



Both bottom and sidewall confirmation samples are required for each of the proposed depths of excavation at no greater than 50 ft. intervals. At least one confirmation sidewall/edge sample location must be at the border between each different depth of excavation. Marked confirmation sample locations in relation to delineation sample locations on a scaled map. Dated photo documentation of the remediation process.

DELINEATION WORKPLAN

**COG – CABO BLANCO STATE 3001
(Leak Date: 6/5/18)**

RP # 1RP-5088

APPROVED

By CHernandez at 4:17 pm, Aug 24, 2018

This delineation workplan and remediation proposal addresses the release associated with RP # 1RP-5088.

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:

COG will excavate the spill area as depicted on the following site diagram. The leak area near SP1 – SP6 (blue shade on diagram) will be excavated to a depth of 1.5 feet. The leak area near SP7 and SP8 (yellow shade on diagram) will be excavated to a depth of 4.5 feet. The leak area near SP9 (green shade on diagram) will be excavated to a depth of 2.5 feet. The leak area near SP10 – SP12 (pink shade on diagram) will be excavated to a depth of 1 foot.

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.



New Mexico State Land Office Revegetation and Noxious Weed Management Plan

COG – Cabo Blanco State #001H

Revegetation Plan

Disturbed areas associated with the remediation efforts will be reseeded. If after one growing season, the vegetation has not taken hold, seeding may need to be repeated until revegetation is successful, as determined by the State Land Office. The seed will be spread by either using a hand-held broadcaster or tractor-mounted broadcaster and the area will be raked or dragged to cover the seed. If the seed will be broadcast, the pounds per acre will be double over the amount used by drill planting.

The seed mixture will be the appropriate mixture for the specific site and planted in the required amounts of pounds pure live seed (PLS) per acre. Commercially sold seed will be either certified or registered and will not contain primary or secondary noxious weeds.

Gamma grass – 40% - 1.5 lbs. PLS

Buffalo grass – 40% - 1.5 lbs. PLS

Side oats – 10% - 0.5% lbs. PLS

Four wing Salt bush – 10% - 1.5 lbs. PLS

Noxious Weed Management Plan

The site will be visited to assess the establishment of vegetative growth. Personnel performing the site visit will also look for the presence of noxious weeds at the site as indicated on the New Mexico Noxious Weeds List specified on the United States Department of Agriculture website. If a noxious weed is observed at the site, the NMSLO will be contacted to determine the most effective manner to eradicate it.

