



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

COG – WILLOW A STATE #002 (8/27/16)

REMEDIATION PLAN

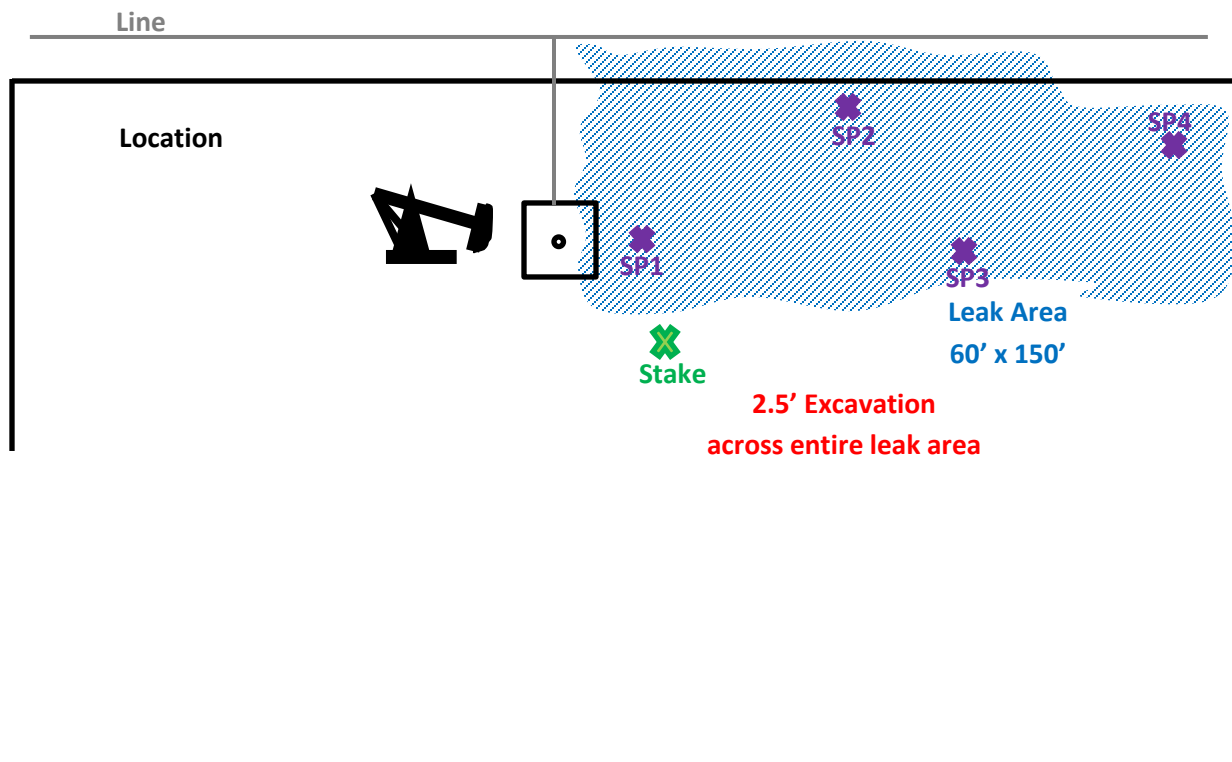
COG will excavate the spill area as depicted on the following site diagram. The entire leak area will be excavated to a depth of 2.5 feet. The entire site will then be backfilled with clean soil.

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



COG

Willow A State #002 (8/27/16)



U/L O, Section 3, T25S, R28E

Eddy County, NM

N 32.15276° W 104.07477°

API# 30-015-33399

BBC International, Inc.

