



## **COG – LOVING 1 STATE #3**

### **REMEDIATION PLAN**

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COG will excavate the spill area as depicted on the following site diagram. The entire spill area will be excavated an additional 1 foot. During the response to the spill, 6 inches of soil was removed previously. The total depth of the excavation will be 1.5 feet from ground surface. The entire site will be backfilled with clean soil.

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

# Loving 1 State #3

**Legend**

-  Release Area
-  Sample Points



Google earth



# Groundwater Plot

## Concho Loving 1 State #3

County  
Eddy

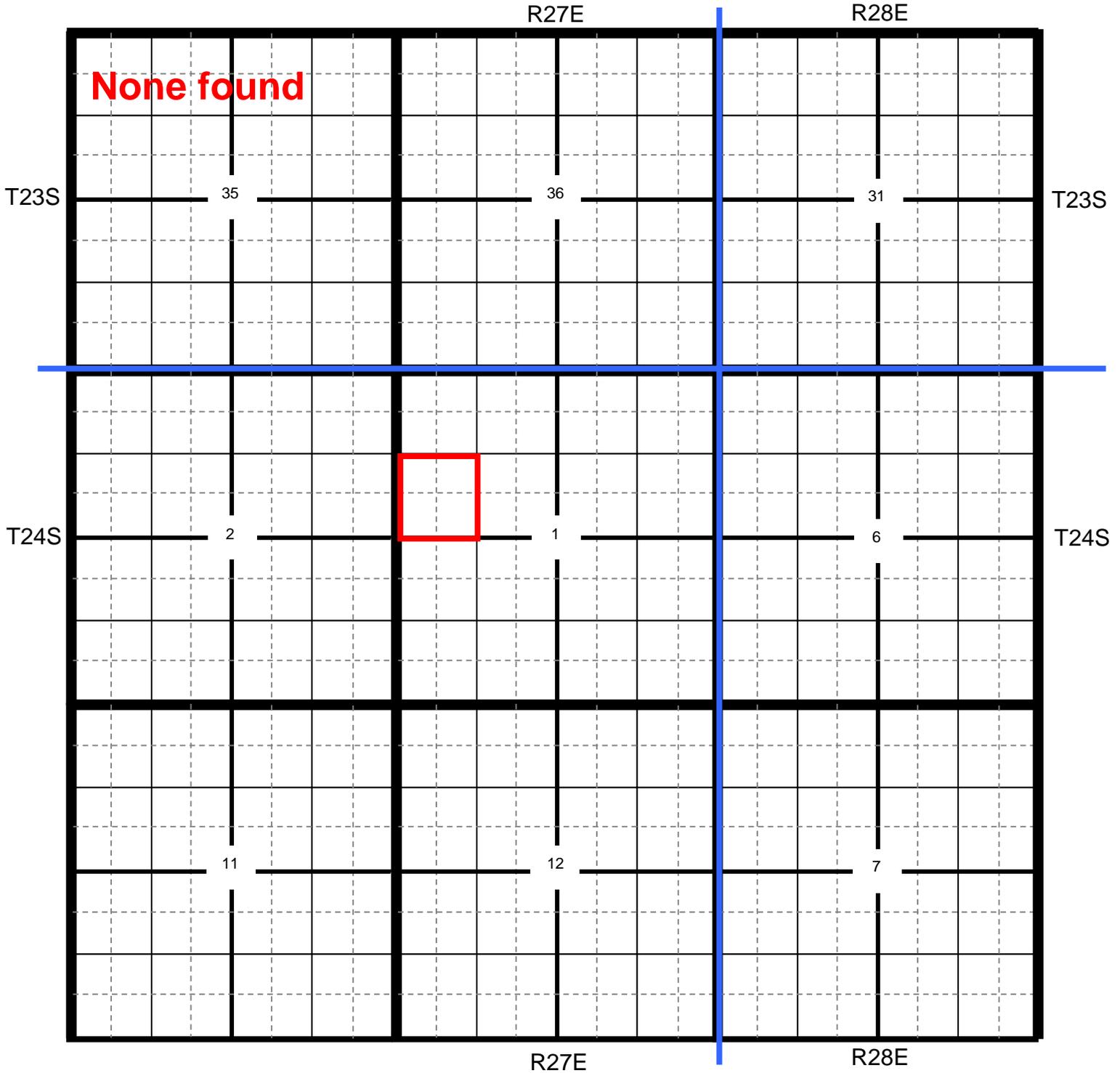
Unit Letter  
E

Section  
1

Township  
24S

Range  
27E

Trend Map 50'-75'