COG, Cabo Blanco State #001H

Leak date: 06/05/2018

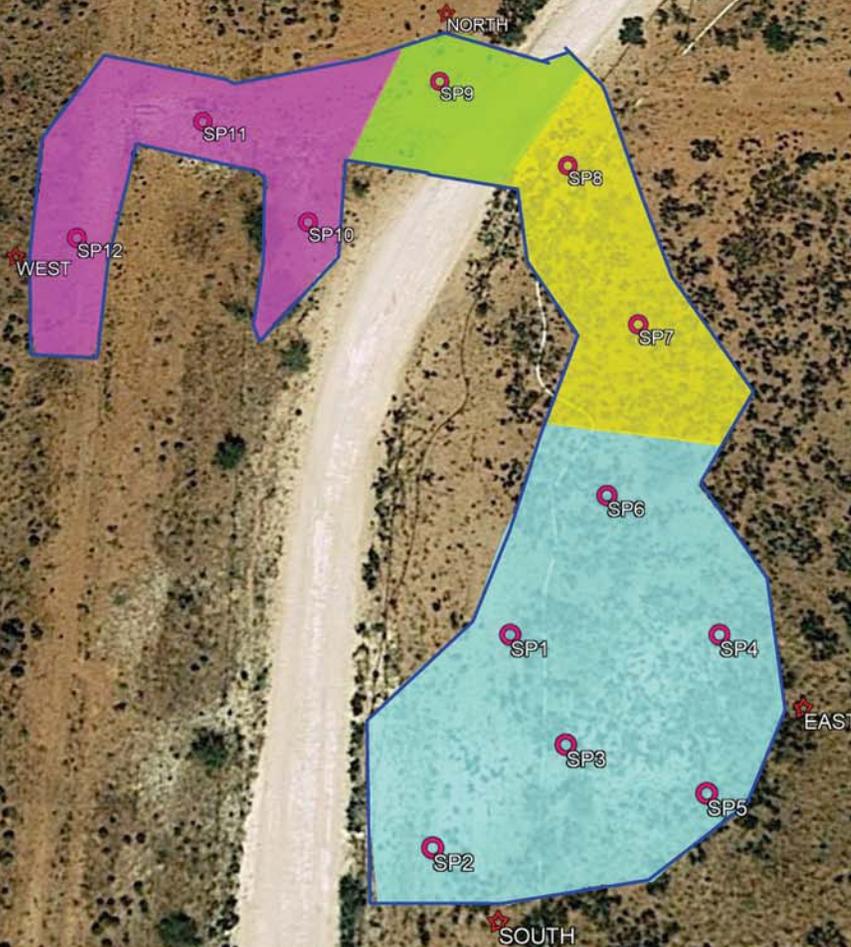
Lea County, NM

AP# 30-025-40702

1RP-5088

Legend

- 1 ft Excavation
- 1.5 ft Excavation
- 2.5 ft Excavation
- 4.5 ft Excavation
- Cardinal sample points
- Sample points
- Leak Area



