

January 27, 2016

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

Re: Crossman 25 State #1

30-15-38948

Sec. 24, T25S-R27E Eddy County, NM

Mr. Mike Bratcher,

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 October 20, 2014.

Background

The release was caused by torrential rains that resulted in mass flooding. Flood waters washed tanks, debris, and pad material downstream. 280 bbls of oil and 100 bbls of produced water were lost and unrecoverable. GL Environmental Inc. (GLE) was contracted by the State Land Office to complete a site survey combined with a sampling and analysis effort of the affected portions of the draw. GLE identified one sample with elevated chloride concentrations on the pad through composite sampling of 3 discrete samples.

After discussions with OCD, COG conducted additional sampling on October 14, 2015 to further identify the areas of contamination at sample point 5 with discrete samples. (See attached map)

Soil Assessment and Analytical Results

The pad area was divided into 4 quadrants for sampling purposes. Chloride concentrations were elevated in one of the sampling area (T-3) which was above the NMOCD's target of 1,000 mg/kg for the remediation of chlorides (see attached site diagram).

NMOCD January 27, 2016 Page 2

Work Plan

COG proposes the following excavations:

T₁ – No Excavation

T2 - No Excavation

T3 - Excavate 1'

T₄ - No Excavation

T₅ – No Excavation

On January 21, 2016, COG met with Bradford Billings, Mike Bratcher and Heather Patterson in the Artesia, OCD District 2 office to discuss samples results and closure of this site. At this meeting, it was decided to install a temporary well in the vicinity of the T-5 location. A water sample will be collected from the temporary well and a surface water sample will be collected immediately upstream of the pad location. It was agreed that if these 2 water samples exhibit similar chloride ranges, the only remaining action is to remove approximately 1 ft. of soil in the vicinity of the T-3 sample location. The OCD will be notified 48 hrs. prior to the installation of the temporary well. The temporary well will be installed and properly developed, and allowed to stand 24 hrs. prior to sample collection. The water samples from the temporary well and the adjacent surface water will be collected at the same time.

After the water sample results are received, the results will be forwarded to the OCD for approval, and once approved, the temporary well will be properly plugged. Upon approval of the final work, a C-141 Final Closure will be submitted to the OCD.

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 at (432) 661-6601.

Sincerely,

Robert Grubbs Jr.

Senior Environmental Coordinator

Enclosed

- (1) C-141 Initial (Copy)
- (2) Site Diagram and Summary Table
- (3) Laboratory Analysis

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico **Energy Minerals and Natural Resources**

Submit 1 Copy to appropriate District Office in accordance with 19,15,29 NMAC.

