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DELINEATION WORKPLAN

OXY – LOST TANK 4 FEDERAL #1 (Leak Date: 12/3/18)

RP # 2RP-5179

BKGS0-190805-C-1410

This delineation workplan and remediation proposal addresses the releases associated with RP # 2RP-5179.

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 SP3 – SP8 (YELLOW shade on diagram) will be excavated to a depth of 1 foot. The leak area near SP1 – SP2 (GREEN shade on diagram) will require zero remediation.

Bottom and sidewall 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.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5179
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?	125 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5179
Facility ID	
Application ID	

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

Printed Name: Wade Dittrich Title: Environmental Coordinator
Signature:  Date: 7-17-19
email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	2RP-5179
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: 7-17-19

email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

Received by: _____ Date: _____





☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

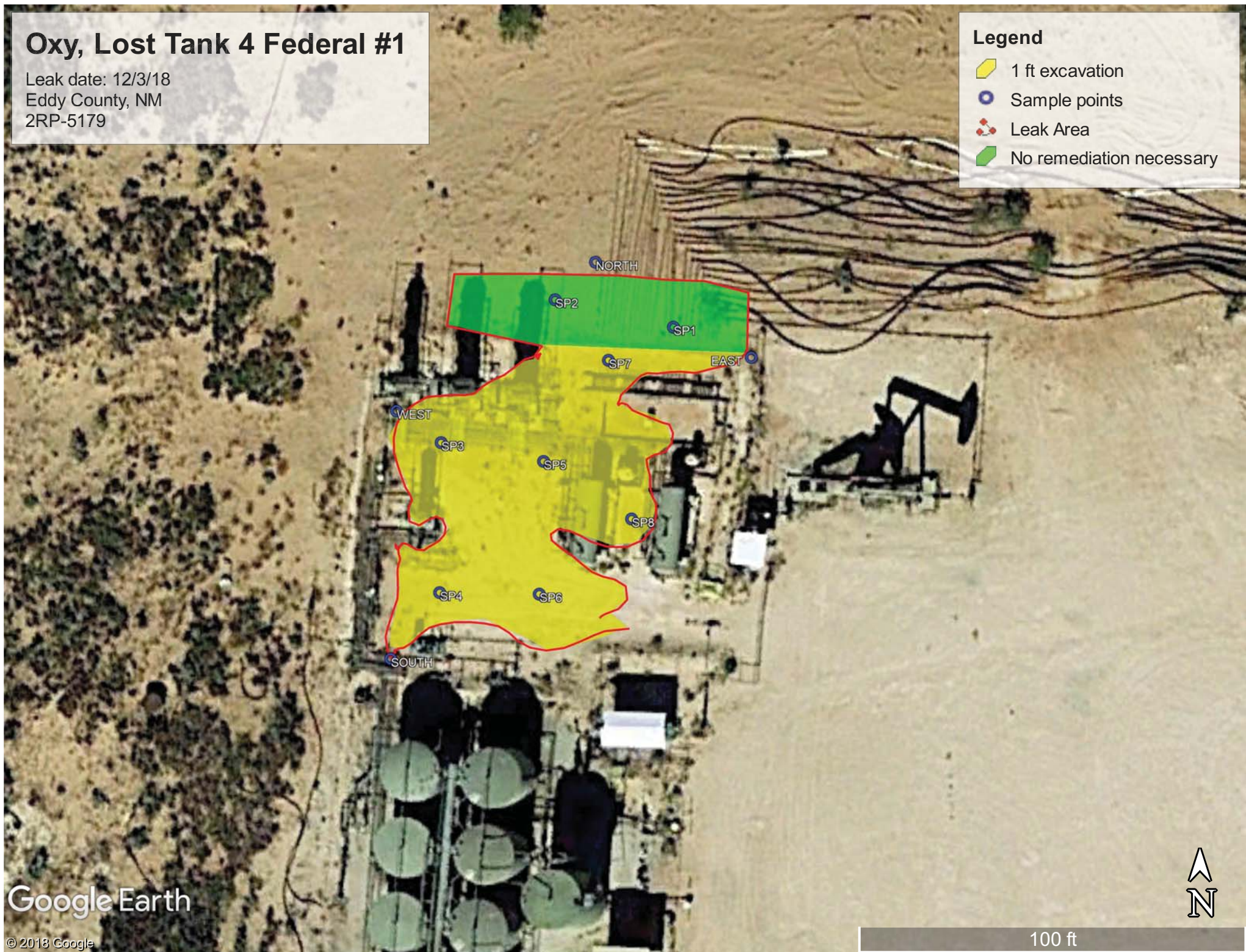
Signature: _____ Date: _____

Oxy, Lost Tank 4 Federal #1

Leak date: 12/3/18
Eddy County, NM
2RP-5179

Legend

-  1 ft excavation
-  Sample points
-  Leak Area
-  No remediation necessary



Google Earth

© 2018 Google

100 ft

Oxy, Lost Tank 4 Federal #1

Sample points

