

DATE IN 12/11/12	SUBMITTER 1/25/13	ENGINEER WJ	LOGGED IN	TYPE SWD	APP NO. 1301758835
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Loss Notice  
1/9/13

ABOVE THIS LINE FOR DIVISION USE ONLY

1388

**NEW MEXICO OIL CONSERVATION DIVISION**  
- Engineering Bureau -  
1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**  
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**  
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**  
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**  
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**  
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

- [D] Other: Specify \_\_\_\_\_

NO APF  
30-015-1NA  
REPOSADO 2 Stale SWD  
K/2/26S/29E  
DEVONIAN  
15500-16900 OF

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners  
[B] ☒ Offset Operators, Leaseholders or Surface Owner  
[C] ☒ Application is One Which Requires Published Legal Notice  
[D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office  
[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,  
[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

BRIAN COLLINS  
Print or Type Name

Signature

SENIOR OPERATIONS ENGINEER  
Title

12 Dec 12  
Date

bcollins@concho.com  
e-mail Address



RECEIVED OCD  
2012 DEC 17 A 11: 20

December 12, 2012

New Mexico Oil Conservation Division  
Attn: William V. Jones  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Application For Authorization To Inject  
Reposado 2 State SWD #1  
Township 26 South, Range 29 East, N.M.P.M.  
Section 2: 2310' FSL & 2310' FWL  
Eddy County, New Mexico

Dear Mr. Jones:

COG Operating LLC respectfully requests administrative approval for authorization to inject for the referenced well. Attached, for your review, is a copy of the C-108 application. Once we receive the newspaper publication and all certified return receipts, I will send you a copy.

Please do not hesitate to contact me at (575) 748-6940 should you have any questions.

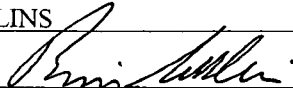
Sincerely,

A handwritten signature in cursive script, appearing to read "Brian Collins".

Brian Collins  
Senior Operations Engineer

BC/bg  
Enclosures

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance \_\_\_\_\_ ☒ Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? \_\_\_\_\_ ☒ Yes \_\_\_\_\_ No
- II. OPERATOR: \_\_\_\_\_ COG OPERATING LLC \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ 2208 W. Main Street, ARTESIA, NM 88210 \_\_\_\_\_  
CONTACT PARTY: \_\_\_\_\_ BRIAN COLLINS \_\_\_\_\_ PHONE: \_\_\_\_\_ 575-748-6940 \_\_\_\_\_
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? \_\_\_\_\_ Yes \_\_\_\_\_ ☒ No  
If yes, give the Division order number authorizing the project: \_\_\_\_\_
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- \*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: \_\_\_\_\_ BRIAN COLLINS \_\_\_\_\_ TITLE: \_\_\_\_\_ Senior Operations Engineer \_\_\_\_\_  
SIGNATURE: \_\_\_\_\_  \_\_\_\_\_ DATE: \_\_\_\_\_ 12 Dec 12 \_\_\_\_\_  
E-MAIL ADDRESS: \_\_\_\_\_ bcollins@concho.com \_\_\_\_\_
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

C-108 Application for Authorization to Inject  
REPOSADO 2 STATE SWD #1  
Unit K, Sec 2 T26S R29E  
Eddy County, NM

COG Operating, LLC, proposes to drill the captioned well to 16900' for salt water disposal service into the Devonian from 15500' to 16900'. An APD will be submitted upon approval of this C-108.

- V. Map is attached.
- VI. No wells within the ½ mile radius area of review penetrate the proposed injection zone.
- VII.
  - 1. Proposed average daily injection rate = 7500 BWPD  
Proposed maximum daily injection rate = 25000 BWPD
  - 2. Closed system
  - 3. Proposed maximum injection pressure = 3100 psi  
(0.2 psi/ft. x 15500' ft.)
  - 4. Source of injected water will be Delaware Sand and Bone Spring produced water. No compatibility problems are expected. Analyses of Delaware and Bone Spring waters from analogous source wells are attached. No water analyses are available for the Devonian receiving formation in this area.
- VIII. The injection zone is the Devonian dolomite from 15500' to 16900'. Any underground water sources will be shallower than 620' (surface casing setting depth).
- IX. The Devonian injection interval will be acidized with approximately 40,000 gals 20% HCl acid.
- X. Well logs, if run, will be filed with the Division. There are no nearby Devonian well logs available.
- XI. There are no fresh water wells shown on the State Engineer website within a mile of the proposed SWD well. There is a stock tank, water analysis attached, located in the SW/4 SE/4 SW/4 Sec 2-26s-29e. There is no electricity at this site and the source of the stock tank water couldn't be determined during a field visit.
- XII. After examining the available geologic and engineering data, no evidence was found of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Proof of Notice is attached.

