

September 15, 2015

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

Re: Owl 20504 JV-P #5 SWD (Revised)

30-015-35435 Sec. 18, T26S-R27E Eddy County, NM

Mr. Mike Bratcher,

COG Operating LLC would like to submit for your consideration the enclosed work plan/closure report for the above captioned well. The plan is in response to the C-141 Initial report dated July 9, 2015 and the work plan/closure submitted August 4, 2015.

Background

The release was due to a tank over flow resulting in the release of 100 barrels of oil and 510 barrels of produced water of which 90 barrels of oil and 500 barrels of produced water were recovered. The majority of the released fluid was contained within the lined facility and a portion of the release (approximately 15 barrels) overran the dike and remained on the location. Upon discovery, vacuum trucks were dispatched to recover standing fluid and an initial scrape was completed on the location. The attached Site Diagram depicts the approximate area impacted by the release and the approximate location of the points sampled.

Groundwater

Based on the information obtained on the New Mexico Office of the State Engineer Website and the approximate elevation of the location, the release area would be classified at a site ranking of **Zero** with depth to groundwater at greater than 100'. The NMOSE Website indicates two existing wells (Section 5 & 7, T26S-R27E) within a mile of the Owl SWD with a difference in elevation of 100' in comparison to the SWD. The well in Section 7 is situated at an elevation of approximately 3,194' with depth to groundwater at 35'. The location for the Owl SWD is situated on a hillside at an elevation of approximately 3,294' south of the draw in which these two wells are located making the depth to groundwater for the location at greater than 100'. A previous remediation (2RP-1599) in which core sampling was taken to 30' in depth disproves the

NMOCD September 15, 2015 Page 2

information provided by the Chevron-Texaco maps which show ground water for the area to be at 25'.

Soil Assessment and Analytical Results

Sample points noted on the attached Site Diagram are labeled with an S to denote samples taken within the release area.

Sample results for TPH and BTEX were tested at the 1' depth for all sample points and proved to be non-detect based on the attached Analytical Results. Chloride results proved to be slightly elevated above 1000 ppm for S1 and well within tolerable levels for S2 and S3. As requested by NMOCD, S1 was delineated further in order to show chloride levels below 250 ppm for the area in question. Due to rock at a depth of 7', samples could not be obtained from the previous trench. Sampling for S1 was relocated by approximately 3' and another trench was dug for the purpose of sampling at which point rock was encountered at a depth of 7'. The third attempt to sample in the area labeled as S1 occurred approximately 10-15' east of the initial sample point. Sampling was hindered at a depth of approximately 10.5' due to the underlying rock. Sampling west of the original S1 trench was not feasible due to the placement of a liner at a depth of 4' during the remediation 2RP-1599. Analytical Results and a Site Diagram with a revised Sample Summary Table have been attached for your consideration.

Work Plan

COG Operating LLC proposes that no further excavation be required due to chloride levels left in place being within tolerable levels for future reclamation of the location and depth to ground water at greater than 100'. All stipulations set by NMOCD have been met for the above captioned location.

If there are no objections or further stipulations, COG Operating LLC would like to request closure of the release. Please feel free to contact me with any questions or concerns at (575) 748-6933.

Sincerely,

Lupe Carrasco

Environmental Coordinator

Enclosure(s): Site Diagram

Analytical Results C-141 Initial (Copy)

C-141 Final





July 28, 2015

LUPE CARRASCO

COG Operating, LLC

500 W. ILLINOIS

Midland, TX 79701

RE: OWL 20504 JV-P #5 SWD

Enclosed are the results of analyses for samples received by the laboratory on 07/15/15 14:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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. Keine

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



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

Received:

07/15/2015

Reported:

07/28/2015

Project Name:

OWL 20504 JV-P #5 SWD

Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date: Sampling Type:

Date:

