

OCT 24 2017

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**RECEIVED**

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMLC029406B
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator COG OPERATING LLC (229137)		7. If Unit or CA Agreement, Name and No.
3a. Address 600 West Illinois Ave Midland TX 79701		8. Lease Name and Well No. <b>319782</b> ZEPPO 5 FEDERAL COM 15H
3b. Phone No. (include area code) (432)683-7443		9. API Well No. <b>30-025-44140</b>
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SWNE / 2490 FNL / 2335 FEL / LAT 32.8640934 / LONG -103.7876729 At proposed prod. zone SWSE / 55 FSL / 2308 FEL / LAT 32.8420692 / LONG -103.787561		10. Field and Pool, or Exploratory MALJAMAR / YESO, WEST (44500)
14. Distance in miles and direction from nearest town or post office* 1.6 miles		11. Sec., T. R. M. or Blk. and Survey or Area SEC 5 / T17S / R32E / NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 55 feet	16. No. of acres in lease 1606.8	12. County or Parish LEA
17. Spacing Unit dedicated to this well 240	18. Distance from proposed location* to nearest well, drilling, completed, 320 feet applied for, on this lease, ft.	13. State NM
19. Proposed Depth 5700 feet / 13492 feet	20. BLM/BIA Bond No. on file FED: NMB000215	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4099 feet	22. Approximate date work will start* 11/03/2017	23. Estimated duration 15 days
24. Attachments <b>NSL-7595</b>		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM.             |

25. Signature (Electronic Submission)	Name (Printed/Typed) Robyn Odom / Ph: (432)685-4385	Date 03/27/2017
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 10/12/2017
Title Supervisor Multiple Resources		
Office HOBBS		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

\*(Instructions on page 2)

**APPROVED WITH CONDITIONS**

**Ka**  
**10/24/17**



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Operator Certification Data Report

10/18/2017

### Operator Certification

*I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.*

**NAME:** Robyn Odom

**Signed on:** 03/27/2017

**Title:** Regulatory Analyst

**Street Address:** 600 W Illinois Ave

**City:** Midland

**State:** TX

**Zip:** 79701

**Phone:** (432)685-4385

**Email address:** rodom@concho.com

### Field Representative

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**

APD ID: 10400012701

Submission Date: 03/27/2017

Highlighted data  
reflects the most  
recent changes

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 15H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - General

APD ID: 10400012701

Tie to previous NOS? 10400005139

Submission Date: 03/27/2017

BLM Office: HOBBS

User: Robyn Odom

Title: Regulatory Analyst

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMLC029406B

Lease Acres: 1606.8

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? NO

Permitting Agent? NO

APD Operator: COG OPERATING LLC

Operator letter of designation:

## Operator Info

Operator Organization Name: COG OPERATING LLC

Operator Address: 600 West Illinois Ave

Zip: 79701

Operator PO Box:

Operator City: Midland

State: TX

Operator Phone: (432)683-7443

Operator Internet Address: RODOM@CONCHO.COM

## Section 2 - Well Information

Well in Master Development Plan? NO

Mater Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 15H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: MALJAMAR