COG, Cabo Blanco State #001H

Sample points

SP1, N 32.25174 W-103.61948

SP2, N 32.25155 W-103.61956

SP3, N 32.25164 W-103.61943

SP4, N 32.25174 W-103.61926

SP5, N 32.25159 W-103.61929

SP6, N 32.25189 W-103.61938

SP7, N 32.25207 W-103.61933

SP8, N 32.25226 W-103.61941

SP9, N 32.25236 W-103.61956

SP10, N 32.25219 W-103.61971

SP11, N 32.25232 W-103.61985

SP12, N 32.25217 W-103.61998

NORTH, N 32.25246 W-103.61955

SOUTH, N 32.25148 W-103.61950

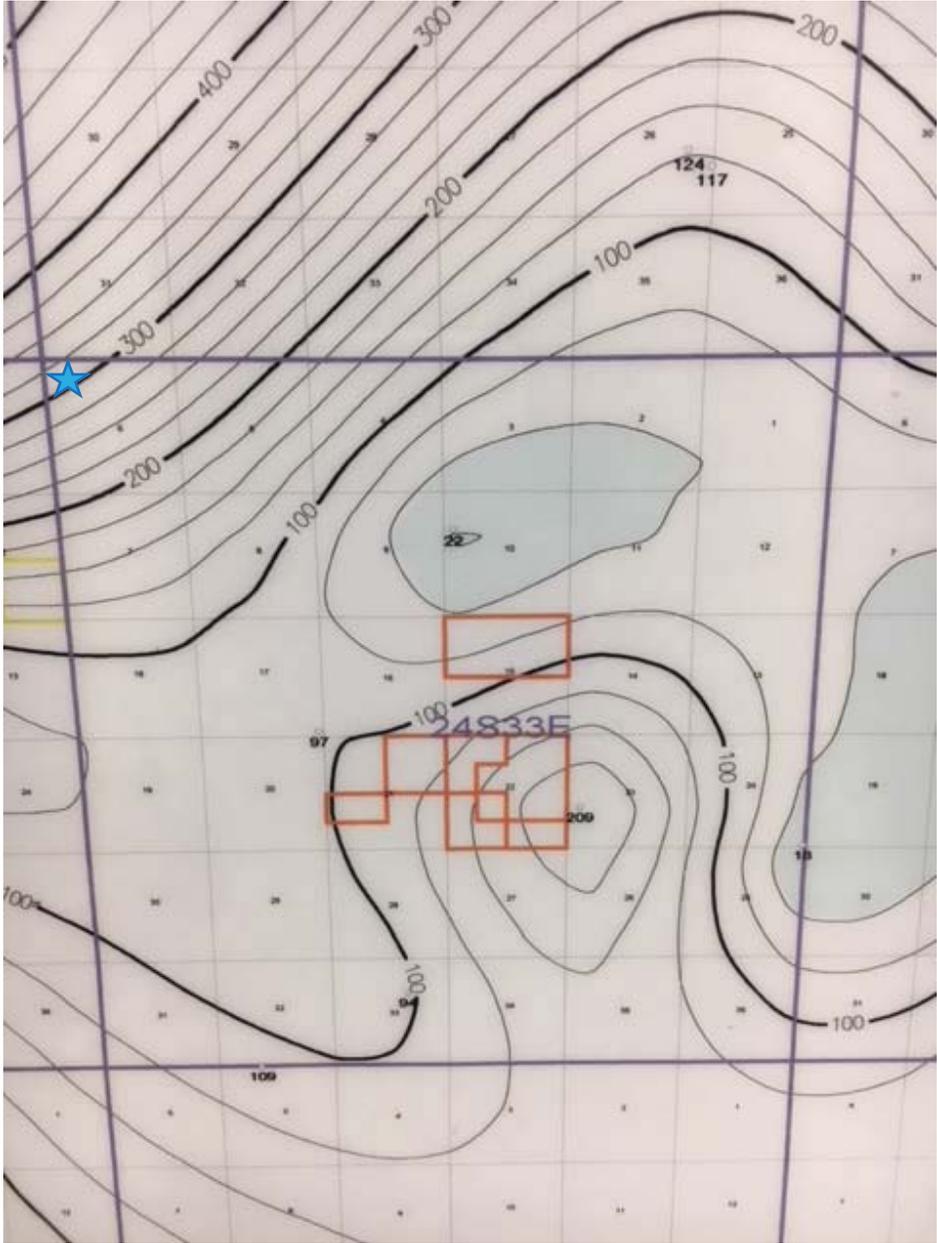
EAST, N 32.25167 W-103.61918

WEST, N 32.25215 W-103.62005

COG, Cabo Blanco State #001H

U/L D, Section 6, T24S, R33E

Groundwater: 300'





New Mexico Office of the State Engineer

Water Column/Average Depth to Water

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 630217

Northing (Y): 3569222

Radius: 1700

Public Land Survey System (PLSS)

Q64: Q16: Q4: Sec: Tws: Rng:

State Plane Coordinate System - NAD27

X: ft Y: ft Zone:

State Plane Coordinate System - NAD83

X: ft Y: ft Zone:

Degrees/Minutes/Seconds

Longitude (X): Degrees: ° Minutes: ' Seconds: "
Latitude (Y): Degrees: ° Minutes: ' Seconds: "

UTM - NAD27

Easting (X): mtrs Northing (Y): mtrs Zone:

SUBMIT

All Conversion Results are displayed as NAD 1983 UTM Zone 13

Easting (X): mtrs Northing (Y): mtrs

~~ Please keep screen open to copy UTM values for Reports. ~~

Laboratory Analytical Results Summary
Cabo Blanco State #001H (6/5/18)

Analyte	Method	Sample ID	SP1 @	SP1 @ 1'	SP1 @ 2'
			SURFACE		
Date			7/3/18	7/3/18	7/3/18
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500CI-B		34000	2160	32
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	n/a

Analyte	Method	Sample ID	SP2 @	SP2 @ 1'	SP2 @ 2'
			SURFACE		
Date			7/3/18	7/3/18	7/3/18
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500CI-B		31600	2080	48
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	n/a

Analyte	Method	Sample ID	SP3 @	SP3 @ 1'	SP3 @ 2'
			SURFACE		
Date			7/3/18	7/3/18	7/3/18
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500CI-B		46400	2000	352
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	n/a

Analyte	Method	Sample ID	SP4 @	SP4 @ 1'	SP4 @ 2'
			SURFACE		
Date			7/3/18	7/3/18	7/3/18
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500CI-B		35600	2120	848
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	n/a

Analyte	Method	Sample ID	SP5 @	SP5 @ 1'	SP5 @ 2'
			SURFACE		
Date			7/3/18	7/3/18	7/3/18
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500CI-B		36800	2280	48
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	n/a

Analyte	Method	Sample ID	SP6 @	SP6 @ 1'	SP6 @ 2'
			SURFACE		
Date			7/3/18	7/3/18	7/3/18
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500CI-B		69600	3480	32
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		66.8	n/a	n/a
EXT DRO	TPH 8015M		33.2	n/a	n/a