COG

Willow A State #002

Date: 10/03/2016

DRWG by: K. Purvis

NOT TO SCALE

File: COG 2016



Groundwater Plot

COG Willow A State #002

County
Eddy

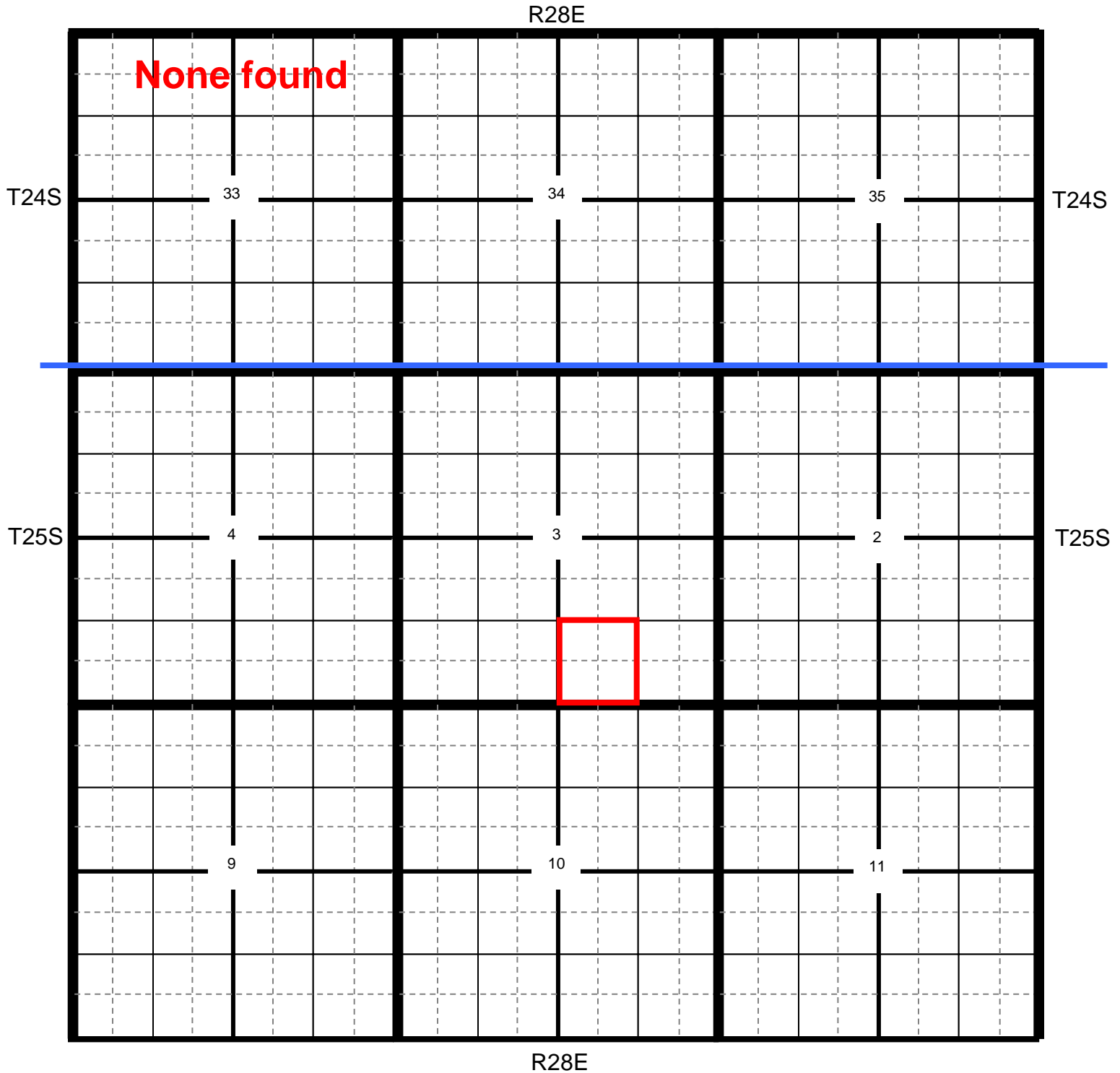
Unit Letter
O

Section
3

Township
25S

Range
28E

Trend Map <50'



★ Location

● OCD

● USGS

● SEO

● All Databases

COG Willow A State #002

County
 Eddy
 Unit Letter
 O
 Section
 3
 Township
 25S
 Range
 28E

Trend Map <50'

1

2

NW/NW None found	NE/NW	NW/NE	NE/NE
Unit Letter D	Unit Letter C	Unit Letter B	Unit Letter A
SW/NW	SE/NW	SW/NE	SE/NE
Unit Letter E	Unit Letter F	Unit Letter G	Unit Letter H
NW/SW	NE/SW	NW/SE	NE/SE
Unit Letter L	Unit Letter K	Unit Letter J	Unit Letter I
SW/SW	SE/SW	SW/SE	SE/SE
Unit Letter M	Unit Letter N	Unit Letter O	Unit Letter P

