

PHONE (575) 397-6388 • FAX (575) 397- 0397 • 1324 W. MARLAND • P.O. BOX 805 • H 50 ft. intervals. At least one E-MAIL: cbrunson@bbcinternational.com

#### **DELINEATION WORKPLAN**

COG - CABO BLANCO STATE 3001 Marked confirmation sample (Leak Date: 6/5/18)

**RP # 1RP-5088** 

## **APPROVED**

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

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

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.



PHONE (575) 397-6388 • FAX (575) 397-0397 • 1324 W. MARLAND • P.O. BOX 805 • HOBBS, NM 88241-0805

## New Mexico State Land Office Revegetation and Noxious Weed Management Plan

#### COG - Cabo Blanco State #001H

#### **Revegetation Plan**

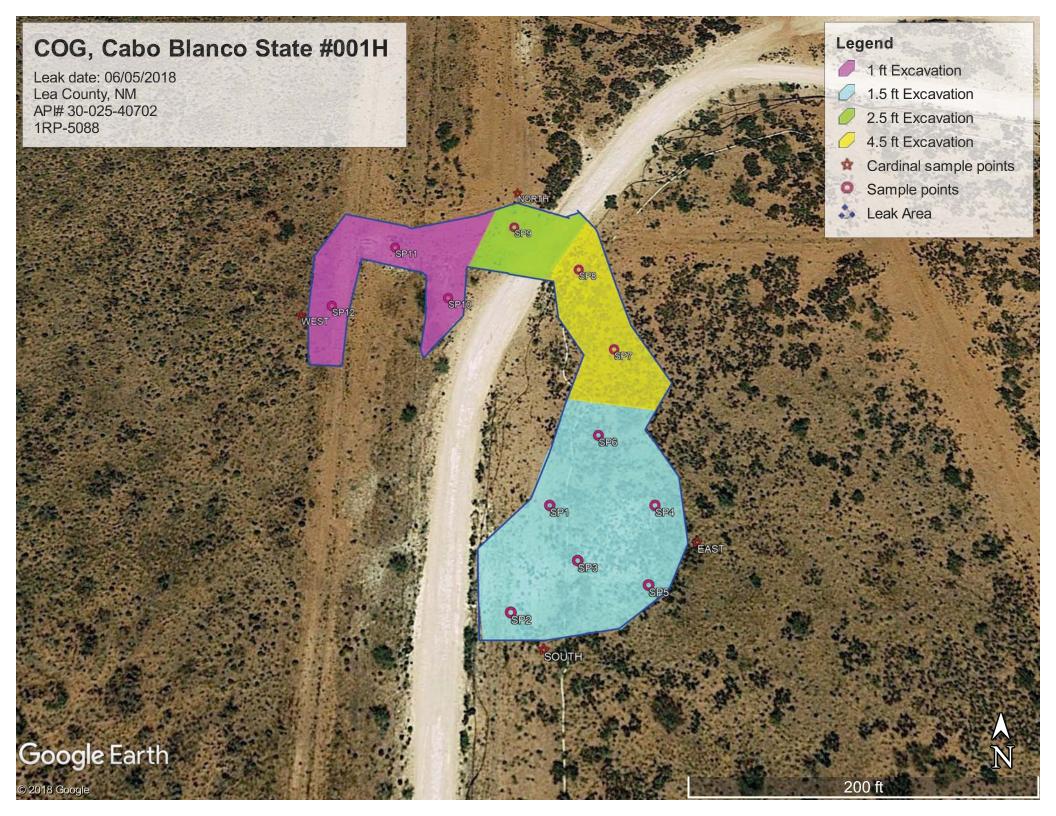
Disturbed areas associated with the remediation efforts will be reseeded. If after one growing season, the vegetation has not taken hold, seeding may need to be repeated until revegetation is successful, as determined by the State Land Office. The seed will be spread by either using a hand-held broadcaster 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.