Analyte	Method	Sample ID	SP7 @	SP7 @ 1'	SP7 @ 2'	SP7 @ 3'	SP7 @ 4'	SP7 @ 5'
			SURFACE					
Date			7/3/18	7/5/18	7/5/18	7/5/18	7/5/18	7/5/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500CI-B		81600	3600	8660	3480	2280	48
GRO	TPH 8015M		<10.0	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		67.7	n/a	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		28.9	n/a	n/a	n/a	n/a	n/a

Analyte	Method	Sample ID	SP8 @	SP8 @ 1'	SP8 @ 2'	SP8 @ 3'	SP8 @ 4'	SP8 @ 5'
			SURFACE					
Date			7/5/18	7/5/18	7/5/18	7/5/18	7/5/18	7/5/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500CI-B		18200	3480	8160	3440	2000	48
GRO	TPH 8015M		<10.0	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		24.7	n/a	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	n/a	n/a	n/a	n/a

Laboratory Analytical Results Summary
Cabo Blanco State #001H (6/5/18)

		Sample ID	SP9 @ SURFACE	SP9 @ 1'	SP9 @ 2'	SP9 @ 3'
Analyte	Method	Date	7/5/18	7/5/18	7/5/18	7/5/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a
Chloride	SM4500CI-B		21200	5200	1150	32
GRO	TPH 8015M		<10.0	n/a	n/a	n/a
DRO	TPH 8015M		18.6	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	n/a	n/a

		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	WEST @ SURFACE	SOUTH @ SURFACE
Analyte	Method	Date	7/5/18	7/5/18	7/5/18	7/5/18
			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		80	112	64	80
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

		Sample ID	SP10 @ SURFACE	SP10 @ 1'
Analyte	Method	Date	7/5/18	7/5/18
			mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a
Toluene	BTEX 8021B		<0.050	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a
Total BTEX	BTEX 8021B		<0.300	n/a
Chloride	SM4500CI-B		22400	64
GRO	TPH 8015M		<10.0	n/a
DRO	TPH 8015M		21.9	n/a
EXT DRO	TPH 8015M		<10.0	n/a

		Sample ID	SP11 @ SURFACE	SP11 @ 1'	SP11 @ 2'	SP11 @ 3'
Analyte	Method	Date	7/5/18	7/5/18	7/5/18	7/5/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a
Chloride	SM4500CI-B		74400	1310	400	80
GRO	TPH 8015M		<10.0	n/a	n/a	n/a
DRO	TPH 8015M		57.2	n/a	n/a	n/a
EXT DRO	TPH 8015M		16.7	n/a	n/a	n/a

		Sample ID	SP12 @ SURFACE	SP12 @ 1'	SP12 @ 2'
Analyte	Method	Date	7/5/18	7/5/18	7/5/18
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500CI-B		34000	416	144
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	n/a

July 11, 2018

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: CABO BLANCO STATE #001H

Enclosed are the results of analyses for samples received by the laboratory on 07/06/18 14:25.

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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 1 @ SURFACE (H801841-01)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2018	ND	1.96	98.1	2.00	0.923		
Toluene*	<0.050	0.050	07/10/2018	ND	1.94	96.8	2.00	0.143		
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.91	95.4	2.00	0.0212		
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.88	98.1	6.00	0.104		
Total BTEX	<0.300	0.300	07/10/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	34000	16.0	07/09/2018	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	07/09/2018	ND	178	88.9	200	0.297		
DRO >C10-C28*	<10.0	10.0	07/09/2018	ND	209	104	200	2.36		
EXT DRO >C28-C36	<10.0	10.0	07/09/2018	ND						

Surrogate: 1-Chlorooctane 61.8 % 41-142

Surrogate: 1-Chlorooctadecane 67.4 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 1 @ 1' (H801841-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2160	16.0	07/09/2018	ND	416	104	400	0.00	

Sample ID: SP 1 @ 2' (H801841-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/09/2018	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 2 @ SURFACE (H801841-04)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2018	ND	1.96	98.1	2.00	0.923		
Toluene*	<0.050	0.050	07/10/2018	ND	1.94	96.8	2.00	0.143		
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.91	95.4	2.00	0.0212		
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.88	98.1	6.00	0.104		
Total BTEX	<0.300	0.300	07/10/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	31600	16.0	07/09/2018	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	07/09/2018	ND	178	88.9	200	0.297		
DRO >C10-C28*	<10.0	10.0	07/09/2018	ND	209	104	200	2.36		
EXT DRO >C28-C36	<10.0	10.0	07/09/2018	ND						