Pool Name: YESO, WEST

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

**Describe other minerals:**

**Is the proposed well in a Helium production area?** N    **Use Existing Well Pad?** NO    **New surface disturbance?**

**Type of Well Pad:** MULTIPLE WELL

**Multiple Well Pad Name:**  
ZEPP0 5 FEDERAL COM

**Number:** 5

**Well Class:** HORIZONTAL

**Number of Legs:** 1

**Well Work Type:** Drill

**Well Type:** OIL WELL

**Describe Well Type:**

**Well sub-Type:** INFILL

**Describe sub-type:**

**Distance to town:** 1.6 Miles

**Distance to nearest well:** 320 FT

**Distance to lease line:** 55 FT

**Reservoir well spacing assigned acres Measurement:** 240 Acres

**Well plat:** Zeppo\_5\_Federal\_Com\_15H\_C102\_03-14-2017.pdf

**Well work start Date:** 11/03/2017

**Duration:** 15 DAYS

### Section 3 - Well Location Table

**Survey Type:** RECTANGULAR

**Describe Survey Type:**

**Datum:** NAD83

**Vertical Datum:** NAVD88

**Survey number:**

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	249 0	FNL	233 5	FEL	17S	32E	5	Aliquot SWNE	32.86409 34	- 103.7876 729	LEA	NEW MEXI CO	NEW MEXI CO	F	NMLC0 29406B	409 9	0	0
KOP Leg #1	249 0	FNL	233 5	FEL	17S	32E	5	Aliquot SWNE	32.86409 34	- 103.7876 729	LEA	NEW MEXI CO	NEW MEXI CO	F	NMLC0 29406B	- 108 0	517 9	517 9
PPP Leg #1	231 0	FSL	228 9	FEL	17S	32E	5	Aliquot NWSE	32.86409 34	- 103.7876 729	LEA	NEW MEXI CO	NEW MEXI CO	F	NMLC0 29406B	- 160 1	599 7	570 0

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 15H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT Leg #1	55	FSL	230 8	FEL	17S	32E	8	Aliquot SWSE	32.84206 92	- 103.7875 61	LEA	NEW MEXI CO	NEW MEXI CO	F	NMLC0 64149	- 160 1	134 92	570 0
BHL Leg #1	55	FSL	230 8	FEL	17S	32E	8	Aliquot SWSE	32.84206 92	- 103.7875 61	LEA	NEW MEXI CO	NEW MEXI CO	F	NMLC0 64149	- 160 1	134 92	570 0

**APD ID:** 10400012701

**Submission Date:** 03/27/2017

Highlighted data reflects the most recent changes

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

[Show Final Text](#)

**Well Type:** OIL WELL

**Well Work Type:** Drill

## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	UNKNOWN	4099	0	0	ALLUVIUM	USEABLE WATER	No
2	RUSTLER	3225	874	874	ANHYDRITE	OTHER : Brackish Water	No
3	TOP OF SALT	3036	1063	1063	SALT	OTHER : Salt	No
4	TANSILL	2001	2098	2098	DOLOMITE	NONE	No
5	YATES	1891	2208	2208	SANDSTONE,DOLOMITE	NATURAL GAS,OIL	No
6	QUEEN	938	3161	3161	SANDSTONE	NATURAL GAS,OIL	No
7	GRAYBURG	487	3612	3612	DOLOMITE,ANHYDRITE	NATURAL GAS,OIL	No
8	SAN ANDRES	203	3896	3896	DOLOMITE,ANHYDRITE	NATURAL GAS,OIL	No
9	GLORIETA	-1295	5394	5394	SANDSTONE,SILTSTONE	NATURAL GAS,OIL	No
10	PADDOCK	-1355	5454	5454	DOLOMITE	NATURAL GAS,OIL	Yes
11	BLINEBRY	-1781	5880	5880	DOLOMITE	NATURAL GAS,OIL	No
12	TUBB	-2701	6800	6800	SANDSTONE,DOLOMITE	NATURAL GAS,OIL	No

## Section 2 - Blowout Prevention

**Pressure Rating (PSI):** 2M

**Rating Depth:** 9500

**Equipment:** All required equipment per Federal and State regulations to be in place prior to drilling out the Surface casing.

**Requesting Variance?** NO

**Variance request:**

**Testing Procedure:** BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure of 2000 psi per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure of 2000 psi. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be

Operator Name: COG OPERATING LLC

Well Name: ZEPO 5 FEDERAL COM

Well Number: 15H

operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

**Choke Diagram Attachment:**

2M\_Choke\_Schematic\_03-14-2017.pdf

**BOP Diagram Attachment:**

2M\_ANNULAR\_BOP\_03-14-2017.pdf

**Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	920	0	920			920	H-40	48	STC	1.79	3.28	DRY	14.1	DRY	14.1
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	2220	0	2220			2220	J-55	40	LTC	2.47	1.44	DRY	6.1	DRY	7.4
3	PRODUCTION	8.75	7.0	NEW	API	N	0	5179	0	5179			5179	L-80	29	LTC	3.17	1.33	DRY	3.77	DRY	4.27
4	PRODUCTION	8.75	5.5	NEW	API	N	5179	5997	5179	5700			818	L-80	17	LTC	2.29	1.26	DRY	4.28	DRY	5.03
5	PRODUCTION	7.875	5.5	NEW	API	N	5997	13492	5700	5700			7495	L-80	17	LTC	2.29	1.26	DRY	4.28	DRY	5.03

