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DELINEATION WORKPLAN

COG – JR'S HORZ FED COM #006H (Leak Date: 7/28/17)

> RP # 2RP-4312 API # 30-015-37904

This delineation workplan and remediation proposal addresses the release associated with RP # 2RP-4312.

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:

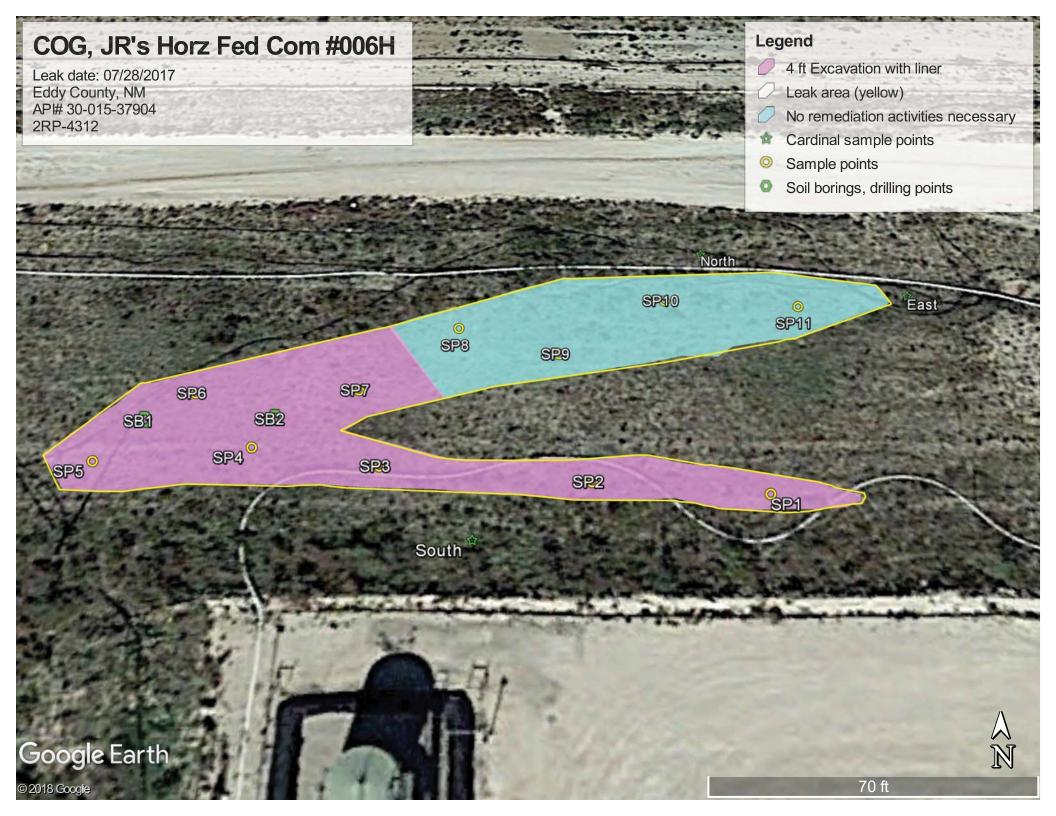
COG will excavate the spill area as depicted on the following site diagram. The leak area near SP1 – SP7 (pink shade on diagram) will be excavated to a depth of 4 feet with an impermeable liner placed in the bottom of the excavation.

COG will make every effort to achieve the target depth of 4 feet, however, previous delineation efforts have shown a very hard rock layer to exist at about 2 feet. In the instance that excavator refusal is encountered prior to 4 feet, COG will notify and discuss with the NMOCD and BLM of the difficulties and a path forward.

The leak area near SP8 – SP11 (blue shade on diagram) will require zero remediation.

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, JR's Horz Fed Com #006H

Samples, hand auger

SP1, N 32.06385 W-103.97393

SP2, N 32.06386 W-103.97408

SP3, N 32.06387 W-103.97425

SP4, N 32.06389 W-103.97436

SP5, N 32.06388 W-103.97449

SP6, N 32.06394 W-103.97442

SP7, N 32.06394 W-103.97428

SP8, N 32.06400 W-103.97419

SP9, N 32.06398 W-103.97410

SP10, N 32.06403 W-103.97400

SP11, N 32.06402 W-103.97388

NORTH, N 32.06408 W-103.97396

SOUTH, N 32.06381 W-103.97417

EAST, N 32.06404 W-103.97378

WEST, N 32.06388 W-103.97457

Soil borings, drilling

SB1, N 32.06391 W-103.97446

SB2, N 32.06391 W-103.97434

COG, JR's Horz Fed Com #006H U/L C, Section 10, T26S, R29E

Groundwater: 125'-150'





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

(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 596869 **Northing (Y):** 3547817 **Radius:** 1700

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.

