		Page 1 of 90
Incident ID		
District RP	1RP-4930	
Facility ID		
Application ID		_

# **Site Assessment/Characterization**

This information must be provided to the appropriate district office to taler than 20 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release?	105_ (ft bgs)
Did this release impact groundwater or surface water?	Yes X No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	Yes X No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	Yes X No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	Yes X No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	Yes X No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	X Yes No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	Yes X No
Are the lateral extents of the release within 300 feet of a wetland?	Yes X No
Are the lateral extents of the release overlying a subsurface mine?	Yes X No
Are the lateral extents of the release overlying an unstable area such as karst geology?	Yes X No
Are the lateral extents of the release within a 100-year floodplain?	Yes X No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	Yes X No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil

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

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

Received by OCD: 4/1/2020/12:00:08 AM State of New Mexico
Page 4 Oil Conservation Division

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Incident ID	
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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: Amy Barnhill	Title: Waste and Water Specialist					
Signature:	Date: 3/26/2020					
email: ABarnhill@chevron.com	Telephone: <u>432-687-7108</u>					
OCD Only						
Received by:	Date:					

Page 3 of 90 Incident ID nOY1801256310 District RP 1RP-4930 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 confi	rmed as part of any request for deferral of remediation.								
Contamination must be in areas immediately under or around pro deconstruction.	duction equipment where remediation could cause a major facility								
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: Amy Bathhill	Title: Waste and Water Specialist								
Signature:	Date: 3/26/2020								
email: ABarnhill@chevron.com	Telephone: 432-687-7108								
OCD Only									
Received by:	Date:								
Approved	pproval								
Signature: Bradford Billings I	o <sub>ate:</sub> 09/13/2021								

# 1RP-4930 Delineation Report and Remediation Plan

Northwest Abo Unit Battery (NWAUB)
Crude Oil and Produced Water Release

Eddy County, New Mexico

Latitude: N 32.81466° Longitude: W 103.56470°

LAI Project No. 20-0107-02

March 25, 2020

Prepared for: Chevron USA Inc. 6301 Deauville Blvd. Midland, Texas 79706

Prepared by: Larson & Associates, Inc. 507 North Marienfeld Street, Suite 205 Midland, Texas 79701

Mark J. Larson, P.G. Certified Professional Geologist #10490

Sr. Geoscientist

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Table 1 Delineation Soil Sample Analytical Data Summary

**Figures** 

Figure 1 Topographic Map

Figure 2 Aerial Map Showing Spill Area and Soil Sample Locations

**Appendices** 

Appendix A Initial C-141 Appendix B BBC Report

Appendix C Regulatory Communications

Appendix D Laboratory Reports

Appendix E Photographs

1RP-4930 Delineation Report and Remediation Plan Chevron USA, Inc., NWAUB Crude Oil and Produced Water Release March 25, 2020

# 1.0 INTRODUCTION

Larson & Associates, Inc. (LAI), has prepared this delineation report and remediation plan on behalf of Chevron USA Inc. (Chevron) for submittal to the New Mexico Oil Conservation Division (OCD) District 1 for a crude oil and produced water release at the Northwest Abo Unit Battery (Site) located in Unit O (SW/4, SE/4), Section 21, Township 17 South, Range 34 East in Lea County New Mexico. The geodetic position is North 32.81466° and West -103.56470°. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

# 1.1 Background

The release occurred on December 28, 2017, due to a water pump failure. Approximately 1.52 barrels (bbls) of crude oil were released and approximately 1 bbl was recovered. Approximately 11.06 bbls of produced water were released and 10 bbls were recovered. The affected area measures approximately 4,342 square feet. Appendix A presents the Chevron spill volume calculation and documentation. The initial C-141 was submitted on January 11, 2018 and assigned a Remediation Permit number of 1RP-4930.

Between March 25 and 31, 2018, BBC International, Inc. (BBC) personnel collected soil samples inside the spill area and in each cardinal direction outside of the spill for horizontal and vertical delineation. The soil samples were delivered to Cardinal Laboratories in Hobbs, New Mexico and were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) and total petroleum hydrocarbons (TPH), including gasoline range organics (C6-C12), diesel range organics (>C12-C28) and oil range organics (>C28-C35) by EPA SW-846 Methods 8021B and 8015M, respectively, and chloride by Method SM4500CL-B. Benzene and BTEX were reported below method reporting limits in all samples. TPH was reported above the OCD delineation limit of 100 mg/Kg in the following samples:

SP1, 1' (1,412 mg/Kg)	SP1, 2' (2,266 mg/Kg)
SP1, 3' (237 mg/Kg)	SP1, 4' (604 mg/Kg)
SP2, 1' (3,077 mg/Kg)	SP2, 2' (403.9 mg/Kg)
SP2, 3' (101.3 mg/Kg)	SP3, 1' (1,340 mg/Kg)
SP3, 2', (590 mg/Kg)	SP4, 1' (3,454 mg/Kg)
SP4, 2' (548 mg/Kg)	SP5, 1' (279.9 mg/Kg)
SP5, 2' (131.8 mg/Kg)	SP6, 1' (3,134 mg/Kg)
SP7, 1' (464.6 mg/Kg)	SP7, 2' (212.6 mg/Kg)
SP7, 5' (540 mg/Kg)	

Chloride was reported above the OCD delineation limit of 600 milligrams per kilogram (mg/Kg) in samples SP-6, 1 foot below ground surface (bgs) (2,080 mg/Kg) and SP-6, 2 feet bgs (656 mg/Kg).

BBC submitted the data to OCD on June 20, 2018, in a report titled, "Delineation Workplan". OCD denied approval of the work plan on July 19, 2018, because the plan would leave TPH in soil at concentrations above the OCD remediation limit of 100 mg/Kg and TPH at sample location SP-7 was not delineated below the OCD delineation limit of 100 mg/Kg. OCD requested Chevron to complete the TPH delineation for SP-7 and to resubmit an appropriate remediation plan for the release. Appendix B presents the BBC Delineation Workplan. Appendix C presents regulatory communications.

1RP-4930 Delineation Report and Remediation Plan Chevron USA, Inc., NWAUB Crude Oil and Produced Water Release March 25, 2020

# 1.2 Physical Setting

The physical setting is as follows:

- The surface elevation is approximately 4,073 feet above mean sea level (msl);
- The surface topography gradually decreases to the southeast;
- Surface water is present approximately 928 feet northwest of the site;
- The soils are designated as "Kimbrough-Lea complex, dry, 0 to 3 percent slopes", consisting of 0 to 3 inches of gravely loam, underlain by 3 to 10 inches of loam, and 10 to 80 inches of cemented material (caliche);
- The geology consists of alluvial and eolian deposits of the Ogallala Formation (Lower Pliocene to middle Miocene);
- Groundwater was reported in a well at approximately 105 feet below ground surface (bgs) in 1974:
- According to the New Mexico Office of the State Engineer (OSE) website the nearest freshwater well (L-03616-S6) is located in Unit N (SE/4, SW/4) in Section 21, Township 17 South, Range 34 East approximately 0.12 miles or 608 feet southwest of the Site.

# 1.3 Remediation Action Levels

The following remediation standards are based on closure criteria for soils impacted by a release as presented in Table 1 of 19.15.29 NMAC:

Benzene 10 mg/Kg
 BTEX 50 mg/Kg
 TPH 100 mg/Kg
 Chloride 600 mg/Kg

Further, 19.15.29.13 NMAC (Restoration, Reclamation and Re-Vegetation) requires the operator to restore the impacted surface area that existed prior to the release or their final land use.

# 2.0 DELINEATION

On February 10, 2020, LAI personnel used direct push technology (DPT) to collect additional soil samples from SP-7 to complete delineation for TPH. Samples were collected at 6, 10, 15, and 20 feet bgs. The soil samples were delivered under chain of custody and preservation to Permian Basin Environmental Laboratory (PBEL) in Midland, Texas. The laboratory analyzed the samples for TPH, including gasoline range organics (C6-C12), diesel range organics (>C12-C28) and oil range organics (>C28-C35) by EPA SW-846 Method 8015M. Figure 2 presents an aerial map showing the delineation soil sample location. The laboratory reported TPH below the delineation limit of 100 milligrams per kilogram (mg/Kg) all samples. Table 1 presents the soil sample analytical data summary. Appendix D presents the laboratory reports.

# 3.0 Remediation Plan

Chevron proposes the following remedial actions:

Excavate soil from an area measuring approximately 492 square feet, encompassing SP-1 to 4.1 feet bgs,

1RP-4930 Delineation Report and Remediation Plan Chevron USA, Inc., NWAUB Crude Oil and Produced Water Release March 25, 2020

- Excavate soil from an area measuring approximately 3,062 square feet encompassing SP-2, SP-3, SP-4, and SP-5 to 3 feet bgs;
- Excavate soil from an area measuring approximately 487 square feet encompassing SP-6 to 4.1 feet bgs, and 301 square feet encompassing SP-7 to 6 feet bgs;
- Collect five (5) point composite bottom and sidewall confirmation soil samples for every 200 square feet of excavation and analyze for BTEX, TPH and chloride;
- ➤ Backfill excavations with clean topsoil up to 2 feet bgs and up to surface with clean caliche on the pad assuming achievement of OCD remediation levels; and
- Prepare report with photographs for submittal to OCD District 1.

Figure 3 presents the proposed excavation areas.