Gramma 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

#### 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

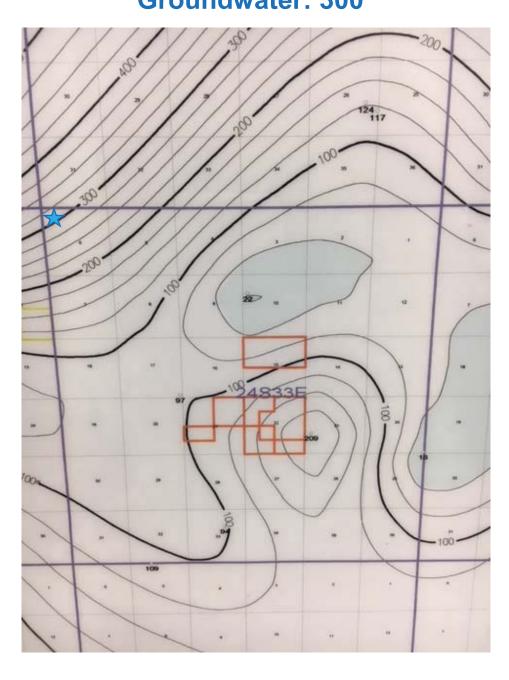
NORTH, N 32.25246 W-103.61955

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

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

**Easting (X):** 630217 **Northing (Y):** 3569222 **Radius:** 1700

UTM Conversion Tool Page 1 of 1

	Public Land Survey System (PLSS)								
•	Q64: 💙	Q16: NW V			•	•	Rng: 33E <b>∨</b>	7	
	State Plane Coordinate System - NAD27								
0	<b>x</b> : 0	<b>Y:</b> 0	ft	Zone:				~	
	State Plane Coordinate System - NAD83								
0	X:         0         ft         Y:         0         ft         Zone:								
	Degrees/Minutes/Seconds								
0	Longitude (X):	Degi	rees: 0 °	Minutes	0	•	Seconds: 0		
	Latitude (Y):	Deg	rees: 0	Minutes	0	•	Seconds: 0	"	
			UTM	- NAD27					
0	Easting (X	(): 0 V	mtrs	Northing	(Y):	0	mtrs	Zone:	
	SUBMIT								
All Conversion Results are displayed as NAD 1983 UTM Zone 13									
	Easting (X):	630217.0	mtrs	Northin	g (Y):	3569222.0	mtrs		
	~~ Please keep screen open to copy UTM values for Reports. ~~								

		Sample ID	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'
Analyte	Method	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		3 <mark>4000</mark>	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

			SP2 @		
		Sample ID	SURFACE	SP2 @ 1'	SP2 @ 2'
Analyte	Method	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

		Sample ID	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'
Analyte	Method	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

		Cample ID	SP4@ SURFACE	SP4 @ 1'	CD4 @ 2'
		Sample ID	SURFACE	SP4@1	SP4 @ 2'
Analyte	Method	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

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

			SP5@		
		Sample ID	SURFACE	SP5 @ 1'	SP5 @ 2'
Analyte	Method	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		3 <mark>6800</mark>	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

			SP6@		
		Sample ID	_	SP6 @ 1'	SP6 @ 2'
Analyte	Method	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

		Sample ID	SP7 @ SURFACE	SP7 @ 1'	SP7 @ 2'	SP7 @ 3'	SP7 @ 4'	SP7 @ 5'
Analyte	Method	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

		Sample ID	SP8 @ SURFACE	SP8 @ 1'	SP8 @ 2'	SP8 @ 3'	SP8 @ 4'	SP8 @ 5'
Analyte	Method	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

			SP9 @			
		Sample ID	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

			0040	
		0I- ID	SP10 @ SURFACE	SP10 @ 1'
		Sample ID	SURFACE	3710@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

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

			NORTH @	EAST @	WEST @	SOUTH @
		Sample ID	SURFACE	SURFACE	SURFACE	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



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 <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.

Celeg D. Keens

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



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

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Project Location: COG - LEA CO NM

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

DTEV 0021D

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	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 %	69.8-14.	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	34000	16.0	07/09/2018	ND	416	104	400	0.00	
TPH 8015M	mg/l	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	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 %	6 41-142							
Surrogate: 1-Chlorooctadecane	67.4 %	6 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.