9/6/17 4:29 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

	0	Public Land Survey System (PLSS) Q64: Q16: NE Q4: NW Sec: 10 Tws: 26S Rng: 29E							
	0	State Plane Coordinate System - NAD27 X: 0 ft Y: 0 ft Zone:							
	0	State Plane Coordinate System - NAD83 X: 0 ft Y: 0 ft Zone:							
	0	Degrees/Minutes/Seconds Longitude (X): Degrees: 0 ° Minutes: 0 ' Seconds: 0 " Latitude (Y): Degrees: 0 ° Minutes: 0 ' Seconds: 0 "							
	0	UTM - NAD27 Easting (X): 0 mtrs Northing (Y): 0 mtrs Zone:							
ı.	SUBMIT								
	All Conversion Results are displayed as NAD 1983 UTM Zone 13								
		Easting (X): 596869.0 mtrs Northing (Y): 3547817.0 mtrs							
		~~ Please keep screen open to copy UTM values for Reports. ~~							

			SP1 @	
		Sample ID	SURFACE	SP1 @ 1'
Analyte	Method	Date	9/25/17	9/25/17
			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		3800	4400
GRO	TPH 8015M		<10.0	n/a
DRO	TPH 8015M		<10.0	n/a
EXT DRO	TPH 8015M		<10.0	n/a

		Sample ID	SP2 @ SURFACE	SP2 @ 1'
Analyte	Method	Date	9/25/17	9/25/17
			mg/kg	mg/kg
Chloride	SM4500CI-B		4720	4960

			SP3 @	
		Sample ID	SURFACE	SP3 @ 1'
Analyte	Method	Date	9/25/17	9/25/17
			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		3280	4800
GRO	TPH 8015M		<10.0	n/a
DRO	TPH 8015M		<10.0	n/a
EXT DRO	TPH 8015M		<10.0	n/a

			SP4 @	
		Sample ID	SURFACE	SP4 @ 1'
Analyte	Method	Date	9/25/17	9/25/17
			mg/kg	mg/kg
Chloride	SM4500CI-B		848	4320

			SP5 @	
		Sample ID	SURFACE	SP5 @ 1'
Analyte	Method	Date	9/25/17	9/25/17
			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		3600	2200
GRO	TPH 8015M		<10.0	n/a
DRO	TPH 8015M		<10.0	n/a
EXT DRO	TPH 8015M		<10.0	n/a

Laboratory Analytical Results Summary JR's Horz Fed Com #006H

		Sample ID	SP6 @ SURFACE	SP6 @ 1'
Analyte	Method	Date	9/25/17	9/25/17
			mg/kg	mg/kg
Chloride	SM4500CI-B		3120	3040

		Sample ID	SP7 @ SURFACE	SP7 @ 1'
Analyte	Method	Date	9/25/17	9/25/17
			mg/kg	mg/kg
Chloride	SM4500CI-B		3920	3760

		Sample ID	SP8 @ SURFACE	SP8 @ 1'
Analyte	Method	Date	9/26/17	9/26/17
			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		<16.0	<16.0
GRO	TPH 8015M		<10.0	n/a
DRO	TPH 8015M		<10.0	n/a
EXT DRO	TPH 8015M		<10.0	n/a

		Sample ID	SP9 @ SURFACE	SP9 @ 1'
Analyte	Method	Date	9/26/17	9/26/17
			mg/kg	mg/kg
Chloride	SM4500CI-B		16	16

			SP10 @	
		Sample ID	SURFACE	SP10 @ 1'
Analyte	Method	Date	9/26/17	9/26/17
			mg/kg	mg/kg
Chloride	SM4500CI-B		32	<16.0

		Sample ID	SP11 @ SURFACE	SP11 @ 1'
Analyte	Method	Date	9/26/17	9/26/17
			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		<16.0	<16.0
GRO	TPH 8015M		<10.0	n/a
DRO	TPH 8015M		<10.0	n/a
EXT DRO	TPH 8015M		<10.0	n/a

CARDINAL POINTS		Sample ID	NORTH @ SURFACE			SOUTH @ SURFACE
Analyte	Method	Date	9/26/17	9/26/17	9/26/17	9/26/17
			mg/kg	mg/kg	mg/kg	mg/kg
Chloride	SM4500CI-B		16	16	<16.0	16