07/14/2015 Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Judy Garcia

Sample ID: S1-1 (H501813-01)

| 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 | 07/20/2015 | ND | 2.04 | 102 | 2.00 | 2.59 | |
| Toluene* | <0.050 | 0.050 | 07/20/2015 | ND | 2.06 | 103 | 2.00 | 4.16 | |
| Ethylbenzene* | <0.050 | 0.050 | 07/20/2015 | ND | 2.25 | 113 | 2.00 | 3.74 | |
| Total Xylenes* | <0.150 | 0.150 | 07/20/2015 | ND | 5.91 | 98.4 | 6.00 | 3.95 | |
| Total BTEX | <0.300 | 0.300 | 07/20/2015 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PIL | 114 9 | 6 85.6-13 | 7 | | | | | | |
| Chloride, SM4500CI-B | mg/ | kg | Analyze | d By: AP | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1170 | 16.0 | 07/21/2015 | ND | 416 | 104 | 400 | 0.00 | |
| 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 | 07/17/2015 | ND | 179 | 89.5 | 200 | 12.7 | |
| DRO >C10-C28 | <10.0 | 10.0 | 07/17/2015 | ND | 161 | 80.7 | 200 | 16.2 | |
| Surrogate: 1-Chlorooctane | 76.25 | % 47.2-15 | 7 | | | | | | |
| | 0,015.0 | | | | | | | | |

Sample ID: S1-2 (H501813-02)

| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1420 | 16.0 | 07/21/2015 | ND | 416 | 104 | 400 | 0.00 | |

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Uability and Damages. Cardina's liability and client's exclusive remety 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 ansing 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 relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg T. Keins -



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

Received:

07/15/2015

Reported:

07/28/2015

Project Name:

OWL 20504 JV-P #5 SWD

Project Number: Project Location: **NONE GIVEN** NOT GIVEN

Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: Cool & Intact Judy Garcia

07/14/2015

Sample ID: S1-3 (H501813-03)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

Analyte

Result

Reporting Limit

Analyzed

Method Blank

BŞ

% Recovery

True Value QC

RPD

Qualifier

Chloride

Chloride

Chloride

1570

Result

1600

16.0

Reporting Limit

16.0

07/22/2015

Analyzed

07/26/2015

ND

416

BŞ

400

104

400

0.00

Sample ID: S1-5 (H501813-04)

Analyte

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

Method Blank

ND

% Recovery

100

True Value QC 400

RPD

Qualifier

Sample ID: S1-6.5 (H501813-05)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

Analyte Result Reporting Limit 944 16.0

Analyzed 07/28/2015 Method Blank ND

BS 400 % Recovery 100

True Value QC 400

RPD 3.92

7.69

Qualifier

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. any other cause whatsoever 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 daim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celley Litreens -



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

Received:

07/15/2015

Reported: Project Name: 07/28/2015

OWL 20504 JV-P #5 SWD

Project Number: Project Location:

NONE GIVEN

Sampling Date:

07/14/2015

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Judy Garcia

Sample ID: S2-1 (H501813-06)

| 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 | 07/20/2015 | ND | 2.04 | 102 | 2.00 | 2.59 | |
| Toluene* | <0.050 | 0.050 | 07/20/2015 | ND | 2.06 | 103 | 2.00 | 4.16 | |
| Ethylbenzene* | <0.050 | 0.050 | 07/20/2015 | ND | 2.25 | 113 | 2.00 | 3.74 | |
| Total Xylenes* | <0.150 | 0.150 | 07/20/2015 | ND | 5.91 | 98.4 | 6.00 | 3.95 | |
| Total BTEX | <0.300 | 0.300 | 07/20/2015 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PIE | 1169 | 6 85.6-13 | 7 | 19182 | | 3-18-3 | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AP | | | - 111 | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 144 | 16.0 | 07/21/2015 | ND | 416 | 104 | 400 | 0.00 | |
| 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 | 07/17/2015 | ND | 179 | 89.5 | 200 | 12.7 | |
| DRO >C10-C28 | <10.0 | 10.0 | 07/17/2015 | ND | 161 | 80.7 | 200 | 16.2 | |
| Surrogate: 1-Chlorooctane | 80.0 9 | % 47.2-15 | 7 | | | | 94 | | |
| Surrogate: 1-Chlorooctadecane | 84.0 9 | % 52.1-17 | 6 | | | | | | |

Sample ID: S2-2 (H501813-07)

| Chloride, SM4500CI-B | mg | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 288 | 16.0 | 07/21/2015 | ND | 416 | 104 | 400 | 0.00 | |

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim ansing, 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 lable 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 claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Liboratories.