📍 Location

● OCD

● USGS

● SEO

● All Databases

## Concho Loving 1 State #003

<b>County</b> Eddy	<b>Unit Letter</b> E	<b>Section</b> 1	<b>Township</b> 24S	<b>Range</b> 27E
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Trend Map 50'-75"

1

2

NW/NW <b>None found</b>	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  
Loving 1 State #3**

		Sample	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 4'	SP1 @ 6'	SP1 @ 8'
Analyte	Method	Date	5/23/16	5/23/16	5/23/16	5/23/16	5/23/16	5/23/16
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.100	<0.050	<0.050	<0.050	n/a	n/a
<b>Toluene</b>	BTEX 8021B		<0.100	<0.050	<0.050	<0.050	n/a	n/a
<b>Ethylbenzene</b>	BTEX 8021B		<b>2.19</b>	<0.050	<0.050	<0.050	n/a	n/a
<b>Total Xylenes</b>	BTEX 8021B		<0.300	<0.150	<0.150	<0.150	n/a	n/a
<b>Total BTEX</b>	BTEX 8021B		<b>2.19</b>	<0.300	<0.300	<0.300	n/a	n/a
<b>Chloride</b>	SM4500Cl-B		<b>144</b>	<16.0	<16.0	<b>16</b>	<b>16</b>	<b>80</b>
<b>GRO</b>	TPH 8015M		<b>123</b>	<10.0	<10.0	<10.0	n/a	n/a
<b>DRO</b>	TPH 8015M		<b>2240</b>	<b>130</b>	<10.0	<10.0	n/a	n/a

		Sample	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'	SP2 @ 6'
Analyte	Method	Date	5/23/16	5/23/16	5/23/16	5/23/16	5/23/16
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	n/a
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	n/a
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	n/a
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	n/a
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	n/a
<b>Chloride</b>	SM4500Cl-B		<b>1250</b>	<b>336</b>	<16.0	<b>448</b>	<b>32</b>
<b>GRO</b>	TPH 8015M		<10.0	<10.0	<10.0	<10.0	n/a
<b>DRO</b>	TPH 8015M		<b>320</b>	<b>31.4</b>	<10.0	<10.0	n/a



May 31, 2016

LUPE CARRASCO  
COG OPERATING  
P. O. BOX 1630  
ARTESIA, NM 88210

RE: LOVING 1 STATE #3

Enclosed are the results of analyses for samples received by the laboratory on 05/25/16 14:05.

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.

Celey D. Keene  
Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 05/25/2016  
 Reported: 05/31/2016  
 Project Name: LOVING 1 STATE #3  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 05/23/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: S1 - 1' (H601147-01)**

BTEX 8021B		mg/kg		Analyzed By: CK				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.100	0.100	05/27/2016	ND	2.10	105	2.00	1.57		
Toluene*	<0.100	0.100	05/27/2016	ND	2.03	102	2.00	1.53		
<b>Ethylbenzene*</b>	<b>2.19</b>	0.100	05/27/2016	ND	1.83	91.6	2.00	1.98		
Total Xylenes*	<0.300	0.300	05/27/2016	ND	5.67	94.5	6.00	1.49		
<b>Total BTEX</b>	<b>2.19</b>	0.600	05/27/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 150 % 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	
<b>Chloride</b>	<b>144</b>	16.0	05/26/2016	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>123</b>	10.0	05/27/2016	ND	175	87.7	200	2.89		
<b>DRO &gt;C10-C28</b>	<b>2240</b>	10.0	05/27/2016	ND	187	93.4	200	4.53		

