 ft Excavation
-  Leak area
-  Sample points



Oxy, Mesquite Moutray SWD

Sample points

SP1, N 32.19897 W-103.98095

SP2, N 32.19889 W-103.98096

SP3, N 32.19881 W-103.98102

SP4, N 32.19871 W-103.98108

SP5, N 32.19879 W-103.98092

SP6, N 32.19869 W-103.98094

NORTH, N 32.19902 W-103.98098

SOUTH, N 32.19862 W-103.98094

EAST, N 32.19868 W-103.98088

WEST, N 32.19884 W-103.98110



**Oxy, Mesquite Moutray SWD Facility**  
**U/L P, Section 21, T24S, R29E**  
**Groundwater: 75'-100'**





USGS Home  
Contact USGS  
Search USGS

## National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater ▼

Geographic Area:

New Mexico ▼

GO

Click to hide News Bulletins

- [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

Available data for this site

Groundwater: Field measurements ▼

GO

Eddy County, New Mexico

Hydrologic Unit Code --

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

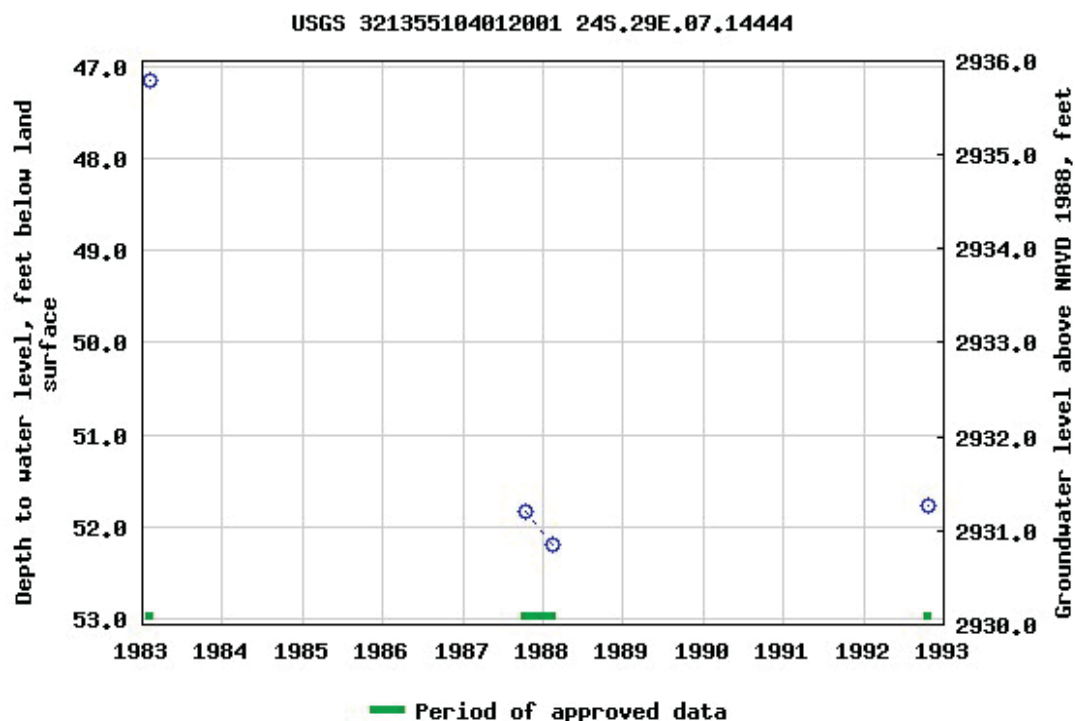
[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)





Breaks in the plot represent a gap of at least one year between field measurements.