Celegy Keens



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

Received:

07/15/2015

Reported:

07/28/2015

Project Name:

OWL 20504 JV-P #5 SWD

Project Number: Project Location:

NONE GIVEN

NOT GIVEN

Sampling Date:

07/14/2015

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Judy Garcia

Sample ID: S3-1 (H501813-12)

| 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 | 07/20/2015 | ND | 2.04 | 102 | 2.00 | 2.59 | |
| Toluene* | <0.050 | 0.050 | 07/20/2015 | ND | 2.06 | 103 | 2.00 | 4.16 | |
| Ethylbenzene* | < 0.050 | 0.050 | 07/20/2015 | ND | 2.25 | 113 | 2.00 | 3.74 | |
| Total Xylenes* | <0.150 | 0.150 | 07/20/2015 | ND | 5.91 | 98.4 | 6.00 | 3.95 | |
| Total BTEX | <0.300 | 0.300 | 07/20/2015 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PIL | 113 % | 85.6-13 | 7 | | | | | | |
| Chloride, SM4500CI-B | mg/ | kg | Analyze | d By: AP | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 272 | 16.0 | 07/21/2015 | ND | 416 | 104 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | 7 | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | ₿S | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 07/17/2015 | ND | 179 | 89.5 | 200 | 12.7 | |
| DRO >C10-C28 | <10.0 | 10.0 | 07/17/2015 | ND | 161 | 80.7 | 200 | 16.2 | |
| Surrogate: 1-Chlorooctane | 73.5 9 | 6 47.2-15 | 7 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 77.49 | 6 52.1-17 | 6 | | | | | | |

Sample ID: S3-2 (H501813-13)

| Chloride, SM4500CI-B | mg | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 176 | 16.0 | 07/21/2015 | ND | 416 | 104 | 400 | 0.00 | |

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 relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratonies.

Celegi Keens



Notes and Definitions

QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or

greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance

limits

Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

ND

** 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

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Uability 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 whitesomer 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 including, without limitation, business interruptions, loss of profits including whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celegit Keens -