**Tables** 

# Table 1 Soil Sample Analytical Data Summary NWAUB

Lea County, New Mexico North 32 48' 52.78", West 103 33' 52.84"

Page 1 of 1

Sample	Depth (Feet)	Collection Date	Status	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)
Remediation Leve				( 0, 0,	( 0, 0,	( 0, 0,	100 / 2,500
SP-7	6	2/10/2020	In-Situ	<50.0	<50.0	<50.0	<50.0
	10	2/10/2020	In-Situ	<49.9	<49.9	<49.9	<49.9
	15	2/10/2020	In-Situ	<49.9	<49.9	<49.9	<49.9
	20	2/10/2020	In-Situ	<49.9	<49.9	<49.9	<49.9

Notes: Analysis performed by Xenco Laboratories

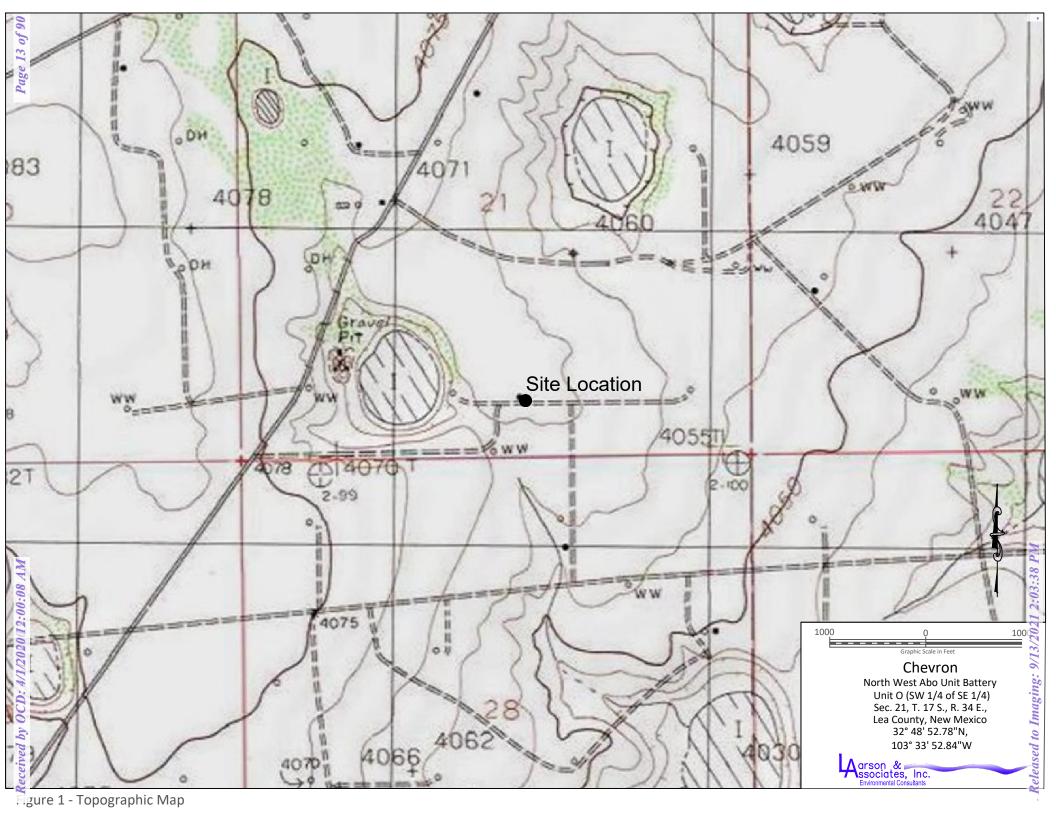
Depth in feet below ground surface (bgs)

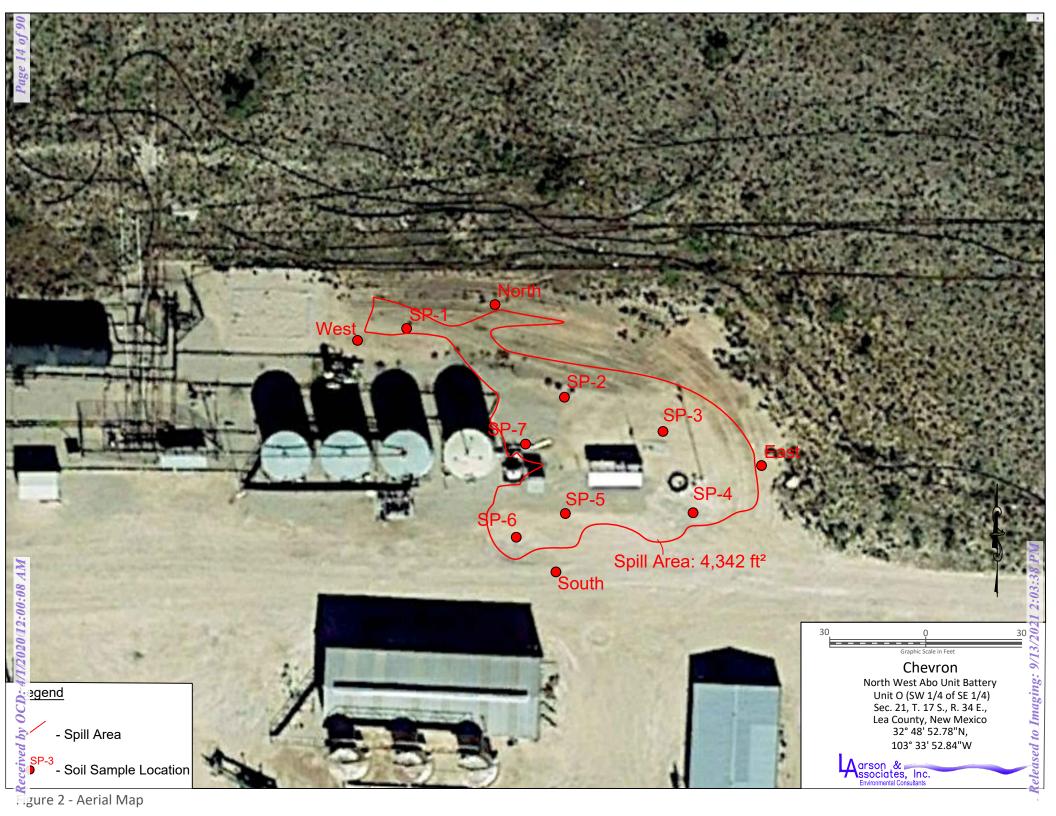
mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

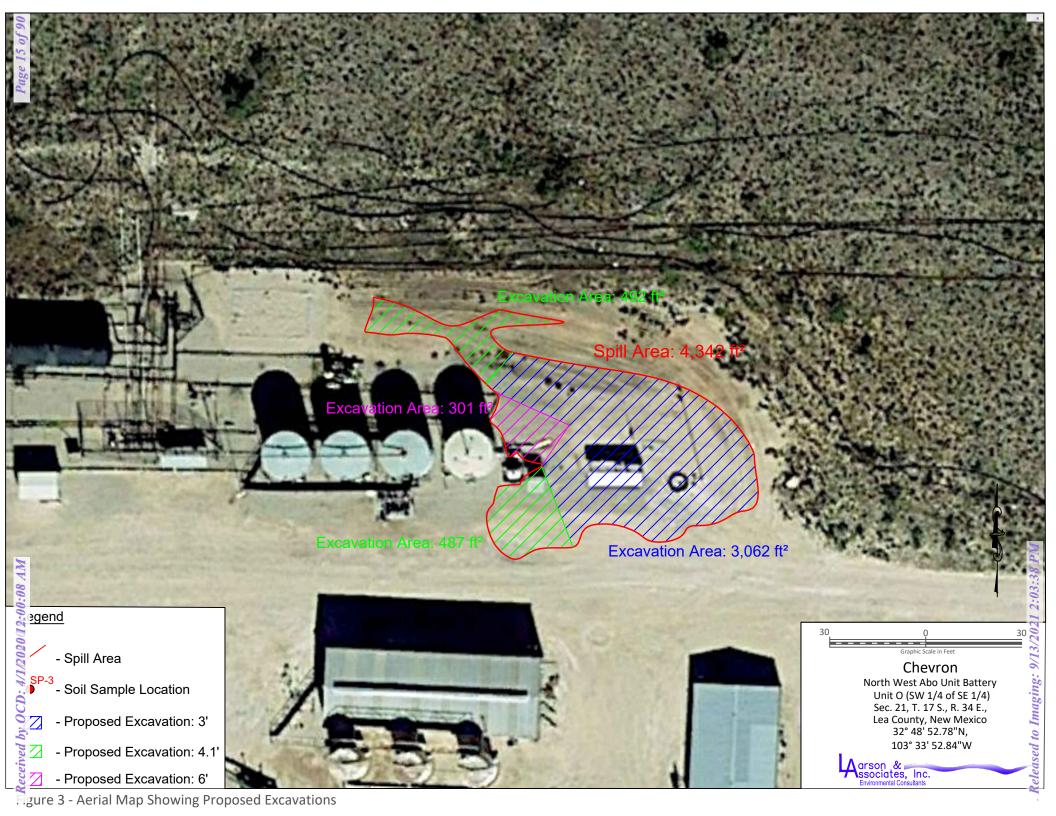
<: denotes concentration less than analytical method reporting limit

