

April 12, 2017

Oil Conservation Division  
District 2 – Artesia  
811 S. First St.  
Artesia, NM 88210

**Re: Cottonwood 36 State SWD #001**  
**30-015-29560**  
**Sec. 35, T25S-R26E**  
**Eddy County, NM**

Mr. Bratcher / MS, Groves,

COG Operating LLC would like to submit for your consideration the enclosed work plan for the above captioned well. The plan is in response to the C-141 Initial report dated May 06, 2016.

#### **Background**

The release was caused by a collar that failed above the master valve discharging the fluid on to the well pad. The situation was remediated by replacing the collar that failed with a new collar. This area was addressed with an initial scrap and all impacted material hauled to an NMOCD approved facility.

#### **Groundwater**

Based on the Chevron Trend Maps, the release area would be classified at a site ranking of Twenty due to the depth of groundwater .at approximately <50".

#### **Soil Assessment and Analytical Results**

Initial soil samples were taken on 6-15-16. While collecting the samples we found a liner in the area of both sample point (S-1 and S-2). Samples indicated TPH and BTEX were within RRALs for site ranking twenty. Chloride concentrations in two sampling areas (S-1 and S-2) were elevated for surface reclamation. (See attached site diagram)

#### **Work Plan**

Upon collecting samples in the spill area (S-1 and S-2) we encountered a liner at the 3'. (See attached photos) COG proposes two excavations, one in the area of S-1 with the dimensions of the 20' x 20' x .5' feet. The second excavation in the area of S-2 with dimensions of 10' x 20' x 1' feet. We didn't collect any deeper samples than 3' seeing that there was a liner installed previously. Both locations are on the pad west of the injection well. (See attached site diagram) The area will be backfilled with like material.

If there are no objections or further stipulations, COG Operating LLC would like to begin the remediation process based on approval of this work plan. Please feel free to contact my with any questions or concerns.

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#### **CORPORATE ADDRESS**

One Concho Center | 600 West Illinois Avenue | Midland, Texas 79701  
P 432.683.7443 | F 432.683.7441

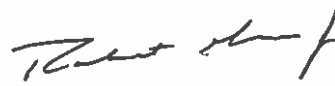
#### **CARLSBAD OFFICE**

1401 Commerce Drive | Carlsbad, New Mexico 88220  
P 575.689.3100 | F 575.941.2081

NMOCD

April 12, 2017

Sincerely,



Robert Grubbs Jr.  
Senior HSE Coordinator

Enclosed

- (1) C-141 Initial
- (2) Site Diagram
- (3) Summary Table
- (4) Liner Photos
- (5) Laboratory Analysis

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:	COTTONWOOD 36 STATE SWD #001	Facility Type:	SWD
Surface Owner:	State	Mineral Owner:	API No. 30-015-29560

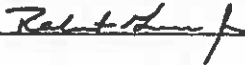
LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	35	25S	26E	1980	South	1980	West	Eddy

Latitude 32.0844536

Longitude 104.2486954

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 5bbls of Produced Water	Volume Recovered: 3bbls of Produced Water
Source of Release: Injection Well	Date and Hour of Occurrence: 05-06-2016 11:00am	Date and Hour of Discovery: 05-06-2016 11:00am
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.*  The threading on the collar above the master valve washed out. Replaced the collar on the wellhead.		
Describe Area Affected and Cleanup Action Taken.*  The release caused a 20' X 5' staining on the pad by the wellhead. Concho has replaced the collar on the wellhead and 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: 05-16-2016 Phone: 432-683-7443		

\* Attach Additional Sheets If Necessary


MAY 16, 2016


# COTTONWOOD 36 STATE SWD #001


## Cottonwood 36 State SWD #001

Leak Date: 05/06/2016  
Eddy County, NM  
AP# 30-015-29660  
RP#2RP-3696

**Legend**

 Sample Points

 S-1 Excavation .6'

 S-2 Excavation 1'



Cavern Hwy

100 ft

**COTTONWOOD 36 STATE SWD #001**

**SITE RANKING: 20**

**DEPTH TO GW PER SEO: <50**

**LINER INPLACE THROUGH THE SPILL AREA AT 3'**

<b>S-1</b>	<b>BTEX</b>	<b>GRO</b>	<b>DRO</b>	<b>TPH</b>	<b>CL</b>
SURFACE	<0.300	<10.0	<10.0	<20.0	2480
1'	<0.300	<10.0	<10.0	<20.0	416
2'	-	-	-	-	540
3'	-	-	-	-	800
<b>S-2</b>	<b>BTEX</b>	<b>GRO</b>	<b>DRO</b>	<b>TPH</b>	<b>CL</b>
SURFACE	<0.300	<10.0	<10.0	<20.0	4800
1'	<0.300	<10.0	<10.0	<20.0	800
2'	-	-	-	-	288
3'	-	-	-	-	560

**COTTONWOOD 36 STATE SWC #001**  
**EDDY COUNTY, NEW MEXICO**

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**S-1 – LINER AT 3'**



**S-2 – LINER AT 3'**



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

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June 21, 2016

LUPE CARRASCO  
COG Operating, LLC  
500 W. ILLINOIS  
Midland, TX 79701

RE: COTTONWOOD 36 STATE SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/15/16 14:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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](http://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:**

 COG Operating, LLC  
 LUPE CARRASCO  
 500 W. ILLINOIS  
 Midland TX, 79701  
 Fax To: None