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



(575) 393-2326 FAX (575) 393-2476

| | 10.0/000 | | ı | | | ١ | l | l | 1 | | The second second | ı | Service Commence of the Party o | | | | | | | | - 1 | Í | | | | | |
|--|--|---|---------------------------------|------------------|----------------|------------|-------------|-----------|--------|-----------|-------------------|--------|--|--|----------|--|----------|--------|-------|-----------------------------|----------|----|---------|---|---|---|------|
| Company Name: | COG Operating LLC | | | | | | | | | | | | 8/11/10 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | | | | Ž | ANALYSIS | | lê | XECOES! | ٤ | 1 | 1 | 1 |
| Project Manager: | Lupe Carrasco | | | | | | | | 0. | P.O. #: | 1,17 | | | | | | | | | | | | | | | | |
| Address: 2208 | 2208 West Main | | | | | | | | Ö | Company: | any | | COG Operating LLC | ing LLC | | | | | | | | | | | | | |
| 킀 | | State: NM | | Zip | | 8 | 88210 | | Þ | Attn: | | | Robert McNeill | e | | | | | | | | | | | | | |
| Phone #: | (575) 748-6940 | Fax #: | | | | | | | Þ | Address: | SS | | 600 W Illinois | nois | | | | | /- | | | | | | | | |
| Project #: | | Project Owner: | | | | | | | Ω | City: | | | Midland | | | | | 2/ | 21 | 7 | -/- | | | | | | |
| Project Name: (| Project Name: Owl 20504 JV-P #5 SWD | D | | | | | | | S | State: TX | ¥ | | Zip: 79701 | | | | | /2 | (| 1/2 | 16 | | | _ | | | |
| Project Location: | | | | | | | | | D | JON T | # | (43) | Phone #: (432) 221-0388 | The second secon | | | | 7 | 2 | - | _/ | | | | | | |
| Sampler Name: | Lupe Carrasco | | | | | | | | ㅠ | Fax #: | ļ., | | | | | | | Ø | 12 | 1 | K | | | | | | |
| FOR LAB USE ONLY | | | P. | | | 3 | MATRIX | × | - | PR | PRESERV. | RY | SAMPLING | ด็ | | | | le | 7 | 1. | L | | | | | | |
| Lab I.D. | Sample I.D. | Ď. | (G)RAB OR (C)OM | # CONTAINERS | GROUNDWATER | WASTEWATER | SOIL OIL | SLUDGE | OTHER: | ACID/BASE | ICE / COOL | OTHER: | DATE | TIME | BTEX | ТРН | Chloride | Class | added | added Cladd | 1 was | | | | | | |
| _ | S1-1 | | | | | | | | | | | | 7/14/15 | The same of the sa | × | × | × | | | | + | | | - | | ٠ | Ī |
| | S1-2 | | - | | | | _ | | | | | | 7/14/15 | | | | × | | | | + | | | - | | | |
| w, | S1-3 | | | | | | | | | - anno | | | 7/14/15 | | | | I | × | | | | | | 1 | | | |
| | S1-5 | | | | | | | | | | | | 7/14/15 | | | The state of the s | I | | × | | - | | | | | | |
| Cr | \$1-6.5 | | | | | | | | | | | | 7/14/15 | | | | r | | | X | | | | | | | |
| The second secon | | | | | | | | | | | | | | | | | | | | | \vdash | - | | + | | - | |
| PLEASE NOTE: Lisbilly and analyses. All claims includin service. In no event shaft Ca | PLEASE NOTE: Liability and Damages. Cardman's stability and client's exclusive remedy for any claim arraing whether based in centract or fort, shell be femiled to the amount paid by the client for the analyses. All claims including those for negligenice and any other cause whatsoever shall be deemed waved unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptors, loss of use, or loss of profits incurred by client, its substitutines. | it's exclusive remedy for a ause whatsoever shall be juestal damages, including | my claim deemed g without | William Strategy | wheth under | s mad | A CO DO | phone and | d rec | t shad | y Card | of pro | the amount paid thin 30 days after of the procured by cle | ly the client for the completion of the a rit, its subsidiaries | applicat | ā | | | | | | | | | | | |
| Relinquished By: | Relinquished By: Date: Received By: Result | of services hereunder by Caro Date: | Round | Received By: | red lots | By | of STIC | n class | 200 | Sed up | 95 887 | 200 | acove stated reas | Phone Result: | i Si | □ Yes | | N N | Add" | Add'I Phone #: Add'I Fax #: | # To | | | | | | |
| 1 | 1 | Time! | | | , | - | The same | | ~ | 7 | 3 | 5 | 2 | REMARKS: | | qcarrasco@concrio.com | Olim | מוכווס | : 2 | | | | | | | | |

作の十

Sample Condition
Cool Intage
Cool Intage
Ves Yes
No No

CHECKED BY:

Relinquished By:

Received By:

atruillo@concho.com

Run chlorides until samples fall below 1000ppm

Sampler - UPS - Bus - Other: FORM-006 R 2.0

Delivered By: (Circle One)