Surrogate: 1-Chlorooctane 91.8 % 41-142

Surrogate: 1-Chlorooctadecane 98.3 % 37.6-147

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Analytical Results For:

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

Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 2 @ 1' (H801841-05)

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	07/09/2018	ND	416	104	400	0.00	

Sample ID: SP 2 @ 2' (H801841-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/09/2018	ND	416	104	400	0.00	

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Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 3 @ SURFACE (H801841-07)

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	07/10/2018	ND	1.96	98.1	2.00	0.923		
Toluene*	<0.050	0.050	07/10/2018	ND	1.94	96.8	2.00	0.143		
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.91	95.4	2.00	0.0212		
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.88	98.1	6.00	0.104		
Total BTEX	<0.300	0.300	07/10/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	46400	16.0	07/09/2018	ND	416	104	400	3.77	QM-07, QR-03	

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	07/09/2018	ND	178	88.9	200	0.297		
DRO >C10-C28*	<10.0	10.0	07/09/2018	ND	209	104	200	2.36		
EXT DRO >C28-C36	<10.0	10.0	07/09/2018	ND						

Surrogate: 1-Chlorooctane 88.4 % 41-142

Surrogate: 1-Chlorooctadecane 95.4 % 37.6-147

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Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 3 @ 1' (H801841-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	07/09/2018	ND	416	104	400	3.77	

Sample ID: SP 3 @ 2' (H801841-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	07/09/2018	ND	416	104	400	3.77	

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Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 4 @ SURFACE (H801841-10)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2018	ND	1.96	98.1	2.00	0.923		
Toluene*	<0.050	0.050	07/10/2018	ND	1.94	96.8	2.00	0.143		
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.91	95.4	2.00	0.0212		
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.88	98.1	6.00	0.104		
Total BTEX	<0.300	0.300	07/10/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	35600	16.0	07/09/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	07/09/2018	ND	178	88.9	200	0.297		
DRO >C10-C28*	<10.0	10.0	07/09/2018	ND	209	104	200	2.36		
EXT DRO >C28-C36	<10.0	10.0	07/09/2018	ND						

Surrogate: 1-Chlorooctane 83.8 % 41-142

Surrogate: 1-Chlorooctadecane 92.7 % 37.6-147

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Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 4 @ 1' (H801841-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2120	16.0	07/09/2018	ND	416	104	400	3.77	

Sample ID: SP 4 @ 2' (H801841-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	848	16.0	07/09/2018	ND	416	104	400	3.77	

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Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 5 @ SURFACE (H801841-13)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2018	ND	1.96	98.1	2.00	0.923		
Toluene*	<0.050	0.050	07/10/2018	ND	1.94	96.8	2.00	0.143		
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.91	95.4	2.00	0.0212		
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.88	98.1	6.00	0.104		
Total BTEX	<0.300	0.300	07/10/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	36800	16.0	07/09/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	07/09/2018	ND	178	88.9	200	0.297		
DRO >C10-C28*	<10.0	10.0	07/09/2018	ND	209	104	200	2.36		
EXT DRO >C28-C36	<10.0	10.0	07/09/2018	ND						

Surrogate: 1-Chlorooctane 92.7 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 5 @ 1' (H801841-14)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2280	16.0	07/09/2018	ND	416	104	400	3.77	

Sample ID: SP 5 @ 2' (H801841-15)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/09/2018	ND	416	104	400	3.77	

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Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 6 @ SURFACE (H801841-16)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2018	ND	1.96	98.1	2.00	0.923	
Toluene*	<0.050	0.050	07/10/2018	ND	1.94	96.8	2.00	0.143	
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.91	95.4	2.00	0.0212	
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.88	98.1	6.00	0.104	
Total BTEX	<0.300	0.300	07/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	69600	16.0	07/09/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/09/2018	ND	178	88.9	200	0.297	
DRO >C10-C28*	66.8	10.0	07/09/2018	ND	209	104	200	2.36	
EXT DRO >C28-C36	33.2	10.0	07/09/2018	ND					