**Casing Attachments**

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

**Casing Attachments**

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**Casing ID:** 1      **String Type:** SURFACE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Casing\_Design\_Attachement\_03-27-2017.pdf

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**Casing ID:** 2      **String Type:** INTERMEDIATE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Casing\_Design\_Attachement\_03-27-2017.pdf

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**Casing ID:** 3      **String Type:** PRODUCTION

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Casing\_Design\_Attachement\_03-27-2017.pdf

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Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 15H

Casing Attachments

Casing ID: 4 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing\_Design\_Attachement\_03-27-2017.pdf

Casing ID: 5 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing\_Design\_Attachement\_03-27-2017.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	920	550	1.75	13.5	962.5		Class C	4%Gel+2% CaCl2+0.25pps CF
SURFACE	Tail				200	1.32	14.8	264	92	Class C	2% CaCl2+0.25pps CF
INTERMEDIATE	Lead		0	2220	425	2.45	11.8	1041.25		50:50:10 C:Poz:Gel	5%Salt+5pps LCM+0.25pps CF
INTERMEDIATE	Tail				200	1.32	14.8	264	136	Class C	2% CaCl2
PRODUCTION	Lead		0	1349 2	600	2.01	12.5	1206		35:65:6 C:Poz:Gel	5%Salt+5pps LCM+0.2%SMS+1%FL-

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											Ba-58+0.3%FL-52A+0.125pps CF
PRODUCTION	Tail				2200	1.37	14	3014	98	50:50:2 C:Poz:Gel	5%salt+3pps LCM+0.6%SMS+1%FL-25+1%Ba-58+0.125pps
PRODUCTION	Lead		0	1349 2	600	2.01	12.5	1206		35:65:6 C:Poz:Gel	5%Salt+5pps LCM+0.2%SMS+1%FL-25+1%Ba-58+0.3%FL-52A+0.125pps CF
PRODUCTION	Tail				2200	1.37	14	3014	98	50:50:2 C:Poz:Gel	5%salt+3pps LCM+0.6%SMS+1%FL-25+1%Ba-58+0.125pps
PRODUCTION	Lead		0	1349 2	600	2.01	12.5	1206		35:65:6 C:Poz:Gel	5%Salt+5pps LCM+0.2%SMS+1%FL-25+1%Ba-58+0.3%FL-52A+0.125pps CF
PRODUCTION	Tail				2200	1.37	14	3014	98	50:50:2 C:Poz:Gel	5%salt+3pps LCM+0.6%SMS+1%FL-25+1%Ba-58+0.125pps

### Section 5 - Circulating Medium

**Mud System Type:** Closed

**Will an air or gas system be Used?** NO

**Description of the equipment for the circulating system in accordance with Onshore Order #2:**

**Diagram of the equipment for the circulating system in accordance with Onshore Order #2:**

**Describe what will be on location to control well or mitigate other conditions:** Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

**Describe the mud monitoring system utilized:** PVT/Pason/Visual Monitoring

### Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	2220	WATER-BASED MUD	8.6	8.8							
5179	1349 2	WATER-BASED MUD	8.5	9.2							
0	5179	SALT SATURATED	10	10.2							