Laboratory Analytical Results Summary JR's Horz Fed Com #006H

		Sample ID	SB1 @ 3'	SB1 @ 5'	SB1 @ 10'
Analyte	Method	Date	12/20/17	12/20/17	12/20/17
			mg/kg	mg/kg	mg/kg
Chloride	SM4500CI-B		208	80	144

		Sample ID	SB2 @ 3'	SB2 @ 5'	SB2 @ 10'	SB2 @ 15'	SB2 @ 20'	SB2 @ 25'
Analyte	Method	Date	12/20/17	12/20/17	12/20/17	12/20/17	12/20/17	12/20/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloride	SM4500CI-B		12700	14400	16000	9000	656	224



October 03, 2017

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: JR'S HORZ FED COM #6H

Enclosed are the results of analyses for samples received by the laboratory on 09/27/17 13:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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/ga/lab accred certif.html.

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

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

Accreditation applies to public drinking water matrices.

Celey D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



BBC International, Inc.

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

Fax To: (575) 397-0397

Received: 09/27/2017 Sampling Date: 09/25/2017

Reported: 10/03/2017 Sampling Type: Soil

Project Name: JR'S HORZ FED COM #6H Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: MALAGA,NM

Sample ID: SP 1 @ SURFACE (H702623-01)

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	09/28/2017	ND	1.78	88.9	2.00	1.68	
Toluene*	<0.050	0.050	09/28/2017	ND	1.61	80.7	2.00	2.06	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.63	81.3	2.00	0.562	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	4.94	82.3	6.00	0.354	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 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	3800	16.0	09/29/2017	ND	416	104	400	7.41	
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	09/28/2017	ND	221	111	200	0.394	
DRO >C10-C28	<10.0	10.0	09/28/2017	ND	224	112	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	09/28/2017	ND					
Surrogate: 1-Chlorooctane	76.1	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	79.0	% 34.7-15	7						

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Celey D. Keene



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

Fax To: (575) 397-0397

Received: 09/27/2017 Sampling Date: 09/25/2017

Reported: 10/03/2017 Sampling Type: Soil

Project Name: JR'S HORZ FED COM #6H Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: MALAGA,NM

Sample ID: SP 1 @ 1' (H702623-02)

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

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

Chloride 4400 16.0 09/29/2017 ND 416 104 400 7.41

Sample ID: SP 2 @ SURFACE (H702623-03)

Chloride, SM4500Cl-B Analyzed By: AC Reporting Limit Analyzed Method Blank BS True Value QC RPD Qualifier Analyte Result % Recovery Chloride 4720 16.0 09/29/2017 416 400 7.41 ND 104

Sample ID: SP 2 @ 1' (H702623-04)

Chloride, SM4500Cl-B mg/kg Analyzed By: AC Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier Chloride 4960 09/29/2017 ND 400 QM-07 16.0 416 104 3.77

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Fax To: (575) 397-0397

Received: 09/27/2017 Sampling Date: 09/25/2017

Reported: 10/03/2017 Sampling Type: Soil

Project Name: JR'S HORZ FED COM #6H Sampling Condition: Cool & Intact Project Number: Sample Received By: NONE GIVEN Jodi Henson

Project Location: MALAGA,NM

Sample ID: SP 3 @ SURFACE (H702623-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/28/2017	ND	1.78	88.9	2.00	1.68	
Toluene*	<0.050	0.050	09/28/2017	ND	1.61	80.7	2.00	2.06	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.63	81.3	2.00	0.562	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	4.94	82.3	6.00	0.354	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	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	3280	16.0	09/29/2017	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	09/28/2017	ND	221	111	200	0.394	
DRO >C10-C28	<10.0	10.0	09/28/2017	ND	224	112	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	09/28/2017	ND					
Surrogate: 1-Chlorooctane	76.1	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	74.0	% 34.7-15	7						

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Fax To: (575) 397-0397

Received: 09/27/2017 Sampling Date: 09/25/2017

Reported: 10/03/2017 Sampling Type: Soil

Project Name: JR'S HORZ FED COM #6H Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: MALAGA,NM

Sample ID: SP 3 @ 1' (H702623-06)

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

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

Chloride 4800 16.0 09/29/2017 ND 416 104 400 3.77

Sample ID: SP 4 @ SURFACE (H702623-07)