Surrogate: 1-Chlorooctane 85.8 % 41-142

Surrogate: 1-Chlorooctadecane 98.2 % 37.6-147

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Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 6 @ 1' (H801841-17)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3480	16.0	07/09/2018	ND	416	104	400	3.77	

Sample ID: SP 6 @ 2' (H801841-18)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/09/2018	ND	416	104	400	3.77	

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Received:	07/06/2018	Sampling Date:	07/03/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 7 @ SURFACE (H801841-19)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2018	ND	1.96	98.1	2.00	0.923	
Toluene*	<0.050	0.050	07/10/2018	ND	1.94	96.8	2.00	0.143	
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.91	95.4	2.00	0.0212	
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.88	98.1	6.00	0.104	
Total BTEX	<0.300	0.300	07/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	81600	16.0	07/09/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/09/2018	ND	178	88.9	200	0.297	
DRO >C10-C28*	67.7	10.0	07/09/2018	ND	209	104	200	2.36	
EXT DRO >C28-C36	28.9	10.0	07/09/2018	ND					

Surrogate: 1-Chlorooctane 89.5 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 7 @ 1' (H801841-20)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3600	16.0	07/09/2018	ND	416	104	400	3.77	

Sample ID: SP 7 @ 2' (H801841-21)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8660	16.0	07/09/2018	ND	416	104	400	3.77	

Sample ID: SP 7 @ 3' (H801841-22)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3480	16.0	07/09/2018	ND	416	104	400	3.77	

Sample ID: SP 7 @ 4' (H801841-23)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2280	16.0	07/09/2018	ND	416	104	400	3.77	

Sample ID: SP 7 @ 5' (H801841-24)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/09/2018	ND	416	104	400	3.77	

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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:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 8 @ SURFACE (H801841-25)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2018	ND	1.96	98.1	2.00	0.923		
Toluene*	<0.050	0.050	07/10/2018	ND	1.94	96.8	2.00	0.143		
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.91	95.4	2.00	0.0212		
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.88	98.1	6.00	0.104		
Total BTEX	<0.300	0.300	07/10/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	18200	16.0	07/09/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	07/09/2018	ND	178	88.9	200	0.297		
DRO >C10-C28*	24.7	10.0	07/09/2018	ND	209	104	200	2.36		
EXT DRO >C28-C36	<10.0	10.0	07/09/2018	ND						

Surrogate: 1-Chlorooctane 90.2 % 41-142

Surrogate: 1-Chlorooctadecane 101 % 37.6-147

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 Fax To: (575) 397-0397

Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 8 @ 1' (H801841-26)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3480	16.0	07/09/2018	ND	416	104	400	3.77	

Sample ID: SP 8 @ 2' (H801841-27)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8160	16.0	07/09/2018	ND	448	112	400	0.00	QM-07

Sample ID: SP 8 @ 3' (H801841-28)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3440	16.0	07/09/2018	ND	448	112	400	0.00	

Sample ID: SP 8 @ 4' (H801841-29)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	07/09/2018	ND	448	112	400	0.00	

Sample ID: SP 8 @ 5' (H801841-30)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/09/2018	ND	448	112	400	0.00	

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Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 9 @ SURFACE (H801841-31)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2018	ND	1.96	98.1	2.00	0.923	
Toluene*	<0.050	0.050	07/10/2018	ND	1.94	96.8	2.00	0.143	
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.91	95.4	2.00	0.0212	
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.88	98.1	6.00	0.104	
Total BTEX	<0.300	0.300	07/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	21200	16.0	07/09/2018	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/10/2018	ND	222	111	200	1.96	
DRO >C10-C28*	18.6	10.0	07/10/2018	ND	226	113	200	2.03	
EXT DRO >C28-C36	<10.0	10.0	07/10/2018	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 96.8 % 37.6-147

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Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 9 @ 1' (H801841-32)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5200	16.0	07/09/2018	ND	448	112	400	0.00	

Sample ID: SP 9 @ 2' (H801841-33)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1150	16.0	07/09/2018	ND	448	112	400	0.00	

Sample ID: SP 9 @ 3' (H801841-34)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/09/2018	ND	448	112	400	0.00	