**Bold and Highlighted exceeds OCD remediation action limits** 

**Figures** 







Appendix A

Initial C-141

Form C-141

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

# State of New Mexico **Energy Minerals and Natural Resources**

Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action												
					(	OPERAT	OR	ſ	✓ Initial	Report	☐ Fina	al Report
Name of Company Chevron USA Inc.						Contact Josepha DeLeon						
Address 6301 Deauville Blvd., Midland, TX 79706					No. wk: 575-26		4 cell: 43	2-425-152	28			
Facility Name			-	•		Facility Typ	e: Battery					
Surface Owner	r State			Mineral Ov	vner	State of N	lew Mexico		API No	See atta	ched	
- Clare												
Unit Letter   Section   Township   Range   Feet from the   North/South Line   Feet from the   East/West Line   County												
		Township	Range	Feet from the	North	/South Line	Feet from the	East/West Line		County	Lea	
O 21 17S 34E Latitude 32.814740 Longitude; -103.564660												
NATURE OF RELEASE												
Type of Release	e Spill					Volume of				Recovered:		
						1.52 barrel	,		1 barrels			
Source of Releas	ise Wate	er pump failu	re				els produced wate Iour of Occurrence			s produced Hour of Di		-
Source of Reicas	isc waic	or pump rand	10				7; 05:12 AM			17; 08:00 A	•	
Was Immediate	Notice Gi					If YES, To						
			Yes _	No Not Rec	luired		/ Maxey Brown -					
	osepha De						Iour: 12/28/2017					
Was a Watercourse Reached? ☐ Yes ☒ No					If YES, Vo	olume Impacting t	ine wate	ercourse.				
If a Watercourse	e was Impa	acted, Descri	be Fully.	*		DE	CENTED					
N/A						RE	CEIVED					
IN/A						By (	Olivia Yu a	at 3:	16 pm,	Jan 1	2, 2018	}
Describe Cause of Problem and Remedial Action Taken.*												
				nent air supply, wat			resulting in a rele	ease of 1	1.52 barrels	oil and 11.	.06 barrels p	roduced
water to caliche	pad. Rec	overed 1 barr	rel of oil a	and 10 barrels prod	uced w	vater.						
Describe Area A	Affected ar	nd Cleanup A	ction Tal	ken.*								
		•										
Spill within Tank Battery's caliche pad. None of the material went off the pad. Remediation to follow. Shut lease in. Vacuum truck extracted liquid.												
Manually opened valve to equalize to other tanks.												
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger												
				nd/or file certain rel ce of a C-141 repor								
				investigate and re								
or the environment. In addition, NMOCD 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.												
OIL CONSERVATION DIVISION												
GILLE DELTO												
Signature: Approved by Environmental Specialist:												
Printed Name: Josepha DeLeon												
Title: HES Co	ompliance	Support - Ei	nvironme	ntal		Approval Dat	1/12/201	8	Expiration	Date:		
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Date 01/11/201				2-425-1528		see allac						
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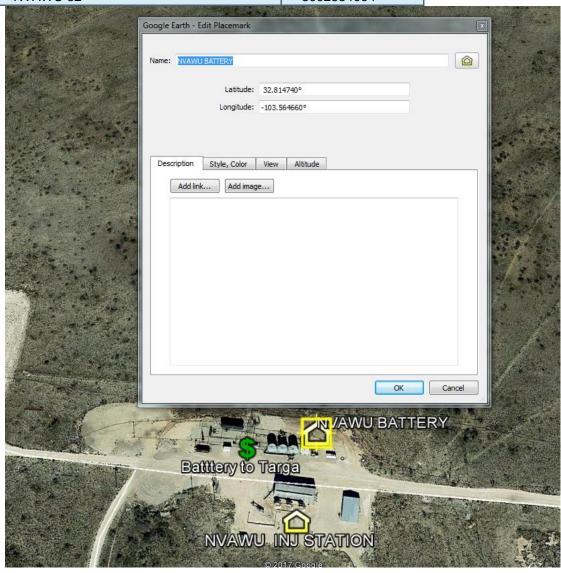
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NVAWU 01       3002525652         NVAWU 11 2       3002524019         NVAWU 30       3002533987         NVAWU 31       3002533988         NVAWU 06 H       3002524026         NVAWU 08       3002524061         NVAWU 09       3002524064         NVAWU 10H       3002524062         NVAWU 13       3002524046         NVAWU 14       3002523944         NVAWU 19       3002523880         NVAWU 29H       3002534668         NVAWU 20H       3002523915         NVAWU 24H       3002524050         NVAWU 24H       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926         NVAWU 32       3002534094		
NVAWU 30       3002533987         NVAWU 31       3002533988         NVAWU 06 H       3002524026         NVAWU 08       3002524061         NVAWU 09       3002524064         NVAWU 10H       3002524062         NVAWU 13       3002524046         NVAWU 14       3002523944         NVAWU 19       3002523880         NVAWU 29H       3002534668         NVAWU 20H       3002524050         NVAWU 24H       3002524087         NVAWU 26       3002533637         NVAWU 28H       3002533926	NVAWU 01	3002525652
NVAWU 31       3002533988         NVAWU 06 H       3002524026         NVAWU 08       3002524061         NVAWU 09       3002524064         NVAWU 10H       3002524062         NVAWU 13       3002524046         NVAWU 14       3002523944         NVAWU 19       3002523880         NVAWU 29H       3002534668         NVAWU 20H       3002524050         NVAWU 24H       3002524050         NVAWU 26       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926	NVAWU 11 2	3002524019
NVAWU 06 H       3002524026         NVAWU 08       3002524061         NVAWU 09       3002524064         NVAWU 10H       3002524062         NVAWU 13       3002524046         NVAWU 14       3002523944         NVAWU 19       3002523880         NVAWU 29H       3002534668         NVAWU 20H       3002523915         NVAWU 23       3002524050         NVAWU 24H       3002533637         NVAWU 26       3002533638         NVAWU 28H       3002533926	NVAWU 30	3002533987
NVAWU 08       3002524061         NVAWU 09       3002524064         NVAWU 10H       3002524062         NVAWU 13       3002524046         NVAWU 14       3002523944         NVAWU 19       3002523880         NVAWU 29H       3002534668         NVAWU 20H       3002523915         NVAWU 23       3002524050         NVAWU 24H       3002524087         NVAWU 26       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926	NVAWU 31	3002533988
NVAWU 09       3002524064         NVAWU 10H       3002524062         NVAWU 13       3002524046         NVAWU 14       3002523944         NVAWU 19       3002523880         NVAWU 29H       3002534668         NVAWU 20H       3002523915         NVAWU 23       3002524050         NVAWU 24H       3002524087         NVAWU 26       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926	NVAWU 06 H	3002524026
NVAWU 10H       3002524062         NVAWU 13       3002524046         NVAWU 14       3002523944         NVAWU 19       3002523880         NVAWU 29H       3002534668         NVAWU 20H       3002523915         NVAWU 23       3002524050         NVAWU 24H       3002524087         NVAWU 26       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926	NVAWU 08	3002524061
NVAWU 13       3002524046         NVAWU 14       3002523944         NVAWU 19       3002523880         NVAWU 29H       3002534668         NVAWU 20H       3002523915         NVAWU 23       3002524050         NVAWU 24H       3002524087         NVAWU 26       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926	NVAWU 09	3002524064
NVAWU 14       3002523944         NVAWU 19       3002523880         NVAWU 29H       3002534668         NVAWU 20H       3002523915         NVAWU 23       3002524050         NVAWU 24H       3002524087         NVAWU 26       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926	NVAWU 10H	3002524062
NVAWU 19       3002523880         NVAWU 29H       3002534668         NVAWU 20H       3002523915         NVAWU 23       3002524050         NVAWU 24H       3002524087         NVAWU 26       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926	NVAWU 13	3002524046
NVAWU 29H       3002534668         NVAWU 20H       3002523915         NVAWU 23       3002524050         NVAWU 24H       3002524087         NVAWU 26       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926	NVAWU 14	3002523944
NVAWU 20H       3002523915         NVAWU 23       3002524050         NVAWU 24H       3002524087         NVAWU 26       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926	NVAWU 19	3002523880
NVAWU 23       3002524050         NVAWU 24H       3002524087         NVAWU 26       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926	NVAWU 29H	3002534668
NVAWU 24H       3002524087         NVAWU 26       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926	NVAWU 20H	3002523915
NVAWU 26       3002533637         NVAWU 27       3002533638         NVAWU 28H       3002533926	NVAWU 23	3002524050
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NVAWU 28H 3002533926	NVAWU 26	3002533637
	NVAWU 27	3002533638
NVAWU 32 3002534094	NVAWU 28H	3002533926
	NVAWU 32	3002534094



Operator/Responsible Party,

The OCD has received the form C-141 you provided on \_1/11/2018\_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number \_1RP-4930\_\_ has been assigned. Please refer to this case number in all future correspondence.

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete <u>division-approved corrective action</u> for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District \_1\_ office in \_\_Hobbs\_\_\_\_ on or before \_2/12/2018\_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- •Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.
- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.
- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

### Jim Griswold

OCD Environmental Bureau Chief 1220 South St. Francis Drive Santa Fe, New Mexico 87505 505-476-3465 jim.griswold@state.nm.us Appendix B

**BBC Report** 



PHONE (575) 397-6388 • FAX (575) 397-0397 • 1324 W. MARLAND • P.O. BOX 805 • HOBBS, NM 88241-0805 E-MAIL: cbrunson@bbcinternational.com

# DELINEATION WORKPLAN CHEVRON – NORTH WEST ABO UNIT BATTERY

(Leak Date: 12/28/17)

**RP # 1RP-4930** 

This delineation workplan and remediation proposal addresses the release associated with RP # 1RP-4930.