### Section 6 - Test, Logging, Coring

**List of production tests including testing procedures, equipment and safety measures:**

Interval Perforating, Fracture stimulating, Flowback testing

**List of open and cased hole logs run in the well:**

CNL,MUDLOG

**Coring operation description for the well:**

N/A

### Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 2508

**Anticipated Surface Pressure:** 1254

**Anticipated Bottom Hole Temperature(F):** 113

**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations plan:**

H2S\_Plan\_03-14-2017.pdf

Zeppo\_5\_Federal\_Com\_15H\_H2S\_Schematic\_03-14-2017.pdf

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

Zeppo\_5\_Federal\_Com\_15H\_Design\_1\_Rpt\_03-14-2017.pdf

Zeppo\_5\_Federal\_Com\_15H\_Design\_1\_AC\_Rpt\_03-14-2017.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

Closed\_Loop\_Schematic\_03-14-2017.pdf

Zeppo\_5\_Federal\_Com\_15H\_Prod\_Cement\_Breakdown\_03-27-2017.pdf

Zeppo\_5\_Fed\_Com\_15H\_Contingent\_Multi\_Stage\_Cmt\_Plan\_05-31-2017.pdf

Zeppo\_5\_Federal\_Com\_15H\_GCP\_05-31-2017.pdf

**Other Variance attachment:**

## Section 1 - General

Would you like to address long-term produced water disposal? NO

## Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

### Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

### Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Assigned injection well API number?

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Injection well name:

Injection well API number:

### Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

### Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Bond Info Data Report

10/18/2017

### Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB000215

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

**APD ID:** 10400012701

**Submission Date:** 03/27/2017

Highlighted data reflects the most recent changes

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

[Show Final Text](#)

**Well Type:** OIL WELL

**Well Work Type:** Drill

## Section 1 - Existing Roads

**Will existing roads be used?** YES

**Existing Road Map:**

Zeppo\_5\_Federal\_Com\_15H\_Vicinity\_Plat\_03-14-2017.pdf

**Existing Road Purpose:** ACCESS,FLUID TRANSPORT

**Row(s) Exist?** NO

### ROW ID(s)

**ID:**

**Do the existing roads need to be improved?** NO

**Existing Road Improvement Description:**

**Existing Road Improvement Attachment:**

## Section 2 - New or Reconstructed Access Roads

**Will new roads be needed?** YES

**New Road Map:**

Zeppo\_5\_Federal\_Com\_15H\_New\_Road\_Plat\_03-14-2017.pdf

**New road type:** RESOURCE

**Length:**

**Width (ft.):**

**Max slope (%):**

**Max grade (%):**

**Army Corp of Engineers (ACOE) permit required?**

**ACOE Permit Number(s):**

**New road travel width:**

**New road access erosion control:**

**New road access plan or profile prepared?**

**New road access plan attachment:**

New\_Access\_Road\_Plan\_03-14-2017.pdf

**Access road engineering design?**

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 15H

Access road engineering design attachment:

Access surfacing type:

Access topsoil source:

Access surfacing type description:

Access onsite topsoil source depth:

Offsite topsoil source description:

Onsite topsoil removal process:

Access other construction information:

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

### Drainage Control

New road drainage crossing:

Drainage Control comments:

Road Drainage Control Structures (DCS) description:

Road Drainage Control Structures (DCS) attachment:

### Access Additional Attachments

Additional Attachment(s):

### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Zeppo\_5\_Federal\_Com\_15H\_New\_Road\_Plat\_03-14-2017.pdf

New road type: RESOURCE

Length: 115

Feet

Width (ft.): 30

Max slope (%): 3

Max grade (%): 1

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 20

New road access erosion control: Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage and to be consistent with local drainage patterns.

New road access plan or profile prepared? YES

New road access plan attachment:

New\_Access\_Road\_Plan\_03-14-2017.pdf

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 15H

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: See attached New Access Road Plan.

Access other construction information:

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

### Drainage Control

New road drainage crossing: OTHER

**Drainage Control comments:** Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage and to be consistent with local drainage patterns.

**Road Drainage Control Structures (DCS) description:** Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage and to be consistent with local drainage patterns.

Road Drainage Control Structures (DCS) attachment:

### Access Additional Attachments

Additional Attachment(s):

### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Zeppo\_5\_Federal\_Com\_15H\_New\_Road\_Plat\_03-14-2017.pdf

New road type:

Length:

Width (ft.):

Max slope (%):

Max grade (%):

Army Corp of Engineers (ACOE) permit required?

