



DELINEATION WORKPLAN

COG – ROADRUNNER FED COM 2-12 CTB (Leak Date: 2/18/18)

RP # 2RP-4633

This delineation workplan and remediation proposal addresses the release associated with RP # 2RP-4633.

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 entire leak area (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.

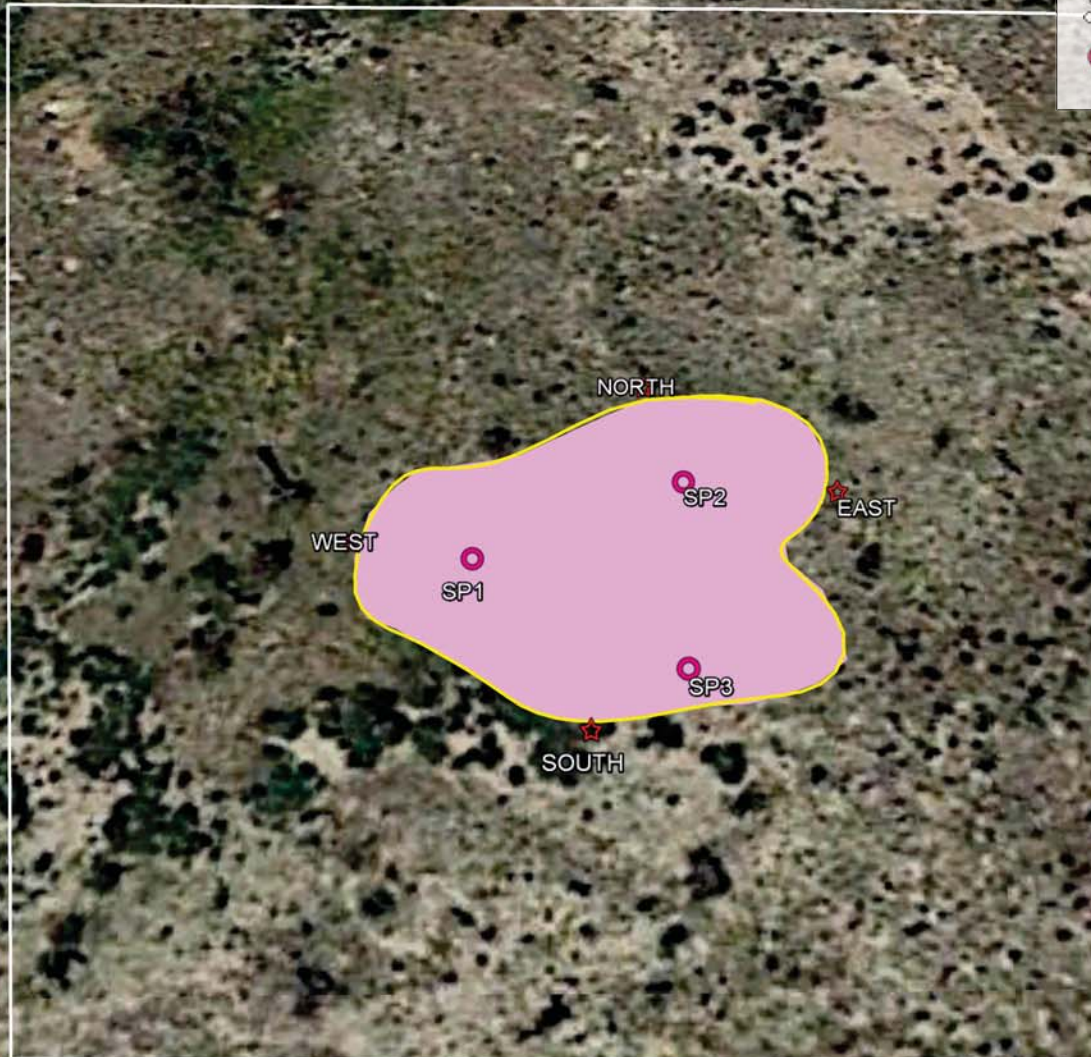
All excavated materials will be disposed of at an NMOCD-approved disposal facility.