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 Reporting Limit Analyzed Method Blank BS True Value QC RPD Qualifier Analyte Result % Recovery Chloride 32.0 16.0 07/09/2018 416 104 400 0.00 ND

Cardinal Laboratories \*=Accredited Analyte

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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 2 @ SURFACE (H801841-04)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	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 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	31600	16.0	07/09/2018	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	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	% 37.6-14	!7						

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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 Reporting Limit Analyzed Method Blank BS True Value QC RPD Qualifier Analyte Result % Recovery Chloride 48.0 16.0 07/09/2018 416 104 400 0.00 ND

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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: Sample Received By: (6/5/18)Tamara Oldaker

Project Location: COG - LEA CO NM

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

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	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 %	69.8-14	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	46400	16.0	07/09/2018	ND	416	104	400	3.77	QM-07, QR-03
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	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 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	9549	% 37 6-14	7						

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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 Reporting Limit Analyzed Method Blank BS True Value QC RPD Qualifier Analyte Result % Recovery Chloride 352 16.0 07/09/2018 416 104 400 3.77 ND

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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	Analyze	d 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 %	% 69.8-14	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	35600	16.0	07/09/2018	ND	416	104	400	3.77	
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	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 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	92.79	% 37.6-14	7						

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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 Reporting Limit Analyzed Method Blank BS True Value QC RPD Qualifier Analyte Result % Recovery Chloride 848 16.0 07/09/2018 416 104 400 3.77 ND

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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 Sample Received By: Project Number: (6/5/18)Tamara Oldaker

Project Location: COG - LEA CO NM

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

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	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	% 69.8-14	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	36800	16.0	07/09/2018	ND	416	104	400	3.77	
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	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	% 37.6-14	7						

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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	Analyze	d 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 Sample Received By: Project Number: (6/5/18)Tamara Oldaker

Project Location: COG - LEA CO NM

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

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	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 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	69600	16.0	07/09/2018	ND	416	104	400	3.77	
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	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	% 376-14	17						

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 Reporting Limit Analyzed Method Blank BS True Value QC RPD Qualifier Analyte Result % Recovery Chloride 32.0 16.0 07/09/2018 416 104 400 3.77 ND

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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	Analyze	d 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 %	69.8-14	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	81600	16.0	07/09/2018	ND	416	104	400	3.77	
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	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-Chlorooctane 89.5 % 41-142
Surrogate: 1-Chlorooctadecane 104 % 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 7 @ 1' (H801841-20)

Chloride, SM4500CI-B	mg/kg		Analyze	d 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' (H80	1841-21)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d 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' (H80	1841-22)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3480	16.0	07/09/2018	ND	416	104	400	3.77	
Sample ID: SP 7 @ 4' (H80	1841-23)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d 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' (H80	1841-24)								
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	07/09/2018	ND	416	104	400	3.77	

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

Fax To: (575) 397-0397

Received: 07/06/2018 Sampling Date: 07/05/2018

Reported: 07/11/2018 Sampling Type: Soil

Project Name: CABO BLANCO STATE #001H Sampling Condition: Cool & Intact Sample Received By: Project Number: (6/5/18)Tamara Oldaker

Project Location: COG - LEA CO NM

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

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	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 % 69.8-14		!2						
Chloride, SM4500Cl-B	mg/kg		Analyze	ed 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	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	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 9	% 37.6-14	!7						

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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 8 @ 1' (H801841-26)

Chloride, SM4500CI-B	mg	/kg	Analyze	d 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' (H801	841-27)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8160	16.0	07/09/2018 ND		448	112	400	0.00	QM-07
Sample ID: SP 8 @ 3' (H801	841-28)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3440	16.0	07/09/2018	ND	448	112	400	0.00	
Sample ID: SP 8 @ 4' (H801	841-29)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	07/09/2018	ND	448	112	400	0.00	
Sample ID: SP 8 @ 5' (H801	841-30)								
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	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 Sample Received By: Tamara Oldaker Project Number: (6/5/18)

Project Location: COG - LEA CO NM

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

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	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 % 69.8-14		!2						
Chloride, SM4500Cl-B	, SM4500Cl-B mg/kg		Analyze	d 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	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	07/10/2018	ND	222	111	200	1.96	
DRO >C10-C28*	<b>18.6</b> 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 9	% 41-142	?						
Comment of Chlores at also me	06.0	0/ 27 / 14	17						

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, SM4500Cl-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, SM4500Cl-B Analyzed By: AC mg/kg Reporting Limit Analyzed BS True Value QC RPD Qualifier Analyte Result Method Blank % Recovery Chloride 1150 16.0 07/09/2018 448 400 0.00 ND 112

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier Chloride 32.0 07/09/2018 ND 400 0.00 16.0 448 112

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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 Sample Received By: Project Number: (6/5/18)Tamara Oldaker