Surrogate: 1-Chlorooctane 101 % 35-147

Surrogate: 1-Chlorooctadecane 125 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 05/25/2016  
 Reported: 05/31/2016  
 Project Name: LOVING 1 STATE #3  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 05/23/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: S1 - 2' (H601147-02)**

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	05/27/2016	ND	2.10	105	2.00	1.57		
Toluene*	<0.050	0.050	05/27/2016	ND	2.03	102	2.00	1.53		
Ethylbenzene*	<0.050	0.050	05/27/2016	ND	1.83	91.6	2.00	1.98		
Total Xylenes*	<0.150	0.150	05/27/2016	ND	5.67	94.5	6.00	1.49		
Total BTEX	<0.300	0.300	05/27/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 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	<16.0	16.0	05/26/2016	ND	400	100	400	3.92		

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	05/26/2016	ND	203	102	200	3.88		
<b>DRO &gt;C10-C28</b>	<b>130</b>	10.0	05/26/2016	ND	214	107	200	5.72		

Surrogate: 1-Chlorooctane 71.7 % 35-147

Surrogate: 1-Chlorooctadecane 74.7 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 05/25/2016  
 Reported: 05/31/2016  
 Project Name: LOVING 1 STATE #3  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 05/23/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: S1 - 3' (H601147-03)**

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	05/27/2016	ND	2.10	105	2.00	1.57		
Toluene*	<0.050	0.050	05/27/2016	ND	2.03	102	2.00	1.53		
Ethylbenzene*	<0.050	0.050	05/27/2016	ND	1.83	91.6	2.00	1.98		
Total Xylenes*	<0.150	0.150	05/27/2016	ND	5.67	94.5	6.00	1.49		
Total BTEX	<0.300	0.300	05/27/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 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	<16.0	16.0	05/26/2016	ND	400	100	400	3.92		

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	05/26/2016	ND	203	102	200	3.88		
DRO >C10-C28	<10.0	10.0	05/26/2016	ND	214	107	200	5.72		

Surrogate: 1-Chlorooctane 105 % 35-147

Surrogate: 1-Chlorooctadecane 104 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 05/25/2016  
 Reported: 05/31/2016  
 Project Name: LOVING 1 STATE #3  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 05/23/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: S1 - 4' (H601147-04)**

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	05/27/2016	ND	2.10	105	2.00	1.57	
Toluene*	<0.050	0.050	05/27/2016	ND	2.03	102	2.00	1.53	
Ethylbenzene*	<0.050	0.050	05/27/2016	ND	1.83	91.6	2.00	1.98	
Total Xylenes*	<0.150	0.150	05/27/2016	ND	5.67	94.5	6.00	1.49	
Total BTEX	<0.300	0.300	05/27/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	05/26/2016	ND	400	100	400	3.92	

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	05/26/2016	ND	203	102	200	3.88	
DRO >C10-C28	<10.0	10.0	05/26/2016	ND	214	107	200	5.72	

Surrogate: 1-Chlorooctane 74.7 % 35-147

Surrogate: 1-Chlorooctadecane 74.8 % 28-171

**Sample ID: S1 - 6' (H601147-05)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	05/26/2016	ND	400	100	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 05/25/2016  
 Reported: 05/31/2016  
 Project Name: LOVING 1 STATE #3  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 05/23/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: S1 - 8' (H601147-06)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	05/26/2016	ND	400	100	400	3.92	

**Sample ID: S2 - 1' (H601147-07)**

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	05/27/2016	ND	2.10	105	2.00	1.57	
Toluene*	<0.050	0.050	05/27/2016	ND	2.03	102	2.00	1.53	
Ethylbenzene*	<0.050	0.050	05/27/2016	ND	1.83	91.6	2.00	1.98	
Total Xylenes*	<0.150	0.150	05/27/2016	ND	5.67	94.5	6.00	1.49	
Total BTEX	<0.300	0.300	05/27/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1250</b>	16.0	05/26/2016	ND	400	100	400	3.92	

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	05/27/2016	ND	170	85.1	200	5.99	
<b>DRO &gt;C10-C28</b>	<b>320</b>	10.0	05/27/2016	ND	174	87.0	200	9.47	QM-07, QR-03