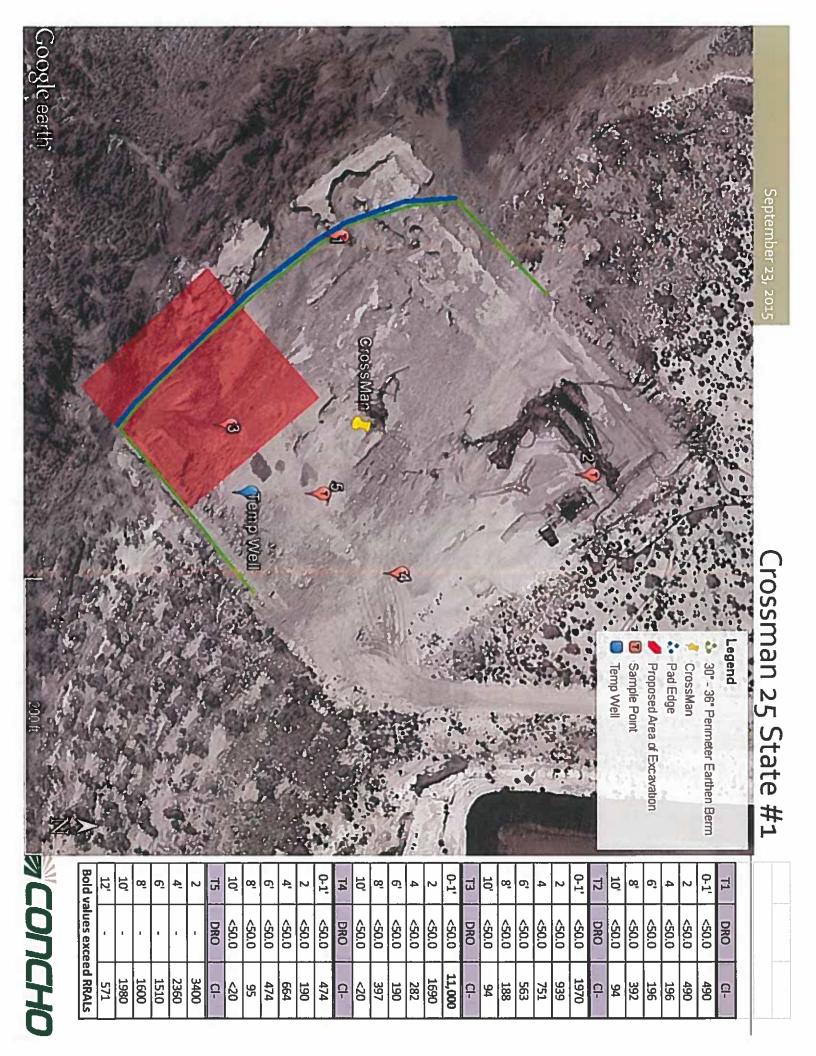
Form C-141

Revised August 8, 2011

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

Release Notification and Corrective Action

						OPERAT	ΓOR	🛛 Initial	Report		Final Report
	Name of Company: COG Operating LLC				Contact: Robert McNeill						
		inois Avenue		d TX 79701			No. 432-230-007	7			
Facility Nar	ne: Crossi	nan 25 State	#1H			Facility Typ	e: Battery	 			
Surface Ow	ner: Feder	al		Mineral O	wner:	Federal		API No.	30-015-3	8948	
				LOCA	TIO	N OF REI	LEASE				
Unit Letter	Section	Township	Range	Feet from the	North	/South Line	Feet from the	East/West Line		Coun	
A	25	25S	27E	330'		North	330'	East		Edd ₂	<u>y</u>
			Lati	tude32,1073265	586197	3 Longitude	e -104.13640458	1729			
				NAT	URE	OF RELI	EASE				
Type of Rele Oil and Prod						Volume of	Release: il; 100 bbls PW	Volume Re 0 bbls Oil		7	
Source of Re	lease:						our of Occurrence				:
Flood waters						9/19/2014		9/19/2014	11:00 am		
Was Immedia	ate Notice (Yes	No 🔲 Not Re	quired	If YES, To Mike Brate					
By Whom?	Robert M	cNeill				Date and H	lour: 9/22/2014 8:0	00 am (phone call)			
Was a Water	course Read						lume Impacting th	e Watercourse.		_	
		M	Yes	No		Unknown					
with the floor fiberglass tan	d waters as iks were tor	well. Tanks at	nd equipm	ent was located ap				y with the water. N rroyo. The steel ta			
		251.51									
Describe Are	a Affected	and Cleanup A	Action Tak	en.*							
thorough sea	rch of the a	rea for hydroc	arbon imp	act. Equipment w	ill be re	emoved from t	he draw and dispo	le to heavy equipm sed of at an NMOC	CD approve	d facili	ity.
regulations a public health should their or the environ	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:	Signature:				OIL CONS	<u>ERVATION</u>	<u>DIVISIO</u>	<u> </u>			
Printed Name	e: Amanda	Trujillo				Approved by	Environmental Sp	ecialist:			
Title: Senior	Environme	ntal Coordinat	ог			Approval Dat	e:	Expiration D	Date:		
E-mail Addre	ess: atrujilk	@concho.com	ŋ			Conditions of	[Approval:		Attached		
Date: Octob * Attach Addi				575-748-6940				<u> </u>			811 = =