3

4

**Laboratory Analytical Results Summary
Willow A State #2**

		Sample	SP1 @ 1'	SP1 @ 2'	SP1 @ 4'	SP1 @ 6'	SP1 @ 7'
Analyte	Method	Date	10/6/16	10/6/16	10/6/16	10/6/16	10/6/16
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	<0.050	N/A	N/A	N/A
Toluene	BTEX 8021B		<0.050	<0.050	N/A	N/A	N/A
Ethylbenzene	BTEX 8021B		<0.050	<0.050	N/A	N/A	N/A
Total Xylenes	BTEX 8021B		<0.150	<0.150	N/A	N/A	N/A
Total BTEX	BTEX 8021B		<0.300	<0.300	N/A	N/A	N/A
Chloride	SM4500Cl-B		2920	1460	656	400	208
GRO	TPH 8015M		<10.0	<10.0	N/A	N/A	N/A
DRO	TPH 8015M		<10.0	<10.0	N/A	N/A	N/A

		Sample	SP2 @ 1'	SP2 @ 2'	SP2 @ 4'	SP2 @ 5'
Analyte	Method	Date	10/6/16	10/6/16	10/6/16	10/6/16
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	<0.050	N/A	N/A
Toluene	BTEX 8021B		<0.050	<0.050	N/A	N/A
Ethylbenzene	BTEX 8021B		<0.050	<0.050	N/A	N/A
Total Xylenes	BTEX 8021B		<0.150	<0.150	N/A	N/A
Total BTEX	BTEX 8021B		<0.300	<0.300	N/A	N/A
Chloride	SM4500Cl-B		7200	3360	192	176
GRO	TPH 8015M		<10.0	<10.0	N/A	N/A
DRO	TPH 8015M		<10.0	55.1	N/A	N/A

		Sample	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 4'
Analyte	Method	Date	10/6/16	10/6/16	10/6/16	10/6/16
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	<0.050	N/A	N/A
Toluene	BTEX 8021B		<0.050	<0.050	N/A	N/A
Ethylbenzene	BTEX 8021B		<0.050	<0.050	N/A	N/A
Total Xylenes	BTEX 8021B		<0.150	<0.150	N/A	N/A
Total BTEX	BTEX 8021B		<0.300	<0.300	N/A	N/A
Chloride	SM4500Cl-B		1460	896	400	208
GRO	TPH 8015M		<10.0	<10.0	N/A	N/A
DRO	TPH 8015M		<10.0	<10.0	N/A	N/A

		Sample	SP4 @ 1'	SP4 @ 2'	SP4 @ 3'
Analyte	Method	Date	10/6/16	10/6/16	10/6/16
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	<0.050	N/A
Toluene	BTEX 8021B		<0.050	<0.050	N/A
Ethylbenzene	BTEX 8021B		<0.050	<0.050	N/A
Total Xylenes	BTEX 8021B		<0.150	<0.150	N/A
Total BTEX	BTEX 8021B		<0.300	<0.300	N/A
Chloride	SM4500Cl-B		896	656	208
GRO	TPH 8015M		<10.0	<10.0	N/A
DRO	TPH 8015M		<10.0	<10.0	N/A



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 14, 2016

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: WILLOW A STATE #2

Enclosed are the results of analyses for samples received by the laboratory on 10/07/16 11:00.