SP1, N 32.42703 W-103.78416

SP2, N 32.42705 W-103.78425

SP3, N 32.42695 W-103.78435

SP4, N 32.42685 W-103.78435

SP5, N 32.42694 W-103.78426

SP6, N 32.42685 W-103.78427

SP7, N 32.42701 W-103.78421

SP8, N 32.42690 W-103.78415

NORTH, N 32.42708 W-103.78422

SOUTH, N 32.42680 W-103.78439

EAST, N 32.42701 W-103.78409

WEST, N 32.42698 W-103.78438

Oxy, Lost Tank 4 Federal #1
U/L C, Section 4, T22S, R31E
Groundwater: 125'





USGS Home
Contact USGS
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National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category: Geographic Area:

Click to hideNews Bulletins

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

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 322333103461301

Minimum number of levels = 1

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

USGS 322333103461301 22S.31E.15.13223

Eddy County, New Mexico

Latitude 32°23'40", Longitude 103°46'15" NAD27

Land-surface elevation 3,456 feet above NAVD88

The depth of the well is 170 feet below land surface.

This well is completed in the Santa Rosa Sandstone (231SNRS) 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 measurem
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1959-02-19		D	150.87				2		U	
1972-09-12		D	146.30				2		U	
1976-12-08		D	135.97				2		U	
1983-01-18		D	133.14				2		U	

Explanation

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

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Title: Groundwater for New Mexico: Water Levels