The following information includes:

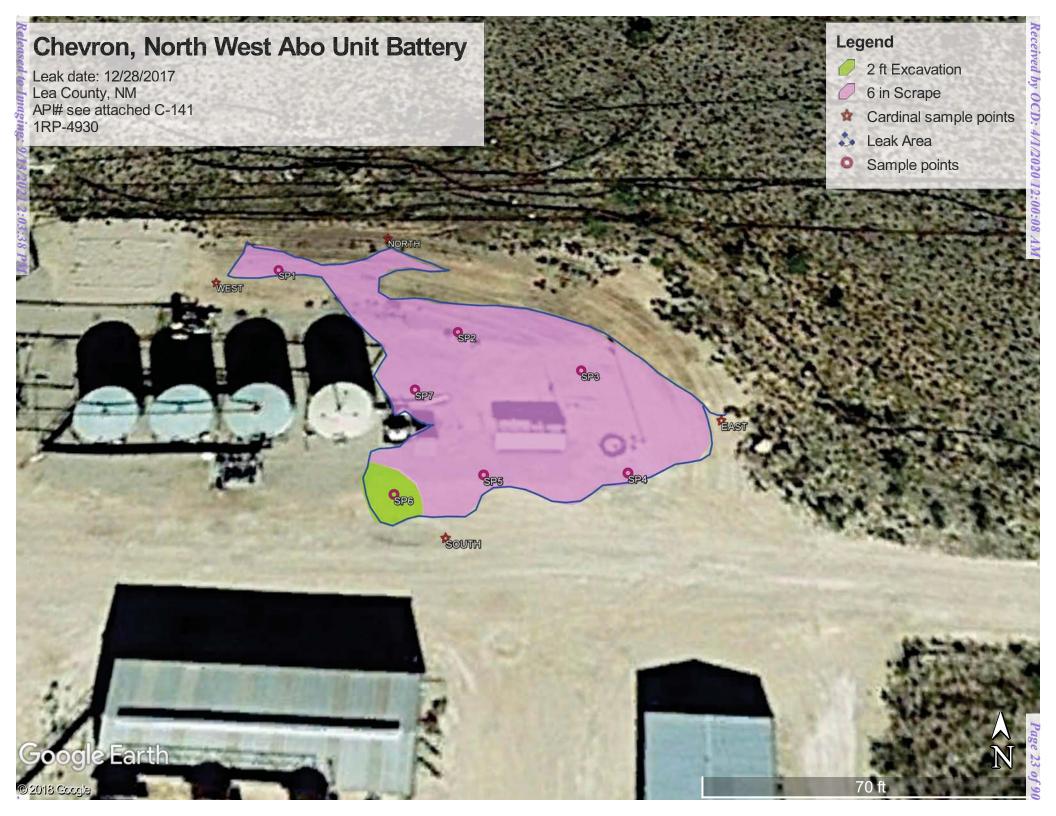
- 1. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
- 2. GPS information for sample points and sample methodology
- 3. Depth to groundwater information (i.e., pdf of OSE search results and/or copy of Chevron groundwater trend map).
- 4. Laboratory analysis results summary table and original laboratory analysis reports
- 5. A copy of the initial C-141
- 6. Potentially other pertinent information as necessary for site specific purposes.

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

Chevron will remediate the spill area as depicted on the following site diagram. The leak area near SP1 – SP5 and SP7 (pink shade on diagram) will be excavated to a depth of 6 inches. The leak area near SP6 (green shade on diagram) will be excavated to a depth of 2 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.



# Chevron, North West Abo Unit Battery

# Sample points

SP1, N 32.81484 W-103.56479

SP2, N 32.81478 W-103.56463

SP3, N 32.81475 W-103.56453

SP4, N 32.81468 W-103.56450

SP5, N 32.81468 W-103.56463

SP6, N 32.81466 W-103.56468

SP7, N 32.81474 W-103.56467

NORTH, N 32.81486 W-103.56470

SOUTH, N 32.81463 W-103.56464

EAST, N 32.81472 W-103.56443

WEST, N 32.81483 W-103.56484

# Chevron N Vacuum Abo W TB U/L O, Section 21, T17S, R34E Lea County, NM Groundwater: 50'-75'





# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(NAD83 UTM in meters)

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.) (R=POD has been replaced, O=orphaned, C=the file is

closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(In feet)

POD Number	POD Sub- Code basin	County		Q (		: Tws	Rng	x	Y	Distance	•	•	Water Column
L 03616 S6	L	LE	4	4	3 2	17S	34E	634177	3631573* 🌑	321	232	105	127
L 03398	L	LE		2	2 28	3 17S	34E	634888	3631285* 🌑	568	242	125	117
L 03616 S3	L	LE	2	2	4 2 <sup>-</sup>	17S	34E	634974	3632189* 🌑	708	242	121	121
L 06897	L	LE	3	4	2 2	17S	34E	634768	3632392* 🌑	767	176	118	58
L 03616 S5	L	LE	4	3	1 22	178	34E	635370	3632398* 🌑	1142	245	138	107
L 02724 S	L	LE	4	4	3 22	178	34E	635739	3631673 🌑	1258	242	110	132
L 02724 POD9	L	LE	4	4	3 22	178	34E	635785	3631601* 🌑	1307	240	170	70
L 04624	L	LE		1	1 2	178	34E	633659	3632876* 🌍	1449	186	170	16
L 03616 S4	L	LE		4	1 22	178	34E	635674	3632507* 🌍	1451	244	105	139
<u>L 06760</u>	L	LE	1	1	1 22	178	34E	635163	3633000* 🌑	1485	162	98	64
L 02724 POD10	L,	LE	1	4	4 27	7 17S	34E	635884	3630725 🌑	1698	250	164	86

Average Depth to Water: 129 feet

Minimum Depth: 98 feet

Maximum Depth: 170 feet

Record Count: 11

**UTMNAD83 Radius Search (in meters):** 

Easting (X): 634480 Northing (Y): 3631681 Radius: 1700

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

		Publ	ic Land Sur	vey System (PLS	6 <b>S</b> )					
•	Q64: 💙	Q16: SW 🗸	Q4: SE 🗸	Sec: 21 ✓ Tws	17S 🗸	<b>Rng:</b> 34E <b>∨</b>				
		State P	Plane Coordi	nate System - N	AD27					
0	<b>X</b> : 0 <b>f</b>	t Y: 0	ft	Zone:		~				
		State P	Plane Coordi	nate System - N	AD83					
0	<b>x</b> : 0 <b>f</b>	t Y: 0	ft	Zone:		~				
			Degrees/Mir	nutes/Seconds						
0	Longitude (X):	Deg	rees: 0 °	Minutes: 0	•	Seconds: 0 "				
	Latitude (Y):	Deg	grees: 0 °	Minutes: 0	•	Seconds: 0 "				
			UTM -	NAD27						
0	Easting (X	): 0 ~	mtrs	Northing (Y):	0	mtrs Zone:				
			SI	UBMIT						
	All Con	version Res	ults are disp	olayed as <u>NAD 1</u>	983 UTM	Zone 13				
	Easting (X):	634480.0	mtrs	Northing (Y):	3631681.0	mtrs				
	~~ Please keep screen open to copy UTM values for Reports. ~~									

# Laboratory Analytical Results Summary North Vacuum Abo West Battery

		Sample ID	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 4'	SP1 @ 5'
Analyte	Method	Date	5/25/18	5/25/18	5/25/18	5/25/18	5/25/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	< 0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	< 0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	< 0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	< 0.300
Chloride	SM4500CI-B		64	32	16	16	64
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		1120	1810	174	451	11.8
EXT DRO	TPH 8015M		292	456	63	153	<10.0

		Sample ID	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'	SP2 @ 5'
Analyte	Method	Date	5/25/18	5/25/18	5/25/18	5/25/18	5/25/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	< 0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	< 0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	< 0.300	<0.300	<0.300	< 0.300
Chloride	SM4500CI-B		144	16	48	16	80
GRO	TPH 8015M		<50.0	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		2490	310	69.1	<10.0	16.4
EXT DRO	TPH 8015M		587	93.9	32.2	<10.0	<10.0

		Sample ID	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 4'
Analyte	Method	Date	5/29/18	5/29/18	5/29/18	5/29/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	< 0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	< 0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500CI-B		32	48	48	64
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		1060	473	24.6	16.7
EXT DRO	TPH 8015M		280	117	<10.0	<10.0

		Sample ID	SP4 @ 1'	SP4 @ 2'	SP4 @ 3'	SP4 @ 4'
Analyte	Method	Date	5/29/18	5/29/18	5/29/18	5/29/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	< 0.300
Chloride	SM4500CI-B		144	64	48	48
GRO	TPH 8015M		<50.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		2780	466	<10.0	<10.0
EXT DRO	TPH 8015M		674	82	<10.0	<10.0

		Sample ID	SP5 @ 1'	SP5 @ 2'	SP5 @ 3'
Analyte	Method	Date	5/29/18	5/30/18	5/30/18
			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	SM4500CI-B		112	528	480
GRO	TPH 8015M		<10.0	<10.0	<10.0
DRO	TPH 8015M		183	101	21.6
EXT DRO	TPH 8015M		96.9	30.8	<10.0

		Sample ID	SP6 @ 1'	SP6 @ 2'	SP6 @ 3'	SP6 @ 4'
Analyte	Method	Date	5/30/18	5/30/18	5/30/18	5/30/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	< 0.300	<0.300
Chloride	SM4500CI-B		2080	656	576	160
GRO	TPH 8015M		<50.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		2460	12.1	<10.0	<10.0
EXT DRO	TPH 8015M		674	<10.0	<10.0	<10.0

		Sample ID	SP7 @ 1'	SP7 @ 2'	SP7 @ 3'	SP7 @ 4'	SP7 @ 5'
Analyte	Method	Date	5/31/18	5/31/18	5/31/18	5/31/18	5/31/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	< 0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	< 0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300
Chloride	SM4500CI-B		32	64	32	64	368
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		411	182	<10.0	38.9	421
EXT DRO	TPH 8015M		53.6	30.6	<10.0	<10.0	119

Cardinal		Sample ID	NORTH	EAST	WEST	SOUTH
Analyte	Method	Date	5/31/18	5/31/18	5/31/18	5/31/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500CI-B		32	80	64	48
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		14.2	11.8	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

Received by OCD: 4/1/2020/12:00:08 AM



June 11, 2018

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: NORTH VACUUM ABO

Enclosed are the results of analyses for samples received by the laboratory on 06/04/18 15:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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

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

Accreditation applies to public drinking water matrices.