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/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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

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: 10/07/2016
Reported: 10/14/2016
Project Name: WILLOW A STATE #2
Project Number: COG
Project Location: MALAGA, NM

Sampling Date: 10/06/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ 1' (H602264-01)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2016	ND	2.18	109	2.00	1.38	
Toluene*	<0.050	0.050	10/11/2016	ND	2.27	114	2.00	1.12	
Ethylbenzene*	<0.050	0.050	10/11/2016	ND	2.21	110	2.00	1.03	
Total Xylenes*	<0.150	0.150	10/11/2016	ND	6.66	111	6.00	0.694	
Total BTX	<0.300	0.300	10/11/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2920	16.0	10/11/2016	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2016	ND	188	94.1	200	3.55	
DRO >C10-C28	<10.0	10.0	10/10/2016	ND	214	107	200	4.52	

Surrogate: 1-Chlorooctane 84.1 % 35-147

Surrogate: 1-Chlorooctadecane 91.0 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/07/2016
Reported: 10/14/2016
Project Name: WILLOW A STATE #2
Project Number: COG
Project Location: MALAGA, NM

Sampling Date: 10/06/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ 2' (H602264-02)

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2016	ND	2.18	109	2.00	1.38	
Toluene*	<0.050	0.050	10/11/2016	ND	2.27	114	2.00	1.12	
Ethylbenzene*	<0.050	0.050	10/11/2016	ND	2.21	110	2.00	1.03	
Total Xylenes*	<0.150	0.150	10/11/2016	ND	6.66	111	6.00	0.694	
Total BTEx	<0.300	0.300	10/11/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1460	16.0	10/11/2016	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2016	ND	188	94.1	200	3.55	
DRO >C10-C28	<10.0	10.0	10/10/2016	ND	214	107	200	4.52	

Surrogate: 1-Chlorooctane 78.0 % 35-147

Surrogate: 1-Chlorooctadecane 78.4 % 28-171

Sample ID: SP 1 @ 4' (H602264-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	10/11/2016	ND	416	104	400	0.00	

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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: 10/07/2016
Reported: 10/14/2016
Project Name: WILLOW A STATE #2
Project Number: COG
Project Location: MALAGA, NM

Sampling Date: 10/06/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ 6' (H602264-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	10/11/2016	ND	416	104	400	0.00		

Sample ID: SP 1 @ 7' (H602264-05)

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	10/11/2016	ND	416	104	400	0.00	

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

Received: 10/07/2016
Reported: 10/14/2016
Project Name: WILLOW A STATE #2
Project Number: COG
Project Location: MALAGA, NM

Sampling Date: 10/06/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ 1' (H602264-06)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/11/2016	ND	2.18	109	2.00	1.38		
Toluene*	<0.050	0.050	10/11/2016	ND	2.27	114	2.00	1.12		
Ethylbenzene*	<0.050	0.050	10/11/2016	ND	2.21	110	2.00	1.03		
Total Xylenes*	<0.150	0.150	10/11/2016	ND	6.66	111	6.00	0.694		
Total BTEx	<0.300	0.300	10/11/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7200	16.0	10/11/2016	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2016	ND	188	94.1	200	3.55	
DRO >C10-C28	<10.0	10.0	10/10/2016	ND	214	107	200	4.52	

Surrogate: 1-Chlorooctane 96.2 % 35-147

Surrogate: 1-Chlorooctadecane 105 % 28-171

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Received: 10/07/2016
Reported: 10/14/2016
Project Name: WILLOW A STATE #2
Project Number: COG
Project Location: MALAGA, NM

Sampling Date: 10/06/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ 2' (H602264-07)

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2016	ND	2.18	109	2.00	1.38	
Toluene*	<0.050	0.050	10/11/2016	ND	2.27	114	2.00	1.12	
Ethylbenzene*	<0.050	0.050	10/11/2016	ND	2.21	110	2.00	1.03	
Total Xylenes*	<0.150	0.150	10/11/2016	ND	6.66	111	6.00	0.694	
Total BTEx	<0.300	0.300	10/11/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3360	16.0	10/11/2016	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2016	ND	188	94.1	200	3.55	
DRO >C10-C28	55.1	10.0	10/10/2016	ND	214	107	200	4.52	

Surrogate: 1-Chlorooctane 90.3 % 35-147

Surrogate: 1-Chlorooctadecane 99.0 % 28-171

Sample ID: SP 2 @ 4' (H602264-08)

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	10/11/2016	ND	416	104	400	0.00	

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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: 10/07/2016
Reported: 10/14/2016
Project Name: WILLOW A STATE #2
Project Number: COG
Project Location: MALAGA, NM

Sampling Date: 10/06/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ 5' (H602264-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	10/11/2016	ND	400	100	400	0.00	