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

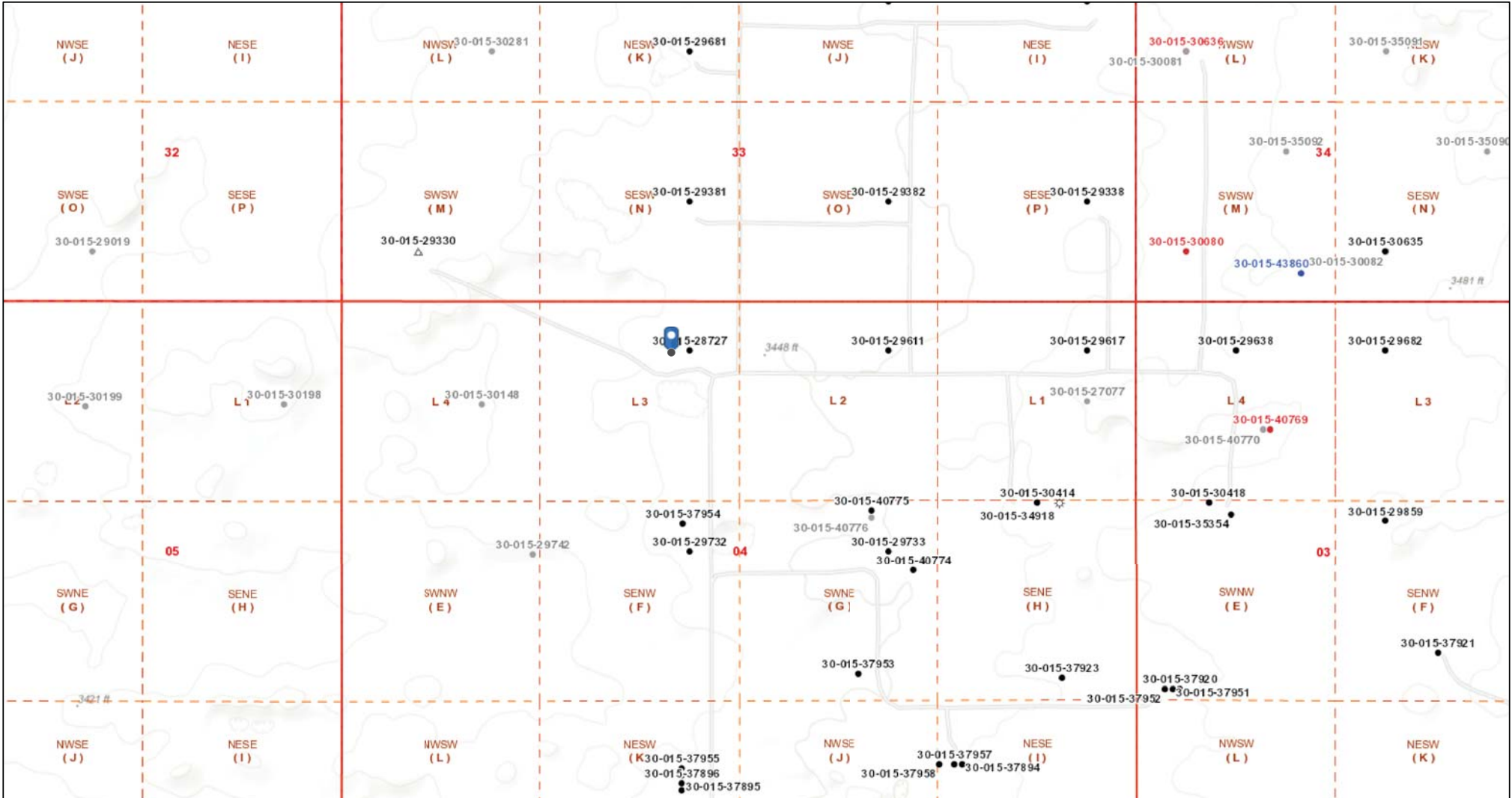


Page Contact Information: [New Mexico Water Data Maintainer](#)

Page Last Modified: 2018-12-19 14:15:56 EST

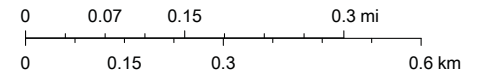
5.27 0.42 nadww01

Lost Tank 4 Federal #1, TOPO Map with Water Features



12/19/2018 12:02:37 PM

1:9,028



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

NM OCD Oil and Gas Map. <http://nm-emnrd.maps.arcgis.com/apps/webappviewer/>; New Mexico Oil Conservation Division



New Mexico Oil Conservation Division

Oxy, Lost Tank 4 Federal #1

Leak date: 12/3/18
Eddy County, NM

BLM CAVE KARST MAP

Legend

-  Leak Area
-  Low potential



Google Earth

© 2018 Google



1000 ft

National Flood Hazard Layer FIRMette



Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 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 **12/19/2018 at 2:25:15 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°25'51.99"N



USGS The National Map: Orthoimagery. Data refreshed October, 2017.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

32°25'21.62"N

103°46'44.72"W

Laboratory Analytical Results Summary
Lost Tank 4 Federal 1 CTB (12/3/18)

		Sample ID	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'
Analyte	Method	Date	6/25/19	6/25/19	6/25/19
			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	SM4500Cl-B		32	16	<16.0
GRO	TPH 8015M		<10.0	<10.0	n/a
DRO	TPH 8015M		344	<10.0	n/a
EXT DRO	TPH 8015M		141	<10.0	n/a

		Sample ID	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'
Analyte	Method	Date	6/25/19	6/25/19	6/25/19
			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	SM4500Cl-B		<16.0	16	16
GRO	TPH 8015M		<10.0	<10.0	n/a
DRO	TPH 8015M		17.2	<10.0	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a