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Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 10 @ SURFACE (H801841-35)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2018	ND	2.04	102	2.00	2.42	
Toluene*	<0.050	0.050	07/10/2018	ND	2.02	101	2.00	2.40	
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.99	99.4	2.00	2.31	
Total Xylenes*	<0.150	0.150	07/10/2018	ND	6.15	102	6.00	2.33	
Total BTEX	<0.300	0.300	07/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	22400	16.0	07/09/2018	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/10/2018	ND	222	111	200	1.96	
DRO >C10-C28*	21.9	10.0	07/10/2018	ND	226	113	200	2.03	
EXT DRO >C28-C36	<10.0	10.0	07/10/2018	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 98.6 % 37.6-147

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Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 10 @ 1' (H801841-36)

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	07/09/2018	ND	448	112	400	0.00	

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Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 11 @ SURFACE (H801841-37)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2018	ND	2.04	102	2.00	2.42	
Toluene*	<0.050	0.050	07/10/2018	ND	2.02	101	2.00	2.40	
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.99	99.4	2.00	2.31	
Total Xylenes*	<0.150	0.150	07/10/2018	ND	6.15	102	6.00	2.33	
Total BTEX	<0.300	0.300	07/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	74400	16.0	07/09/2018	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/10/2018	ND	222	111	200	1.96	
DRO >C10-C28*	57.2	10.0	07/10/2018	ND	226	113	200	2.03	
EXT DRO >C28-C36	16.7	10.0	07/10/2018	ND					

Surrogate: 1-Chlorooctane 96.3 % 41-142

Surrogate: 1-Chlorooctadecane 91.0 % 37.6-147

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Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 11 @ 1' (H801841-38)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1310	16.0	07/09/2018	ND	448	112	400	0.00	

Sample ID: SP 11 @ 2' (H801841-39)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	07/09/2018	ND	448	112	400	0.00	

Sample ID: SP 11 @ 3' (H801841-40)

Chloride, SM4500CI-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	07/09/2018	ND	448	112	400	0.00	

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Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 12 @ SURFACE (H801841-41)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2018	ND	2.04	102	2.00	2.42		
Toluene*	<0.050	0.050	07/10/2018	ND	2.02	101	2.00	2.40		
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.99	99.4	2.00	2.31		
Total Xylenes*	<0.150	0.150	07/10/2018	ND	6.15	102	6.00	2.33		
Total BTEX	<0.300	0.300	07/10/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	34000	16.0	07/09/2018	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	07/10/2018	ND	216	108	200	1.86		
DRO >C10-C28*	<10.0	10.0	07/10/2018	ND	218	109	200	3.14		
EXT DRO >C28-C36	<10.0	10.0	07/10/2018	ND						

Surrogate: 1-Chlorooctane 98.3 % 41-142

Surrogate: 1-Chlorooctadecane 87.7 % 37.6-147

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

Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 12 @ 1' (H801841-42)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	07/09/2018	ND	448	112	400	0.00	

Sample ID: SP 12 @ 2' (H801841-43)

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	07/09/2018	ND	448	112	400	0.00	

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: NORTH @ SURFACE (H801841-44)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2018	ND	1.84	92.0	2.00	0.0378	
Toluene*	<0.050	0.050	07/10/2018	ND	1.82	90.9	2.00	0.254	
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.80	90.1	2.00	1.37	
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.55	92.4	6.00	1.46	
Total BTEX	<0.300	0.300	07/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

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	07/09/2018	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/10/2018	ND	216	108	200	1.86	
DRO >C10-C28*	<10.0	10.0	07/10/2018	ND	218	109	200	3.14	
EXT DRO >C28-C36	<10.0	10.0	07/10/2018	ND					

Surrogate: 1-Chlorooctane 98.1 % 41-142

Surrogate: 1-Chlorooctadecane 87.7 % 37.6-147

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Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: EAST @ SURFACE (H801841-45)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2018	ND	1.84	92.0	2.00	0.0378	
Toluene*	<0.050	0.050	07/10/2018	ND	1.82	90.9	2.00	0.254	
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.80	90.1	2.00	1.37	
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.55	92.4	6.00	1.46	
Total BTEX	<0.300	0.300	07/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	07/09/2018	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/10/2018	ND	216	108	200	1.86	
DRO >C10-C28*	<10.0	10.0	07/10/2018	ND	218	109	200	3.14	
EXT DRO >C28-C36	<10.0	10.0	07/10/2018	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 93.4 % 37.6-147