[Download a presentation-quality graph](#)

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**Title: Groundwater for New Mexico: Water Levels**

**URL: [https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?](https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?site_no=321355104012001&agency_c...)**



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

Page Last Modified: 2019-07-23 11:10:54 EDT

0.92 0.87 nadww02





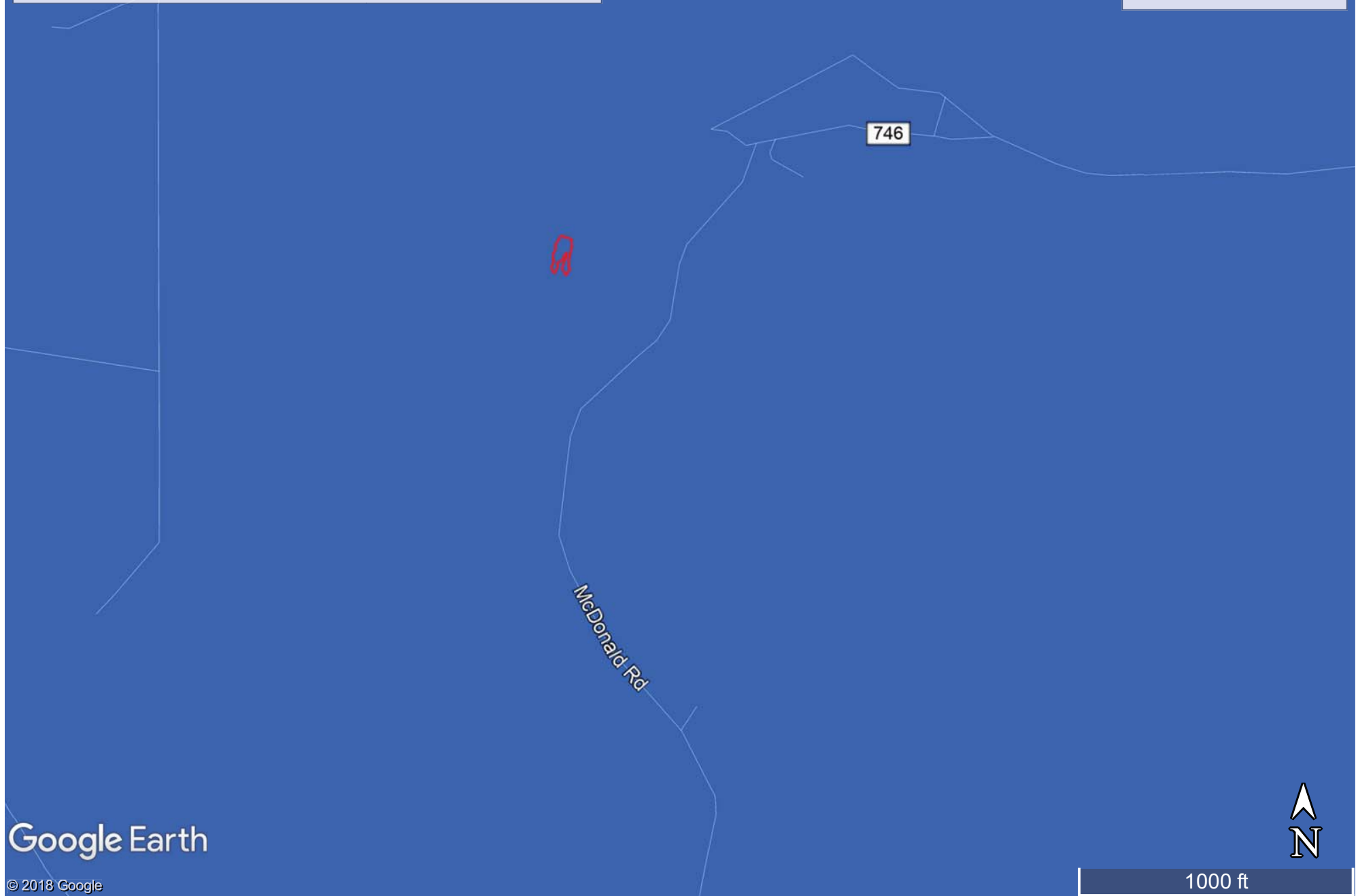
## Oxy, Mesquite Moutray SWD Facility

Leak date: 7/6/19  
Eddy County, NM

## BLM CAVE KARST MAP

### Legend

-  Leak area
-  Medium potential





## National Flood Hazard Layer FIRMette



32°12'10.40"N

103°59'10.15"W



USGS The National Map: Orthoimagery. Data refreshed April, 2019.