Surrogate: 1-Chlorooctane 75.7 % 35-147

Surrogate: 1-Chlorooctadecane 112 % 28-171

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 05/25/2016  
 Reported: 05/31/2016  
 Project Name: LOVING 1 STATE #3  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 05/23/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: S2 - 2' (H601147-08)**

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	05/27/2016	ND	2.10	105	2.00	1.57		
Toluene*	<0.050	0.050	05/27/2016	ND	2.03	102	2.00	1.53		
Ethylbenzene*	<0.050	0.050	05/27/2016	ND	1.83	91.6	2.00	1.98		
Total Xylenes*	<0.150	0.150	05/27/2016	ND	5.67	94.5	6.00	1.49		
Total BTEX	<0.300	0.300	05/27/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 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	336	16.0	05/26/2016	ND	400	100	400	3.92		

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	05/27/2016	ND	170	85.1	200	5.99		
DRO >C10-C28	31.4	10.0	05/27/2016	ND	174	87.0	200	9.47		

Surrogate: 1-Chlorooctane 75.5 % 35-147

Surrogate: 1-Chlorooctadecane 105 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 05/25/2016  
 Reported: 05/31/2016  
 Project Name: LOVING 1 STATE #3  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 05/23/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: S2 - 3' (H601147-09)**

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	05/27/2016	ND	2.10	105	2.00	1.57		
Toluene*	<0.050	0.050	05/27/2016	ND	2.03	102	2.00	1.53		
Ethylbenzene*	<0.050	0.050	05/27/2016	ND	1.83	91.6	2.00	1.98		
Total Xylenes*	<0.150	0.150	05/27/2016	ND	5.67	94.5	6.00	1.49		
Total BTEX	<0.300	0.300	05/27/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 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	<16.0	16.0	05/26/2016	ND	400	100	400	3.92		

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	05/27/2016	ND	170	85.1	200	5.99		
DRO >C10-C28	<10.0	10.0	05/27/2016	ND	174	87.0	200	9.47		

Surrogate: 1-Chlorooctane 87.0 % 35-147

Surrogate: 1-Chlorooctadecane 116 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 05/25/2016  
 Reported: 05/31/2016  
 Project Name: LOVING 1 STATE #3  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 05/23/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: S2 - 4' (H601147-10)**

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	05/27/2016	ND	2.10	105	2.00	1.57		
Toluene*	<0.050	0.050	05/27/2016	ND	2.03	102	2.00	1.53		
Ethylbenzene*	<0.050	0.050	05/27/2016	ND	1.83	91.6	2.00	1.98		
Total Xylenes*	<0.150	0.150	05/27/2016	ND	5.67	94.5	6.00	1.49		
Total BTEX	<0.300	0.300	05/27/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	05/26/2016	ND	400	100	400	3.92		

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	05/27/2016	ND	170	85.1	200	5.99		
DRO >C10-C28	<10.0	10.0	05/27/2016	ND	174	87.0	200	9.47		

Surrogate: 1-Chlorooctane 75.3 % 35-147

Surrogate: 1-Chlorooctadecane 86.7 % 28-171

**Sample ID: S2 - 6' (H601147-11)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/31/2016	ND	416	104	400	3.77		

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- 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



101 East Marland, Hobbs, NM 88240  
 (575) 393-2326 FAX (575) 393-2476

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: COG Operating LLC		P.O. #:	
Project Manager: Lupe Carrasco		Company: COG Operating LLC	
Address: 2208 West Main		Attn: Robert McNeill	
City: Artesia	State: NM	Zip: 88210	Address: 600 W Illinois
Phone #: (575) 748-6940	Fax #: [blank]	City: Midland	State: TX
Project #: [blank]	Project Owner: [blank]	Zip: 79701	Phone #: (432) 221-0388
Project Name: Loving 1 State #3	Project Location: [blank]	Fax #: [blank]	
Sampler Name: Lupe Carrasco			