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Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: WEST @ SURFACE (H801841-46)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2018	ND	1.84	92.0	2.00	0.0378	
Toluene*	<0.050	0.050	07/10/2018	ND	1.82	90.9	2.00	0.254	
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.80	90.1	2.00	1.37	
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.55	92.4	6.00	1.46	
Total BTEX	<0.300	0.300	07/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

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	07/09/2018	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/10/2018	ND	216	108	200	1.86	
DRO >C10-C28*	<10.0	10.0	07/10/2018	ND	218	109	200	3.14	
EXT DRO >C28-C36	<10.0	10.0	07/10/2018	ND					

Surrogate: 1-Chlorooctane 98.7 % 41-142

Surrogate: 1-Chlorooctadecane 89.1 % 37.6-147

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Received:	07/06/2018	Sampling Date:	07/05/2018
Reported:	07/11/2018	Sampling Type:	Soil
Project Name:	CABO BLANCO STATE #001H	Sampling Condition:	Cool & Intact
Project Number:	(6/5/18)	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SOUTH @ SURFACE (H801841-47)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2018	ND	1.84	92.0	2.00	0.0378	
Toluene*	<0.050	0.050	07/10/2018	ND	1.82	90.9	2.00	0.254	
Ethylbenzene*	<0.050	0.050	07/10/2018	ND	1.80	90.1	2.00	1.37	
Total Xylenes*	<0.150	0.150	07/10/2018	ND	5.55	92.4	6.00	1.46	
Total BTEX	<0.300	0.300	07/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

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	07/09/2018	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/10/2018	ND	216	108	200	1.86	
DRO >C10-C28*	<10.0	10.0	07/10/2018	ND	218	109	200	3.14	
EXT DRO >C28-C36	<10.0	10.0	07/10/2018	ND					

Surrogate: 1-Chlorooctane 100 % 41-142

Surrogate: 1-Chlorooctadecane 91.5 % 37.6-147

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Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- 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



District I
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

Form C-141
Revised April 3, 2017

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

OPERATOR Initial Report Final Report

Name of Company: COG Production, LLC (OGRID #217955)	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland, TX 79701	Telephone No. 432-683-7443
Facility Name: Cabo Blanco State #001H	Facility Type: Flowline

Surface Owner: State	Mineral Owner: State	API No. 30-025-40702
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	06	24S	33E					Lea

Latitude 32.25228 Longitude -103.61908 NAD83

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release: 250 bbl.	Volume Recovered 220 bbl.
Source of Release Flowline Rupture	Date and Hour of Occurrence June 5, 2018 7:30am	Date and Hour of Discovery June 5, 2018 7:30am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Olivia Yu – NMOCD Ryan Mann – SLO	
By Whom? DeAnn Grant	Date and Hour June 5, 2018 1:11pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
By *CHernandez* at 10:27 am, Jun 11, 2018

Describe Cause of Problem and Remedial Action Taken.*
The release was caused due to a damaged flex line rupturing. The flex line was repaired.

Describe Area Affected and Cleanup Action Taken.*
The release was in the pasture. A vacuum truck was dispatched to remove all freestanding fluids. Concho will have the spill area sampled to delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

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 public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health 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.

Signature: <i>DeAnn Grant</i>	OIL CONSERVATION DIVISION	
Printed Name: DeAnn Grant	Approved by Environmental Specialist: <i>CH</i>	
Title: HSE Administrative Assistant	Approval Date: 6/11/2018	Expiration Date:
E-mail Address: agrant@concho.com	Conditions of Approval: See attached directive	Attached <input checked="" type="checkbox"/>
Date: June 7, 2018	Phone: (432) 253-4513	

* Attach Additional Sheets If Necessary

1RP-5088

nCH1816238890

pCH1816239636

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 6/7/2018 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 1RP-5088 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 division-approved corrective action 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 7/11/2018. 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; C₆ thru C₃₆), 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; C₆ thru C₃₆), 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