ACOE Permit Number(s):

New road travel width:

New road access erosion control:

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 15H

**New road access plan or profile prepared?**

New road access plan attachment:

New\_Access\_Road\_Plan\_03-14-2017.pdf

**Access road engineering design?**

Access road engineering design attachment:

Access surfacing type:

Access topsoil source:

Access surfacing type description:

Access onsite topsoil source depth:

Offsite topsoil source description:

Onsite topsoil removal process:

Access other construction information:

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

### Drainage Control

New road drainage crossing:

Drainage Control comments:

Road Drainage Control Structures (DCS) description:

Road Drainage Control Structures (DCS) attachment:

### Access Additional Attachments

Additional Attachment(s):

### Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Zeppo\_5\_Federal\_Com\_15H\_1mileRadius\_Map\_03-14-2017.pdf

Existing Wells description:

### Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Estimated Production Facilities description:

Production Facilities description:

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPPPO 5 FEDERAL COM

**Well Number:** 15H

**Production Facilities map:**

Zeppo\_5\_Federal\_Com\_15H\_Btry\_Site\_Layout\_03-14-2017.pdf

## Section 5 - Location and Types of Water Supply

### Water Source Table

**Water source use type:** DUST CONTROL,  
INTERMEDIATE/PRODUCTION CASING, SURFACE CASING  
**Describe type:**

**Water source type:** GW WELL

**Source latitude:**

**Source longitude:**

**Source datum:**

**Water source permit type:** WATER WELL

**Source land ownership:** PRIVATE

**Water source transport method:** PIPELINE,TRUCKING

**Source transportation land ownership:** PRIVATE

**Water source volume (barrels):** 8000

**Source volume (acre-feet):** 1.0311447

**Source volume (gal):** 336000

**Water source and transportation map:**

Caswell\_Ranch\_Water\_Supply\_03-14-2017.pdf

Loco\_Hills\_Water\_Disposal\_Co\_Water\_Supply\_03-14-2017.pdf

**Water source comments:** The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. Water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown in Vicinity Map. A fresh water source is nearby and fast line may be laid along existing road ROW's and fresh water pumped to the well. Water will originate from 1 and/or all of the 3 private wells location described on the attached "Caswell Ranch Water Supply" Map. No water well will be drilled on the location. A secondary water source will be from private wells location depicted on the attached "Loco Hills Water Disposal Co" map attached to this APD. James R. Maloney, 575-677-2118.

**New water well?** NO

### New Water Well Info

**Well latitude:**

**Well Longitude:**

**Well datum:**

**Well target aquifer:**

**Est. depth to top of aquifer(ft):**

**Est thickness of aquifer:**

**Aquifer comments:**

**Aquifer documentation:**

**Well depth (ft):**

**Well casing type:**

**Well casing outside diameter (in.):**

**Well casing inside diameter (in.):**

**New water well casing?**

**Used casing source:**

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPPPO 5 FEDERAL COM

**Well Number:** 15H

**Drilling method:**

**Drill material:**

**Grout material:**

**Grout depth:**

**Casing length (ft.):**

**Casing top depth (ft.):**

**Well Production type:**

**Completion Method:**

**Water well additional information:**

**State appropriation permit:**

**Additional information attachment:**

## Section 6 - Construction Materials

**Construction Materials description:** Surfacing material will consist of native caliche. Caliche will be obtained from the actual well site if available. Secondary candidate source will be Caswell Ranch owned Caliche Pit located in NESE of Sec 9, T17S, R32E. A third candidate source will be NMSLO Caliche Pit located in S2/SW4 of Sec 32, T16S, R30E.