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	BTEX	TPH	Chloride
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
HK001147H	S1-1'	X									5/24/16		X	X	X
	S1-2'	X									5/24/16		X	X	X
	S1-3'	X									5/24/16		X	X	X
	S1-4	X									5/24/16		X	X	X
	S1-6'	X									5/24/16		X	X	X
	S1-8'	X									5/25/16		X	X	X

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Reinquinshed By: [Signature]	Date: 5/24/16	Received By: [Signature]	Date: 5/24/16
Time: 2:05		Time: [blank]	

Delivered By: (Circle One) 3.0c

Sampler - UPS - Bus - Other: Conced 3.1c

FORM-006 R 2.0

Sample Condition: Cool  Intact  Yes  No  No  No

CHECKED BY: [Signature]

REMARKS: gcarrasco@concho.com

Phone Result:  Yes  No Add'l Phone #: [blank]

Fax Result:  Yes  No Add'l Fax #: [blank]

atrujillo@concho.com

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476



101 East Marland, Hobbs, NM 88240  
 (575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: COG Operating LLC  
 Project Manager: Lupe Carrasco  
 Address: 2208 West Main  
 City: Artesia State: NM Zip: 88210  
 Phone #: (575) 748-6940 Fax #: [blank]  
 Project #: [blank] Project Owner: [blank]  
 Project Name: Loving 1 State #3  
 Project Location: [blank]  
 Sampler Name: Lupe Carrasco  
 P.O. #: [blank]  
 Company: COG Operating LLC  
 Attn: Robert McNeill  
 Address: 600 W Illinois  
 City: Midland  
 State: TX Zip: 79701  
 Phone #: (432) 221-0388  
 Fax #: [blank]

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	BTEX	TPH	Chloride
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
HAQ0147-7	S2-1'	X							5/24/16		X	X	X	
	S2-2'	X							5/24/16		X	X	X	
	S2-3'	X							5/24/16		X	X	X	
	S2-4	X							5/24/16		X	X	X	
	S2-6'	X							5/24/16		X	X	X	

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Relinquished By: [Signature] Date: 5/25/16  
 Received By: [Signature] Date: 5/25/16  
 Relinquished By: [Signature] Date: [blank]  
 Received By: [Signature] Date: [blank]

Delivered By: (Circle One) UPS - 3.00e  
 Sampler - UPS - Bus - Other: 3.10e  
 FORM-006 R.2.0  
 Sample Condition: Cool  Intact   
 Checked By: [Signature]  
 Phone Result:  Yes  No  
 Fax Result:  Yes  No  
 REMARKS: gcarrasco@concho.com  
 atrujillo@concho.com  
 Add'l Phone #: [blank]  
 Add'l Fax #: [blank]

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

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

Form C-141  
Revised August 8, 2011

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

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:	LOVING 1 STATE #003	Facility Type:	Tank Battery
Surface Owner:	State	Mineral Owner:	API No. 30-015-32446

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	01	24S	27E	1980	North	660	West	Eddy

Latitude 32.6090431 Longitude 104.452919

**NATURE OF RELEASE**

Type of Release: Oil and Produced Water	Volume of Release: Oil 1bbl Produced Water 35bbls	Volume Recovered: Oil 1bbl Produced Water 33bbls
Source of Release: Produced Water Tank	Date and Hour of Occurrence: 04-26-2016 10:01pm	Date and Hour of Discovery: 04-26-2016 10:01pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher - NMOCD / Amber Groves - SLO	
By Whom? Robert Grubbs Jr	Date and Hour: 04-29-2016 12:35pm	
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.\*

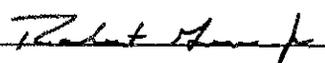
Describe Cause of Problem and Remedial Action Taken.\*

This release was caused by a surface casing valve left open to a line that dumped into the water tank causing it to run over. A vacuum truck was dispatched to remove all free standing fluids.

Describe Area Affected and Cleanup Action Taken.\*

Initially 1bbl of oil and 35bbls of produced water were released due to a surface casing valve left open to a line that dumped into the water tank causing it to run over. The valve was closed to prevent this from occurring again. 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: 	<b>OIL CONSERVATION DIVISION</b>		
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: 05-06-2016	Phone: 432-683-7443		

\* Attach Additional Sheets If Necessary