# **III.**

## **WELL DATA**

## INJECTION WELL DATA SHEET

OPERATOR: COG Operating, LLC

WELL NAME & NUMBER: Reposado 2 State SWD No. 1

WELL LOCATION: 2310' FSL, 2310' FWL K 2 26s 29e  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

See Attached Schematic

WELL CONSTRUCTION DATASurface Casing

Hole Size: 26" Casing Size: 20"e 620' ±  
Cemented with: - sx. or 1875 ft<sup>3</sup>  
Top of Cement: Surface Method Determined: Design

Intermediate Casing

Hole Size: 17 1/2" Casing Size: 13 3/8"e 3120' ±  
12 1/4" Casing Size: 9 5/8"e 10150' ±  
Cemented with: - sx. or 4325 ft<sup>3</sup>  
Top of Cement: Surface Method Determined: Design  
2600'

Production Casing

Hole Size: 8 3/4" Casing Size: 7" Liner ± 9900' - ± 15500'  
Cemented with: - sx. or 1250 ft<sup>3</sup>  
Top of Cement: Top of Liner Method Determined: Design  
Total Depth: 16900'

Injection Interval

15500' feet to 16900'

(Perforated or Open Hole indicate which)

## INJECTION WELL DATA SHEET

Tubing Size: 4 1/2" Lining Material: Duoline 20/CLS Glassbore

Type of Packer: Nickel plated double grip retrievable

Packer Setting Depth: ± 15450

Other Type of Tubing/Casing Seal (if applicable): N/A

### Additional Data

1. Is this a new well drilled for injection?   X   Yes        No

If no, for what purpose was the well originally drilled? \_\_\_\_\_

2. Name of the Injection Formation: Devonian

3. Name of Field or Pool (if applicable): Brushy Draw, North

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: \_\_\_\_\_

Underlying: None

Overlying: Delaware 3175-3294', 4990-6945', Bone Spring 7000-  
Wolfcamp 11379-11449'

30-015-

Reposado 2 State SWD No. 1  
2310' FSL, 2310' FWL  
K-2-26s-29e  
Eddy, NM

21"

20" @  $\pm 620'$

1875 CF Cmt. (circ)

17 1/2"

TOC  $\pm 2600'$  Design

13 3/8" @  $\pm 3120'$

4325 CF Cmt. (circ)

12 1/4"

9 5/8" @  $\pm 10150'$

3550 CF Cmt.

8 3/4"

7" Liner  $\pm 9900' - \pm 15500'$

1250 CF Cmt.

6 1/8"