Celey D. Keene

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



05/25/2018

Soil

# Analytical Results For:

BBC International, Inc. Cliff Brunson P.O. Box 805

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

Received: 06/04/2018 Sampling Date:

06/11/2018

ma/ka

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Applymed By MC

Sampling Type:

Project Location: CHEVRON

# Sample ID: 1 @ 1' (H801507-01)

Reported:

DTEV 0021D

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d 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	06/04/2018	ND	187	93.3	200	2.57	
DRO >C10-C28*	1120	10.0	06/04/2018	ND	194	97.1	200	3.45	
EXT DRO >C28-C36	292	10.0	06/04/2018	ND					
Surrogate: 1-Chlorooctane	92.2	% 41-142	,						
Surrogate: 1-Chlorooctadecane	156	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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

Celeg D. Keene



# Analytical Results For:

BBC International, Inc. Cliff Brunson

P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/25/2018

Reported: Sampling Type: Soil 06/11/2018

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: **CHEVRON** 

# Sample ID: 1 @ 2' (H801507-02)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	107	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d 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	06/04/2018	ND	187	93.3	200	2.57	
DRO >C10-C28*	1810	10.0	06/04/2018	ND	194	97.1	200	3.45	
EXT DRO >C28-C36	456	10.0	06/04/2018	ND					
Surrogate: 1-Chlorooctane	91.0	% 41-142	?						
Surrogate: 1-Chlorooctadecane	210	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane

Cardinal Laboratories \*=Accredited Analyte

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

Celey D. Keine



# Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/25/2018

Reported: Sampling Type: Soil 06/11/2018

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: **CHEVRON** 

# Sample ID: 1 @ 3' (H801507-03)

BTEX 8021B	mg,	mg/kg Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	111	% 69.8-14	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2018	ND	187	93.3	200	2.57	
DRO >C10-C28*	174	10.0	06/04/2018	ND	194	97.1	200	3.45	
EXT DRO >C28-C36	63.0	10.0	06/04/2018	ND					
Surrogate: 1-Chlorooctane	95.8	% 41-142	?						
Surrogate: 1-Chlorooctadecane	103	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keine



# Analytical Results For:

BBC International, Inc. Cliff Brunson

P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/25/2018

Reported: Sampling Type: Soil 06/11/2018

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: **CHEVRON** 

# Sample ID: 1 @ 4' (H801507-04)

BTEX 8021B	mg,	mg/kg Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	115	% 69.8-14	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2018	ND	187	93.3	200	2.57	
DRO >C10-C28*	451	10.0	06/04/2018	ND	194	97.1	200	3.45	
EXT DRO >C28-C36	153	10.0	06/04/2018	ND					
Surrogate: 1-Chlorooctane	85.3	% 41-142	?						
Surrogate: 1-Chlorooctadecane	109	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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Celeg D. Keene



# Analytical Results For:

BBC International, Inc. Cliff Brunson

P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/25/2018

Reported: Sampling Type: Soil 06/11/2018

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Project Location: **CHEVRON** 

# Sample ID: 1 @ 5' (H801507-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	< 0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	< 0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	115 %	69.8-14	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2018	ND	187	93.3	200	2.57	
DRO >C10-C28*	11.8	10.0	06/04/2018	ND	194	97.1	200	3.45	
EXT DRO >C28-C36	<10.0	10.0	06/04/2018	ND					
Surrogate: 1-Chlorooctane	79.9 9	% 41-142	!						
Surrogate: 1-Chlorooctadecane	76.79	% 37.6-14	7						

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Celey D. Keine



# Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/25/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: CHEVRON

ma/ka

# Sample ID: 2 @ 1' (H801507-06)

RTFY 8021R

BIEX 8021B	mg	/ kg	Analyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	% 69.8-14	2						
Chloride, SM4500CI-B	mg,	/kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/06/2018	ND	432	108	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	06/04/2018	ND	187	93.3	200	2.57	
DRO >C10-C28*	2490	50.0	06/04/2018	ND	194	97.1	200	3.45	
EXT DRO >C28-C36	587	50.0	06/04/2018	ND					
Surrogate: 1-Chlorooctane	69.2	% 41-142	!						
Surrogate: 1-Chlorooctadecane	201	% 37.6-14	7						

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Celey D. Keene



# Analytical Results For:

BBC International, Inc. Cliff Brunson

P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/25/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: CHEVRON

# Sample ID: 2 @ 2' (H801507-07)

BTEX 8021B	mg,	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	113 9	% 69.8-14	12						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2018	ND	187	93.3	200	2.57	
DRO >C10-C28*	310	10.0	06/04/2018	ND	194	97.1	200	3.45	
EXT DRO >C28-C36	93.9	10.0	06/04/2018	ND					
Surrogate: 1-Chlorooctane	93.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	107	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/25/2018

Reported: Sampling Type: Soil 06/11/2018

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: **CHEVRON** 

#### Sample ID: 2 @ 3' (H801507-08)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	118 %	69.8-14	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2018	ND	187	93.3	200	2.57	
DRO >C10-C28*	69.1	10.0	06/04/2018	ND	194	97.1	200	3.45	
EXT DRO >C28-C36	32.2	10.0	06/04/2018	ND					
Surrogate: 1-Chlorooctane	88.5	% 41-142	ı						
Surrogate: 1-Chlorooctadecane	88.4	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/25/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: CHEVRON

ma/ka

#### Sample ID: 2 @ 4' (H801507-09)

RTFY 8021R

Result <0.050 <0.050	Reporting Limit 0.050 0.050	Analyzed 06/05/2018	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<0.050			ND	1 70				
	0.050			1.79	89.7	2.00	3.74	
<0.0E0		06/05/2018	ND	1.77	88.7	2.00	4.11	
<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
<0.300	0.300	06/05/2018	ND					
118 9	% 69.8-14	2						
mg/kg		Analyzed By: AC						
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
16.0	16.0	06/06/2018	ND	432	108	400	0.00	
mg/	/kg	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10.0	06/04/2018	ND	187	93.3	200	2.57	
<10.0	10.0	06/04/2018	ND	194	97.1	200	3.45	
<10.0	10.0	06/04/2018	ND					
86.5	% 41-142	ı						
83.3	% 37.6-14	7						
	<0.300  118 9  mg/ Result  16.0  mg/ Result  <10.0  <10.0  <86.5	<0.050 0.050 <0.150 0.150 <0.300 0.300  118	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

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Celeg D. Keene



#### Analytical Results For:

BBC International, Inc. Cliff Brunson

P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/25/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: CHEVRON

#### Sample ID: 2 @ 5' (H801507-10)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	115	% 69.8-14	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2018	ND	187	93.3	200	2.57	
DRO >C10-C28*	16.4	10.0	06/04/2018	ND	194	97.1	200	3.45	
EXT DRO >C28-C36	<10.0	10.0	06/04/2018	ND					
Surrogate: 1-Chlorooctane	87.3	% 41-142	•						
Surrogate: 1-Chlorooctadecane	82.0	% 37.6-14	7						

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Celeg D. Keene

Cardinal Laboratories

Celey D. Keene, Lab Director/Quality Manager

\*=Accredited Analyte



#### Analytical Results For:

BBC International, Inc. Cliff Brunson

P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/29/2018

Reported: Sampling Type: Soil 06/11/2018

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: **CHEVRON** 

#### Sample ID: 3 @ 1' (H801507-11)

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	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 9	% 69.8-14	12						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2018	ND	187	93.3	200	2.57	
DRO >C10-C28*	1060	10.0	06/04/2018	ND	194	97.1	200	3.45	
EXT DRO >C28-C36	280	10.0	06/04/2018	ND					
Surrogate: 1-Chlorooctane	89.2	% 41-142	?						
Surrogate: 1-Chlorooctadecane	147	% 37.6-14	7						

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Celeg D. Keene



#### Analytical Results For:

BBC International, Inc. Cliff Brunson

P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/29/2018
Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: CHEVRON

ma/ka

#### Sample ID: 3 @ 2' (H801507-12)

RTFY 8021R

B1EX 8021B	mg	/кд	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	111	% 69.8-14.	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2018	ND	187	93.3	200	2.57	
DRO >C10-C28*	473	10.0	06/04/2018	ND	194	97.1	200	3.45	
EXT DRO >C28-C36	117	10.0	06/04/2018	ND					
Surrogate: 1-Chlorooctane	85.2	% 41-142							
Surrogate: 1-Chlorooctadecane	113	% 37.6-14	7						

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

\*=Accredited Analyte



#### Analytical Results For:

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

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/29/2018

Reported: Sampling Type: Soil 06/11/2018 NORTH VACUUM ABO

Project Name: Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Project Location: **CHEVRON** 

#### Sample ID: 3 @ 3' (H801507-13)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	112 9	69.8-14	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2018	ND	187	93.3	200	2.57	
DRO >C10-C28*	24.6	10.0	06/04/2018	ND	194	97.1	200	3.45	
EXT DRO >C28-C36	<10.0	10.0	06/04/2018	ND					
Surrogate: 1-Chlorooctane	83.5	% 41-142	ı						
Surrogate: 1-Chlorooctadecane	80.0	% 37.6-14	7						

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Celey D. Keine



#### Analytical Results For:

BBC International, Inc. Cliff Brunson P.O. Box 805

Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/29/2018 Reported: Sampling Type: Soil 06/11/2018

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Project Location: **CHEVRON** 

#### Sample ID: 3 @ 4' (H801507-14)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	116 %	69.8-14	2						
Chloride, SM4500CI-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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	16.7	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	95.5	% 41-142	ı						
Surrogate: 1-Chlorooctadecane	92.7	% 37.6-14	7						

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Celey D. Keine



#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/29/2018

Reported: Sampling Type: Soil 06/11/2018

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Project Location: **CHEVRON** 