103°58'32.69"W

0 250 500 1,000 1,500 2,000 Feet

1:6,000

32°11'39.96"N

## 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		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		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile 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 7/23/2019 at 11:24:44 AM 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  
Mesquite Moutray SWD Facility (7/6/19)

		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	WEST @ SURFACE	SOUTH @ SURFACE
Analyte	Method	Date	10/14/19	10/14/19	10/14/19	10/14/19
			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	SM4500Cl-B		80	48	48	64
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

		Sample ID	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 4'
Analyte	Method	Date	10/14/19	10/14/19	10/14/19	10/14/19	10/14/19
			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	SM4500Cl-B		128	2080	448	144	192
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a
DRO	TPH 8015M		2970	23.3	n/a	n/a	n/a
EXT DRO	TPH 8015M		882	14.1	n/a	n/a	n/a

		Sample ID	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'
Analyte	Method	Date	10/14/19	10/14/19	10/14/19	10/14/19	10/14/19
			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	SM4500Cl-B		8930	560	672	224	160
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a
DRO	TPH 8015M		2190	<10.0	n/a	n/a	n/a
EXT DRO	TPH 8015M		709	<10.0	n/a	n/a	n/a

		Sample ID	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 4'	SP3 @ 5'
Analyte	Method	Date	10/14/19	10/14/19	10/14/19	10/14/19	10/14/19	10/14/19
			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	SM4500Cl-B		11100	496	768	704	16	<16.0
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a
DRO	TPH 8015M		3530	<10.0	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		1080	<10.0	n/a	n/a	n/a	n/a

Laboratory Analytical Results Summary  
Mesquite Moutray SWD Facility (7/6/19)

		Sample ID	SP4 @ SURFACE	SP4 @ 1'	SP4 @ 2'	SP4 @ 3'	SP4 @ 4'	SP4 @ 5'
Analyte	Method	Date	10/14/19	10/15/19	10/15/19	10/15/19	10/15/19	10/15/19
			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	SM4500Cl-B		7730	5120	3760	656	240	240
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a
DRO	TPH 8015M		2460	<10.0	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		887	<10.0	n/a	n/a	n/a	n/a

		Sample ID	SP5 @ SURFACE	SP5 @ 1'	SP5 @ 2'	SP5 @ 3'
Analyte	Method	Date	10/15/19	10/15/19	10/15/19	10/15/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a
Chloride	SM4500Cl-B		13400	2240	128	48
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a	n/a

		Sample ID	SP6 @ SURFACE	SP6 @ 1'	SP6 @ 2'	SP6 @ 3'
Analyte	Method	Date	10/15/19	10/15/19	10/15/19	10/15/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a
Chloride	SM4500Cl-B		14200	2320	64	32
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a	n/a



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

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October 28, 2019

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: MESQUITE MOUTRAY SWD

Enclosed are the results of analyses for samples received by the laboratory on 10/21/19 16:30.

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,

A handwritten signature in black ink that reads "Coley D. Keene". The signature is written in a cursive style with a large, stylized 'C' at the beginning.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/21/2019  
 Reported: 10/28/2019  
 Project Name: MESQUITE MOUTRAY SWD  
 Project Number: 7/6/2019  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 10/14/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NORTH @ SURFACE (H903595-01)**

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	10/24/2019	ND	1.91	95.3	2.00	2.39		
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88		
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95		
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89		
Total BTEX	<0.300	0.300	10/24/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/24/2019	ND	432	108	400	3.64	

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	10/24/2019	ND	220	110	200	17.2	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	225	112	200	22.4	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 76.8 % 41-142

Surrogate: 1-Chlorooctadecane 76.6 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: EAST @ SURFACE (H903595-02)**

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	10/24/2019	ND	1.91	95.3	2.00	2.39		
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88		
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95		
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89		
Total BTEX	<0.300	0.300	10/24/2019	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	48.0	16.0	10/24/2019	ND	432	108	400	3.64	

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	10/24/2019	ND	220	110	200	17.2	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	225	112	200	22.4	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 84.9 % 41-142

Surrogate: 1-Chlorooctadecane 85.7 % 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:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: WEST @ SURFACE (H903595-03)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/24/2019	ND	1.91	95.3	2.00	2.39	
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88	
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95	
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89	
Total BTEX	<0.300	0.300	10/24/2019	ND					