Project Location: COG - LEA CO NM

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

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	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	• •		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		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	22400	16.0	07/09/2018 ND		448	112	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	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 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	98.6	% 376-14	7						

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, 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	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	Analyze	d By: MS					
Analyte	,		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		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	74400	16.0	07/09/2018	ND	448	112	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	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, SM4500Cl-B mg/kg Analyzed By: AC

Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD

**Chloride 1310** 16.0 07/09/2018 ND 448 112 400 0.00

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

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

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

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 07/09/2018 ND 400 0.00 16.0 448 112

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Qualifier



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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 Sample Received By: Project Number: (6/5/18)Tamara Oldaker

Project Location: COG - LEA CO NM

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

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	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 % 69.8-14		22						
Chloride, SM4500Cl-B	mg/kg		Analyze	d By: AC					
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	34000	16.0	07/09/2018	ND	448	112	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	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	?						
Summagata: 1 Chlomogatadagana	977	0/ 27614	17						

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: 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 Analyzed By: AC Reporting Limit Analyzed Method Blank BS True Value QC RPD Qualifier Analyte Result % Recovery Chloride 144 16.0 07/09/2018 448 400 0.00 ND 112

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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 Sample Received By: Project Number: (6/5/18)Tamara Oldaker

Project Location: COG - LEA CO NM

#### Sample ID: NORTH @ SURFACE (H801841-44)

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	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 % 69.8-14.		12						
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	07/09/2018	ND	448	112	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	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	% 37.6-14	!7						

Cardinal Laboratories \*=Accredited Analyte

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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: EAST @ SURFACE (H801841-45)

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	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		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	112	16.0	07/09/2018	ND	448	112	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	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 5	% 41-142	?						
Surrogate: 1-Chlorooctadecane	93.4	% 37.6-14	7						

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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 Sample Received By: Project Number: (6/5/18)Tamara Oldaker

Project Location: COG - LEA CO NM

#### Sample ID: WEST @ SURFACE (H801841-46)

Analyte	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	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		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	07/09/2018	ND	448	112	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	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	% 37.6-14	7						

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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 Sample Received By: Project Number: (6/5/18)Tamara Oldaker

Project Location: COG - LEA CO NM

#### Sample ID: SOUTH @ SURFACE (H801841-47)

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	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	% 69.8-14	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	80.0	16.0	07/09/2018	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	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	% 37.6-14	7						

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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

ecovery.

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1085

Company Name	ompany Name: BBC International, Inc. oject Manager: Cliff Brunson									BI	LL TO					- 8	ANA	LYSIS	RE	QUE	ST			
Project Manage	r: Cliff Brunson						F	2.0. ‡	#:															
Address: P.O	Box 805						c	omp	pany	<b>/</b> :	000													
city: Hobbs	State: NM	Zip	: 8	824	1		A	ttn:	1-	fai	Skell													
Phone #: 575-	397-6388 Fax #: 575	397	7-0	397			Δ	ddre	ess:															
Project #:	Project Owner	0	Œ	7			c	ity:																
Project Name:	Cabo Blanco State #001H (6/5/18)							tate	:		Zip:													
Project Locatio	n: Lea County, NM		111				P	hon	e #:															
Sampler Name:	The state of the s						F	ax #	ł:															
FOR LAB USE ONLY					MAT	RIX		PF	RESE	RV.	SAMPL	ING			1									
8		(C)OMP.		œ											2				- 8					
	NERS OF THE REPORT OF THE REPO						2703						5	3										
Lab I.D.	Lab I.D. Sample I.D.				200		щ ;	ASE	00	~				3	#									a.
ILONIGHI	(G)RAB OR (C)ON # CONTAINERS GROUNDWATER WASTEWATER SOIL				OIL	SLUDGE	ACID/BASE	ICE / COOL	OTHER	DATE	T10.05	)(	BI	1										
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5	SP1 @ 1'	G	1	$\vdash$		$\dashv$	_	╁	-	-	7/3/18	8:51 AM	./	V										
3	SP1 @ 2'	6	1	H	1			╁	-	1	7/3/18	9:11 AM	1											
4	SP2 @ SURFACE	6	1	Н	1			1	-	/	7/3/18	9:30 AM	1	1	1									
5	SP2 @ 1'	Ğ	1	П	/			T	-	/	7/3/18	9:40 AM	1	_	Ť								_	
6	SP2 @ 2'	G	ı		-	1			-	1	7/3/18	9:55 AM	1											
7	SP3 @ SURFACE	G	1		1				-		7/3/18	10:15 AM	1	1	1									
8	SP3 @ 1'	G	ı		/				1		7/3/18	10:30 AM	1											
9	SP3 @ 2'	G	1						-		7/3/18	10:45 AM	1						_					
10	SP4 @ SURFACE	G	1		-				V	1	7/3/18	11:11 AM	1	1	1									
analyses. All claims includi	nd Damages. Cardinal's liability and client's exclusive remedy for a ng those for negligence and any other cause whatsoever shall be ardinal be liable for incidental or consequental damages, including	deemed	waive	d unles	made in	writing	and re	ceived	by Car	dinal	vithin 30 days afte	er completion of th	e applical	ble										
affiliates or successors aris	ng out of or related to the performance of services hereunder by C	ardinal	regar	dless of	whether s							asons or otherwise	0.											
Relinquished B	Date:   5   18	Re	cei	red E	y:							Phone Res	t:	☐ Ye		No No	Add'l	Phone : Fax #:	#:	-				
1/9/	Time:			M	/							REMARKS	:											
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Time: 25 January					18	L	16	da	BUC															
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Sampler - UPS	ampler - UPS - Bus - Other:					F	Yes	12		(Init	ials)	- 30	on	u.	h	200	Me	ad		30	ree.			
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<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 5