#### Sample ID: 4 @ 1' (H801507-15)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	69.8-14	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d 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	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	2780	50.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	674	50.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	92.0	% 41-142							
Surrogate: 1-Chlorooctadecane	246 9	% 37.6-14	7						

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Celey D. Keine



Tamara Oldaker

Sample Received By:

#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/29/2018

Reported: Sampling Type: Soil 06/11/2018 Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact

Project Location: **CHEVRON** 

NONE GIVEN

#### Sample ID: 4 @ 2' (H801507-16)

Project Number:

BTEX 8021B	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	113 9	% 69.8-14	12						
Chloride, SM4500CI-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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	466	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	82.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	94.8	% 41-142	?						
Surrogate: 1-Chlorooctadecane	120	% 37.6-14	7						

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Celey D. Keine



#### Analytical Results For:

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

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/29/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: CHEVRON

ma/ka

#### Sample ID: 4 @ 3' (H801507-17)

RTFY 8021R

B1EX 8021B	mg	/ kg	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.79	89.7	2.00	3.74	
Toluene*	<0.050	0.050	06/05/2018	ND	1.77	88.7	2.00	4.11	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	1.83	91.5	2.00	2.67	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.59	93.2	6.00	2.32	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	116	% 69.8-14	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	<10.0	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	82.9	% 41-142	•						
Surrogate: 1-Chlorooctadecane	79.5	% 37.6-14	7						

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Celegy Theene

Celey D. Keene, Lab Director/Quality Manager

\*=Accredited Analyte



#### Analytical Results For:

BBC International, Inc. Cliff Brunson P.O. Box 805

Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/29/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: CHEVRON

#### Sample ID: 4 @ 4' (H801507-18)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	114	% 69.8-14	22						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	<10.0	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	87.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	84.6	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/29/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: CHEVRON

ma/ka

#### Sample ID: 5 @ 1' (H801507-19)

RTFY 8021R

BIEX 8021B	mg	/ kg	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	109	% 69.8-14.	2						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	183	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	96.9	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	90.9	% 41-142							
Surrogate: 1-Chlorooctadecane	95.0	% 37.6-14	7						

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Celeg D. Keene



#### Analytical Results For:

BBC International, Inc. Cliff Brunson

P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/30/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: CHEVRON

ma/ka

#### Sample ID: 5 @ 2' (H801507-20)

RTFY 8021R

B1EX 8021B	mg,	<sup>и</sup> кд	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	< 0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	< 0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	% 69.8-14.	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	101	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	30.8	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	80.5	% 41-142							
Surrogate: 1-Chlorooctadecane	85.1	% 37.6-14	7						

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\*=Accredited Analyte

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Celey D. Keene



#### Analytical Results For:

BBC International, Inc. Cliff Brunson

P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/30/2018

Reported: Sampling Type: Soil 06/11/2018

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: **CHEVRON** 

#### Sample ID: 5 @ 3' (H801507-21)

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	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	% 69.8-14	2						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	21.6	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	78.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	78.2	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/30/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: CHEVRON

ma/ka

#### Sample ID: 6 @ 1' (H801507-22)

RTFY 8021R

B1EX 8021B	mg	/кд	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.8-14	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed 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	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	2460	50.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	674	50.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	92.5	% 41-142	,						
Surrogate: 1-Chlorooctadecane	243	% 37.6-14	7						

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Celey D. Keene



#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 06/04/2018 Sampling Date: 05/30/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: CHEVRON

ma/ka

#### Sample ID: 6 @ 2' (H801507-23)

RTFY 8021R

BIEX 8021B	mg	/ kg	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	110	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	12.1	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	88.4	% 41-142	•						
Surrogate: 1-Chlorooctadecane	86.0	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/30/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: CHEVRON

#### Sample ID: 6 @ 3' (H801507-24)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	< 0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	110	% 69.8-14	22						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	<10.0	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	86.3	% 41-142	?						
Surrogate: 1-Chlorooctadecane	83.3	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/30/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: CHEVRON

ma/ka

#### Sample ID: 6 @ 4' (H801507-25)

RTFY 8021R

B1EX 8021B	mg	/кд	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	111	% 69.8-14	2						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	<10.0	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	90.6	% 41-142	,						
Surrogate: 1-Chlorooctadecane	87.1	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/31/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: CHEVRON

#### Sample ID: 7 @ 1' (H801507-26)

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	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	69.8-14	2						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	'kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	411	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	53.6	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	90.0	% 41-142	?						
Surrogate: 1-Chlorooctadecane	111 9	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/31/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: CHEVRON

ma/ka

#### Sample ID: 7 @ 2' (H801507-27)

RTFY 8021R

B1EX 8021B	mg	/ kg	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	108	% 69.8-14	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	182	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	30.6	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	95.3	% 41-142	,						
Surrogate: 1-Chlorooctadecane	105	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/31/2018

Reported: Sampling Type: Soil 06/11/2018

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Project Location: **CHEVRON** 

#### Sample ID: 7 @ 3' (H801507-28)

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	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	69.8-14	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	<10.0	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	85.5	% 41-142	ı						
Surrogate: 1-Chlorooctadecane	82.2	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/31/2018

Reported: 06/11/2018 Sampling Type: Soil Project Name: NORTH VACUUM ABO Sampling Condition: Coo

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: CHEVRON

ma/ka

#### Sample ID: 7 @ 4' (H801507-29)

RTFY 8021R

BIEX 8021B	mg	/кд	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	110	% 69.8-14	2						
Chloride, SM4500CI-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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	38.9	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	88.4	% 41-142	•						
Surrogate: 1-Chlorooctadecane	88.6	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/31/2018 Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: **CHEVRON** 

#### Sample ID: 7 @ 5' (H801507-30)

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	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	69.8-14	2						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	421	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	119	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	71.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	95.6	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/31/2018

Reported: Sampling Type: Soil 06/11/2018

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: **CHEVRON** 

#### Sample ID: NORTH (H801507-31)

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	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	109	% 69.8-14	2						
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	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	14.2	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	80.7	% 41-142	?						
Surrogate: 1-Chlorooctadecane	79.8	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/31/2018

Reported: 06/11/2018 Sampling Type: Soil Project Name: NORTH VACUUM ABO Sampling Condition: Coo

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: CHEVRON

#### Sample ID: EAST (H801507-32)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050 0.050		06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 69.8-14	22						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	11.8	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	78.5	% 41-142	?						
Surrogate: 1-Chlorooctadecane	75.1	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/31/2018

Reported: Sampling Type: Soil 06/11/2018

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact Project Number: Sample Received By: NONE GIVEN Tamara Oldaker

Project Location: **CHEVRON** 

#### Sample ID: WEST (H801507-33)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	69.8-14	2						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	184	91.9	200	4.53	
DRO >C10-C28*	<10.0	10.0	06/05/2018	ND	183	91.7	200	6.20	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	73.7 % 41-142		ı						
Surrogate: 1-Chlorooctadecane	71.2	% 37.6-14	7						

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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: 06/04/2018 Sampling Date: 05/31/2018

Reported: 06/11/2018 Sampling Type: Soil

Project Name: NORTH VACUUM ABO Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: CHEVRON

ma/ka

#### Sample ID: SOUTH (H801507-34)

RTFY 8021R

		кg		а ву: мѕ					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2018	ND	1.98	98.8	2.00	5.47	
Toluene*	<0.050	0.050	06/05/2018	ND	2.01	100	2.00	5.67	
Ethylbenzene*	<0.050	0.050	06/05/2018	ND	2.03	101	2.00	6.98	
Total Xylenes*	<0.150	0.150	06/05/2018	ND	5.88	98.0	6.00	6.50	
Total BTEX	<0.300	0.300	06/05/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	108	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	'kg	Analyze	d By: AC					
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/06/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	209	105	200	0.669	
DRO >C10-C28*	<10.0	10.0	06/05/2018	ND	226	113	200	0.0120	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					
Surrogate: 1-Chlorooctane	65.1	% 41-142	ı						
Surrogate: 1-Chlorooctadecane	70.2	% 37.6-14	7						

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#### **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.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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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#### Page 37 of 40

Project Manager: Cliff Brunson

### 1 of 4

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#### ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 (505) 393-2326 FAX (505) 393-2476 Company Name: BBC International, Inc.

CHAIN-	OF-CUST	TODY AND	ANALYSI	S REQUEST

ANALYSIS REQUEST

Address: P.O.		Com	pan	ıy:																				
city: Hobbs	State: NM	Zip	: 8	824	1		A	Attn	:									- 1						
Phone #: 575-3	397-6388 Fax #: 575-	-397	7-03	397			1	Add	ress	:				1										
Project #:	Project Owner	: (	h	evy	ar	7	0	City																
Project Name:	North Vacuum Abo							State			Zip:													
Project Location	n:								ne#	:	•		1			- 1								
Sampler Name:	Jeff Dinelas							ax		-			1	_										
FOR LAB USE ONLY	7,,,=1-2				MA	TRIX	_		CONTRACTOR OF THE PARTY OF THE	ERV	SAMPL	NG	1											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	SOIL	OIL	SLUDGE	OTHEK:	ACID/BASE:	OTHER:	DATE	TIME	# that	STEX	117	7								
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6	201	6	1						1		5/25/18	1212	1		\									
7	202	6	1		1				1		5/25/18	1250			1	_								
8	2603	6	1		1						5/25/18	139			/									
9	2604	6	1		1				1		5/28/18	211			1									
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analyses. All claims includin service. In no event shall Ca	nd Damages. Cardinal's liability and client's exclusive remedy for all ing those for negligence and any other cause whatsoever shall be cardinal be liable for incidental or consequental damages, including ing out of or related to the performance of services hereynder by C.	leemed withou ardinal,	l waived t limitat regard	d unless tion, busi fless of v	made in ness into whether s	writing	and re	ceive	by Ca	ardinal v	within 30 days after	r completion of th	ne applio ries, se.	cable Y	es	□ No	A	dd'I Pi	hone #	#:				_
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† Cardinal	t Cardinal cannot accept verbal changes. Please fax written changes to											7	-						-6	0	-			

BILL TO

P.O. #:

## Page 66 of 9

# Received by OCD: 4/1/2020(12:00:08 AM

2 of 4

Released to Imaging: 9/13/2021 2:03:38 PM

#### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**ANALYSIS REQUEST** 

#### ARDINAL LABORATORIES

Company Name: BBC International, Inc.