		Sample ID	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'
Analyte	Method	Date	6/25/19	6/25/19	6/25/19	6/25/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	n/a
Chloride	SM4500Cl-B		12600	1490	48	32
GRO	TPH 8015M		<50.0	<10.0	<10.0	n/a
DRO	TPH 8015M		4380	<10.0	<10.0	n/a
EXT DRO	TPH 8015M		1180	<10.0	<10.0	n/a

		Sample ID	SP4 @ SURFACE	SP4 @ 1'	SP4 @ 2'	SP4 @ 3'
Analyte	Method	Date	6/25/19	6/25/19	6/25/19	6/25/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	n/a
Chloride	SM4500Cl-B		14200	800	48	48
GRO	TPH 8015M		<50.0	<10.0	<10.0	n/a
DRO	TPH 8015M		4340	<10.0	<10.0	n/a
EXT DRO	TPH 8015M		1150	<10.0	<10.0	n/a

		Sample ID	SP5 @ SURFACE	SP5 @ 1'	SP4 @ 2'
Analyte	Method	Date	6/25/19	6/25/19	6/25/19
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		9600	128	32
GRO	TPH 8015M		<50.0	<10.0	<10.0
DRO	TPH 8015M		6170	<10.0	<10.0
EXT DRO	TPH 8015M		1800	<10.0	<10.0

		Sample ID	SP6 @ SURFACE	SP6 @ 1'	SP6 @ 2'	SP6 @ 3'
Analyte	Method	Date	6/25/19	6/25/19	6/25/19	6/25/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Total Xylenes	BTEX 8021B		0.889	<0.150	<0.150	n/a
Total BTEX	BTEX 8021B		0.889	<0.300	<0.300	n/a
Chloride	SM4500Cl-B		96	48	32	48
GRO	TPH 8015M		<50.0	<10.0	<10.0	n/a
DRO	TPH 8015M		1500	149	<10.0	n/a
EXT DRO	TPH 8015M		4450	38	<10.0	n/a

		Sample ID	SP7 @ SURFACE	SP7 @ 1'	SP7 @ 2'	SP7 @ 3'
Analyte	Method	Date	6/25/19	6/26/19	6/26/19	6/26/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	n/a
Chloride	SM4500Cl-B		6080	384	400	32
GRO	TPH 8015M		<50.0	<10.0	<10.0	n/a
DRO	TPH 8015M		4530	<10.0	<10.0	n/a
EXT DRO	TPH 8015M		1550	<10.0	<10.0	n/a

		Sample ID	SP8 @ SURFACE	SP8 @ 1'	SP8 @ 2'	SP8 @ 3'
Analyte	Method	Date	6/26/19	6/26/19	6/26/19	6/26/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	n/a
Chloride	SM4500Cl-B		1230	128	16	16
GRO	TPH 8015M		<10.0	<10.0	<10.0	n/a
DRO	TPH 8015M		1170	25.5	<10.0	n/a
EXT DRO	TPH 8015M		621	<10.0	<10.0	n/a

		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	WEST @ SURFACE	SOUTH @ SURFACE
Analyte	Method	Date	6/26/19	6/26/19	6/26/19	6/26/19
			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		32	32	16	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

July 08, 2019

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: LOST TANK 4 FEDERAL #1

Enclosed are the results of analyses for samples received by the laboratory on 06/28/19 15:55.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	06/28/2019	Sampling Date:	06/25/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: SP 1 @ SURFACE (H902239-01)

BTX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/01/2019	ND	1.64	82.1	2.00	2.95	
Toluene*	<0.050	0.050	07/01/2019	ND	1.73	86.7	2.00	2.30	
Ethylbenzene*	<0.050	0.050	07/01/2019	ND	1.66	83.2	2.00	1.93	
Total Xylenes*	<0.150	0.150	07/01/2019	ND	5.07	84.5	6.00	1.75	
Total BTX	<0.300	0.300	07/01/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/03/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	344	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	141	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 91.5 % 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: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 1 (H902239-02)