**Construction Materials source location attachment:**

Construction\_Turn\_Over\_Procedure\_03-14-2017.pdf

Caswell\_Ranch\_Caliche\_Pit\_03-14-2017.pdf

NMSLO\_Caliche\_Pit\_03-14-2017.pdf

## Section 7 - Methods for Handling Waste

**Waste type:** PRODUCED WATER

**Waste content description:** Produced Water

**Amount of waste:** 100 barrels

**Waste disposal frequency :** Daily

**Safe containment description:** Steel Tanks

**Safe containmant attachment:**

**Waste disposal type:** HAUL TO COMMERCIAL FACILITY      **Disposal location ownership:** STATE

**Disposal type description:**

**Disposal location description:** NMOCD approved commercial disposal facility. R360's disposal site located at 4507 West Carlsbad Highway, Hobbs, NM 88240.

**Waste type:** GARBAGE

**Waste content description:** Garbage and trash produced during drilling and completion operations.

**Amount of waste:** 100 pounds

**Waste disposal frequency :** Weekly

**Safe containment description:** Trash Bin

**Safe containmant attachment:**

**Waste disposal type:** HAUL TO COMMERCIAL FACILITY      **Disposal location ownership:** STATE

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

**Disposal type description:**

**Disposal location description:** Garbage and trash to be collected in trash bin and hauled to Lea Landfill LLC. Located at mile marker 64, Highway 62-180 East, PO Box 3247, Carlsbad, NM 88221. No toxic waste or hazardous chemicals will be produced by this operation.

**Waste type:** SEWAGE

**Waste content description:** Human waste and grey water

**Amount of waste:** 100 gallons

**Waste disposal frequency :** Weekly

**Safe containment description:** Portable septic system and/or portable waste gathering system.

**Safe containmant attachment:**

**Waste disposal type:** HAUL TO COMMERCIAL FACILITY     **Disposal location ownership:** COMMERCIAL FACILITY

**Disposal type description:**

**Disposal location description:** Hauled to NMOCD approved waste disposal facility.

**Waste type:** DRILLING

**Waste content description:** Drill cuttings and drilling fluids

**Amount of waste:** 100 barrels

**Waste disposal frequency :** Daily

**Safe containment description:** Closed Loop System

**Safe containmant attachment:**

**Waste disposal type:** HAUL TO COMMERCIAL FACILITY     **Disposal location ownership:** FEDERAL FACILITY

**Disposal type description:**

**Disposal location description:** R360's disposal site located at 4507 West Carlsbad Highway, Hobbs, NM 88240.

### Reserve Pit

**Reserve Pit being used?** NO

**Temporary disposal of produced water into reserve pit?**

**Reserve pit length (ft.)**                      **Reserve pit width (ft.)**

**Reserve pit depth (ft.)**    **Reserve pit volume (cu. yd.)**

**Is at least 50% of the reserve pit in cut?**

**Reserve pit liner**

**Reserve pit liner specifications and installation description**

Operator Name: COG OPERATING LLC

Well Name: ZEPPO 5 FEDERAL COM

Well Number: 15H

## Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Description of cuttings location: Closed Loop Mud System: Roll-off Style Mud Box

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

## Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

## Section 9 - Well Site Layout

Well Site Layout Diagram:

Zeppo\_5\_Federal\_Com\_15H\_Well\_Site\_Plat\_03-14-2017.pdf

Zeppo\_5\_Federal\_Com\_15H\_Interim\_Reclamation\_Plat\_03-14-2017.pdf

Comments:

## Section 10 - Plans for Surface Reclamation

Type of disturbance: NEW

Recontouring attachment:

**Drainage/Erosion control construction:** No sedimentation or erosion control will be necessary on this location as it is generally flat with little to no slope or cut and fill.

**Drainage/Erosion control reclamation:** No sedimentation or erosion control will be necessary on this location as it is generally flat with little to no slope or cut and fill.

Wellpad long term disturbance (acres): 2.76

Wellpad short term disturbance (acres): 3.27

Access road long term disturbance (acres): 0.08

Access road short term disturbance, (acres): 0.08

Pipeline long term disturbance (acres): 0.54820937

Pipeline short term disturbance (acres): 0.54820937

Other long term disturbance (acres): 0

Other short term disturbance (acres): 0

Total long term disturbance: 3.3882093

Total short term disturbance: 3.8982093

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

**Reconstruction method:** After well is completed, the pad will be downsized by reclaiming the areas not needed for production operations. The portions of the pad that are not needed for production operations will be re-contoured to its original state as much as possible. The caliche that is removed will be reused to either build another pad site or for road repairs within the lease.