Project Manager: Cliff Brunson

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

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

Address: P.O.	Box 805		Co	omp	any	<b>/</b> :																					
city: Hobbs	State: NM	Zip:	8	8241			At	tn:																			
Phone #: 575-3	397-6388 Fax #: 575-	-397	-03	97			Ad	ddre	ess:																		
Project #:	Project Owner	: C	ne	YOY	7		Ci	ty:																			
Project Name:	North Vacuum Abo						St	ate:	9		Zip:																
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16	102	6	1					_	/		S/21/18	11	149				_										
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19	501	6	1				_	L	1		2/29/18	2	15	1	-		\					_					
20	5 @ 2' d Damages. Cardinal's liability and client's exclusive remedy for a	6	)	a whotho		n contr	201 05 10			Imitad	5/39/18	18	33								-						
analyses. All claims including	g those for negligence and any other cause whatsoever shall be	deemed	waived	d unless i	made in	writing	and rece	eived t	by Car	rdinal v	vithin 30 days at	fter cor	mpletion of th	ne applicat	ble												
affiliates or successors arising	ardinal be liable for incidental or consequental darnages, including agout of or related to the performance of services hereunder by C	ardinal,	regard	less of w	hether s							reason	s or otherwis	ie.													
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P.O. #:

#### RDINAL LABORATORIES

Company Name: BBC International, Inc.

Project Manager: Cliff Brunson

Address: P.O. Box 805

Phone #: 575-397-6388

city: Hobbs

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

State: NM Zip: 88241

Fax #: 575-397-0397

CHAIN-OF-CUSTODY	AND ANAL	YSIS	REQUEST
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ANALYSIS REQUEST

Project #:			Cit	y:																					
Project Name:	Vorth Vacuum	Ho						Sta	ate:		Zip														
Project Location	n:							Ph	one #	ŧ:															
Sampler Name:	Jeff Omdes							Fa	x #:					+											
FOR LAB USE ONLY			120	П		MAT	RIX		PRES	SERV	. 5	AMPL	ING	X											
Lab I.D. <i>H80157</i> 07	Sample I.	D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER	SOIL	OIL	OTHER:	ACID/BASE:	OTHER:	Ē	)A/TE	TIME	7 HUL	1440	277									
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27	7-02		6	1						\	53	1 18	940	1	,										
28	763		6	1		1		1			53	18	1059												
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	nd Damages. Cardinal's liability and clie	nt's exclusive remedy for an	v claim	arising	whether	hased i	n contra	t or tor	t shall he	limited	M/J	18	id by the client to	- the		-							$\bot$		
analyses. All claims including	ng those for negligence and any other c ardinal be liable for incidental or consec	ause whatsoever shall be de	eemed	waived	unless m	ade in	writing ar	nd rece	ived by C	ardinal v	within 3	days aft	er completion of t	he applica	able										
affiliates or successors arisir	ng out of or related to the performance	of services hereunder by Ca	rdinal,	regard	less of wh	ether s	uch claim	is bas	ed upon a	any of th	ne above	stated re	asons or otherwi	se.											
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† Cardinal	cannot accept verbal c	nanges. Please	tax	writ	ten ch	nang	es to	505	-393-	2476															

BILL TO

P.O. #:

Attn:

Company:

Address:

#### Appendix C

**Regulatory Communications** 

From: <u>Hernandez, Christina, EMNRD</u>

To: <u>Cliff Brunson</u>; <u>Yu, Olivia, EMNRD</u>; <u>"Mann, Ryan"</u>

Cc: "Barnhill, Amy D."; "Ken Swinney"; "Jennifer Gilkey"; "Kathy Purvis"

Subject: RE: Chevron - North West Abo Unit Battery (RP-4930) - Delineation Workplan

**Date:** Thursday, July 19, 2018 12:03:19 PM

#### Dear Mr. Brunson:

Please note that the current RRALs are adjusted accordingly to 30 due to presence of water source < 1000 ft (20 points) and depth to groundwater being between 50-99 ft (10 points).

Based on preliminary laboratory summary results submitted, at this time NMOCD denies the proposed remediation plan due to exceeding TPH RRAL's in sampling locations SP1-SP7. Additionally, delineation is incomplete at sampling location SP7. Please complete delineation and resubmit an appropriate remediation plan for this release.

Thanks,

Christina Hernandez
EMNRD-OCD
Environmental Specialist
1625 N. French Drive
Hobbs, NM 88240
575-393-6161 x111

Christina.Hernandez@state.nm.us

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Cliff Brunson <cbrunson@bbcinternational.com>

**Sent:** Wednesday, June 20, 2018 6:49 PM

To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; 'Mann, Ryan' <rmann@slo.state.nm.us> Cc: Hernandez, Christina, EMNRD <Christina.Hernandez@state.nm.us>; 'Barnhill, Amy D.' <ABarnhill@chevron.com>; 'Ken Swinney' <kswinney@bbcinternational.com>; 'Jennifer Gilkey' <jgilkey@bbcinternational.com>; 'Kathy Purvis' <kathy@bbcinternational.com> Subject: Chevron - North West Abo Unit Battery (RP-4930) - Delineation Workplan

Olivia and Ryan,

Please find the attached Delineation Workplan and remediation proposal for the Chevron North West Abo Unit Battery (1RP-4930). Chevron is requesting that you review this plan and is looking forward to the OCD's and SLO's approval.

If you have any questions, please let me know.

#### Thanks, Cliff

Cliff P. Brunson, CEI, CRS
President
BBC International, Inc.
World-Wide Environmental Specialists
Mailing Address:
P. O. Box 805
Hobbs, NM 88241-0805 USA
Shipping Address:
1324 W. Marland St.
Hobbs, NM 88240 USA
Phone: (575) 397-6388

 $\hbox{E-Mail: $\underline{cbrunson@bbcinternational.com}$}$ 



Fax: (575) 397-0397

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From: Mann, Ryan

To: "Cliff Brunson"; Yu, Olivia, EMNRD

Cc: Hernandez, Christina, EMNRD; "Barnhill, Amy D."; "Ken Swinney"; "Jennifer Gilkey"; "Kathy Purvis"

Subject: RE: Chevron - North West Abo Unit Battery (RP-4930) - Delineation Workplan

**Date:** Sunday, July 8, 2018 4:54:55 PM

NMSLO approves of this plan as written. Confirmation samples from the bottom and sidewall, no greater than 50 feet apart are requested. Like approval from NMOCD is also necessary.

Ryan Mann

Remediation Specialist

Field Operation Division

(575) 392-3697

(505) 699-1989

New Mexico State Land Office

2827 N. Dal Paso Suite 117

Hobbs, NM 88240

**From:** Cliff Brunson [mailto:cbrunson@bbcinternational.com]

**Sent:** Wednesday, June 20, 2018 6:49 PM

To: 'Olivia Yu' <Olivia.Yu@state.nm.us>; Mann, Ryan <rmann@slo.state.nm.us>

**Cc:** 'Hernandez, Christina, EMNRD' <Christina.Hernandez@state.nm.us>; 'Barnhill, Amy D.' <ABarnhill@chevron.com>; 'Ken Swinney' <kswinney@bbcinternational.com>; 'Jennifer Gilkey' <jgilkey@bbcinternational.com>; 'Kathy Purvis' <kathy@bbcinternational.com>

Subject: Chevron - North West Abo Unit Battery (RP-4930) - Delineation Workplan

Olivia and Ryan,

Please find the attached Delineation Workplan and remediation proposal for the Chevron North West Abo Unit Battery (1RP-4930). Chevron is requesting that you review this plan and is looking forward to the OCD's and SLO's approval.

If you have any questions, please let me know.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS

President

BBC International, Inc.

World-Wide Environmental Specialists

Mailing Address:

P. O. Box 805

Hobbs, NM 88241-0805 USA

Shipping Address:

1324 W. Marland St.

Hobbs, NM 88240 USA

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 $\hbox{E-Mail:} \ \underline{cbrunson@bbcinternational.com}$ 



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Appendix D

**Laboratory Reports** 



## Certificate of Analysis Summary 651946

Larson and Associates, Inc., Midland, TX

**Project Name: Chevron NWAUB** 



Project Id: Contact:

Mark Larson

**Project Location:** 

**Date Received in Lab:** Tue Feb-11-20 10:44 am

**Report Date:** 13-FEB-20 **Project Manager:** Holly Taylor

	Lab Id:	651946-0	01	651946-0	02	651946-0	03	651946-0	04		
Analysis Requested	Field Id:	SP-7 (6	')	SP-7 (10	')	SP-7 (15	')	SP-7 (20	)')		
Anaiysis Requesiea	Depth:	6- ft		10- ft		15- ft		20- ft			
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Feb-10-20 1	2:31	Feb-10-20 1	2:32	Feb-10-20 1	2:36	Feb-10-20 1	2:41		
TPH by SW8015 Mod	Extracted:	Feb-11-20 1	4:00	Feb-11-20 1	4:00	Feb-11-20 1	4:00	Feb-11-20 1	4:00		
	Analyzed:	Feb-12-20 (	00:42	Feb-12-20 0	1:03	Feb-12-20 0	1:24	Feb-12-20 0	1:46		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		< 50.0	50.0	<49.9	49.9	<49.9	49.9	<49.9	49.9		
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.9	49.9		
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.9	49.9		
Total TPH		< 50.0	50.0	<49.9	49.9	<49.9	49.9	<49.9	49.9		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor Project Manager

# **Analytical Report 651946**

for

Larson and Associates, Inc.