Company Name: BBC International, Inc.							100		11111	BI	ILL	TO		i			J	ANA	LYSIS	RE	QUE	ST				
Project Manage	er: Cliff Brunson				11.11	11		P	P.O. #	#:																
Address: P.O.	. Box 805		annin		- SILLA LINE CO			С	omp	par	лу: /	CO	G.											1 1	l = l	1 1
city: Hobbs	State: NM	Zir	): <sup>{</sup>	882	241			A	Attn:		10	isk	all											'	l = l	1 1
Phone #: 575-	-397-6388 Fax #: 575-	-39	7-0	139	7			A	Addre	ess	s:													1 1	( !	1 1
Project #:	Project Owner	_	700	D		_		C	ity:															'	(-1)	1 1
Project Name: Cabo Blanco State #001H (6/5/18)							s	state:	/:		Zip	):									180		1 1	l = l	1 1	
Project Location: Lea County, NM						P	hone	ie#	<b>#</b> : .													1 1	i = l	12		
Sampler Name:	: Jeff Ornelas							F	ax #:															1 1	1 1	1 1
FOR LAB USE ONLY	,	2.	4		1	MATR	RIX	_	PR	ES	SERV.	. s	SAMPLI	NG			-							1 1	1 1	1 1
	1	(C)OMP	S	8	~	,							ę			NO.	X							1 1	1 1	1 '
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H801841	1	(G)RAB	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE OTHER:	ACID/BASE	ICE / COOL	OTHER:	٦,	DATE	TIME	0	8								'	1 1	1 - 1
11	SP4 @ 1'	G		-	>	S	2 0	+-	1	-	20	_	3/18	11:30 AM	1			_	$\vdash$	┼─┤	$\vdash$		<del>                                     </del>	$\vdash$	$\overline{}$	<b></b>
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13	SP5 @ SURFACE	G	_		Ħ	1		+	1		7	7/3	3/18	1:11 PM	1	1	1									
	SP5 @ 1'	G	1			V		I		1	V	7/3	3/18	1:30 PM	1											
14	SP5 @ 2'	G	1			V		1			/	7/3	3/18	1:49 PM	1											
14	SP6 @ SURFACE	G	1	L		V		1	T		1	-	3/18	2:15 PM	1	1	1									
17	SP6 @ 1'	G	1			V	1	1	1	~	1		3/18	2:33 PM	1											
18	SP6 @ 2;	G	11	4	Ш	1	_	+	+			_		3:01 PM	1		Ļ			$\sqcup$						
19	SP7 @ SURFACE	G	11	+	$\sqcup$	1	+	+	+	-			3/18	3:15 PM	<b>V</b>	✓	1			$\vdash$						<u> </u>
PLEASE NOTE: Liability at	SP7 @ 1' and Damages. Cardinal's liability and client's exclusive remedy for ar	any cla	aim ari	sing w	hether	based i	in contri	act or	tort, sh	nall b	e limite		5/18 amount paid	8:38 AM	the											
analyses. All claims includi	ding those for negligence and any other cause whatsoever shall be d Cardinal be liable for incidental or consequental damages, including	deemed	ed waive	ived unl	nless mai	ade in w	writing ar	and rece	ceived b	by Ca	Cardinal v	I within 3	30 days afte	er completion of the	he applicab	ole										
	sing out of or related to the performance of services hereunder by Ca	Cardinal	al, regar	ardless		ether suc									se.	☐ Yes	e 🗆	No	[Add']	Phone #	4.					
16 (8	\$ 1.5118	_		,	V	M		1	/					Fax Result	t:	☐ Yes		No	Add'l		<i>t</i> .					
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Delivered By	: (Circle One) 0.32		-				Condi			CI	HECK															
Sampler - UPS	Sampler - UPS - Bus - Other: Corrected 0.25 No No							es	7	V	(inii	itials)	45	Some has head space												