Summary Report

Robert Grubbs COG Operating, LLC 550 W. Texas Avenue Suite 100 Midland, TX 79701

Report Date: September 10, 2015

Work Order: 15082118

Project Location: Eddy Co, NM Project Name: Crossman 25 State

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
402936	T-1 0-1'	soil	2015-08-19	00:00	2015-08-21
402937	T-1 2'	soil	2015-08-19	00:00	2015-08-21
402938	T-1 4'	soil	2015-08-19	00:00	2015-08-21
402939	T-1 6'	soil	2015-08-19	00:00	2015-08-21
402940	T-1 8'	soil	2015-08-19	00:00	2015-08-21
402941	T-1 10'	soil	2015-08-19	00:00	2015-08-21
402942	T-2 0-1'	soil	2015-08-19	00:00	2015-08-21
402943	T-2 2'	soil	2015-08-19	00:00	2015-08-21
402944	T-2 4'	soil	2015-08-19	00:00	2015-08-21
402945	T-2 6'	soil	2015-08-19	00:00	2015-08-21
402946	T-2 8'	soil	2015-08-19	00:00	2015-08-21
402947	T-2 10'	soil	2015-08-19	00:00	2015-08-21
402948	T-3 0-1'	soil	2015-08-19	00:00	2015-08-21
402949	T-3 2'	soil	2015-08-19	00:00	2015-08-21
402950	T-3 4'	soil	2015-08-19	00:00	2015-08-21
402951	T-3 6'	soil	2015-08-19	00:00	2015-08-21
402952	T-3 8'	soil	2015-08-19	00:00	2015-08-21
402953	T-3 10'	soil	2015-08-19	00:00	2015-08-21
402954	T-4 0-1'	soil	2015-08-19	00:00	2015-08-21
402955	T-4 2	soil	2015-08-19	00:00	2015-08-21
402956	T-4 4'	soil	2015-08-19	00:00	2015-08-21
402957	T-4 6'	soil	2015-08-19	00:00	2015-08-21
402958	T-4 8'	soil	2015-08-19	00:00	2015-08-21
402959	T-4 10'	soil	2015-08-19	00:00	2015-08-21

	TPH DRO	TPH GRO
	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)
402936 - T-1 0-1'	<50.0 B,Qr	<4.00
402937 - T-1 2'	<50.0 в.д.	<4.00
402938 - T-1 4'	<50.0 B ₁ Qr	<4.00
402939 - T-1 6'	<50.0 B,Qr	<4.00
402940 - T-1 8'	<50.0 B,Qr	<4.00
402941 - T-1 10'	<50.0 в	<4.00
402942 - T-2 0-1'	<50,0 в	<4.00
402943 - T-2 2'	<50.0 в	<4.00
402944 - T-2 4'	<50.0 в	<4.00
402945 - T-2 6	<50.0 в	<4.00
402946 - T-2 8'	<50.0 в	<4.00
402947 - T-2 10'	<50.0 в	<4.00
402948 - T-3 0-1'	<50.0 в	<4.00
402949 - T-3 2'	<50.0 в	<4.00
402950 - T-3 4'	<50.0 в	<4.00
402951 - T-3 6'	<50.0 в	<4.00
402952 - T-3 8'	<50.0 в	<4.00
402953 - T-3 10'	<50.0 в	<4.00
402954 - T-4 0-1'	<50.0 в	<4.00
402955 - T-4 2'	<50.0 в	<4.00
402956 - T-4 4'	<50.0 в	<4.00
402957 - T-4 6'	<50.0 в	< 4.00
402958 - T-4 8'	<50.0 в	< 4.00
402959 - T-4 10'	<50.0 в	<4.00

Sample: 402936 - T-1 0-1'

Param	Flag	Result	Units	RL
Chloride		490	mg/Kg	4

Sample: 402937 - T-1 2'

Param	Flag	Result	Units	RL
Chloride		490	mg/Kg	4

Sample: 402938 - T-1 4'

Param	Flag	Result	Units	RL
Chloride		196	mg/Kg	4

Sample: 402939 - T-1 6'

Param	Flag	Result	Units	RL
Chloride		196	mg/Kg	4

Report Date: Septe	ember 10, 2015	Work Order: 150821	18 Page	Number: 3 of 5
Sample: 402940	- T-1 8'			
Param	Flag	Result	Units	RL
Chloride	16 _10	392	mg/Kg	4
Sample: 402941	- T-1 10'			
Param	⊪ Flag	Result	Units	RL
Chloride		94.0	mg/Kg	4
Sample: 402942	- T-2 0-1'			
Param	Flag	Result	Units	RL
Chloride	ring	1970	ing/Kg	4
Sample: 402943	_ Tr_2 21			
Sample: 402946				
Param	Flag	Result	Units	RL
Chloride		939	mg/Kg	4
Sample: 402944	- T-2 4'			
Param	Flag	Result	Units	RL
Chloride		751	mg/Kg	4
Sample: 402945	- T-2 6'			
Param	Flag	Result	Units	RL
Chloride	=11 =	563	mg/Kg	4
Sample: 402946	80			Are [14]
Param	Flag	Result	Units	RL 4
Chloride		188	mg/Kg	4
Sample: 402947	- T-2 10'			
Param	Flag	Result	Units	RL
Chloride		94.0	mg/Kg	4