BTEx 8021B		mg/kg		Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/01/2019	ND	1.64	82.1	2.00	2.95		
Toluene*	<0.050	0.050	07/01/2019	ND	1.73	86.7	2.00	2.30		
Ethylbenzene*	<0.050	0.050	07/01/2019	ND	1.66	83.2	2.00	1.93		
Total Xylenes*	<0.150	0.150	07/01/2019	ND	5.07	84.5	6.00	1.75		
Total BTEX	<0.300	0.300	07/01/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	16.0	16.0	07/03/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	<10.0	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 70.5 % 41-142

Surrogate: 1-Chlorooctadecane 74.9 % 37.6-147

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P.O. Box 805
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Fax To: (575) 397-0397

Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 2 (H902239-03)

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	07/03/2019	ND	400	100	400	0.00		

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Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ SURFACE (H902239-04)

BTEx 8021B		mg/kg		Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/01/2019	ND	1.64	82.1	2.00	2.95		
Toluene*	<0.050	0.050	07/01/2019	ND	1.73	86.7	2.00	2.30		
Ethylbenzene*	<0.050	0.050	07/01/2019	ND	1.66	83.2	2.00	1.93		
Total Xylenes*	<0.150	0.150	07/01/2019	ND	5.07	84.5	6.00	1.75		
Total BTEx	<0.300	0.300	07/01/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	<16.0	16.0	07/03/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	17.2	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 78.2 % 41-142

Surrogate: 1-Chlorooctadecane 80.2 % 37.6-147

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Received:	06/28/2019	Sampling Date:	06/25/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: SP 2 @ 1 (H902239-05)

BTX 8021B		mg/kg		Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/01/2019	ND	1.64	82.1	2.00	2.95		
Toluene*	<0.050	0.050	07/01/2019	ND	1.73	86.7	2.00	2.30		
Ethylbenzene*	<0.050	0.050	07/01/2019	ND	1.66	83.2	2.00	1.93		
Total Xylenes*	<0.150	0.150	07/01/2019	ND	5.07	84.5	6.00	1.75		
Total BTX	<0.300	0.300	07/01/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

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	07/03/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	<10.0	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 73.2 % 41-142

Surrogate: 1-Chlorooctadecane 74.1 % 37.6-147

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Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 2 (H902239-06)

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	07/03/2019	ND	400	100	400	0.00	

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Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ SURFACE (H902239-07)

BTEx 8021B		mg/kg		Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/01/2019	ND	1.64	82.1	2.00	2.95		
Toluene*	<0.050	0.050	07/01/2019	ND	1.73	86.7	2.00	2.30		
Ethylbenzene*	<0.050	0.050	07/01/2019	ND	1.66	83.2	2.00	1.93		
Total Xylenes*	<0.150	0.150	07/01/2019	ND	5.07	84.5	6.00	1.75		
Total BTEx	<0.300	0.300	07/01/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	12600	16.0	07/03/2019	ND	400	100	400	0.00		

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	4380	50.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	1180	50.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 77.7 % 41-142

Surrogate: 1-Chlorooctadecane 235 % 37.6-147

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Analytical Results For:

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

Received:	06/28/2019	Sampling Date:	06/25/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: SP 3 @ 1 (H902239-08)

BTEx 8021B		mg/kg		Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/01/2019	ND	1.64	82.1	2.00	2.95		
Toluene*	<0.050	0.050	07/01/2019	ND	1.73	86.7	2.00	2.30		
Ethylbenzene*	<0.050	0.050	07/01/2019	ND	1.66	83.2	2.00	1.93		
Total Xylenes*	<0.150	0.150	07/01/2019	ND	5.07	84.5	6.00	1.75		
Total BTEX	<0.300	0.300	07/01/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	1490	16.0	07/03/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	<10.0	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 66.8 % 41-142

Surrogate: 1-Chlorooctadecane 71.3 % 37.6-147

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Analytical Results For:

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

 Received: 06/28/2019
 Reported: 07/08/2019
 Project Name: LOST TANK 4 FEDERAL #1
 Project Number: (12-3-18)
 Project Location: OXY-WIPP