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



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

| Company Name: | COG Operating LLC | | | | dente de la constanta de la co | 8/14/10 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0000 | | | ANALYSIS REQUEST | |
|---|--|--|----------------------------------|---|--|--|---------------------------------------|-----------------------------|--------|----------|--|--|
| Project Manager: | : Lupe Carrasco | | | | P.O. #: | | | | | | | |
| Address: 2208 | 2208 West Main | | | | Company: | COG Operating LLC | ting LLC | | | | | |
| City: Artesia | | State: NM | Zip | p 88210 | Attn: | Robert McNeill | leil | | | | | |
| Phone #: | (575) 748-6940 | Fax #: | | | Address: | 600 W Illinois | nois | | | | | - |
| Project #: | manumen an antito de la presenta dell'arte per esta de la persona dell'arte per per persona dell'arte del manum | Project Owner: | • | | City: | Midland | | | | | | |
| Project Name: (| Owl 20504 JV-P #5 SWD | D | and which the exception of the | | State: TX | Zip: 79701 | _ | - | | | | |
| Project Location: | The manufacture of the control of th | All markets attended and and all all and all and all and all and all and all a | | en amenden gener en hap met amen annak drep derfende-skapt erstendiksen | Phone #: (4 | Phone #: (432) 221-0388 | | | | | | |
| Sampler Name: | Lupe Carrasco | | | | Fax #: | | | | | | | |
| FOR LAB USE ONLY | | | Ρ. | MATRIX | PRESERV | V. SAMPLING | NG | | | | | |
| Lab I.D. | Sample I.D. | Ģ | (G)RAB OR (C)OMF # CONTAINERS | GROUNDWATER WASTEWATER SOIL OIL | SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: | DATE | TIME | ВТЕХ | ТРН | Chloride | | |
| 6 | S2-1 | | | | | 7/14/15 | | × | × | × | e destado de destado constituido de la composição dos estados de la composição de la compos | |
| | S2-2 | | | | | 7/14/15 | | | | × | | |
| 900 | S2-3 | | | | | 7/14/15 | | | | I | | |
| | S2-5 | | | | | 7/14/15 | | | | I | | |
| 6 | S2-7 | | | | | 7/14/15 | | | | Ι | | |
| | S2-9 | | | | | 7/14/15 | | | | I | and the second s | The second secon |
| | | | | | | | | to the section decrease and | | | | epitanghagh agi payin magangamaganggangg sa agangamaganggangganggangganggangganggang |
| | | | | | | | | | 34,000 | | | |
| PLEASE NOTE: Liabidy and analyses. All clasms including | PLEASE NOTE: Liability and Damages. Cardinal's tability and client's exclusive remody for any claim arising whether based in contract or fort, shall be timited to the amount paid by the client for the analysis. All cliams including those for negligence and any other cause whitshever shall be deemed waved unless made in writing and received by Cardinal within 30 days after completion of the applicable | i's exclusive remody for an | y claim ans | ing whether based in con vad unless made in wran | tract or tort, shall be limite g and received by Cardinal | to the amount paid I within 30 days after o | oy the chent for the | applicable | | | | |

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

Relinquished By:

Daten/15/15 Received By

Time:

Time)4:10

Sample Condition

CHECKED BY: (Initials)

Sampler - UPS - Bus - Other: FORM-006 R 2.0

Delivered By: (Circle One)

Relinquished By:

of services hereunder by Cardinal regardless of whether such claim is based upon any of the above stated reasons or otherwise Date:

Phone Result:

Fax Result:

atrujillo@concho.com

Run chlorides until samples fall below 1000ppm

blons, loss of use, or loss of profits incurred by client, its subsidiaries.



(575) 393-2326 FAX (575) 393-2476

| company varies. COG Operating LLC | | | BILL TO | | | | ANALYSIS REQUEST |
|---|---|--|------------------------------|----------------------|----|--|------------------|
| Project Manager: Lupe Carrasco | | P.O. #: | | \dashv | | | |
| Address: 2208 West Main | | Company: | COG Operating LLC | C | | | |
| City: Artesia State: NM | Zip 88210 | Attn: | Robert McNeill | | | | |
| Phone #: (575) 748-6940 Fax #: | en antarien in dezerjei klassik sept. Kala gebellerenne van sa geprintelj depen elektropromonistische designada mass | Address: | 600 W Illinois | | | | |
| Project #: Project Owner: | the second section of the | City: | Midland | | | | |
| Project Name: Owl 20504 JV-P #5 SWD | | State: TX | Zip: 79701 | | | | |
| Project Location: | | (43) | 7 221-0388 | | | | |
| Sampler Name: Lupe Carrasco | tes definite, rincepreparity estateging within any abuses degleting assessment aspectate, up dispression | Fax # | | of the second second | | | |
| FOR LAB USE ONLY | MATRIX | DBESEBU | CAMPI INC | 1 | | | |
| Lab I.D. Sample I.D. | G)RAB OR (C)OMP. CONTAINERS GROUNDWATER WASTEWATER SOIL DIL SLUDGE | OTHER : CID/BASE: CE / COOL OTHER : | DATE | TEX | PH | Chloride | |
| \$3-1 | | | 7/14/15 | × | | × | |
| S3-2 | Park to the state of the state | | 7/14/15 | | | × | |
| 14 83-3 | | | 7/14/15 | | | I | |
| /5 \$3-5 | | | 7/14/15 | | | I | |
| 16 S3-7 | | | 7/14/15 | | | Ξ | |
| | | | | | | The second secon | |
| PLEASE WOTE. Liability and Damages. Cardinal's liability and client's exclusive remady for any claim arrang whether based in contract or fort, shall be finited to the amount paid by the cleent for the | y down arrang whether based in contract o | r tort, shall be fanated to th | e amount paid by the clent | for the | | | |
| analyses, All claims including mose for negligence and any other cause whistoover stable determed waved unless made in writing and received by Cardinal within 30 days after completion of the applicable sorvice. In no event shall Cardinal be label for incidental or consequential damages, including without firmation, business inferriptions, loss of use, or loss of profits incurred by client, its subsidiaries, stiffeders or successors arising out of or related to the neutronness of exercise to county without firmation, business inferriptions, loss of use, or loss of profits incurred by client, its subsidiaries, | eemed waived unless made in writing and without limitation, business interruptions, to | received by Cardmal withs as of use, or loss of profits | n 30 days after completion o | of the applicat | ă | | |