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

## ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240

Company Name: BBC International, Inc.

(505) 393-2326 FAX (505) 393-2476

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**ANALYSIS REQUEST** 

3085

Project Manager: CIIT Brunson							P.C	D. #:										1 1	1 1			- 1	
Address: P.O.	. Box 805						Co	mpa	ny:	COG.											ı		
city: Hobbs	State: NM	Zip	: 8	824	11		Att	tn:	17	askell													
Phone #: 575-3	397-6388 Fax #: 575-	39	7-0	397		SALE N	Ad	dres	s:														
Project #:	Project Owner	. (	0	3		_	Cit	y:															
	Cabo Blanco State #001H (6/5/18)						Sta	ate:		Zip:													
Project Location: Lea County, NM							Ph	one	#:	**													
Sampler Name: Jeff Ornelas							Fax	x #:															
FOR LAB USE ONLY				a respectively.	MATR	IX		PRE	SER	V. SAMPL	NG		- 22	1									
Lab I.D. 1480 841	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER SOIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	DATE	TIME	10	BTEX	TMYCKT		8 0							
21	SP7 @ 2'	6	1		1				/	7/5/18	9:11 AM	1											- 1
22	SP7 @ 3'	G	1		1				1	7/5/18	9:38 AM	1											
	SP7 @ 4'	G	1		1			1		7/5/18	10:01 AM	1				6							
24	SP7 @ 5'	6	1						1	7/5/18	10:39 AM	1											
25	SP8 @ SURFACE	G	1						/	7/5/18	10:45 AM	1	1	1									
24	SP8 @ 1'	G	1						1	7/5/18	10:55 AM	1											
27	SP8 @ 2'	6	1						1	7/5/18	11:11 AM	1											
	SP8 @ 3'	6	1						1	7/5/18	11:22 AM	1											
29	SP8 @ 4'	Ģ	1						1	7/5/18	11:33 AM	1											
30	SP8 @ 5'	6	1	Ц	~			Ц	/	7/5/18	11:40 AM	1											
analyses. All claims including service. In no event shall C	nd Damages. Cardinal's liability and client's exclusive remedy for a ng those for negligence and any other cause whatsoever shall be t ardinal be liable for incidental or consequental damages, including ng out of or related to the performance of services hereunder by C	deeme withou	d waive ut limits	ed unles	ss made in wri usiness interru	ting and ptions, lo	recei	ived by f use, o	Cardina loss of	al within 30 days after profits incurred by	er completion of th client, its subsidiar	e applicat	ble										
Relinquished By				red E						The debte states to	Phone Res	The same of the sa	☐ Ye	s 🛚	No	Add'I	Phone	#:					
16 18	Time; M			V	A	/					Fax Result REMARKS		☐ Ye	s 🗆	No	Add'l	Fax #:						
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Delivered By: (Circle One) Sampler - UPS - Bus - Other:  Orrected 0. 35  Sample Condition Cool Intact Pres Pres No No No						act			(In	KED BY:	5	or.	ne	M	au	e	Re	ad	25	pa	0		