**Topsoil redistribution:** The stockpiled topsoil will be spread out on reclaimed area and reseeded with a BLM approved seed mixture.

**Soil treatment:** Interim reclamation as identified during on-site.

**Existing Vegetation at the well pad:** Grassland area with sandy topsoil. Vegetation is moderately sparse with Native prairie grasses, some mesquite and shinnery oak.

**Existing Vegetation at the well pad attachment:**

**Existing Vegetation Community at the road:** Grassland area with sandy topsoil. Vegetation is moderately sparse with Native prairie grasses, some mesquite and shinnery oak.

**Existing Vegetation Community at the road attachment:**

**Existing Vegetation Community at the pipeline:** Grassland area with sandy topsoil. Vegetation is moderately sparse with Native prairie grasses, some mesquite and shinnery oak.

**Existing Vegetation Community at the pipeline attachment:**

**Existing Vegetation Community at other disturbances:** Grassland area with sandy topsoil. Vegetation is moderately sparse with Native prairie grasses, some mesquite and shinnery oak.

**Existing Vegetation Community at other disturbances attachment:**

**Non native seed used?** NO

**Non native seed description:**

**Seedling transplant description:**

**Will seedlings be transplanted for this project?** NO

**Seedling transplant description attachment:**

**Will seed be harvested for use in site reclamation?** NO

**Seed harvest description:**

**Seed harvest description attachment:**

## Seed Management

### Seed Table

**Seed type:**

**Seed source:**

**Seed name:**

**Source name:**

**Source address:**

**Source phone:**

**Seed cultivar:**

**Seed use location:**

**PLS pounds per acre:**

**Proposed seeding season:**

### Seed Summary

**Total pounds/Acre:**

**Seed Type**

**Pounds/Acre**

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPPPO 5 FEDERAL COM

**Well Number:** 15H

**Seed reclamation attachment:**

### **Operator Contact/Responsible Official Contact Info**

**First Name:**

**Last Name:**

**Phone:**

**Email:**

**Seedbed prep:**

**Seed BMP:**

**Seed method:**

**Existing invasive species?** NO

**Existing invasive species treatment description:**

**Existing invasive species treatment attachment:**

**Weed treatment plan description:** Approved EPA and BLM requirements and policies for weed control methods will be followed.

**Weed treatment plan attachment:**

**Monitoring plan description:** Evaluation of growth will be made after the completion of one full growing season after seeding. -OR- BLM representative will be contacted prior to commencing construction of well pad and road. BLM representative will also be contacted prior to commencing reclamation work.