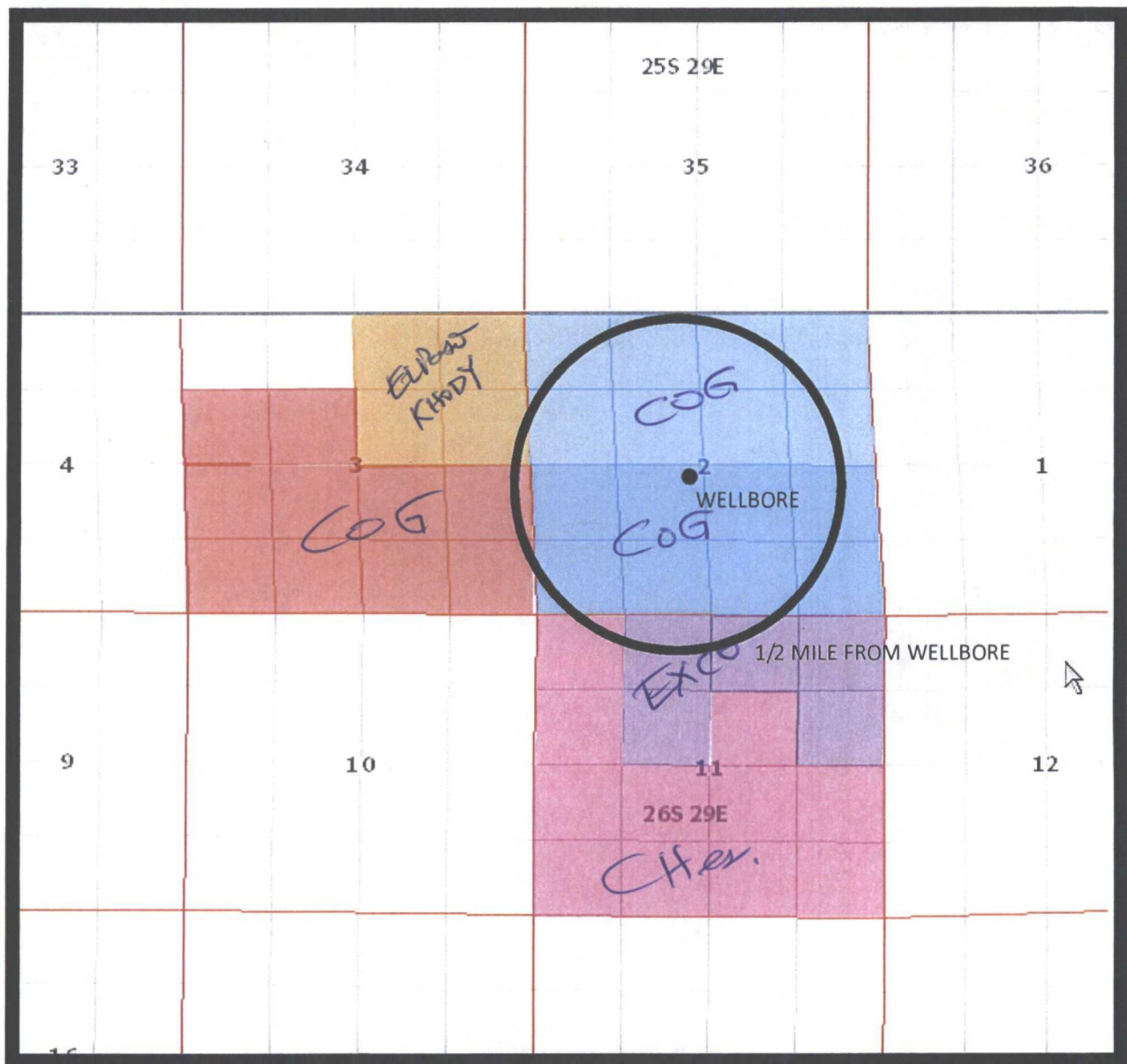
Devonian OH  $\pm 15500' - \pm 16900'$

16900'