 Sampling Date: 06/25/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ 2 (H902239-09)

BTEx 8021B		mg/kg		Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/01/2019	ND	1.64	82.1	2.00	2.95		
Toluene*	<0.050	0.050	07/01/2019	ND	1.73	86.7	2.00	2.30		
Ethylbenzene*	<0.050	0.050	07/01/2019	ND	1.66	83.2	2.00	1.93		
Total Xylenes*	<0.150	0.150	07/01/2019	ND	5.07	84.5	6.00	1.75		
Total BTEX	<0.300	0.300	07/01/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	07/03/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	<10.0	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 74.1 % 41-142

Surrogate: 1-Chlorooctadecane 76.9 % 37.6-147

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Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ 3 (H902239-10)

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	07/03/2019	ND	416	104	400	0.00		

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Received:	06/28/2019	Sampling Date:	06/25/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: SP 4 @ SURFACE (H902239-11)

BTX 8021B		mg/kg		Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/01/2019	ND	1.64	82.1	2.00	2.95		
Toluene*	<0.050	0.050	07/01/2019	ND	1.73	86.7	2.00	2.30		
Ethylbenzene*	<0.050	0.050	07/01/2019	ND	1.66	83.2	2.00	1.93		
Total Xylenes*	<0.150	0.150	07/01/2019	ND	5.07	84.5	6.00	1.75		
Total BTX	<0.300	0.300	07/01/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	07/03/2019	ND	416	104	400	0.00	

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	4340	50.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	1150	50.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 80.7 % 41-142

Surrogate: 1-Chlorooctadecane 239 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 4 @ 1 (H902239-12)

BTEX 8021B		mg/kg		Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/01/2019	ND	1.64	82.1	2.00	2.95		
Toluene*	<0.050	0.050	07/01/2019	ND	1.73	86.7	2.00	2.30		
Ethylbenzene*	<0.050	0.050	07/01/2019	ND	1.66	83.2	2.00	1.93		
Total Xylenes*	<0.150	0.150	07/01/2019	ND	5.07	84.5	6.00	1.75		
Total BTEX	<0.300	0.300	07/01/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	800	16.0	07/03/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	<10.0	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 74.7 % 41-142

Surrogate: 1-Chlorooctadecane 78.4 % 37.6-147

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

Received:	06/28/2019	Sampling Date:	06/25/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: SP 4 @ 2 (H902239-13)

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTX	<0.300	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.3-129

Chloride, SM4500CI-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	07/03/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	<10.0	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 68.0 % 41-142

Surrogate: 1-Chlorooctadecane 64.1 % 37.6-147

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

Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 4 @ 3 (H902239-14)

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	07/03/2019	ND	416	104	400	0.00	

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

Received:	06/28/2019	Sampling Date:	06/25/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: SP 5 @ SURFACE (H902239-15)

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTX	<0.300	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	9600	16.0	07/03/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<50.0	50.0	07/02/2019	ND	197	98.5	200	5.34		
DRO >C10-C28*	6170	50.0	07/02/2019	ND	193	96.3	200	3.48		
EXT DRO >C28-C36	1800	50.0	07/02/2019	ND						

Surrogate: 1-Chlorooctane 91.7 % 41-142

Surrogate: 1-Chlorooctadecane 336 % 37.6-147

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Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 5 @ 1 (H902239-16)

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	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTEX	<0.300	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	07/03/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	<10.0	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 74.7 % 41-142

Surrogate: 1-Chlorooctadecane 72.8 % 37.6-147

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Analytical Results For:

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

Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 5 @ 2 (H902239-17)

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	07/03/2019	ND	416	104	400	0.00	

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

Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 6 @ SURFACE (H902239-18)

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	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	0.889	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTEX	0.889	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	07/03/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	15200	50.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	4450	50.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 91.7 % 41-142

Surrogate: 1-Chlorooctadecane 645 % 37.6-147

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

Received:	06/28/2019	Sampling Date:	06/25/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: SP 6 @ 1 (H902239-19)