杯二

Sample Condition Cool Intage Cycs Yes I No I No

CHECKED BY:

Relinquished By:

Time: Date:

Received By:

m is besed upon any of the above scaled reasons or otherwise

Phone Result:

Fax Result: REMARKS:

It: U Yes U No Add'I Phone #:

U Yes U No Add'I Fax #:

9Carrasco@concho.com

atrujillo@concho.com

Run chlorides until samples fall below 1000ppm

Sampler - UPS - Bus - Other: FORM-006 R 2.0 Delivered By: (Circle One) Relinquished By:



August 24, 2015

LUPE CARRASCO

COG Operating, LLC

500 W. ILLINOIS

Midland, TX 79701

RE: OWL SWD

Enclosed are the results of analyses for samples received by the laboratory on 08/19/15 14:19.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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. Keine

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



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

Received:

08/19/2015

Reported:

08/24/2015 **OWL SWD**

Project Name: Project Number: **Project Location:**

NONE GIVEN NOT GIVEN

Sampling Date:

08/18/2015

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Judy Garcia

Sample ID: S1-6' (H502161-01)

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AP

Analyte

Result

Reporting Limit Analyzed Method Blank ND

BS 432 % Recovery

True Value QC

RPD Qualifier

Chloride

Chloride

Chloride

96.0

Result

160

16.0

Reporting Limit

16.0

08/20/2015

108

400

Sample ID: S1-8' (H502161-02)

Analyte

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AP Analyzed

08/20/2015

Method Blank

ND

BS

432

% Recovery

108

True Value QC 400

RPD

7.69

7.69

Qualifier

Sample ID: S1-10' (H502161-03)

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AP

Analyte Result Reporting Limit 240 16.0

Analyzed 08/20/2015

Method Blank ND

BS 432 % Recovery

108

True Value QC 400

RPD 7.69

Qualifier

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 whatsoever 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 daim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg Titeens -

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

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Uability 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 relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laborationes.