Chloride, SM4500Cl-B Analyzed By: AC Reporting Limit Analyzed Method Blank BS True Value QC RPD Qualifier Analyte Result % Recovery Chloride 848 16.0 09/29/2017 416 400 3.77 ND 104

Sample ID: SP 4 @ 1' (H702623-08)

Chloride, SM4500Cl-B mg/kg Analyzed By: AC Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier Chloride 4320 09/29/2017 ND 400 16.0 416 104 3.77

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Fax To: (575) 397-0397

Received: 09/27/2017 Sampling Date: 09/25/2017

Reported: 10/03/2017 Sampling Type: Soil

Project Name: JR'S HORZ FED COM #6H Sampling Condition: Cool & Intact Project Number: Sample Received By: NONE GIVEN Jodi Henson

Project Location: MALAGA,NM

Sample ID: SP 5 @ SURFACE (H702623-09)

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	09/28/2017	ND	1.78	88.9	2.00	1.68	
Toluene*	<0.050	0.050	09/28/2017	ND	1.61	80.7	2.00	2.06	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.63	81.3	2.00	0.562	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	4.94	82.3	6.00	0.354	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 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	3600	16.0	09/29/2017	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	09/28/2017	ND	221	111	200	0.394	
DRO >C10-C28	<10.0	10.0	09/28/2017	ND	224	112	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	09/28/2017	ND					
Surrogate: 1-Chlorooctane	79.3	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	81.1	% 34.7-15	7						

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Celeg D. Keene



BBC International, Inc.

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

Fax To: (575) 397-0397

Received: 09/27/2017 Sampling Date: 09/25/2017

Reported: 10/03/2017 Sampling Type: Soil

Project Name: JR'S HORZ FED COM #6H Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: MALAGA,NM

3120

16.0

Sample ID: SP 5 @ 1' (H702623-10)

Chloride, SM4500Cl-B	mg	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2200	16.0	09/29/2017	ND	416	104	400	3.77	
Sample ID: SP 6 @ SURF	ACE (H702623	-11)							
Chloride, SM4500CI-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

ND

416

104

400

3.77

Sample ID: SP 6 @ 1' (H702623-12)

Chloride

Chloride, SM4500Cl-B mg/kg			Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3040	16.0	09/29/2017	ND	416	104	400	3.77	

09/29/2017

Sample ID: SP 7 @ SURFACE (H702623-13)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3920	16.0	09/29/2017	ND	416	104	400	3.77	

Sample ID: SP 7 @ 1' (H702623-14)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3760	16.0	09/29/2017	ND	416	104	400	3.77	

Cardinal Laboratories *=Accredited Analyte

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

Celeg D. Keene



BBC International, Inc.

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

Fax To: (575) 397-0397

Received: 09/27/2017 Sampling Date: 09/26/2017

Reported: 10/03/2017 Sampling Type: Soil

Project Name: JR'S HORZ FED COM #6H Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Analyzed By: MC

Project Location: MALAGA,NM

Sample ID: SP 8 @ SURFACE (H702623-15)

RTFY 8021R

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/29/2017	ND	1.90	94.9	2.00	1.10	
Toluene*	<0.050	0.050	09/29/2017	ND	1.72	86.2	2.00	0.640	
Ethylbenzene*	<0.050	0.050	09/29/2017	ND	1.75	87.7	2.00	0.365	
Total Xylenes*	<0.150	0.150	09/29/2017	ND	5.36	89.4	6.00	0.0283	
Total BTEX	<0.300	0.300	09/29/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 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	<16.0	16.0	09/29/2017	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	09/28/2017	ND	221	111	200	0.394	
DRO >C10-C28	<10.0	10.0	09/28/2017	ND	224	112	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	09/28/2017	ND					
Surrogate: 1-Chlorooctane	70.3	28.3-16	4						
Surrogate: 1-Chlorooctadecane	73.2 9	% 34.7-15	7						

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BBC International, Inc.

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

Fax To: (575) 397-0397

Received: 09/27/2017 Sampling Date: 09/26/2017

Reported: 10/03/2017 Sampling Type: Soil

Project Name: JR'S HORZ FED COM #6H Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: MALAGA,NM

Sample ID: SP 8 @ 1' (H702623-16)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/29/2017	ND	416	104	400	3.77	

Sample ID: SP 9 @ SURFACE (H702623-17)

Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/29/2017	ND	416	104	400	3.77		

Sample ID: SP 9 @ 1' (H702623-18)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/29/2017	ND	416	104	400	3.77	

Sample ID: SP 10 @ SURFACE (H702623-19)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/29/2017	ND	416	104	400	3.77	

Sample ID: SP 10 @ 1' (H702623-20)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/29/2017	ND	416	104	400	3.77	

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BBC International, Inc.

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

Fax To: (575) 397-0397

Received: 09/27/2017 Sampling Date: 09/26/2017

Reported: 10/03/2017 Sampling Type: Soil

Project Name: JR'S HORZ FED COM #6H Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Sample ID: SP 11 @ SURFACE (H702623-21)

MALAGA,NM

Project Location:

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	09/29/2017	ND	1.90	94.9	2.00	1.10	
Toluene*	<0.050	0.050	09/29/2017	ND	1.72	86.2	2.00	0.640	
Ethylbenzene*	<0.050	0.050	09/29/2017	ND	1.75	87.7	2.00	0.365	
Total Xylenes*	<0.150	0.150	09/29/2017	ND	5.36	89.4	6.00	0.0283	
Total BTEX	<0.300	0.300	09/29/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 72-148	,						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/29/2017	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	09/28/2017	ND	221	111	200	0.394	
DRO >C10-C28	<10.0	10.0	09/28/2017	ND	224	112	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	09/28/2017	ND					
Surrogate: 1-Chlorooctane	70.3	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	71.8	% 34.7-15	7						

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BBC International, Inc.

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

Fax To: (575) 397-0397

Received: 09/27/2017 Sampling Date: 09/26/2017

Reported: 10/03/2017 Sampling Type: Soil

Project Name: JR'S HORZ FED COM #6H Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: MALAGA,NM

Sample ID: SP 11 @ 1' (H702623-22)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/29/2017	ND	416	104	400	3.77	
County The NORTH O CH	DE4 05 (117026	22.22)							

Sample ID: NORTH @ SURFACE (H702623-23)

Chlorid	de, SM4500CI-B	mg/	kg	Analyze	d By: AC						
	Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloric	de	16.0	16.0	09/29/2017	ND	416	104	400	3.77		

Sample ID: EAST @ SURFACE (H702623-24)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/29/2017	ND	416	104	400	0.00	

Sample ID: WEST @ SURFACE (H702623-25)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/29/2017	ND	416	104	400	0.00	

Sample ID: SOUTH @ SURFACE (H702623-26)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/29/2017	ND	416	104	400	0.00	

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Notes and Definitions

QR-05 The RPD exceeded historical limits.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celeg D. Kreene

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

omnany Name	nno latomational Inc		BILL TO	ANALYSIS REQUEST	
5300	Cliff Brunson		P.O. #:		
ddress: P.O. B	Box 805		Company:		
ity: Hobbs	State: NM	Zip: 88241	Attn:		
hone #: 575-397-6388	Fax #:	575-397-0397	Address:	•	_
roject #:		Coc	City:	×	
roject Name: L	12.5 Horz Fed C	n # 6#	State: Zip:	2	
Project Location:			Phone #:	Ź	
Sampler Name:	1		Fax #:	72	
FOR LAB USE ONLY		MATRIX	PRESERV. SAMPLING		
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PLEASE NOTE: Liability and analyses. All claims including	PLEASE NOTE: Liability and Damages. Cardinat's liability and client's exclusive remedy for any saam arising whetheir based in contract or tort, shift be limited to the amount paid by the client for the particular analyses. At claims including those for negligence and any other cause whatsoever shall be deemed valved unless made in writing and sec	any claim arising whether based in contraction deemed waived unless made in writing ar	assing whether based in contract or tort, shall be limited to the amount paid by the citient for the waived unless made in writing and received by Cardinal within 30 days after completion of the an waived unless made in writing and received by Cardinal within 30 days after completion of the analysis after contract by citient in the contract of th	y the cifert for the majetion of the applicable it is substitution.	
affiliates or successors affiliates	sing out of or related to the performance of services hereunder by (ardinal, regardless of whether such claim is based upon any of the above stall. Received By:	is based upon any of the above stated reason	lt: ☐ Yes ☐ No	
Memidus Sec of	1 Ime: 1:25	Halm (urdow		
Relinquished By:		Received By:			
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	(Circle One) _3,5 1 #75	Sample Condition Cool Intact Cool Intact Yes Yes	tion CHECKED BY: (Initials)		
-					

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

Page 13 of 15



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(505) 393-2326 FAX (505) 393-2476		
Company Name: BBC International, Inc.	BILL TO	ANALYSIS REQUEST
Project Manager: Cliff Brunson	P.O. #:	
P O Rox 805	Company:	

ompany Name: BBC International Inc		BILL TO	ANA	ANALYSIS REQUEST
		P.O. #:		
ddress: P.O. Box 805		Company:		
bbs State: NM	Zip: 88241	Attn:	-	
5-397-6388 Fax #:	575-397-0397	Address:	~	
	COG	City:	>	
me: UP'S Horz Feel	n #6#	State: Zip:	70	
roject Location: Malace		Phone #:	2	
ampler Name:		Fax #:	5/-	
FOR LAB USE ONLY	P. MATRIX	PRESERV. SAMPLING	2 /3	
Lab I.D. Sample I.D.	E)RAB OR (C)OME CONTAINERS ROUNDWATER ASTEWATER DIL IL LUDGE	THER: CID/BASE: E / COOL THER:	TPH	
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19 50/00 Sch	<u>6 7</u>	7/	2 0	
10 PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remoty for any claim airring whether based in contract or tort, shall be limited to the amount paid by the depot the population of the populatio	body for any claim arising whether based in contract or tort, shall be limited for the contract or tort, shall be limited to the contract or tort or to the contract	of or tort, shall be limited to the amount paid by the or tort, shall be limited to the amount paid by the or tort, shall be limited to the amount paid by the original within 30 days after comp		
service. In no event shall Cardinal be liable for incidental or consequental diamages, including without limitation, business interruptions, loss of use, affiliable or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based up	ding without limitation, business interruptions, loss by Cardinal, regardless of whether such claim is ba	loss of use, or loss of profits incurred by client, its subsidiaries is based upon any of the above stated ressons or otherwise.	T V	'l Dhono #-
hed B	Received By:	Fax	Fax Result: Yes No Add	Add'l Fax #:
Relinquished By: Time: 1:25	Received By:	urdonu		
Delivered By: (Circle One) -3.5°C/ +	Sample Condition Cool. Intact Wes Wives	tion CHECKED BY: (Initials)		
	Ī			

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

Corrected +. 25°C

Page 14 of 15

ALYSIS REQUEST

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17111-01-0001 OD 1 7110 7110

101 East Marland, Hobbs, NM 88240	Б			
Company Name: BBC International, Inc.		BILL TO	4	ANALYSIS REQUEST
Project Manager: Cliff Brunson	P.O. #:		_	
Address: P.O. Box 805	Company:		2	
bbs State: NM	Zip: 88241 Attn:		100	
5-397-6388 Fax #:	575-397-0397 Address:		-4	
Project #: Project Owner:	COC- city:			
Project Name: 12's Horz Fedlow	~ #6# State:	Zip:	> >	
Project Location: Me /e 5 5	Phone #:		12	
Sampler Name:	Fax #:	1	1	
	MATRIX PRESERV	X SAMPLING	25	
Lab I.D. Sample I.D.	DGE ER:	ER:		
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affiliates or successors arised out of or related to the performance of services hereunder by CRelinquished By:	Received By:	stated rea	ilt: □ Yes □ No	Add'l Phone #: Add'l Fax #:
2	Halus Curbon	REMARKS:	L res L No	PAGE 1 GA TO
	Cample Condition	ECKED BY:		
Delivered By: (Circle One) _ 3, 5 · C/ #	#78 Cool Intact Cool Intact Cool Intact	(Initials)		

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

Corrected +.25°C

Page 15 of 15



December 28, 2017

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: JR'S HORZ FED COM #6H

Enclosed are the results of analyses for samples received by the laboratory on 12/21/17 11:30.

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/ga/lab accred certif.html.

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

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

Accreditation applies to public drinking water matrices.

Celey D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



BBC International, Inc.

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

Fax To: (575) 397-0397

Received: 12/21/2017 Sampling Date: 12/20/2017

Reported: 12/28/2017 Sampling Type: Soil

Project Name: JR'S HORZ FED COM #6H Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MALAGA,NM

Sample ID: SB 1 @ 3' (H703564-01)

	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	12/27/2017	ND	416	104	400	3.77	
Sample ID: SB 1 @ 5' (H7	03564-02)								
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	12/27/2017	ND	416	104	400	3.77	
Sample ID: SB 1 @ 10' (H	702564 02\								
Sample 10. So 1 @ 10 (n	703564-03)								
	/U3564-U3) mg,	/kg	Analyze	d By: AC					
Chloride, SM4500Cl-B Analyte	•	/kg Reporting Limit	Analyze Analyzed	d By: AC Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride, SM4500CI-B	mg,		-	-	BS 416	% Recovery	True Value QC 400	RPD 3.77	Qualifier
Chloride, SM4500Cl-B Analyte	mg, Result 144	Reporting Limit	Analyzed	Method Blank		•	•		Qualifier
Chloride, SM4500CI-B Analyte Chloride	mg, Result 144	Reporting Limit	Analyzed 12/27/2017	Method Blank		•	•		Qualifier
Chloride, SM4500CI-B Analyte Chloride Sample ID: SB 2 @ 3' (H7	mg, Result 144 (03564-04)	Reporting Limit	Analyzed 12/27/2017	Method Blank ND		•	•		Qualifier

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Celey D. Keene



BBC International, Inc.

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

Fax To: (575) 397-0397

Received: 12/21/2017 Sampling Date: 12/20/2017

Reported: 12/28/2017 Sampling Type: Soil

Project Name: JR'S HORZ FED COM #6H Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MALAGA,NM

Sample ID: SB 2 @ 5' (H703564-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14400	16.0	12/27/2017	ND	416	104	400	3.77	
Sample ID: SB 2 @ 10' (H	1703564-06)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16000	16.0	12/27/2017	ND	416	104	400	3.77	
Sample ID: SB 2 @ 15' (H	1703564-07)								
Chloride, SM4500Cl-B	mg	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9000	16.0	12/27/2017	ND	432	108	400	3.64	
Sample ID: SB 2 @ 20' (H	1703564-08)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656			12/27/2017 ND		108	400	3.64	Ç <u>-</u>
Sample ID: SB 2 @ 25' (H	1703564-09)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	12/27/2017	ND	432	108	400	3.64	

Cardinal Laboratories *=Accredited Analyte

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Celey D. Keene



Notes and Definitions

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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Celey D. Keine

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



(505) 393-2326 FAX (505) 393-2476			
company Name: BBC International, Inc.	BILL TO	ANALTSIS	TOTO TREGERO
	P.O. #:		
Address: P.O. Box 805	Company:		
City: Hobbs State: NM Zip:	. 88241 Attn:		
5-397-6388 F	7-0397 Address:		
Project Owner:	OC- city:		
2.8 Horz	#6H State: Zip:		
on: 1/2/267	Phone #:		
Sampler Name:	Fax#:		
Sampler Name: VVY Ove	MATRIX PRESERV SAMPLING	LING	
FOR LAB USE ONLY	MAIRIA	/	
Lab I.D. Sample I.D.	CONTAINERS COUNDWATER ASTEWATER DIL L UDGE THER: CID/BASE: E / COOL THER:		
4783 X64	# CO GRO WAS SOII OIL SLU OTH ACII	TIME	
SB/03	02.2/	7909 X	
000		/0/5 X	
0 58203	1 ×	1033 X	
		1111	
56	~>	1/30 <	
200	~	1150 ×	
22 52	× × ×	7 542	
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 applicable analyses. All claims including those for negligence and any other cause whatsoever shall be deemed wasved unless made in writing and received by Cardinal within 30 days after completion of the applicable analyses. All claims including those for negligence and any other cause whatsoever shall be deemed wasved unless made in writing and received by Cardinal within 30 days after completion of the applicable analyses. All claims including those for negligence and any other cause whatsoever shall be deemed wasved unless made in writing and received by Cardinal within 30 days after completion of the applicable	aim ansing whether based in contract or tort, shall be limited to the amoi ned waived unless made in writing and received by Cardinal within 30 do not simulation, business interruptions, loss of use, or loss of profits incurre	nt paid by the client for the safer completion of the applicable d by client, its subsidiaries.	
affiliates or successors arising out of or related to the performance of services hereunder by Cardi	dinal, regardless of whether such claim is based-other any of the above so. Received By:	t: Yes No	Add'l Phone #:
Relinquished By: Relinquished By: Date: Date:	Received By:	□ Yes □ No	FBX 事:
Time:			
Delivered By: (Circle One)	Sample Condition CHECKED BY:		

Sampler - UPS - Bus - Other:

NM OIL CONSERVATION

ARTESIA DISTRICT

District J
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 AUG 0 1 2017

Form C-141 Revised August 8, 2011

Shorth Exp to appropriate District Office in accordance with 19.15.29 NMAC.

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

1907 500			Rele	ase Notific	ation	and Co	rrective A	ction					
NAB17	2145	4768		112000000000000000000000000000000000000		OPERATOR Initial Report Final R						Final Report	
Name of Co	mpany: C	OG Operation	ng LLC	229137		Contact: Robert McNeill							
		inois Avenue				Telephone No. 432-230-0077							
Facility Nan	ne: JR'S H	ORZ FEDE	RAL CO	M #006H	F	acility Typ	e: Battery						
Surface Own	ner: Feder	al		Mineral O	wner: F	ederal			API No.	30-015-3	7904		
				LOCA	TION	OF REI	LEASE						
Unit Letter C	Section 10	Township 26S	Range 29E	Feet from the 330'		South Line North	Feet from the 1980'	CONTRACTOR OF THE PARTY OF THE	Vest Line Vest		County Eddy		
				Latitude 32.0	633545	Longitude	-103.9738846						
				NAT	URE	OF RELI	EASE						
Type of Relea						Volume of			Volume R	ecovered:			
Produced Wa Source of Rel						10 bbls PW Date and H	our of Occurrenc	e:	0 bbls PW Date and I	Hour of Dis	covery:		
Fittings/Conn	nections					7/28/2017	3:00 PM		7/28/2017				
Was Immedia	ate Notice (Yes 🗵	No 🛭 Not Re	equired	If YES, To	Whom?						
By Whom?	Dakota No					Date and H							
Was a Water	course Read		Yes 🗵	No		If YES, Vo	lume Impacting t	he Wate	ercourse.			1	
If a Watercou	rea was Im			veneralis									
II a Walcicou	itse was iii	pacted, Descri	oc i uny.										
												1	
Describe Cau	se of Probl	em and Remed	dial Action	Taken.*									
This release	was caused	when a hole of	developed	on a check valve	from cor	rosion. The o	check valve has b	een repl	aced with a	plastic coa	ted valv	е.	
Describe Are	a Affected	and Cleanup A	Action Tak	en.*									
This release o	securred at	the facility an	d impacte	d the pasture adjace	ent to th	e location (Concho will have	the coil	site inches	ted to deter	mine if	any nossible	
				will present a ren									
work.													
I hereby certi	fy that the i	information gi	ven above	is true and comp	lete to th	e best of my	knowledge and u	nderstar	nd that pursu	uant to NM	OCD ru	les and	
regulations al	ll operators	are required to	o report ar	nd/or file certain r	elease no	tifications ar	nd perform correct	tive act	ions for rele	ases which	may en	danger	
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				tance of a C-141									
federal, state,	or local la	ws and/or regu	lations.				OIL COM	CEDI	ATTION	DIVICIO	221		
							OIL CON	SERV	AHON	DIVISIO	<u>)N</u>		
Signature:	l	Sado.	~ /	2	1				. 11	.,			
o ignature.					/	Approved by	Environ Biggin &	Recialis	1/4 1	Sugarense	***	4	
Printed Name	: Dakota N	Neel			_								
Title: HSE C	Coordinator	s				Approval Dat	e: 8/2/17		Expiration I	Date: N	A	1	
F-mail Addre	ess: dneel2/	aconcho.com				Conditions of			1		<u> </u>		
		a,coneno.com			———————————————————————————————————————	Conditions 01	See 1	alla	ahar	Attached			
Date: 8/1/20	17 P	hone: 575-746	5-2010				100	MILLIN	UICC I	1			

* Attach Additional Sheets If Necessary

2RP-4312

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 8/1/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4312 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 $\frac{2}{2}$ office in $\frac{ARTESIA}{ARTESIA}$ on or before $\frac{9/1/17}{2}$. 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: Dakota Neel < DNeel2@concho.com>

Sent: Tuesday, August 1, 2017 1:12 PM

To: Weaver, Crystal, EMNRD; stucker@blm.gov

Cc: Bratcher, Mike, EMNRD; Rebecca Haskell; Robert McNeill

Subject: (C-141 Initial) JR's Horz Federal Com #006H 7/28/2017 (30-015-37904)

Attachments: (C-141 Initial) JR'S HORZ FEDERAL COM #006H 7-28-2017 (30-015-37904).pdf

Ms. Weaver / Ms. Tucker,

Please see the attached Initial C-141 for your consideration. If you have any questions or concerns please contact me.

Thank You,

Dakota Neel
HSE Coordinator
COG Operating LLC
Cell: 432-215-2783
dneel2@concho.com

2407 Pecos Ave. Artesia, NM 88210



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