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

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/24/2019	ND	432	108	400	3.64	

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	10/24/2019	ND	220	110	200	17.2	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	225	112	200	22.4	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 85.8 % 41-142

Surrogate: 1-Chlorooctadecane 85.5 % 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:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SOUTH @ SURFACE (H903595-04)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/24/2019	ND	1.91	95.3	2.00	2.39	
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88	
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95	
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89	
Total BTEX	<0.300	0.300	10/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 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	64.0	16.0	10/24/2019	ND	432	108	400	3.64	

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	10/24/2019	ND	220	110	200	17.2	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	225	112	200	22.4	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 84.1 % 41-142

Surrogate: 1-Chlorooctadecane 84.1 % 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:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 1 @ SURFACE (H903595-05)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2019	ND	1.91	95.3	2.00	2.39		
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88		
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95		
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89		
Total BTEX	<0.300	0.300	10/24/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 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	128	16.0	10/24/2019	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	220	110	200	17.2		
DRO >C10-C28*	2970	10.0	10/24/2019	ND	225	112	200	22.4		
EXT DRO >C28-C36	882	10.0	10/24/2019	ND						

Surrogate: 1-Chlorooctane 81.6 % 41-142

Surrogate: 1-Chlorooctadecane 209 % 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:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 1 @ 1' (H903595-06)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2019	ND	1.91	95.3	2.00	2.39		
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88		
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95		
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89		
Total BTEX	<0.300	0.300	10/24/2019	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	2080	16.0	10/24/2019	ND	432	108	400	3.64		

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	10/24/2019	ND	220	110	200	17.2	
DRO >C10-C28*	23.3	10.0	10/24/2019	ND	225	112	200	22.4	
EXT DRO >C28-C36	14.1	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 86.9 % 41-142

Surrogate: 1-Chlorooctadecane 87.2 % 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:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 1 @ 2' (H903595-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	10/24/2019	ND	432	108	400	3.64		

**Sample ID: SP 1 @ 3' (H903595-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	10/24/2019	ND	432	108	400	3.64		

**Sample ID: SP 1 @ 4' (H903595-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	10/24/2019	ND	432	108	400	3.64		

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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:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 2 @ SURFACE (H903595-10)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2019	ND	1.91	95.3	2.00	2.39		
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88		
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95		
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89		
Total BTEX	<0.300	0.300	10/24/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 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	8930	16.0	10/24/2019	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	220	110	200	17.2		
DRO >C10-C28*	2190	10.0	10/24/2019	ND	225	112	200	22.4		
EXT DRO >C28-C36	709	10.0	10/24/2019	ND						

Surrogate: 1-Chlorooctane 78.3 % 41-142

Surrogate: 1-Chlorooctadecane 172 % 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:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 2 @ 1' (H903595-11)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/24/2019	ND	1.91	95.3	2.00	2.39	
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88	
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95	
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89	
Total BTEX	<0.300	0.300	10/24/2019	ND					

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

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	10/24/2019	ND	400	100	400	3.92	QM-07

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	10/25/2019	ND	220	110	200	17.2	
DRO >C10-C28*	<10.0	10.0	10/25/2019	ND	225	112	200	22.4	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					

Surrogate: 1-Chlorooctane 83.0 % 41-142

Surrogate: 1-Chlorooctadecane 84.0 % 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:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 2 @ 2' (H903595-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	10/24/2019	ND	400	100	400	3.92	

**Sample ID: SP 2 @ 3' (H903595-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	10/24/2019	ND	400	100	400	3.92	

**Sample ID: SP 2 @ 4' (H903595-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	10/24/2019	ND	400	100	400	3.92		

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 3 @ SURFACE (H903595-15)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/24/2019	ND	1.91	95.3	2.00	2.39	
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88	
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95	
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89	
Total BTEX	<0.300	0.300	10/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 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	11100	16.0	10/24/2019	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	220	110	200	17.2	
DRO >C10-C28*	3530	10.0	10/25/2019	ND	225	112	200	22.4	
EXT DRO >C28-C36	1080	10.0	10/25/2019	ND					