BILL TO

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: BBC International, Inc.								BILL TO ANALYSIS REQUEST																	
Project Manage	r: Cliff Brunson							P.0	0. #	:															
Address: P.O	. Box 805							Co	mp	any	r: (	200							0						
City: Hobbs	State: NM	Zip	): i	382	41			At	tn:	H	as	Kell													
Phone #: 575-	397-6388 Fax #: 575	-39	7-0	39	7			Ad	ldre	ss:															
Project #:	Project Owner	. (	0	3				Cit	ty:								1								
Project Name: Cabo Blanco State #001H (6/5/18)							Sta	ate:			Zip:														
Project Location: Lea County, NM							Ph	one	#:																
Sampler Name:	10 Table 12	=						Fa	x #:																
FOR LAB USE ONLY			Г		N	IATR	IX		PR	ESE	RV.	SAMPL	NG												
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Lab I.D.	Sample I.D.	3 OR	M	NO.	WA		щ	::	ASE	00					2	7							'		
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33		2	1	┡			-	-	┡	/		7/5/18	12:12 PM	<b>✓</b>			-	<u> </u>			<u> </u>				
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PLEASE NOTE: Liability a	SP11 @ 3' and Damages. Cardinal's liability and client's exclusive remedy for a	ny cla	im aris	ing wi	nether ba	sed in	contrac	t or to	nt, sha	ll be li	mited			the											
	ing those for negligence and any other cause whatsoever shall be Cardinal be liable for incidental or consequental damages, including														ble										
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Sampler - UPS - Bus - Other: Carrected 0.250 No No TO #75 Some have flac Space																									

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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



Company Name	BBC International, Inc.									BI	LL TO		i				Al	NAI	YSI	SRE	EQUE	ST			
Project Manage	r: Cliff Brunson						F	2.0.	#:						Т	T					T				
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city: Hobbs	State: NM	Zip	): {	382	41		1	Attn:	į.	Ha	Skell	/													
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Project Location	n: Lea County, NM						F	hon	ie #	<b>‡</b> :															
Sampler Name:	Jeff Ornelas						F	ax #	<b>‡</b> :																
FOR LAB USE ONLY		١.		_	MA	TRIX	(	PI	RES	SERV.	SAMPL	ING			1										
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analyses. All claims includi service. In no event shall C	nd Damages. Cardinar's liability and client's exclusive remedy for a ng 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 hereunder by C	deeme withou	d waiv ut limit	ed uni ation,	ess made i business in	in writin nterrupti	ng and re ions, los	s of use	by C	ardinal v	vithin 30 days aft rofits incurred by	er completion of t client, its subsidia	the applica aries,	ble							1				
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<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

<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

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

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

Form C-141

Revised April 3, 2017

	on and Corrective A	ction											
Release Polification	OPERATOR	☐ Initial Report ☐ Final Report											
Name of Company: COG Production, LLC (OGRID #217955)	•	ert 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											
LOCATIO	ON OF RELEASE												
	th/South Line Feet from the	East/West Line County Lea											
<b>Latitude</b> 32.25228 I	ongitude -103.61908 NAD83	3											
NATURI	E 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?	If YES, To Whom?												
☐ Yes ☐ No ☐ Not Required	Ryan Mann – SLO												
By Whom? DeAnn Grant	Date and Hour June 5, 2018	1:11pm											
Was a Watercourse Reached?	If YES, Volume Impacting the	ne Watercourse.											
☐ Yes ⊠ No													
If a Watercourse was Impacted, Describe Fully.*	DECENTED												
	RECEIVED												
	By CHernande	z 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 li	ne was repaired.												
Describe Area Affected and Cleanup Action Taken.*													
•													
The release was is the pasture. A vacuum truck was dispatched to remove possible impact from the release and we will present a remediation work													
I hereby certify that the information given above is true and complete to													
regulations all operators are required to report and/or file certain release	notifications and perform correc	tive actions for releases which may endanger											
public health or the environment. The acceptance of a C-141 report by t should their operations have failed to adequately investigate and remedia													
or the environment. In addition, NMOCD acceptance of a C-141 report													
federal, state, or local laws and/or regulations.	•												
<b>+</b> 0	OIL CONS	SERVATION DIVISION											
Signature: Della Characteristics		. ( )											
Printed Name: DeAnn Grant	Approved by Environmental Sp	pecialist:											
Title: HSE Administrative Assistant	Approval Date: 6/11/201	8 Expiration Date:											
E-mail Address: agrant@concho.com	Conditions of Approval:	Attached \											

\* Attach Additional Sheets If Necessary

Date: June 7, 2018

1RP-5088

Phone: (432) 253-4513

nCH1816238890

pCH1816239636

See attached directive

#### 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 <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 \_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; 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