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	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTEX	<0.300	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 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	48.0	16.0	07/03/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	149	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	38.0	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 85.8 % 41-142

Surrogate: 1-Chlorooctadecane 80.6 % 37.6-147

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

Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 6 @ 2 (H902239-20)

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTX	<0.300	0.300	07/02/2019	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/03/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	<10.0	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 74.4 % 41-142

Surrogate: 1-Chlorooctadecane 70.6 % 37.6-147

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Fax To: (575) 397-0397

Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/25/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 6 @ 3 (H902239-21)

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	07/03/2019	ND	416	104	400	0.00		

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Fax To: (575) 397-0397

Received:	06/28/2019	Sampling Date:	06/25/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: SP 7 @ SURFACE (H902239-22)

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	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTEx	<0.300	0.300	07/02/2019	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	6080	16.0	07/03/2019	ND	416	104	400	0.00		

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	4530	50.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	1550	50.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 72.8 % 41-142

Surrogate: 1-Chlorooctadecane 262 % 37.6-147

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Analytical Results For:

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

Received:	06/28/2019	Sampling Date:	06/26/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: SP 7 @ 1 (H902239-23)

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTX	<0.300	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	07/03/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	<10.0	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 67.9 % 41-142

Surrogate: 1-Chlorooctadecane 66.7 % 37.6-147

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Received:	06/28/2019	Sampling Date:	06/26/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: SP 7 @ 2 (H902239-24)

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	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTEX	<0.300	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	400	16.0	07/03/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	<10.0	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 70.5 % 41-142

Surrogate: 1-Chlorooctadecane 67.8 % 37.6-147

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Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/26/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 7 @ 3 (H902239-25)**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	07/03/2019	ND	416	104	400	0.00	

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Received:	06/28/2019	Sampling Date:	06/26/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: SP 8 @ SURFACE (H902239-26)

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTX	<0.300	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	1230	16.0	07/03/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/02/2019	ND	197	98.5	200	5.34	
DRO >C10-C28*	1170	10.0	07/02/2019	ND	193	96.3	200	3.48	
EXT DRO >C28-C36	621	10.0	07/02/2019	ND					

Surrogate: 1-Chlorooctane 86.8 % 41-142

Surrogate: 1-Chlorooctadecane 115 % 37.6-147

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Received:	06/28/2019	Sampling Date:	06/26/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: SP 8 @ 1 (H902239-27)

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	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTEX	<0.300	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	07/03/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/03/2019	ND	204	102	200	1.56	
DRO >C10-C28*	25.5	10.0	07/03/2019	ND	207	103	200	6.29	
EXT DRO >C28-C36	<10.0	10.0	07/03/2019	ND					

Surrogate: 1-Chlorooctane 68.8 % 41-142

Surrogate: 1-Chlorooctadecane 72.0 % 37.6-147

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P.O. Box 805
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Fax To: (575) 397-0397

Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/26/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 8 @ 2 (H902239-28)

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	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTEX	<0.300	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	16.0	16.0	07/03/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/03/2019	ND	204	102	200	1.56	
DRO >C10-C28*	<10.0	10.0	07/03/2019	ND	207	103	200	6.29	
EXT DRO >C28-C36	<10.0	10.0	07/03/2019	ND					

Surrogate: 1-Chlorooctane 68.6 % 41-142

Surrogate: 1-Chlorooctadecane 69.4 % 37.6-147

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Fax To: (575) 397-0397

Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/26/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 8 @ 3 (H902239-29)

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	07/03/2019	ND	416	104	400	0.00		

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Received:	06/28/2019	Sampling Date:	06/26/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: NORTH (H902239-30)

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	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTEx	<0.300	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/03/2019	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	07/03/2019	ND	204	102	200	1.56	
DRO >C10-C28*	<10.0	10.0	07/03/2019	ND	207	103	200	6.29	
EXT DRO >C28-C36	<10.0	10.0	07/03/2019	ND					

Surrogate: 1-Chlorooctane 72.8 % 41-142

Surrogate: 1-Chlorooctadecane 68.5 % 37.6-147

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Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/26/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: EAST (H902239-31)