Celeg L. Keins

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



(575) 393-2326 FAX (575) 393-2476

| Company Name: COG Operating LLC | | 01,17/9 | 10 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 | | ANALYSIS REQUEST | |
|--|--|--|--|----------------------------|--|---|
| Project Manager: Lupe Carrasco | | P.O. #: | | | | |
| Address: 2208 West Main | | Company: COG Operating LLC | ating LLC | | | |
| City: Artesia State: NM | Zip 88210 | Attn: Robert McNeill | Neil | | | |
| Phone #: (575) 748-6940 Fax #: | er en | Address: 600 W Illinois | linois | | | - |
| Project #: Project Owner: | er: | City: Midland | | | | |
| Project Name: Owl SWD | and the state of t | State: TX Zip: 79701 | -3 | | | |
| Project Location: | | Phone #: (432) 221-0388 | | | | |
| Sampler Name: Lupe Carrasco | | Fax #: | | | | |
| FOR LAB USE ONLY | MATRIX | PRESERV. SAMPLING | NG | | | |
| Lab I.D. Sample I.D. | (G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE | OTHER: ACID/BASE: ICE / COOL OTHER: | BTEX | ТРН | Chloride | |
| | | NAME AND ADDRESS OF | | | × | |
| N ! | | | | | < >> | |
| and the second second | | | | | | |
| PLEASE NOTE: Liability and Camages. Catclina's sability and client's outclusive remedy for any claim arising whether based in contract or fort, shall be firmed to the amount peed by the client for the analyses. All claims including those for negligenous and any other cause whatshows that libe deemed waved unless made in writing and received by Catclina's within 30 days after completion of the applicable service. In no event shall Catchina's be lable for incidental or consequental damages, including without finished in. Business interruptions, loss of use, or loss of profits incurred by Cettina's, regardless or successors strings and or or related to the performance of sanityces hereunder by Cettina's, regardless of whether such claim is based upon my of the above stated nearons or otherwise. | ay and client's exclusive remedy for any claim sitting whether based in contract or tort, shall be finited to the amount paid by the client for the ray offer cause whether versions at the same whether the claim is the same of the same | or tort, shall be firsted to the emount paud or tort, shall be firsted to the emount paud of tracement of the Cardinal within 30 days after osee of use, or loss of profits ancurred by details based upon early of the above stated reas is based upon early of the above stated reas | y the client for the completion of the application of the applications or otherwise. | 8 | | |
| Relinquished By: Date: | Received By: | | i ii ii | ☐ Yes ☐ Yes Carrasox | ☐ Yes ☐ No Add'! Phone #: ☐ Yes ☐ No Add'! Fax #: ☐Carrasco@concho.com | |
| Relinquished By: Time(/)/C | Received By: | arcia | | i c | | |
| Delivered By: (Circle One) | Sample Condi | tion CHECKED BY: | | | | |
| Sampler - UPS - Bus - Other: | 14 C LI No LI No | 5 | | | | |

[†] 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

Oil Conservation Division
Submit 1 Co.
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

Form C-141

Revised August 8, 2011

Release Notification and Corrective Action

| | OPERATOR | 🔀 Initia | l Report | | | | | |
|---|---|-----------------|------------------------------|--|--|--|--|--|
| Name of Company: COG Operating LLC | Contact: Robert McNeill | | | | | | | |
| Address: 600 West Illinois Avenue, Midland TX 79701 | Telephone No. 432-230-007 | 7 | | | | | | |
| Facility Name: OWL 20504 JV-P #005 | Facility Type: SWD | • | | | | | | |
| Surface Owner: Federal Mineral Owner | : Federal | API No. | 30-015-35435 | | | | | |
| LOCATIO | ON OF RELEASE | | | | | | | |
| | th/South Line Feet from the | East/West Line | County | | | | | |
| J 18 26S 27E 2310 | South 2310 | East | Eddy | | | | | |
| Latitude 32.041488 | 86 Longitude - 104.2282181 | | | | | | | |
| | E OF RELEASE | | | | | | | |
| Type of Release: Oil & Produced Water | Volume of Release: 100 bbls Oil; 510 bbls PW | Volume R | ecovered: 1 ; 500 bbls PW | | | | | |
| Source of Release: | Date and Hour of Occurrence | | Hour of Discovery: | | | | | |
| Tank Overflow | 6/24/2015 11:00 am | 6/24/2015 | | | | | | |
| Was Immediate Notice Given? | If YES, To Whom? | | | | | | | |
| ✓ Yes ☐ No ☐ Not Required | | | | | | | | |
| By Whom? Amanda Trujillo | Date and Hour: Fri 6/26/2015 | | | | | | | |
| Was a Watercourse Reached? ☐ Yes ☒ No | If YES, Volume Impacting th | ne Watercourse. | | | | | | |
| | | | 2 | | | | | |
| If a Watercourse was Impacted, Describe Fully.* | | | | | | | | |
| , N | | | | | | | | |
| | | | | | | | | |
| Describe Cause of Problem and Remedial Action Taken.* | | | | | | | | |
| | | | | | | | | |
| This release was caused by a tank overflow due to an issue with the transducer valves. Vacuum trucks were dispatched to recover all standing fluid. Describe Area Affected and Cleanup Action Taken.* | | | | | | | | |
| Describe Area Affected and Cleanup Action Taken.* | | | | | | | | |
| · | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 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 | | | | | | | | |
| 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 | | | | | | | | |
| 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 | | | | | | | | |
| 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 | | | | | | | | |
| 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. | | | | | | | | |
| federal, state, or local laws and/or regulations. | | | | | | | | |
| OIL CONSERVATION DIVISION | | | | | | | | |
| Signature: | | | | | | | | |
| Printed Name: Amanda Trujillo Approved by Environmental Specialist: | | | | | | | | |
| Printed Name: Amanda Trujillo Approved by Environmental Specialist: Title: Senior Environmental Coordinator Approval Date: Expiration Date: | | | | | | | | |
| E-mail Address: atrujillo@concho.com | Conditions of Approval: | | Attached | | | | | |
| Date: July 8, 2015 Phone: 575-748-6940 | | | | | | | | |
| Attach Additional Sheets If Necessary | - | | | | | | | |

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

* Attach Additional Sheets If Necessary

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 Notificat | ion and Corre | ective Ac | tion | | | - | | | |
|---|---------------------------------|------------------|------------------------|----------------|----------------|--------------|--|--|--|
| | OPERATOR | R | Initia | l Report | \boxtimes | Final Report | | | |
| Name of Company: COG Operating LLC | Contact: Robert I | McNeill | | | | • | | | |
| Address: 600 West Illinois Avenue, Midland TX 79701 | Telephone No. 4: | | | | | | | | |
| Facility Name: OWL 20504 JV-P #005 | Facility Type: SV | WD | | | | | | | |
| Surface Owner: Federal Mineral Own | er: Federal | | API No. | 30-015-35 | 435 | | | | |
| | ON OF RELEA | SE | | | | | | | |
| Unit Letter Section Township Range Feet from the No. | orth/South Line Fee South | et from the 2310 | East/West Line East | | County Eddy | | | | |
| Latitude 32.0414 | 886 Longitude - 104 | 4.2282181 | | | | | | | |
| NATUR | RE OF RELEAS | SE | | | | | | | |
| Type of Release: | Volume of Relea | ase: | Volume R | | | | | | |
| Oil & Produced Water | 100 bbls Oil ; 51 | | | l ; 500 bbls I | | | | | |
| Source of Release: Tank Overflow | Date and Hour o 6/24/2015 11:00 | | 6/24/2015 | lour of Disco | overy: | | | | |
| Was Immediate Notice Given? | If YES, To Who | | | | | | | | |
| Yes ☐ No ☐ Not Requir | ed Mike Bratcher – | NMOCD / Jir | n Amos – BLM | | | | | | |
| By Whom? Amanda Trujillo | Date and Hour: I | | | | | | | | |
| Was a Watercourse Reached? ☐ Yes ☒ No | If YES, Volume | Impacting the | Watercourse. | | 4 | | | | |
| | | | | | | | | | |
| If a Watercourse was Impacted, Describe Fully.* | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Describe Cause of Problem and Remedial Action Taken.* This release was caused by a tank overflow due to an issue with the transducer valves. Vacuum trucks were dispatched to recover all standing fluid. | | | | | | | | | |
| | | | | | | | | | |
| Describe Cause of Problem and Remedial Action Taken.* This release was caused by a tank overflow due to an issue with the transducer valves. Vacuum trucks were dispatched to recover all standing fluid. | | | | | | | | | |
| Describe Area Affected and Cleanup Action Taken.* | | | | | | | | | |
| | | | | | | | | | |
| This release over ran the lined bermed area but remained on location. A | An initial scrape was co | ompleted. Con | cho had the spill | site sampled | to deli | neate any | | | |
| possible contamination from the release and presented a remediation w | ork plan to the NMOC | D for approva | al prior to any sigi | nificant reme | diation | 1 work. | | | |
| possible contamination from the release and presented 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 | | | | | | | | | |
| 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 | | | | | | | | | |
| 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. | | | | | | | | | |
| OIL CONSERVATION DIVISION | | | | | | | | | |
| Signature: OIL CONSERVATION DIVISION | | | | | | | | | |
| District Many 1 | Approved by Enviro | onmental Spec | cialist: | | | | | | |
| Printed Name: Lupe Carrasco | | • | | | | | | | |
| Title: Environmental Coordinator | Approval Date: | | Expiration D | ate: | | | | | |
| | | | | | | | | | |
| E-mail Address: gcarrasco@concho.com | Conditions of Appr | oval: | | Attached | | | | | |
| Date: September 15, 2015 Phone: 575-748-6940 | | | | | | | | | |