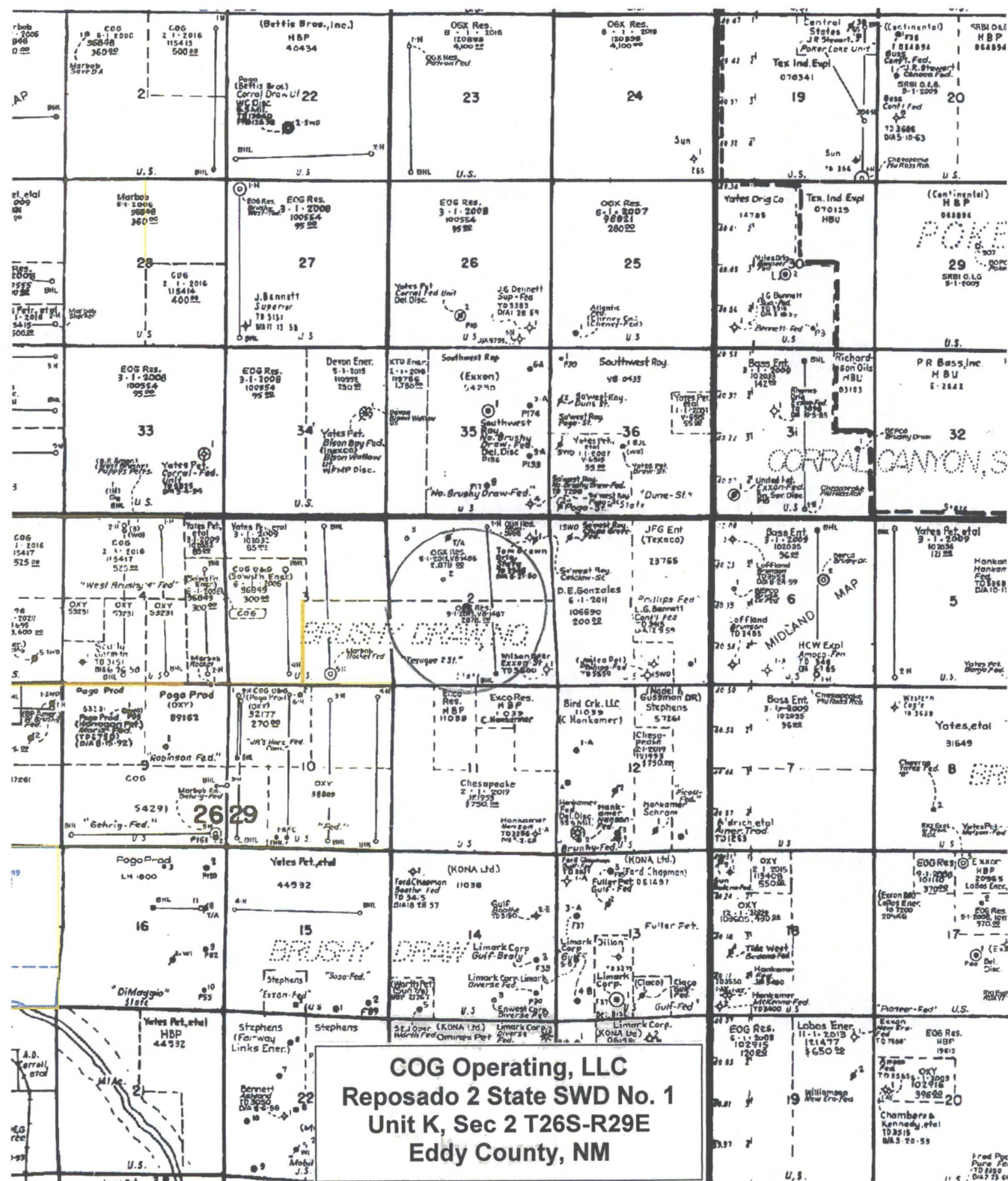
**V.**

**MAP**



- COG Production LLC
- COG Production LLC
- COG Operating LLC
- El Paso Natural Gas Co.  
Khody Land & Minerals
- Exco Resources Inc.
- Chesapeake Exploration LP

**Resposado 2 State SWD No. 1**  
**2310' FSL & 2310' FWL**  
**Section 2; T26s - R29e**  
**Eddy county, New Mexico**



# **VII.**

## **Water Analysis Produced and Receiving Formation Water**

WATER SAMPLES REPRESENTATIVE OF WATER BEING INJECTED INTO THE PROPOSED SWD WELL												
Bone Spring												
Lab Test #	Lease	Location	Salesman	Date Out	Sample Date	Specific Gravity	Ionic Strength	TDS	pH	conductivity	Ca (mg/L)	Mg (mg/L)
2011125629	Jr's.Horz Federal Com	6H	William D Polk	8/31/2011	8/21/2011	1.13	3.33	202535.81	6.50		4200.00	770.00
Delaware												
Lab Test #	Lease	Location	Salesman	Date Out	Sample Date	Specific Gravity	Ionic Strength	TDS	pH	conductivity	Ca (mg/L)	Mg (mg/L)
2012103128	Gehrig	Fed #2	William D Polk	2/15/2012	1/10/2012	1.16	4.00	251245.24	6.47		25915.00	3525.76

TH (CaCO3)	Na (mg/L)	K (mg/L)	Zn (mg/L)	Fe (mg/L)	Ba (mg/L)	Sr (mg/L)	Mn (mg/L)	Resistivity	HCO3 (mg/L)	CO3 (mg/L)	OH (mg/L)	SO4 (mg/L)	Cl (mg/L)	CO2 (mg/L)	H2S (mg/L)
14158.86	67287.00	1196.00		7.68	2.69	425.00	0.44		1647.00	0.00		1000.00	126000.00	580.00	0.00
TH (CaCO3)	Na (mg/L)	K (mg/L)	Zn (mg/L)	Fe (mg/L)	Ba (mg/L)	Sr (mg/L)	Mn (mg/L)	Resistivity	HCO3 (mg/L)	CO3 (mg/L)	OH (mg/L)	SO4 (mg/L)	Cl (mg/L)	CO2 (mg/L)	H2S (mg/L)
81017.80	66969.32	1342.77	64.22	35.40	4.51	1492.00	24.27		122.00	0.00		450.00	151300.00	250.00	0.00

# **XI.**

## **Fresh Water Sample Analyses**

# HALLIBURTON

## PERMAIN BASIN OPERATIONS LABORATORY WATER ANALYSIS REPORT HOBBS, NEW MEXICO

COMPANY: Cog  
LEASE: Stock Tank  
SE/4 SW/4 SW/4 2-26s-29e

REPORT W12-226  
DATE November 30, 2012  
DISTRICT Hobbs

SUBMITTED BY Brian Collins: No electricity here, no record of FW well State Engineer here, unsure of source.

### TANK SAMPLE

Sample Temp.	<u>70</u> °F	<u></u> °F	<u></u> °F	<u></u> °F	<u></u> °F
RESISTIVITY	<u>3.41</u>	<u></u>	<u></u>	<u></u>	<u></u>
SPECIFIC GR.	<u>1.002</u>	<u></u>	<u></u>	<u></u>	<u></u>
pH	<u>8.25</u>	<u></u>	<u></u>	<u></u>	<u></u>
CALCIUM	<u>250</u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl
MAGNESIUM	<u>300</u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl
CHLORIDE	<u>2010</u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl
SULFATES	<u>&lt;400</u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl
BICARBONATES	<u>122</u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl
SOLUBLE IRON	<u>0</u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl
KCL	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
Sodium	<u></u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl
TDS	<u></u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl	<u></u> mpl
OIL GRAVITY	<u></u> @ 60 °F	<u></u> @ 60 °F	<u></u> @ 60 °F	<u></u> @ 60 °F	<u></u> @ 60 °F

### REMARKS

MPL = Milligrams per liter  
Resitivity measured in: Ohm/m2/m

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management: it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Co.