Project Manager: Mark Larson Chevron NWAUB

13-FEB-20

Collected By: Client





#### 1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Tampa: Florida (E87429), North Carolina (483)





13-FEB-20

Project Manager: Mark Larson Larson and Associates, Inc. P. O. Box 50685 Midland, TX 79710

Reference: XENCO Report No(s): 651946

**Chevron NWAUB** Project Address:

#### Mark Larson:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 651946. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 651946 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holy Taylor

**Holly Taylor** 

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



# **Sample Cross Reference 651946**



## Larson and Associates, Inc., Midland, TX

Chevron NWAUB

Sample Id	Matrix	<b>Date Collected</b>	Sample Depth	Lab Sample Id
SP-7 (6')	S	02-10-20 12:31	6 ft	651946-001
SP-7 (10')	S	02-10-20 12:32	10 ft	651946-002
SP-7 (15')	S	02-10-20 12:36	15 ft	651946-003
SP-7 (20')	S	02-10-20 12:41	20 ft	651946-004

#### **CASE NARRATIVE**

Client Name: Larson and Associates, Inc.

Project Name: Chevron NWAUB

Project ID: Report Date: 13-FEB-20 Work Order Number(s): 651946 Date Received: 02/11/2020

#### Sample receipt non conformances and comments:

#### Sample receipt non conformances and comments per sample:

None

#### **Analytical non conformances and comments:**

Batch: LBA-3116240 TPH by SW8015 Mod

Motor Oil Range Hydrocarbons (MRO) recovered below QC limits in the Blank Spike and Duplicate

indicating bias low results. Samples in the analytical batch are: 651946-001, -002, -003, -004.





## Larson and Associates, Inc., Midland, TX

Chevron NWAUB

Sample Id: SP-7 (6') Matrix:

Soil Date Received:02.11.20 10.44

Lab Sample Id: 651946-001 Date Collected: 02.10.20 12.31

Sample Depth: 6 ft

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 02.11.20 14.00

Basis: Wet Weight

Seq Number: 3116240

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	02.12.20 00.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	02.12.20 00.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	02.12.20 00.42	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	02.12.20 00.42	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	88	%	70-135	02.12.20 00.42		
o-Terphenyl		84-15-1	88	%	70-135	02.12.20 00.42		





## Larson and Associates, Inc., Midland, TX

Chevron NWAUB

Sample Id: SP-7 (10') Matrix: Soil Date Received:02.11.20 10.44

Lab Sample Id: 651946-002

Date Collected: 02.10.20 12.32

Sample Depth: 10 ft

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DVM

% Moisture:

Analyst:

ARM Date Prep: 02.11.20 14.00 Basis: Wet Weight

Seq Number: 3116240

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	02.12.20 01.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	02.12.20 01.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	02.12.20 01.03	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	02.12.20 01.03	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	86	%	70-135	02.12.20 01.03		
o-Terphenyl		84-15-1	87	%	70-135	02.12.20 01.03		





## Larson and Associates, Inc., Midland, TX

Chevron NWAUB

Sample Id: SP-7 (15') Matrix:

rix: Soil

Date Received:02.11.20 10.44

Date Collected: 02.10.20 12.36

Sample Depth: 15 ft

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Lab Sample Id: 651946-003

% Moisture:

Analyst: ARM

Date Prep: 02.11.20 14.00

Basis: Wet Weight

Seq Number: 3116240

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	02.12.20 01.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	02.12.20 01.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	02.12.20 01.24	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	02.12.20 01.24	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	86	%	70-135	02.12.20 01.24		
o-Terphenyl		84-15-1	86	%	70-135	02.12.20 01.24		





## Larson and Associates, Inc., Midland, TX

Chevron NWAUB

Sample Id: Matrix: Soil SP-7 (20')

Date Received:02.11.20 10.44

Lab Sample Id: 651946-004

Date Collected: 02.10.20 12.41

Sample Depth: 20 ft

Analytical Method: TPH by SW8015 Mod

ARM

Prep Method: SW8015P

DVM Tech:

Analyst:

% Moisture:

Seq Number: 3116240

02.11.20 14.00 Basis: Wet Weight Date Prep:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	02.12.20 01.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	02.12.20 01.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	02.12.20 01.46	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	02.12.20 01.46	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	82	%	70-135	02.12.20 01.46		
o-Terphenyl		84-15-1	82	%	70-135	02.12.20 01.46		



## **Flagging Criteria**



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit SDL Sample Detection Limit LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample BLK Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate MS Matrix Spike MSD: Matrix Spike Duplicate

- + NELAC certification not offered for this compound.
- \* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

<sup>\*\*</sup> Surrogate recovered outside laboratory control limit.



Seq Number:

#### **QC Summary** 651946

#### Larson and Associates, Inc.

Chevron NWAUB

Analytical Method: TPH by SW8015 Mod

3116240 Matrix: Solid

LCS Sample Id: 7696418-1-BKS MB Sample Id: 7696418-1-BLK

SW8015P Prep Method:

Date Prep: 02.11.20

LCSD Sample Id: 7696418-1-BSD

MB Spike LCS LCS Limits %RPD RPD Limit Units LCSD **LCSD** Analysis Flag **Parameter** Result Amount Result %Rec Date %Rec Result Gasoline Range Hydrocarbons (GRO) 02.11.20 17:56 <15.0 1000 901 90 896 90 70-135 20 mg/kg

974 97 70-135 20 02.11.20 17:56 Diesel Range Organics (DRO) 1000 948 95 3 <15.0 mg/kg MB MB LCS LCS LCSD LCSD Limits Units Analysis

**Surrogate** %Rec %Rec Flag Flag %Rec Flag Date 1-Chlorooctane 88 102 102 70-135 % 02.11.20 17:56 o-Terphenyl 86 101 97 70-135 % 02.11.20 17:56

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Seq Number: 3116240 Matrix: Solid Date Prep: 02.11.20

MB Sample Id: 7696418-1-BLK

MB Units Analysis Flag **Parameter** Result Date 02.11.20 17:34 Motor Oil Range Hydrocarbons (MRO) < 50.0 mg/kg

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Seq Number: 3116240 Matrix: Soil Date Prep: 02.11.20

MS Sample Id: 651910-001 S MSD Sample Id: 651910-001 SD Parent Sample Id: 651910-001

MS MS %RPD RPD Limit Units Analysis Parent Spike **MSD** MSD Limits Flag **Parameter** Result Amount Result %Rec Date Result %Rec Gasoline Range Hydrocarbons (GRO) 997 920 92 907 02.11.20 19:00 <15.0 91 70-135 1 20 mg/kg 997 985 99 978 70-135 20 02.11.20 19:00 Diesel Range Organics (DRO) <15.0 98 1 mg/kg Motor Oil Range Hydrocarbons (MRO) 02.11.20 19:00 997 <49.9 0 70-135 NC 20 X <15.0 <49.9 mg/kg

MS MS MSD Analysis MSD Limits Units **Surrogate** %Rec Flag %Rec Flag Date 02.11.20 19:00 1-Chlorooctane 97 94 70-135 % 91 92 70-135 02.11.20 19:00 o-Terphenyl %

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference

[D] = 100\*(C-A) / BRPD = 200\* | (C-E) / (C+E) |[D] = 100 \* (C) / [B]

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample

A = Parent Result = MS/LCS Result

= MSD/LCSD Result

MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

Re	ceive	d by C	CD:	1/1/2	020	12:0	90:0	8 A1	И		Γ	Γ	I'''''		1		r -		1	<del></del>					Pa	ge 85	of 9
LABORATORY:	RELINQUISHED BY:(Signature)	RELINQUISHED BY:(Signature)	COC VIEW BY(S	TOTAL											(105) 1-45	(161) 4-68	Sp-7 (10')	(101) 4-95	Field Sample I.D.	Time zone/State:			Data Reported to:	SSOCIATES, Inc.	A Green &		
000	Signature)	Signature)	1															6	Lab#		A=AIR	S=SOIL W=WATER		es, Inc			
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#### **XENCO Laboratories**

#### Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 02.11.2020 10.44.00 AM

Air and Metal samples Acceptable Range: Ambient

Work Order #: 651946

Temperature Measuring device used :

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		.6	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contain	ner/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?		N/A	
#6*Custody Seals Signed and dated?		N/A	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquish	ed/ received?	Yes	
#10 Chain of Custody agrees with sample la	bels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated to	est(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		N/A	
#18 Water VOC samples have zero headspa	ace?	N/A	

Muct b	a completed for	or ofter-houre	dolivory of	samples prior t	la placina in f	ha rafrigaratar

Analyst:	PH Device/Lot#: r8
,	

Checklist completed by: Date: 02.11.2020 Allison Johnson

Checklist reviewed by: Jessica Vramer

Date: 02.12.2020

Appendix E

**Photographs** 

1RP-4930 Chevron USA, Inc. Northwest Abo Unit Battery



Northwest Abo Tank Battery Viewing North, March 23, 2020



Spill Area Viewing Northwest, March 23, 2020

1RP-4930 Chevron USA, Inc. Northwest Abo Unit Battery



Spill Area Viewing Southwest, March 23, 2020

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505** 

CONDITIONS

Action 4752

## **CONDITIONS**

On another	OGRID:
Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	4752
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By	Condition	Condition Date
bbillings	None	9/13/2021