**Monitoring plan attachment:**

**Success standards:** 80% coverage by 2nd growing season of native species with less than 5% invasive species.

**Pit closure description:** N/A

**Pit closure attachment:**

### **Section 11 - Surface Ownership**

**Disturbance type:** WELL PAD

**Describe:**

**Surface Owner:** PRIVATE OWNERSHIP

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Fee Owner:** O'Lane Caswell

**Phone:** (806)637-7004

**Surface use plan certification:** YES

**Surface use plan certification document:**

Zeppo\_5\_Federal\_Com\_15H\_SUPO\_Certification\_05-24-2017.pdf

**Fee Owner Address:** 1702 Gillham Dr., Brownfield, TX  
79316

**Email:**

**Surface access agreement or bond:** Agreement

**Surface Access Agreement Need description:** A Surface Use Agreement has been reached with the Surface Owner.

**Surface Access Bond BLM or Forest Service:**

**BLM Surface Access Bond number:**

**USFS Surface access bond number:**

**Disturbance type:** EXISTING ACCESS ROAD

**Describe:**

**Surface Owner:** PRIVATE OWNERSHIP

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

**Fee Owner:** O'Lane Caswell

**Phone:** (806)637-7004

**Surface use plan certification:** YES

**Surface use plan certification document:**

Zeppo\_5\_Federal\_Com\_15H\_SUPO\_Certification\_05-24-2017.pdf

**Fee Owner Address:** 1702 Gillham Dr., Brownfield, TX  
79316

**Email:**

**Surface access agreement or bond:** Agreement

**Surface Access Agreement Need description:** A Surface Use Agreement has been reached with the Surface Owner.

**Surface Access Bond BLM or Forest Service:**

**BLM Surface Access Bond number:**

**USFS Surface access bond number:**

**Disturbance type:** NEW ACCESS ROAD

**Describe:**

**Surface Owner:** PRIVATE OWNERSHIP

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

**Fee Owner:** O'Lane Caswell

**Phone:** (806)637-7004

**Surface use plan certification:** YES

**Surface use plan certification document:**

Zeppo\_5\_Federal\_Com\_15H\_SUPO\_Certification\_05-24-2017.pdf

**Fee Owner Address:** 1702 Gillham Dr., Brownfield, TX  
79316

**Email:**

**Surface access agreement or bond:** Agreement

**Surface Access Agreement Need description:** A Surface Use Agreement has been reached with the Surface Owner.

**Surface Access Bond BLM or Forest Service:**

**BLM Surface Access Bond number:**

**USFS Surface access bond number:**

**Disturbance type:** PIPELINE

**Describe:**

**Surface Owner:** PRIVATE OWNERSHIP

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Operator Name:** COG OPERATING LLC

**Well Name:** ZEPP0 5 FEDERAL COM

**Well Number:** 15H

**Fee Owner:** O'Lane Caswell

**Phone:** (806)637-7004

**Surface use plan certification:** YES

**Surface use plan certification document:**

Zeppo\_5\_Federal\_Com\_15H\_SUPO\_Certification\_05-24-2017.pdf

**Fee Owner Address:** 1702 Gillham Dr., Brownfield, TX  
79316

**Email:**

**Surface access agreement or bond:** Agreement

**Surface Access Agreement Need description:** A Surface Use Agreement has been reached with the Surface Owner.

**Surface Access Bond BLM or Forest Service:**

**BLM Surface Access Bond number:**

**USFS Surface access bond number:**

## Section 12 - Other Information

**Right of Way needed?** NO

**Use APD as ROW?**

**ROW Type(s):**

### ROW Applications

**SUPO Additional Information:** 1. It will be necessary to run electric power if this well is productive. Power will be provided by CVE. There will be no necessary electric line construction for this well. CVE operates an existing primary line parallel to the well pad; therefore no poles will be set off the well pad disturbance. There is no permanent or live water in the immediate area. 2. There are no dwellings within 2 miles of this location. 3. If needed, a Cultural Resources Examination is being prepared by Boone Arch Services of New Mexico, LLC. Carlsbad, NM, 88220. 506 E Chapman Rd., phone # 575.887.7667 and the results will be forwarded to your office in the near future. Otherwise, COG will be participating in the Permian Basin MOA Program.

**Use a previously conducted onsite?** YES

**Previous Onsite information:** Previous on-site performed on 10/28/2016 by Nick Franke (BLM), Curtis Griffin (COG), Jason Morgan (RRC).

### Other SUPO Attachment

Zeppo\_5\_Federal\_Com\_15H\_Flowlines\_Map\_03-14-2017.pdf

# VICINITY MAP

NOT TO SCALE



*SECTION 5, TWP. 17 SOUTH, RGE. 32 EAST,  
N. M. P. M., LEA COUNTY, NEW MEXICO*

OPERATOR: COG Operating, LLC  
 LEASE: Zeppo 5 Federal Com  
 WELL NO.: 15H

LOCATION: 2490' FNL & 2335' FEL  
 ELEVATION: 4099'

Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE
JOB NO.: LS1608267		
DWG. NO.: 1608267VM		

# RRC



308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: N. T. S.
DATE: 10-31-2016
SURVEYED BY: JM/CG
DRAWN BY: LPS
APPROVED BY: RMH
SHEET: 1 OF 1