ANALYST: S. Brailsford





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*New Mexico Office of the State Engineer*  
**Active & Inactive Points of Diversion**  
(with Ownership Information)

---

No PODs found.

**PLSS Search:**

**Section(s):** 1, 2, 3, 10, 11,  
12      **Township:** 26S      **Range:** 29E



---

*New Mexico Office of the State Engineer*  
**Active & Inactive Points of Diversion**  
(with Ownership Information)

---

No PODs found.

**PLSS Search:**

**Section(s):** 34, 35, 36

**Township:** 25S

**Range:** 29E



December 12, 2012

Oil Conservation Division  
Attn: Richard Inge  
811 South 1<sup>st</sup> St.  
Artesia, NM 88210

RE: Application For Authorization To Inject  
Reposado 2 State SWD #1  
Township 26 South, Range 29 East, N.M.P.M.  
Section 2: 2310' FSL & 2310' FWL  
Eddy County, New Mexico

Dear Mr. Inge:

COG Operating LLC respectfully requests administrative approval for authorization to inject for the referenced well. Attached, for your review, is a copy of the C-108 application. Once we receive the newspaper publication and all certified return receipts, I will send you a copy.

Please do not hesitate to contact me at (575) 748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

Brian Collins  
Senior Operations Engineer

BC/bg  
Enclosures



December 12, 2012

New Mexico State Land Office  
310 Old Santa Fe Trail,  
Santa Fe, NM 87501

Re: Application to Inject  
Reposado 2 State SWD #1  
Township 26 South, Range 29 East, N.M.P.M.  
Section 2: 2310' FSL & 2310' FWL  
Eddy County, New Mexico

To Whom It May Concern:

Enclosed for your review is a copy of COG Operating LLC's C-108 Application to Inject for the above referenced well. We plan to drill this well for SWD service if our C-108 is approved. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as an operator or surface owner. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter.

Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brian Collins".

Brian Collins  
Senior Operations Engineer

BC/bg  
Enclosures



December 12, 2012

EXCO Resources, Inc  
12377 Merit Dr., Suite 1700  
Dallas, TX 75251

RE: Application For Authorization To Inject  
Reposado 2 State SWD #1  
Township 26 South, Range 29 East, N.M.P.M.  
Section 2: 2310' FSL & 2310' FWL  
Eddy County, New Mexico

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Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

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Brian Collins  
Senior Operations Engineer

BC/bg  
Enclosures



December 12, 2012

Khody Land & Minerals Company  
800 Brazos, Suite 400  
Austin, TX 78701

RE: Application For Authorization To Inject  
Reposado 2 State SWD #1  
Township 26 South, Range 29 East, N.M.P.M.  
Section 2: 2310' FSL & 2310' FWL  
Eddy County, New Mexico

To Whom It May Concern:

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Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

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Brian Collins  
Senior Operations Engineer

BC/bg  
Enclosures



December 12, 2012

Chesapeake Exploration LP  
6100 North Western Avenue  
Oklahoma City, OK 73118

RE: Application For Authorization To Inject  
Reposado 2 State SWD #1  
Township 26 South, Range 29 East, N.M.P.M.  
Section 2: 2310' FSL & 2310' FWL  
Eddy County, New Mexico

To Whom It May Concern:

Enclosed for your review is a copy of COG Operating LLC's C-108 Application to Inject for the above referenced well. We plan to drill this well for SWD service if our C-108 is approved. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as the surface owner or an operator within a half mile radius area of review. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter.

Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

Brian Collins  
Senior Operations Engineer

BC/bg  
Enclosures



December 12, 2012

Artesia Daily Press  
P. O. Box 190  
Artesia, NM 88211-0190

Re: Legal Notice  
Salt Water Disposal Well  
Reposado 2 State SWD #1

To Whom It May Concern:

Enclosed is a legal notice regarding New Mexico Oil Conservation Division C-108  
Application for Authorization to Inject for a salt water disposal well.

Please run this notice and return the proof of notice to the undersigned at:

**COG Operating LLC, 2208 W. Main St., Artesia, NM 88210**

Sincerely,

A handwritten signature in cursive script, appearing to read "Brian Collins".

Brian Collins  
Senior Operations Engineer

BC/bg  
Enclosures



**ARTESIA DAILY PRESS**  
**LEGAL NOTICES**

COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210 has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Reposado 2 State SWD No. 1 is located 2310' FSL & 2310' FWL, Section 2, Township 26 South, Range 29 East, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware and Bone Spring formations. The disposal water will be injected into the Devonian formation at a depth of 15500' to 16900' at a maximum surface pressure of 3100 psi and a maximum rate of 25,000 BWPD. The proposed SWD well is located approximately 17 miles southeast of Loving. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Brian Collins at COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210, or call 575-748-6940.