Surrogate: 1-Chlorooctane 85.4 % 41-142

Surrogate: 1-Chlorooctadecane 240 % 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:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 3 @ 1' (H903595-16)**

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	10/24/2019	ND	1.91	95.3	2.00	2.39	
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88	
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95	
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89	
Total BTEX	<0.300	0.300	10/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 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	496	16.0	10/24/2019	ND	400	100	400	3.92	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	217	109	200	2.92	QM-07
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 88.8 % 41-142

Surrogate: 1-Chlorooctadecane 99.5 % 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:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 3 @ 2' (H903595-17)**

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	10/24/2019	ND	400	100	400	3.92	

**Sample ID: SP 3 @ 3' (H903595-18)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	10/24/2019	ND	400	100	400	3.92	

**Sample ID: SP 3 @ 4' (H903595-19)**

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	10/24/2019	ND	400	100	400	3.92	

**Sample ID: SP 3 @ 5' (H903595-20)**

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	10/24/2019	ND	400	100	400	3.92		

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**Analytical Results For:**

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

Received:	10/21/2019	Sampling Date:	10/14/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 4 @ SURFACE (H903595-21)**

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	10/24/2019	ND	1.91	95.3	2.00	2.39		
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88		
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95		
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89		
Total BTEX	<0.300	0.300	10/24/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7730	16.0	10/24/2019	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	2460	10.0	10/24/2019	ND	211	106	200	2.41	QM-07
EXT DRO >C28-C36	887	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 90.2 % 41-142

Surrogate: 1-Chlorooctadecane 210 % 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:	10/21/2019	Sampling Date:	10/15/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 4 @ 1' (H903595-22)**

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	10/24/2019	ND	1.91	95.3	2.00	2.39	
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88	
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95	
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89	
Total BTEX	<0.300	0.300	10/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 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	5120	16.0	10/24/2019	ND	400	100	400	3.92	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 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:	10/21/2019	Sampling Date:	10/15/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 4 @ 2' (H903595-23)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3760	16.0	10/24/2019	ND	400	100	400	3.92	

**Sample ID: SP 4 @ 3' (H903595-24)**

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	10/24/2019	ND	400	100	400	3.92	

**Sample ID: SP 4 @ 4' (H903595-25)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	10/24/2019	ND	400	100	400	3.92		

**Sample ID: SP 4 @ 5' (H903595-26)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	10/24/2019	ND	400	100	400	3.92		

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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:	10/21/2019	Sampling Date:	10/15/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 5 @ SURFACE (H903595-27)**

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	10/24/2019	ND	1.91	95.3	2.00	2.39		
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88		
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95		
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89		
Total BTEX	<0.300	0.300	10/24/2019	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13400	16.0	10/24/2019	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 104 % 41-142

Surrogate: 1-Chlorooctadecane 108 % 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:	10/21/2019	Sampling Date:	10/15/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 5 @ 1' (H903595-28)**

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	10/24/2019	ND	1.91	95.3	2.00	2.39	
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88	
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95	
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89	
Total BTEX	<0.300	0.300	10/24/2019	ND					

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

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2240	16.0	10/24/2019	ND	400	100	400	3.92	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 106 % 41-142

Surrogate: 1-Chlorooctadecane 109 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	10/21/2019	Sampling Date:	10/15/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 5 @ 2' (H903595-29)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/24/2019	ND	400	100	400	3.92	

**Sample ID: SP 5 @ 3' (H903595-30)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/24/2019	ND	400	100	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/21/2019	Sampling Date:	10/15/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 6 @ SURFACE (H903595-31)**

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	10/24/2019	ND	1.91	95.3	2.00	2.39		
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88		
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95		
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89		
Total BTEX	<0.300	0.300	10/24/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 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	14200	16.0	10/24/2019	ND	432	108	400	3.77	QM-07	

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	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 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:	10/21/2019	Sampling Date:	10/15/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 6 @ 1' (H903595-32)**

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	10/24/2019	ND	1.91	95.3	2.00	2.39		
Toluene*	<0.050	0.050	10/24/2019	ND	1.88	94.1	2.00	1.88		
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.91	95.4	2.00	1.95		
Total Xylenes*	<0.150	0.150	10/24/2019	ND	5.73	95.6	6.00	1.89		
Total BTEX	<0.300	0.300	10/24/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.7 % 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	2320	16.0	10/24/2019	ND	432	108	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	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 104 % 41-142

Surrogate: 1-Chlorooctadecane 105 % 37.6-147

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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:	10/21/2019	Sampling Date:	10/15/2019
Reported:	10/28/2019	Sampling Type:	Soil
Project Name:	MESQUITE MOUTRAY SWD	Sampling Condition:	Cool & Intact
Project Number:	7/6/2019	Sample Received By:	Tamara Oldaker
Project Location:	OXY-EDDY COUNTY, NM		

**Sample ID: SP 6 @ 2' (H903595-33)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/24/2019	ND	432	108	400	3.77	

**Sample ID: SP 6 @ 3' (H903595-34)**

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	10/24/2019	ND	432	108	400	3.77		

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

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A handwritten signature in black ink that reads "Caley D. Keene".

---

Caley D. Keene, Lab Director/Quality Manager



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Relinquished By: <i>Jeff A.</i>		Date: <i>10-21-19</i>	Received By: <i>Israel Pina</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Time: <i>8:00 PM</i>				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: <i>Israel Pina</i>		Date: <i>10-21-19</i>	Received By: <i>Isuara Oldakoe</i>	REMARKS:	
Time: <i>4:30 PM</i>					
Delivered By: (Circle One) <i>-3.4i</i>		Sample Condition	CHECKED BY:		
Cool <i>#97</i>		Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	(Initials)	
Sampler - UPS - Bus - Other: <i>Corrected -3.0i</i>				<i>to.</i>	

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

3 of 4

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-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chloride</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:														
City: Hobbs State: NM Zip: 88241				Attn:														
Phone #: 575-397-6388 Fax #: 575-397-0397				Address:														
Project #: Project Owner: Oxy				City:														
Project Name: MESQUITE MOUTRAY SWD - 7-6-19				State: Zip:														
Project Location:				Phone #:														
Sampler Name: JEFF ORNELAS				Fax #:														
FOR LAB USE ONLY	Lab I.D.	Sample I.D.	(GRAB OR C)OMP. # CONTAINERS	MATRIX GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:	PRESERV. ACID/BASE: ICE / COOL OTHER:	SAMPLING DATE TIME												
	H003595-																	
	21	SP4 @ SURFACE	1			10-14-19 3:05	✓	✓	✓									
	22	SP4 @ 1'	1			10-15-19 9:30	✓	✓	✓									
	23	SP4 @ 2'	1			10-15-19 9:45	✓	✓	✓									
	24	SP4 @ 3'	1			10-15-19 10:01	✓	✓	✓									
	25	SP4 @ 4'	1			10-15-19 10:19	✓	✓	✓									
	26	SP4 @ 5'	1			10-15-19 10:39	✓	✓	✓									
	27	SP5 @ SURFACE	1			10-15-19 10:50	✓	✓	✓									
	28	SP5 @ 1'	1			10-15-19 11:11	✓	✓	✓									
	29	SP5 @ 2'	1			10-15-19 11:22	✓	✓	✓									
	30	SP5 @ 3'	1			10-15-19 11:45	✓	✓	✓									

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Relinquished By: <i>Jeff Ornelas</i>	Date: 10-21-19	Received By: <i>Isaiah Pena</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: 8:00 AM		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: <i>Isaiah Pena</i>	Date: 10-21-19	Received By: <i>Isaiah Pena</i>	REMARKS:	
	Time: 4:30 PM			
Delivered By: (Circle One) -3.4e	Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other: <i>Corrected -3.0e</i>	Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	(Initials)		
		<i>yo</i>		

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Relinquished By: <i>Jeff O...</i>		Date: <i>10-21-99</i>	Received By: <i>Israel Pena</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Time: <i>8:00 AM</i>				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: <i>Israel Pena</i>		Date: <i>10-21-99</i>	Received By: <i>Tamara Alder...</i>	REMARKS:	
Time: <i>4:30 PM</i>					
Delivered By: (Circle One) <i>-3.4°C</i>		Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other: <i>#97</i>		Cool Intact	(Initials)		
<i>Corrected -3.0°C</i>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		

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