Report Date: September 10, 2015		Work Order: 15082118	Pa	Page Number: 4 of 5	
Sample: 402948	- T-3 0-1'				
Param	Flag	Result	Units	RL	
Chloride		11000	mg/Kg	4	
· .	380				
Sample: 402949	- T-3 2'				
Param	Flag	Result	Units	RL	
Chloride		1690	ing/Kg	4	
Sample: 402950	- T-3 4'				
Param	Flag	Result	Units	RL	
Chloride		282	mg/Kg	4	
Sample: 402951	- T-3 6'				
Param	Flag	Result	Units	RL	
Chloride		190	mg/Kg	4	
Sample: 402952 Param	- T-3 8' Flag	Result	Units	RL	
Chloride	T MG	379	mg/Kg	4	
Sample: 402953	- T-3 10'		<u> </u>		
Param	Flag	Result	Units	RL	
Chloride		<20.0	mg/Kg	4	
Sample: 402954	- T-4 0-1'	1			
Param	Flag	Result	Units	RL	
Chloride		474	mg/Kg	4	
Sample: 402955	- T-4 2'				
Param	Flag	Result	Units	RL	
Chloride		190	mg/Kg	4	
15)					

Report Date: September 10, 2015		Work Order: 15082118 Page Numb		Page Number: 5 of 5		
Sample: 402956 - T-4 4'						
Param	Flag	Result	Units	RL		
Chloride		664	mg/Kg	4		
Sample: 402957	- T-4 6'					
Param	Flag	Result	Units	RL		
Chloride		474	mg/Kg	4		
Sample: 402958	- T-4 8'					
Param	Flag	Result	Units	RL		
Chloride		95,0	mg/Kg	4		
Sample: 402959	- T-4 10'					
Param	Flag	Result	Units	RL		
Chloride		< 20.0	mg/Kg	4		

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Summary Report

Robert Grubbs COG Operating, LLC 550 W. Texas Avenue Suite 100 Midland, TX 79701

Report Date: October 16, 2015

Work Order: 15101536

Project Location: Eddy Co, NM

Project Name:

Crossman 25 State #1H

Project Number: ENV015_0002_1

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
406502	T-5 2'	soil	2015-10-14	00:00	2015-10-15
406503	T-5 4'	soil	2015-10-14	00:00	2015-10-15
406504	T-5 6'	soil	2015-10-14	00:00	2015-10-15
406505	T-5 8'	soil	2015-10-14	00:00	2015-10-15
406506	T-5 10'	soil	2015-10-14	00:00	2015-10-15

Sample: 406502 - T-5 2'

Param	Flag	Result	Units	RL
Chloride		3400	mg/Kg	4

Sample: 406503 - T-5 4'

Param	1	Flag	Result	Units	RL
Chloride			2360	mg/Kg	4

Sample: 406504 - T-5 6'

Param	Flag	Result	Units	RL
Chloride		1510	mg/Kg	4

Result

1980

Units

mg/Kg

RL

Param

Chloride

Flag

Page Number: I of 1

Summary Report

Robert Grubbs COG Operating, LLC 550 W. Texas Avenue Suite 100 Midland, TX 79701

Report Date: November 30, 2015

Work Order: 15112507

Project Location: Eddy Co, NM

Project Name:

Crossman 25 State #1H

Project Number: ENV015_0002_1

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
409061	T-5 10'	soil	2015-11-24	00:00	2015-11-25
409062	T-5 12'	soil	2015-11-24	00:00	2015-11-25

Sample: 409061 - T-5 10'

Param	Flag	Result	Units	RL
Chloride		667	mg/Kg	50

Sample: 409062 - T-5 12'

Param	Flag	Result	Units	RL
Chloride		571	mg/Kg	50