Published in the Artesia Daily Press, Artesia, New Mexico  
\_\_\_\_\_, 2012.

## Jones, William V., EMNRD

---

**From:** Bobbie Goodloe <BGoodloe@concho.com>  
**Sent:** Monday, January 14, 2013 3:43 PM  
**To:** Jones, William V., EMNRD  
**Cc:** Brian Collins  
**Subject:** Reposado 2 State SWD #1  
**Attachments:** Affidavit and Proof of Delivery-Reposado 2 SWD #1.pdf

Will,  
Please review the attachment containing the affidavit of publication along with the Proof of Delivery receipts for the Reposado 2 State SWD #1 well. Let us know if you have any further questions. Thank you!

Thank you,  
Bobbie

*Bobbie Goodloe*

**Administrative Assistant/Completions - NM Basin**  
**COG OPERATING LLC**  
**2208 W Main St**  
**Artesia, New Mexico 88210-3720**  
**575.748.6954**



CONFIDENTIALITY NOTICE: The information in this email may be confidential and/or privileged. If you are not the intended recipient or an authorized representative of the intended recipient, you are hereby notified that any review, dissemination or copying of this email and its attachments, if any, or the information contained herein, is prohibited. If you have received this email in error, please immediately notify the sender by return email and delete this email from your system. Thank you.

CONFIDENTIALITY NOTICE: The information in this email may be confidential and/or privileged. If you are not the intended recipient or an authorized representative of the intended recipient, you are hereby notified that any review, dissemination or copying of this email and its attachments, if any, or the information contained herein, is prohibited. If you have received this email in error, please immediately notify the sender by return email and delete this email from your system. Thank you.

# Affidavit of Publication

NO. 22411

STATE OF NEW MEXICO

County of Eddy:

Danny Scott

being duly sworn, says that he is the Publisher

of the Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and state, and that the hereto attached

## Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 Consecutive weeks/days on the same day as follows:

First Publication December 18, 2012

Second Publication \_\_\_\_\_

Third Publication \_\_\_\_\_

Fourth Publication \_\_\_\_\_

Fifth Publication \_\_\_\_\_

Subscribed and sworn to before me this

18th day of December 2012



OFFICIAL SEAL  
Latisha Romine  
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 5/12/2015

Latisha Romine

Latisha Romine  
Notary Public, Eddy County, New Mexico

# Copy of Publication:

## LEGAL NOTICE

COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210 has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Reposado 2 State SWD No. 1 is located 2310' FSL & 2310' FWL, Section 2, Township 26 South, Range 29 East, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware and Bone Spring formations. The disposal water will be injected into the Devonian formation at a depth of 15500' to 16900' at a maximum surface pressure of 3100 psi and a maximum rate of 25,000 BWPd. The proposed SWD well is located approximately 17 miles southeast of Loving. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Brian Collins at COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210, or call 575-748-6940.

Published in the Artesia Daily Press,  
Artesia, N.M., Dec. 18, 2012. Legal No  
22411.

## SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

ATTN WILLIAM V JONES  
NM OIL CONSERVATION DIVISION  
1220 S ST FRANCIS DR  
SANTA FE NM 87505

2. Article Number  
(Transfer from service label)

7011 1570 0000 7781 3820

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X Heather R Kent

☐ Agent  
☐ Addressee

B. Received by (Printed Name)

Heather R Kent

C. Date of Delivery

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

## SENDER: COMPLETE THIS SECTION

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1. Article Addressed to:

NM State Land Office  
310 Old Santa Fe Trail  
Santa Fe, NM 87501

2. Article Number  
(Transfer from service label)

7011 1570 0000 7781 3837

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

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X [Signature]

☐ Agent  
☐ Addressee

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C. Date of Delivery

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3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

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☐ Yes

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1. Article Addressed to:

CHESAPEAKE EXPLORATION LP  
6100 NORTH WESTERN AVE  
OKLAHOMA CITY OK 73118

2. Article Number  
(Transfer from service label)

7011 1570 0000 7781 3790

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

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A. Signature

X [Signature]

☐ Agent  
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

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3. Service Type

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

El Paso Natural Gas Co  
2 North Nevada Ave  
Col Spgs, CO 80903

2. Article Number

(Transfer from service label)

7011 1570 0000 7781 3899

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☒ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

EXCO RESOURCES INC  
12377 MERIT DR STE 1700  
DALLAS TX 75151

2. Article Number

(Transfer from service label)

7011 1570 0000 7781 3813

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

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A. Signature

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☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

KHODY LAND & MINERALS COMPANY  
80 BRAZOS STE 400  
AUSTIN TX 78701

2. Article Number

(Transfer from service label)

7011 1570 0000 7781 3806

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

**Jones, William V., EMNRD**

---

**From:** Jones, William V., EMNRD  
**Sent:** Friday, December 28, 2012 5:19 PM  
**To:** 'Bobbie Goodloe'; Brian Collins  
**Cc:** Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD; Brooks, David K., EMNRD  
**Subject:** Disposal applications from COG Operating, LLC: proposed Reposado 2 State SWD #1, Apple 5 State SWD #1, and Willow 17 State SWD #1 all in Eddy County. (Devonian open holes)

Hello Bobbie and Brian,

These SWD applications look OK, and the only things I seem to be missing or would ask about:

Would you ask the Geologist to estimate the top of Devonian and base of Devonian in each of these wells?