 Received: 06/15/2016  
 Reported: 06/21/2016  
 Project Name: COTTONWOOD 36 STATE SWD #1  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

 Sampling Date: 06/09/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S1-SURFACE (H601320-01)**

BTEX 80218			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/16/2016	ND	1.96	98.0	2.00	0.357	
Toluene*	<0.050	0.050	06/16/2016	ND	1.99	99.5	2.00	0.686	
Ethylbenzene*	<0.050	0.050	06/16/2016	ND	1.83	91.7	2.00	0.552	
Total Xylenes*	<0.150	0.150	06/16/2016	ND	5.71	95.2	6.00	0.128	
Total BTEX	<0.300	0.300	06/16/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 73.6-140

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2480	16.0	06/17/2016	ND	432	108	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	06/17/2016	ND	190	95.1	200	0.0594	
DRO >C10-C28	<10.0	10.0	06/17/2016	ND	190	94.8	200	2.04	

Surrogate: 1-Chlorooctane 72.6 % 35-147

Surrogate: 1-Chlorooctadecane 71.1 % 28-171

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG Operating, LLC  
LUPE CARRASCO  
500 W. ILLINOIS  
Midland TX, 79701  
Fax To: None

Received: 06/15/2016  
Reported: 06/21/2016  
Project Name: COTTONWOOD 36 STATE SWD #1  
Project Number: NONE GIVEN  
Project Location: NONE GIVEN

Sampling Date: 06/09/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S1-1' (H601320-02)**

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	06/16/2016	ND	1.96	98.0	2.00	0.357		
Toluene*	<0.050	0.050	06/16/2016	ND	1.99	99.5	2.00	0.686		
Ethylbenzene*	<0.050	0.050	06/16/2016	ND	1.83	91.7	2.00	0.552		
Total Xylenes*	<0.150	0.150	06/16/2016	ND	5.71	95.2	6.00	0.128		
Total BTEX	<0.300	0.300	06/16/2016	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	06/17/2016	ND	432	108	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	06/17/2016	ND	190	95.1	200	0.0594	
DRO >C10-C28	<10.0	10.0	06/17/2016	ND	190	94.8	200	2.04	

Surrogate: 1-Chlorooctane 57.8 % 35-147

Surrogate: 1-Chlorooctadecane 62.1 % 28-171

**Sample ID: S1-2' (H601320-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	06/17/2016	ND	432	108	400	0.00	

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG Operating, LLC  
 LUPE CARRASCO  
 500 W. ILLINOIS  
 Midland TX, 79701  
 Fax To: None

 Received: 06/15/2016  
 Reported: 06/21/2016  
 Project Name: COTTONWOOD 36 STATE SWD #1  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

 Sampling Date: 06/09/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S1-3' (H601320-04)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	06/17/2016	ND	432	108	400	0.00	

**Sample ID: S2-SURFACE (H601320-05)**

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	06/16/2016	ND	1.96	98.0	2.00	0.357	
Toluene*	<0.050	0.050	06/16/2016	ND	1.99	99.5	2.00	0.686	
Ethylbenzene*	<0.050	0.050	06/16/2016	ND	1.83	91.7	2.00	0.552	
Total Xylenes*	<0.150	0.150	06/16/2016	ND	5.71	95.2	6.00	0.128	
Total BTEX	<0.300	0.300	06/16/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 101 % 73.6-140

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	06/17/2016	ND	432	108	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	06/17/2016	ND	190	95.1	200	0.0594	
DRO >C10-C28	<10.0	10.0	06/17/2016	ND	190	94.8	200	2.04	

Surrogate: 1-Chlorooctane 75.6 % 35-147

Surrogate: 1-Chlorooctadecane 75.3 % 28-171

**Cardinal Laboratories**

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG Operating, LLC  
 LUPE CARRASCO  
 500 W. ILLINOIS  
 Midland TX, 79701  
 Fax To: None

 Received: 06/15/2016  
 Reported: 06/21/2016  
 Project Name: COTTONWOOD 36 STATE SWD #1  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

 Sampling Date: 06/09/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S2-1' (H601320-06)**

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	06/16/2016	ND	1.96	98.0	2.00	0.357	
Toluene*	<0.050	0.050	06/16/2016	ND	1.99	99.5	2.00	0.686	
Ethylbenzene*	<0.050	0.050	06/16/2016	ND	1.83	91.7	2.00	0.552	
Total Xylenes*	<0.150	0.150	06/16/2016	ND	5.71	95.2	6.00	0.128	
Total BTEX	<0.300	0.300	06/16/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 101 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	06/17/2016	ND	432	108	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	06/17/2016	ND	190	95.1	200	0.0594	
DRO >C10-C28	<10.0	10.0	06/17/2016	ND	190	94.8	200	2.04	

Surrogate: 1-Chlorooctane 68.0 % 35-147

Surrogate: 1-Chlorooctadecane 70.9 % 28-171

**Sample ID: S2-2' (H601320-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	06/17/2016	ND	432	108	400	0.00	

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG Operating, LLC  
LUPE CARRASCO  
500 W. ILLINOIS  
Midland TX, 79701  
Fax To: None

Received: 06/15/2016  
Reported: 06/21/2016  
Project Name: COTTONWOOD 36 STATE SWD #1  
Project Number: NONE GIVEN  
Project Location: NONE GIVEN

Sampling Date: 06/09/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S2-3' (H601320-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	06/17/2016	ND	432	108	400	0.00	

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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**



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