Sample ID: SP 3 @ 1' (H602264-10)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2016	ND	2.18	109	2.00	1.38	
Toluene*	<0.050	0.050	10/11/2016	ND	2.27	114	2.00	1.12	
Ethylbenzene*	<0.050	0.050	10/11/2016	ND	2.21	110	2.00	1.03	
Total Xylenes*	<0.150	0.150	10/11/2016	ND	6.66	111	6.00	0.694	
Total BTEX	<0.300	0.300	10/11/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1460	16.0	10/11/2016	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2016	ND	188	94.1	200	3.55	
DRO >C10-C28	<10.0	10.0	10/10/2016	ND	214	107	200	4.52	

Surrogate: 1-Chlorooctane 98.5 % 35-147

Surrogate: 1-Chlorooctadecane 98.7 % 28-171

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/07/2016
Reported: 10/14/2016
Project Name: WILLOW A STATE #2
Project Number: COG
Project Location: MALAGA, NM

Sampling Date: 10/06/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 @ 2' (H602264-11)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/11/2016	ND	2.18	109	2.00	1.38		
Toluene*	<0.050	0.050	10/11/2016	ND	2.27	114	2.00	1.12		
Ethylbenzene*	<0.050	0.050	10/11/2016	ND	2.21	110	2.00	1.03		
Total Xylenes*	<0.150	0.150	10/11/2016	ND	6.66	111	6.00	0.694		
Total BTEx	<0.300	0.300	10/11/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	10/11/2016	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2016	ND	188	94.1	200	3.55	
DRO >C10-C28	<10.0	10.0	10/10/2016	ND	214	107	200	4.52	

Surrogate: 1-Chlorooctane 99.6 % 35-147

Surrogate: 1-Chlorooctadecane 98.9 % 28-171

Sample ID: SP 3 @ 3' (H602264-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	10/11/2016	ND	400	100	400	0.00	

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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: 10/07/2016
Reported: 10/14/2016
Project Name: WILLOW A STATE #2
Project Number: COG
Project Location: MALAGA, NM

Sampling Date: 10/06/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 @ 4' (H602264-13)

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	10/11/2016	ND	400	100	400	0.00	

Sample ID: SP 4 @ 1' (H602264-14)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2016	ND	2.18	109	2.00	1.38	
Toluene*	<0.050	0.050	10/11/2016	ND	2.27	114	2.00	1.12	
Ethylbenzene*	<0.050	0.050	10/11/2016	ND	2.21	110	2.00	1.03	
Total Xylenes*	<0.150	0.150	10/11/2016	ND	6.66	111	6.00	0.694	
Total BTEX	<0.300	0.300	10/11/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	10/11/2016	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2016	ND	188	94.1	200	3.55	
DRO >C10-C28	<10.0	10.0	10/10/2016	ND	214	107	200	4.52	

Surrogate: 1-Chlorooctane 95.1 % 35-147

Surrogate: 1-Chlorooctadecane 98.0 % 28-171

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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: 10/07/2016
Reported: 10/14/2016
Project Name: WILLOW A STATE #2
Project Number: COG
Project Location: MALAGA, NM

Sampling Date: 10/06/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 4 @ 2' (H602264-15)

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2016	ND	2.18	109	2.00	1.38	
Toluene*	<0.050	0.050	10/11/2016	ND	2.27	114	2.00	1.12	
Ethylbenzene*	<0.050	0.050	10/11/2016	ND	2.21	110	2.00	1.03	
Total Xylenes*	<0.150	0.150	10/11/2016	ND	6.66	111	6.00	0.694	
Total BTEx	<0.300	0.300	10/11/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	10/11/2016	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2016	ND	188	94.1	200	3.55	
DRO >C10-C28	<10.0	10.0	10/10/2016	ND	214	107	200	4.52	

Surrogate: 1-Chlorooctane 101 % 35-147

Surrogate: 1-Chlorooctadecane 106 % 28-171

Sample ID: SP 4 @ 3' (H602264-16)

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	10/11/2016	ND	400	100	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside if QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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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

Company Name: BBC International, Inc.		BILL TO		ANALYSIS REQUEST									
Project Manager: Cliff Brunson		P.O. #:											
Address: P.O. Box 805		Company:											
City: Hobbs		Attn:											
Phone #: 575-397-6388		Address:											
State: NM Zip: 88241													
Fax #: 575-397-0397													
Project #:		City:											
Project Name: W. Hwy 4 State #2		State:											
Project Location: N21592		Zip:											
Sampler Name: V.O.		Phone #:											
Fax #:													
FOR LAB USE ONLY													
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		PRESERV.		SAMPLING	
				GROUNDWATER				WASTEWATER					
				SOIL				OIL					
				SLUDGE				OTHER :					
				ACID/BASE:				ICE / COOL					
				OTHER :									
				DATE		TIME							
H002264		Sp1e1		10-6		10:34		X		X		X	
1		4		10:44		11:20		X		X		X	
2		6		11:40		12:00		X		X		X	
3		Sp2e1		11:11		12:00		X		X		X	
4		4		12:00		13:33		X		X		X	
5		5		13:33		14:42		X		X		X	
6		Sp3e1		14:42		15:55		X		X		X	
7													
8													
9													
10													
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Relinquished By: [Signature]		Date: 10-7-16		Received By: [Signature]		Date: 10-7-16		Time: 11:00		Sample Condition		CHECKED BY: [Signature]	
Relinquished By: [Signature]		Date: 11:00		Received By: [Signature]		Date: 11:00		Time: 1:30		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		Initials: [Signature]	
Delivered By: (Circle One)		Sampler - UPS - Bus - Other:		1.30c		No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>					
t Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476													



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: BBC International, Inc.

Project Manager: Cliff Brunson

Address: P.O. Box 805

City: Hobbs

Phone #: 575-397-6388

Project #:

Project Name: *W. Hwy A Site #2*

Project Location: *12/29/92*

Sampler Name: *1.0*

BILL TO

P.O. #:

Company:

Attn:

Address:

City:

State: Zip:

Phone #:

Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

4/22/04

11 3p3e2
12 3p3e2
13 3p3e2
14 3p3e2
15 3p3e2
16 3p3e2

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE TIME

10/6 200
2/5 222
2/3 233
2/5 250
300

BTEX
TPT
CK

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Relinquished By:

Date: *10-7-16*

Received By:

Phone Result:

Fax Result:

REMARKS:

Relinquished By:

Date: *11-00*

Received By:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

1.30

Sample Condition
Cool ☒ Intact ☒
Yes ☒ No ☒

CHECKED BY:

[Signature]

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

#75

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

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company:	COG Operating LLC	Contact:	Robert McNeill
Address:	600 West Illinois Avenue, Midland TX 79701	Telephone No.	432-683-7443
Facility Name:	WILLOW A STATE #002	Facility Type:	Well Head

Surface Owner:	State	Mineral Owner:		API No.	30-015-33399
----------------	-------	----------------	--	---------	--------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	03	25S	28E	330'	South	2570'	East	Eddy

Latitude 32.1527252 Longitude 104.074852

NATURE OF RELEASE

Type of Release:	Oil & Produced Water	Volume of Release:	2bbls of Oil & 13bbls of Produced Water	Volume Recovered:	1bbls of Oil & 1bbl of Produced Water
Source of Release:	Stuffing Box	Date and Hour of Occurrence:	08-27-2016 09:30 am	Date and Hour of Discovery:	08-27-2016 09:30 am
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.*

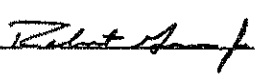
Describe Cause of Problem and Remedial Action Taken.*

A stuffing box failed at the wellhead. Replaced the packing in the stuffing box.

Describe Area Affected and Cleanup Action Taken.*

This release occurred on location and a 5 X 10 just on the north edge of the location. Concho will have the spill site sampled to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:		OIL CONSERVATION DIVISION	
Printed Name:	Robert Grubbs Jr.	Approved by Environmental Specialist:	
Title:	Senior Environmental Coordinator	Approval Date:	Expiration Date:
E-mail Address:	rgrubbs@concho.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date:	August 30, 2016	Phone:	432-683-7443

* Attach Additional Sheets If Necessary