And please send to me a copy of the latest actual newspaper notice and the certified mailing receipts (or receipt numbers) with dates of mailing to the affected parties.

For the Reposado 2 State SWD #1 it appeared that El Paso may not have been noticed?

For the Willow 17 State SWD #1 it appeared that Delta and Devon may not have been noticed?

There are no producing wells in the AOR of a proposed SWD well, so in this case there are no dedicated spacing units with "Operators of Record" at Devonian depths.

Therefore the certified notices should be going out to the Lessees of Devonian oil and gas rights or whomever controls the rights to the Devonian minerals within the AOR. If no lessees, then notices should be sent to mineral owners. Would you check with your favorite Landman to verify this is happening? If there are any gray areas, the COG Landman could call David Brooks (our Landman/Attorney) at 505-476-3450 to ensure all is well in this regard. I have found that Land people speak best to other land people and I may not understand the conversation!

I may only be here on Monday of next week – so HAPPY NEW YEAR!

....There are several SWD permits for COG and others drafted and waiting for the Director to sign when she returns from vacation (we believe on January 3<sup>rd</sup>).

Thank You!

Will Jones

## Jones, William V., EMNRD

---

**From:** Brian Collins <BCollins@concho.com>  
**Sent:** Wednesday, January 02, 2013 10:31 AM  
**To:** Jones, William V., EMNRD  
**Cc:** Dean Chumbley; Bobbie Goodloe  
**Subject:** RE: Disposal applications from COG Operating, LLC: proposed Reposado 2 State SWD # 1, Apple 5 State SWD #1, and Willow 17 State SWD #1 all in Eddy County. (Devonian open holes)

Will:

Here's some answers to your notification questions:

Apple 5 State SWD 1: We've notified all the necessary lessees of record. COG operates all the wells that have been drilled within the AOR.

Willow 17 State SWD 1: We will notify Delta Drilling/Devon as lessees of record/mineral owners ASAP—our mistake. Devon owns Delta Drilling's surface and minerals in this area so the notice will be sent to Devon. COG operates all the wells that have been drilled within the AOR.

Reposado 2 State SWD 1: We didn't notify El Paso Natural Gas, but will send out notice ASAP—our mistake. Our notification list was for the lessees of record within the AOR.

If you still have notification questions, let me know and I'll have Dean Chumbley visit with you. Thanks for your patience.

Brian

---

**From:** Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]  
**Sent:** Friday, December 28, 2012 6:19 PM  
**To:** Bobbie Goodloe; Brian Collins  
**Cc:** Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD; Brooks, David K., EMNRD  
**Subject:** Disposal applications from COG Operating, LLC: proposed Reposado 2 State SWD #1, Apple 5 State SWD #1, and Willow 17 State SWD #1 all in Eddy County. (Devonian open holes)

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**Jones, William V., EMNRD**

---

**From:** Brian Collins <BCollins@concho.com>  
**Sent:** Wednesday, January 02, 2013 7:35 AM  
**To:** Jones, William V., EMNRD  
**Subject:** RE: Disposal applications from COG Operating, LLC: proposed Reposado 2 State SWD # 1, Apple 5 State SWD #1, and Willow 17 State SWD #1 all in Eddy County. (Devonian open holes)

Will:

We'll get you some answers ASAP. I've got the estimated top of the Devonian from our geologists, but not the base. Due to geologic uncertainty on the tops and presence of good dolomite, I've filed for disposal intervals approx. 150' high to the estimated top of the Devonian and for gross injection interval thicknesses in the 1200' range. We'll actually set casing into the top of the Devonian (covering the Woodford shale) when we drill these wells. I'll visit with the geologists about estimated Devonian thicknesses. Thanks. --Brian

---

**From:** Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]  
**Sent:** Friday, December 28, 2012 6:19 PM  
**To:** Bobbie Goodloe; Brian Collins  
**Cc:** Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD; Brooks, David K., EMNRD  
**Subject:** Disposal applications from COG Operating, LLC: proposed Reposado 2 State SWD #1, Apple 5 State SWD #1, and Willow 17 State SWD #1 all in Eddy County. (Devonian open holes)

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I may only be here on Monday of next week – so HAPPY NEW YEAR!