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	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTEx	<0.300	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/03/2019	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	07/03/2019	ND	204	102	200	1.56	
DRO >C10-C28*	<10.0	10.0	07/03/2019	ND	207	103	200	6.29	
EXT DRO >C28-C36	<10.0	10.0	07/03/2019	ND					

Surrogate: 1-Chlorooctane 70.8 % 41-142

Surrogate: 1-Chlorooctadecane 69.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	06/28/2019	Sampling Date:	06/26/2019
Reported:	07/08/2019	Sampling Type:	Soil
Project Name:	LOST TANK 4 FEDERAL #1	Sampling Condition:	Cool & Intact
Project Number:	(12-3-18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY-WIPP		

Sample ID: WEST (H902239-32)

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	07/02/2019	ND	1.67	83.3	2.00	2.97		
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82		
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25		
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67		
Total BTEX	<0.300	0.300	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	16.0	16.0	07/03/2019	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	07/03/2019	ND	204	102	200	1.56	
DRO >C10-C28*	<10.0	10.0	07/03/2019	ND	207	103	200	6.29	
EXT DRO >C28-C36	<10.0	10.0	07/03/2019	ND					

Surrogate: 1-Chlorooctane 64.1 % 41-142

Surrogate: 1-Chlorooctadecane 63.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 06/28/2019
Reported: 07/08/2019
Project Name: LOST TANK 4 FEDERAL #1
Project Number: (12-3-18)
Project Location: OXY-WIPP

Sampling Date: 06/26/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SOUTH (H902239-33)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/02/2019	ND	1.67	83.3	2.00	2.97	
Toluene*	<0.050	0.050	07/02/2019	ND	1.76	87.9	2.00	5.82	
Ethylbenzene*	<0.050	0.050	07/02/2019	ND	1.65	82.7	2.00	5.25	
Total Xylenes*	<0.150	0.150	07/02/2019	ND	5.02	83.6	6.00	4.67	
Total BTX	<0.300	0.300	07/02/2019	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/03/2019	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	07/03/2019	ND	204	102	200	1.56	
DRO >C10-C28*	<10.0	10.0	07/03/2019	ND	207	103	200	6.29	
EXT DRO >C28-C36	<10.0	10.0	07/03/2019	ND					

Surrogate: 1-Chlorooctane 70.2 % 41-142

Surrogate: 1-Chlorooctadecane 69.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
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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Celey D. Keene, Lab Director/Quality Manager

101 East Marland, Hobbs, NM 88240

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2/4

Company Name: BBC International, Inc.				BILL TO				ANALYSIS REQUEST											
Project Manager: Cliff Brunson				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPT Extended</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTX</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CT</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: Lost Tank 4-1 12-3-10				State: Zip:															
Project Location: WIPP				Phone #:															
Sampler Name: 10				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX				PRESERV.		SAMPLING									
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME					
H902239																			
11	Sp 4 O SUR	C	1			X				X			6-25	1125	X	X	X		
12	1	C	1			X				X				1135	X	X	X		
13	2	C	1			X				X				1152	X	X	X		
14	3	C	1			X				X				1249			X		
15	Sp 5 e SUR	C	1			X				X				111	X	X	X		
16	1	C	1			X				X				122	X	X	X		
17	2	C	1			X				X				139			X		
18	Sp 6 e SUR	C	1			X				X				150	X	X	X		
19	1	C	1			X				X				216	X	X	X		
20	2	C	1			X				X				241	X	X	X		

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Relinquished By:	Date: 6-28-11	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: 15:55		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:			
Delivered By: (Circle One)	Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other: -0.9c #97	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	(Initials) JO		

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[illegible]

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Relinquished By: 		Date: 6-26-19		Received By: 		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:	
Relinquished By:		Time: 15:55		Received By:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Fax #:	
Delivered By: (Circle One)		Sample Condition		CHECKED BY:		REMARKS:	
Sampler - UPS - Bus - Other: -0.9c #97		Cool <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		(Initials) T.O.			

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