COG, Roadrunner Fed Com 2-12

Leak date: 02/18/2018; 2RP-4633
Eddy County, NM

Legend

-  1 ft Excavation
-  Cardinal sample points
-  Leak Area, Roadrunner Fed Com 2-12H
-  Location pad
-  Sample points



Google Earth

© 2018 Google



70 ft

COG, Roadrunner Fed Com 2-12H

Samples, hand auger

SP1, N 32.09431 W-104.24398

SP2, N 32.09434 W-104.24389

SP3, N 32.09426 W-104.24389

NORTH, N 32.09438 W-104.24391

SOUTH, N 32.09424 W-104.24393

EAST, N 32.09433 W-104.24383

WEST, N 32.09432 W-104.24403

COG, Roadrunner Fed Com 2-12H

U/L O, Section 25, T25S, R26E

Groundwater: <50'





New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tw	S	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
C 01013		C	ED	4	25	25S	26E				571505	3551456*	284	245		
C 02221		CUB	ED	4	3	2	25	25S	26E		571412	3551961*	714	35		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 571304

Northing (Y): 3551255

Radius: 1700

*UTM location was derived from PLSS - see Help

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

3/13/18 9:42 AM

WATER COLUMN/ AVERAGE DEPTH TO
WATER

Public Land Survey System (PLSS)

☒ Q64: Q16: SW Q4: SE Sec: 25 Tws: 25S Rng: 26E

State Plane Coordinate System - NAD27

☐ X: 0 ft Y: 0 ft Zone:

State Plane Coordinate System - NAD83

☐ X: 0 ft Y: 0 ft Zone:

Degrees/Minutes/Seconds

☐ Longitude (X): Degrees: 0 ° Minutes: 0 ' Seconds: 0 "

Latitude (Y): Degrees: 0 ° Minutes: 0 ' Seconds: 0 "

UTM - NAD27

☐ Easting (X): 0 mtrs Northing (Y): 0 mtrs Zone:

SUBMIT**All Conversion Results are displayed as NAD 1983 UTM Zone 13**Easting (X): 571304.0 mtrsNorthing (Y): 3551255.0 mtrs**~~ Please keep screen open to copy UTM values for Reports. ~~**

Laboratory Analytical Results Summary
Roadrunner Fed Com 2-12H

		Sample ID	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'
Analyte	Method	Date	3/6/18	3/6/18	3/6/18
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		0.587	<0.050	<0.050
Toluene	BTEX 8021B		4.07	<0.050	<0.050
Ethylbenzene	BTEX 8021B		1.86	<0.050	<0.050
Total Xylenes	BTEX 8021B		15.5	<0.150	<0.150
Total BTEX	BTEX 8021B		22	<0.300	<0.300
Chloride	SM4500Cl-B		3280	208	128
GRO	TPH 8015M		245	<10.0	<10.0
DRO	TPH 8015M		17500	<10.0	207
EXT DRO	TPH 8015M		2740	<10.0	26.8

		Sample ID	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'
Analyte	Method	Date	3/6/18	3/6/18	3/6/18
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		0.576	<0.050	<0.050
Toluene	BTEX 8021B		4.12	<0.050	<0.050
Ethylbenzene	BTEX 8021B		1.87	<0.050	<0.050
Total Xylenes	BTEX 8021B		14.3	<0.150	<0.150
Total BTEX	BTEX 8021B		20.8	<0.300	<0.300
Chloride	SM4500Cl-B		3240	208	64
GRO	TPH 8015M		365	<10.0	<10.0
DRO	TPH 8015M		27100	<10.0	89.2
EXT DRO	TPH 8015M		4230	<10.0	<10.0

		Sample ID	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'	SP3 @ 5'
Analyte	Method	Date	3/6/18	3/6/18	3/6/18	3/6/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		0.585	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		3.99	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		1.74	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		13.4	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		19.7	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		3840	192	192	192
GRO	TPH 8015M		242	<10.0	<10.0	<10.0
DRO	TPH 8015M		20300	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		3550	<10.0	<10.0	<10.0

		Sample ID	NORTH	SOUTH	WEST	EAST
Analyte	Method	Date	3/6/18	3/6/18	3/6/18	3/6/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		0.054	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		64	64	64	64
GRO	TPH 8015M		<10.0	19.7	13.1	<10.0
DRO	TPH 8015M		<10.0	271	298	151
EXT DRO	TPH 8015M		<10.0	24.8	37.1	22.4

March 13, 2018

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: ROADRUNNER FED COM 2-12H

Enclosed are the results of analyses for samples received by the laboratory on 03/07/18 12:40.

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:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ SURFACE (H800673-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.587	0.050	03/08/2018	ND	2.16	108	2.00	3.51	
Toluene*	4.07	0.050	03/08/2018	ND	2.15	108	2.00	2.84	
Ethylbenzene*	1.86	0.050	03/08/2018	ND	2.09	105	2.00	2.74	
Total Xylenes*	15.5	0.150	03/08/2018	ND	6.34	106	6.00	3.04	
Total BTX	22.0	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3280	16.0	03/11/2018	ND	432	108	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	245	50.0	03/08/2018	ND	216	108	200	2.77		
DRO >C10-C28*	17500	50.0	03/08/2018	ND	203	102	200	0.0596		
EXT DRO >C28-C36	2740	50.0	03/08/2018	ND						

Surrogate: 1-Chlorooctane 114 % 41-142

Surrogate: 1-Chlorooctadecane 622 % 37.6-147

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*=Accredited Analyte

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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:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 1' (H800673-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/08/2018	ND	2.16	108	2.00	3.51	
Toluene*	<0.050	0.050	03/08/2018	ND	2.15	108	2.00	2.84	
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	2.09	105	2.00	2.74	
Total Xylenes*	<0.150	0.150	03/08/2018	ND	6.34	106	6.00	3.04	
Total BTEx	<0.300	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	03/13/2018	ND	432	108	400	7.69		

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	03/07/2018	ND	216	108	200	2.77	
DRO >C10-C28*	<10.0	10.0	03/07/2018	ND	203	102	200	0.0596	
EXT DRO >C28-C36	<10.0	10.0	03/07/2018	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 93.7 % 37.6-147

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Received:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 2' (H800673-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/08/2018	ND	2.16	108	2.00	3.51	
Toluene*	<0.050	0.050	03/08/2018	ND	2.15	108	2.00	2.84	
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	2.09	105	2.00	2.74	
Total Xylenes*	<0.150	0.150	03/08/2018	ND	6.34	106	6.00	3.04	
Total BTX	<0.300	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	03/13/2018	ND	432	108	400	7.69	

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	03/07/2018	ND	216	108	200	2.77	
DRO >C10-C28*	207	10.0	03/07/2018	ND	203	102	200	0.0596	
EXT DRO >C28-C36	26.8	10.0	03/07/2018	ND					

Surrogate: 1-Chlorooctane 107 % 41-142

Surrogate: 1-Chlorooctadecane 103 % 37.6-147

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Received:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ SURFACE (H800673-04)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.576	0.050	03/08/2018	ND	2.16	108	2.00	3.51	
Toluene*	4.12	0.050	03/08/2018	ND	2.15	108	2.00	2.84	
Ethylbenzene*	1.87	0.050	03/08/2018	ND	2.09	105	2.00	2.74	
Total Xylenes*	14.3	0.150	03/08/2018	ND	6.34	106	6.00	3.04	
Total BTX	20.8	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 128 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3240	16.0	03/13/2018	ND	432	108	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	365	100	03/08/2018	ND	216	108	200	2.77		
DRO >C10-C28*	27100	100	03/08/2018	ND	203	102	200	0.0596		
EXT DRO >C28-C36	4230	100	03/08/2018	ND						

Surrogate: 1-Chlorooctane 140 % 41-142

Surrogate: 1-Chlorooctadecane 952 % 37.6-147

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Received:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 1' (H800673-05)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/08/2018	ND	2.16	108	2.00	3.51	
Toluene*	<0.050	0.050	03/08/2018	ND	2.15	108	2.00	2.84	
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	2.09	105	2.00	2.74	
Total Xylenes*	<0.150	0.150	03/08/2018	ND	6.34	106	6.00	3.04	
Total BTX	<0.300	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	03/13/2018	ND	432	108	400	7.69	

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	03/07/2018	ND	216	108	200	2.77	
DRO >C10-C28*	<10.0	10.0	03/07/2018	ND	203	102	200	0.0596	
EXT DRO >C28-C36	<10.0	10.0	03/07/2018	ND					

Surrogate: 1-Chlorooctane 100 % 41-142

Surrogate: 1-Chlorooctadecane 93.3 % 37.6-147

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Analytical Results For:

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

Received:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 2' (H800673-06)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/08/2018	ND	2.16	108	2.00	3.51	
Toluene*	<0.050	0.050	03/08/2018	ND	2.15	108	2.00	2.84	
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	2.09	105	2.00	2.74	
Total Xylenes*	<0.150	0.150	03/08/2018	ND	6.34	106	6.00	3.04	
Total BTX	<0.300	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 72-148

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	03/13/2018	ND	432	108	400	7.69		

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	03/07/2018	ND	216	108	200	2.77	
DRO >C10-C28*	89.2	10.0	03/07/2018	ND	203	102	200	0.0596	
EXT DRO >C28-C36	<10.0	10.0	03/07/2018	ND					

Surrogate: 1-Chlorooctane 110 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ SURFACE (H800673-07)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.585	0.050	03/08/2018	ND	2.16	108	2.00	3.51	
Toluene*	3.99	0.050	03/08/2018	ND	2.15	108	2.00	2.84	
Ethylbenzene*	1.74	0.050	03/08/2018	ND	2.09	105	2.00	2.74	
Total Xylenes*	13.4	0.150	03/08/2018	ND	6.34	106	6.00	3.04	
Total BTEx	19.7	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 142 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3840	16.0	03/13/2018	ND	480	120	400	0.00		

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	242	100	03/08/2018	ND	216	108	200	2.77	
DRO >C10-C28*	20300	100	03/08/2018	ND	203	102	200	0.0596	
EXT DRO >C28-C36	3550	100	03/08/2018	ND					

Surrogate: 1-Chlorooctane 125 % 41-142

Surrogate: 1-Chlorooctadecane 753 % 37.6-147

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Analytical Results For:

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

Received:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ 1' (H800673-08)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/08/2018	ND	2.16	108	2.00	3.51	
Toluene*	<0.050	0.050	03/08/2018	ND	2.15	108	2.00	2.84	
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	2.09	105	2.00	2.74	
Total Xylenes*	<0.150	0.150	03/08/2018	ND	6.34	106	6.00	3.04	
Total BTX	<0.300	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	03/13/2018	ND	480	120	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	03/07/2018	ND	205	102	200	1.57	
DRO >C10-C28*	<10.0	10.0	03/07/2018	ND	195	97.4	200	4.55	
EXT DRO >C28-C36	<10.0	10.0	03/07/2018	ND					

Surrogate: 1-Chlorooctane 98.5 % 41-142

Surrogate: 1-Chlorooctadecane 92.2 % 37.6-147

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Analytical Results For:

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

Received:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ 2' (H800673-09)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/08/2018	ND	2.16	108	2.00	3.51	
Toluene*	<0.050	0.050	03/08/2018	ND	2.15	108	2.00	2.84	
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	2.09	105	2.00	2.74	
Total Xylenes*	<0.150	0.150	03/08/2018	ND	6.34	106	6.00	3.04	
Total BTX	<0.300	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	03/13/2018	ND	480	120	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	03/07/2018	ND	205	102	200	1.57	
DRO >C10-C28*	<10.0	10.0	03/07/2018	ND	195	97.4	200	4.55	
EXT DRO >C28-C36	<10.0	10.0	03/07/2018	ND					

Surrogate: 1-Chlorooctane 100 % 41-142

Surrogate: 1-Chlorooctadecane 91.3 % 37.6-147

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Analytical Results For:

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

Received:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ 5' (H800673-10)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/08/2018	ND	2.16	108	2.00	3.51	
Toluene*	<0.050	0.050	03/08/2018	ND	2.15	108	2.00	2.84	
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	2.09	105	2.00	2.74	
Total Xylenes*	<0.150	0.150	03/08/2018	ND	6.34	106	6.00	3.04	
Total BTX	<0.300	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	03/13/2018	ND	480	120	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	03/07/2018	ND	205	102	200	1.57	
DRO >C10-C28*	<10.0	10.0	03/07/2018	ND	195	97.4	200	4.55	
EXT DRO >C28-C36	<10.0	10.0	03/07/2018	ND					

Surrogate: 1-Chlorooctane 94.6 % 41-142

Surrogate: 1-Chlorooctadecane 86.1 % 37.6-147

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Analytical Results For:

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

Received:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: NORTH (H800673-11)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/08/2018	ND	2.16	108	2.00	3.51		
Toluene*	0.054	0.050	03/08/2018	ND	2.15	108	2.00	2.84		
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	2.09	105	2.00	2.74		
Total Xylenes*	<0.150	0.150	03/08/2018	ND	6.34	106	6.00	3.04		
Total BTEx	<0.300	0.300	03/08/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 72-148

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	03/13/2018	ND	480	120	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	03/07/2018	ND	205	102	200	1.57	
DRO >C10-C28*	<10.0	10.0	03/07/2018	ND	195	97.4	200	4.55	
EXT DRO >C28-C36	<10.0	10.0	03/07/2018	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 93.1 % 37.6-147

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Analytical Results For:

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

Received:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SOUTH (H800673-12)

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	03/08/2018	ND	2.16	108	2.00	3.51		
Toluene*	<0.050	0.050	03/08/2018	ND	2.15	108	2.00	2.84		
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	2.09	105	2.00	2.74		
Total Xylenes*	<0.150	0.150	03/08/2018	ND	6.34	106	6.00	3.04		
Total BTEx	<0.300	0.300	03/08/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 72-148

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	03/13/2018	ND	480	120	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*	19.7	10.0	03/07/2018	ND	205	102	200	1.57	
DRO >C10-C28*	271	10.0	03/07/2018	ND	195	97.4	200	4.55	
EXT DRO >C28-C36	24.8	10.0	03/07/2018	ND					

Surrogate: 1-Chlorooctane 94.0 % 41-142

Surrogate: 1-Chlorooctadecane 96.9 % 37.6-147

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Analytical Results For:

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

Received:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: WEST (H800673-13)

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	03/08/2018	ND	2.16	108	2.00	3.51		
Toluene*	<0.050	0.050	03/08/2018	ND	2.15	108	2.00	2.84		
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	2.09	105	2.00	2.74		
Total Xylenes*	<0.150	0.150	03/08/2018	ND	6.34	106	6.00	3.04		
Total BTEx	<0.300	0.300	03/08/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 72-148

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	03/13/2018	ND	480	120	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*	13.1	10.0	03/07/2018	ND	205	102	200	1.57	
DRO >C10-C28*	298	10.0	03/07/2018	ND	195	97.4	200	4.55	
EXT DRO >C28-C36	37.1	10.0	03/07/2018	ND					

Surrogate: 1-Chlorooctane 95.6 % 41-142

Surrogate: 1-Chlorooctadecane 94.1 % 37.6-147

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Analytical Results For:

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

Received:	03/07/2018	Sampling Date:	03/06/2018
Reported:	03/13/2018	Sampling Type:	Soil
Project Name:	ROADRUNNER FED COM 2-12H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: EAST (H800673-14)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/08/2018	ND	2.16	108	2.00	3.51	
Toluene*	<0.050	0.050	03/08/2018	ND	2.15	108	2.00	2.84	
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	2.09	105	2.00	2.74	
Total Xylenes*	<0.150	0.150	03/08/2018	ND	6.34	106	6.00	3.04	
Total BTX	<0.300	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

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	03/13/2018	ND	480	120	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	03/07/2018	ND	205	102	200	1.57	
DRO >C10-C28*	151	10.0	03/07/2018	ND	195	97.4	200	4.55	
EXT DRO >C28-C36	22.4	10.0	03/07/2018	ND					

Surrogate: 1-Chlorooctane 97.3 % 41-142

Surrogate: 1-Chlorooctadecane 96.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
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.
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



Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 17 of 18

Company Name: BBC International, Inc.				BILL TO				ANALYSIS REQUEST													
Project Manager: Cliff Brunson				P.O. #:				<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH EXTENDED</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEx</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CL-</div> </div>													
Address: P.O. Box 805				Company:																	
City: Hobbs		State: NM Zip: 88241		Attn:																	
Phone #: 575-397-6388		Fax #: 575-397-0397		Address:																	
Project #:		Project Owner: BLADE SERVICES		City:																	
Project Name: Roadrunner Fed com 2-12H				State: Zip:																	
Project Location:				Phone #:																	
Sampler Name: ROGER HERNANDEZ				Fax #:																	
FOR LAB USE ONLY																					
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		PRESERV.		SAMPLING									
H800673																					
1 SP1 @ SURFACE		G 1																			
2 @ 1'		G 1																			
3 @ 2'		G 1																			
4 SP2 @ SURFACE		G 1																			
5 @ 1'		G 1																			
6 @ 2'		G 1																			
7 SP3 @ SURFACE		G 1																			
8 @ 1'		G 1																			
9 @ 2'		G 1																			
10 @ 5'		G 1																			

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 the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:		Date: 3.7.18		Received By:		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Time: 12:40						Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS: * Sample date corrected from jars. ck 3/13/18			
		Time:							
Delivered By: (Circle One) #75				Sample Condition		CHECKED BY:			
Sampler - UPS - Bus - Other: 0.1" / 0.5"				Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No					

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

Corrected to -5"

**CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 1

Page 18 of 18

Company Name: BBC International, Inc.				BILL TO				ANALYSIS REQUEST																	
Project Manager: Cliff Brunson				P.O. #:				<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH EXTENDED</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTX</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CL-</div> </div>																	
Address: P.O. Box 805				Company:																					
City: Hobbs		State: NM Zip: 88241		Attn:																					
Phone #: 575-397-6388		Fax #: 575-397-0397		Address:																					
Project #:		Project Owner: <u>BLADE SERVICES</u>		City:																					
Project Name: <u>ROADRUNNER FED Com 2-12H</u>				State: Zip:																					
Project Location:				Phone #:																					
Sampler Name: <u>ROGER HERNANDEZ</u>				Fax #:																					
FOR LAB USE ONLY																									
Lab I.D.		Sample I.D.		(GIRAB OR (COMP. # CONTAINERS		MATRIX		PRESERV.		SAMPLING															
						GROUNDWATER																			
						WASTEWATER																			
						SOIL																			
						OIL																			
						SLUDGE																			
						OTHER:																			
						ACID/BASE:																			
						ICE / COOL																			
						OTHER:																			
										DATE		TIME													
H8000673				G 1								* 3/6/18													
11 NORTH		G 1										2-6-18		100		V V V									
12 SOUTH		G 1										2-6-18		115		V V V									
13 WEST		G 1										2-6-18		130		V V V									
14 EAST		G 1										2-6-18		145		V V V									

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 the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>R. H. J.</u>		Date: <u>3-2-18</u>		Received By: <u>Godi Benson</u>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By:		Time: <u>12:40</u>		Received By:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
		Date:				REMARKS: *			
		Time:							
Delivered By: (Circle One) <u>#75</u>				Sample Condition		CHECKED BY: <u>[Signature]</u>			
Sampler - UPS - Bus - Other: <u>0.1° / 0.5°</u>				Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					

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

corrected - 5°

NM OIL CONSERVATION

ARTESIA DISTRICT

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

FEB 21 2018

Form C-141
Revised April 3, 2017

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

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

Release Notification and Corrective Action

DAB1805340217
NAB1805340347

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating, LLC (OGRID# 229137)	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No.: 432-683-7443
Facility Name: Road Runner 2-12 CTB	Facility Type: Central Tank Battery

Surface Owner: BLM	Mineral Owner: Federal	API No.:
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LOCATION OF RELEASE

Unit Letter O	Section 25	Township 25S	Range 26E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
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Latitude: 32.094391 Longitude: -104.244132 NAD83

NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 6bbls	Volume Recovered: 0bbls
Source of Release: Truck	Date and Hour of Occurrence: 2/18/2018 5:00pm	Date and Hour of Discovery: 2/18/2018 5:00pm
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
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.*

Describe Cause of Problem and Remedial Action Taken.*

A third party truck driver overfilled his truck due to human error. All of the fluid remained on location.

Describe Area Affected and Cleanup Action Taken.*

All of the fluid remained on location. Concho will have the spill area evaluated for 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.

<p>Signature: <u><i>Sheldon Hitchcock</i></u></p> <p>Printed Name: Sheldon L. Hitchcock</p> <p>Title: HSE Coordinator</p> <p>E-mail Address: slhitchcock@concho.com</p> <p>Date: 2/21/2018 Phone: 575-746-2010</p>	<p style="text-align: center;"><u>OIL CONSERVATION DIVISION</u></p> <p>Approved by Environmental Specialist: <u><i>[Signature]</i></u></p> <p>Approval Date: 2/22/18 Expiration Date: N/A</p> <p>Conditions of Approval: See attached</p> <p>Attached <input type="checkbox"/> 2RP-4633</p>
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* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 2/21/2018 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP 4633 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 2 office in ARTESIA on or before 3/21/2018. 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

Bratcher, Mike, EMNRD

From: Sheldon Hitchcock <SLHitchcock@concho.com>
Sent: Wednesday, February 21, 2018 10:04 AM
To: Weaver, Crystal, EMNRD; Bratcher, Mike, EMNRD; stucker@blm.gov
Cc: Robert McNeill; Rebecca Haskell; Dakota Neel; Christopher Gray; DeAnn Grant
Subject: (C-141 Initial) Road Runner 2-12 CTB 2/18/2018
Attachments: (C-141 Initial) Road Runner 2-12 CTB 2-18-2018.pdf

Ms. Weaver/Ms. Tucker,

Please find the attached C-141 for your consideration. Let me know if you have any questions or concerns.

Thank you,

Sheldon L. Hitchcock
HSE Coordinator
COG Operating LLC
2407 Pecos Avenue | Artesia, NM 88210
Cell: 575-703-6475 | Office: 575-746-2010
slhitchcock@concho.com



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