....There are several SWD permits for COG and others drafted and waiting for the Director to sign when she returns from vacation (we believe on January 3<sup>rd</sup>).



## Jones, William V., EMNRD

---

**From:** Brian Collins <BCollins@concho.com>  
**Sent:** Tuesday, January 08, 2013 2:58 PM  
**To:** Jones, William V., EMNRD  
**Subject:** COG Devonian-Silurian-Ordovician SWD Applications--Remaining Requested Devonian Tops/Bases

Will:

Here's the rest of the Devonian tops/bases you requested. Our geologist noted that the tops are approximate and the bases are very approximate due to the lack of well control. When the wells are drilled and actually penetrate the Devonian, we'll set 7" to the top of the Devonian and drill the rest of the way as an open hole disposal interval. Thanks.

Reposado 2 State SWD 1 (2-26s-29e): Geologist pick for Devonian top = 15654' and base = 16,143'  
C108 application interval = 15,500-16,900'

Willow 17 State SWD 1 (17-25s-28e): Geologist pick for Devonian top = 14,323' and base = 14,723'  
C108 application interval = 14,000-15,300'

Apple 5 State SWD 1 (5-26s-28e): Geologist pick for Devonian top = 14,279' and base = 14,679'  
C108 application interval = 14,100-15,400'

### Brian Collins

Senior Operations Engineer - NM Basin

COG OPERATING LLC

2208 W Main St

Artesia, New Mexico 88210-3720

575.748.6924 W

432-254-5870 C



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in 12/17/12

DUE DATE 1/8/13

## Injection Permit Checklist (11/15/2010)

WFX

PMX

SWD

1386

Permit Date

UIC Qtr

# Wells

1 Well Name(s)

Reposado 2 STATE SWD #1

API Num: 30-0

15-NA

Spud Date:

Not Yet

New/Old: N

(UIC primacy March 7, 1982)

Footages

2310 FSL/2310 FWL

Unit

K

Sec

2

Tsp

26.5

Rge

29 E

County

LEAEDDY

General Location:

NW of Red Bluff Res.

Operator:

COG OPERATING, LLC

Contact

BRIAN COLLINS

OGRID: 229137

RULE 5.9 Compliance (Wells)

8/27/55

(Finan Assur)

OK

IS 5.9 OK?

OK

Well File Reviewed

New

Current Status:

NOT Permitted

Planned Work to Well:

Drill/Equip/DSP.

Diagrams: Before Conversion

After Conversion

Elogs in Imaging File:

NOT Drilled

## Well Details:

	Sizes Hole.....Pipe	Setting Depths	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
New <input checked="" type="checkbox"/> Existing <input type="checkbox"/> Surface	26 - 20	620'	-	1875 CF	Surf
New <input checked="" type="checkbox"/> Existing <input type="checkbox"/> Interm	17 1/2 - 13 1/8	3,120'	-	4325 CF	Surf
New <input checked="" type="checkbox"/> Existing <input type="checkbox"/> Long St	12 1/4 - 9 1/8	10,150'	-	3550 CF	(into HIGHER ST)
New <input checked="" type="checkbox"/> Existing <input type="checkbox"/> Liner	8 3/4 - 7"	9900 - 15500	-	1250 CF	To Liner Top
New <input checked="" type="checkbox"/> Existing <input type="checkbox"/> Open Hole	6 1/8	15500' - 16900'			

## Depths/Formations:

	Depths, Ft.	Formation	Tops?
Formation(s) Above	15654	Dev	<input checked="" type="checkbox"/>
Injection TOP:	15500	DEVONIAN	Max. PSI 3100
Injection BOTTOM:	16900	"	Open Hole <input checked="" type="checkbox"/> Packer Depth 14500'
Formation(s) Below	16143	Base of Dev.	<input checked="" type="checkbox"/>

Capitan Reef?

(Polash?)

Noticed?

(WIP?)

Noticed?

Salado Top/Bot

2500-3000'

Clim. House?

Fresh Water:

Depths:

620'

Formation

Wells?

yes

Analysis?

yes

Affirmative Statement

☒

Disposal Fluid Analysis?

Sources:

Dev./B.S.

Disposal Interval: Analysis?

No

Production Potential/Testing:

NO Summary Prod or Tests

Notice: Newspaper Date

12/12/12

Surface Owner

SLO/12/12/12

Mineral Owner(s)

RULE 26.7(A) Affected Persons:

EXCO

CPL

ELP

K#0DY

AOR: Maps?

☒

Well List?

☒

Producing in Interval?

NO

Wellbore Diagrams?

☒

.....Active Wells

0

Repairs?

Which Wells?

.....P&amp;A Wells

0

Repairs?

Which Wells?

Issues:

How TRICK is DEV?

Request Sent

Reply: