

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

5. Lease Serial No.
NMLC0029406B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
ZEPP0 5 FEDERAL COM
17H (318782)

9. API Well No.

10. Field and Pool, or Exploratory
MALJAMAR / YESO, WEST 44500

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 5 / T17S / R32E / NMP

1a. Type of work: ☒ DRILL ☐ REENTER
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other
1c. Type of Completion: ☐ Hydraulic Fracturing ☒ Single Zone ☐ Multiple Zone

2. Name of Operator
COG OPERATING LLC (229137)

3a. Address
600 West Illinois Ave Midland TX 79701

3b. Phone No. (include area code)
(432)683-7443

4. Location of Well (Report location clearly and in accordance with any State requirements. *)
At surface SWNE / 2300 FNL / 1090 FEL / LAT 32.8646097 / LONG -103.7836195
At proposed prod. zone SESE / 10 FSL / 990 FEL / LAT 32.8419404 / LONG -103.783271

14. Distance in miles and direction from nearest town or post office*
1.4 miles

12. County or Parish
LEA

13. State
NM

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)
10 feet

16. No of acres in lease
1606.8

17. Spacing Unit dedicated to this well
240

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.
103 feet

19. Proposed Depth
5801 feet / 13769 feet

20. BLM/BIA Bond No. in file
FED: NMB000215

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
4114 feet

22. Approximate date work will start*
12/13/2018

23. Estimated duration
20 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.

2. A Drilling Plan.

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).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).

5. Operator certification.

6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature
(Electronic Submission)

Name (Printed/Typed)
Robyn Odom / Ph: (432)685-4385

Date
11/29/2017

Title

Regulatory Analyst

Approved by (Signature)
(Electronic Submission)

Name (Printed/Typed)
Cody Layton / Ph: (575)234-5959

Date
10/16/2018

Title

Assistant Field Manager Lands & Minerals

Office
CARLSBAD

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.

OCD Rec 11/07/18

11/07/18

APPROVED WITH CONDITIONS
Approval Date: 10/16/2018

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM connects this information to an evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

1. SHL: SWNE / 2300 FNL / 1090 FEL / TWSP: 17S / RANGE: 32E / SECTION: 5 / LAT: 32.8646097 / LONG: -103.7836195 (TVD: 0 feet, MD: 0 feet)
PPP: NESE / 2540 FSL / 990 FEL / TWSP: 17S / RANGE: 32E / SECTION: 5 / LAT: 32.863406 / LONG: -103.783347 (TVD: 5711 feet, MD: 5900 feet)
BHL: SESE / 10 FSL / 990 FEL / TWSP: 17S / RANGE: 32E / SECTION: 8 / LAT: 32.8419404 / LONG: -103.783271 (TVD: 5801 feet, MD: 13769 feet)

BLM Point of Contact

Name: Priscilla Perez

Title: Legal Instruments Examiner

Phone: 5752345934

Email: pperez@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.



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

Operator Certification Data Report

10/17/2018

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: 11/29/2017

Title: Regulatory Analyst

Street Address: 600 W Illinois Ave

City: Midland

State: TX

Zip: 79701

Phone: (432)685-4385

Email address: rododom@concho.com

Field Representative

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:



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

Application Data Report

10/17/2018

APD ID: 10400012702

Submission Date: 11/29/2017

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

Well Type: OIL WELL

Well Work Type: Drill



[Show Final Text](#)

Section 1 - General

APD ID: 10400012702

Tie to previous NOS?

Submission Date: 11/29/2017

BLM Office: CARLSBAD

User: Robyn Odom

Title: Regulatory Analyst

Federal/Indian APD: FED

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

Lease number: NMLC0029406B

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

Master 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: 17H

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? USEABLE WATER

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

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:

Number: 7

ZEPP0 5 FEDERAL COM

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: 1.4 Miles

Distance to nearest well: 103 FT

Distance to lease line: 10 FT

Reservoir well spacing assigned across Measurement: 240 Acres

Well plat: Zeppo_5_Federal_Com_17H_C102_20180730131143.pdf

Well work start Date: 12/13/2018

Duration: 20 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 | 220 | FEL | 110 | FEL | 17S | 32E | 5 | Aliquot SWNE | 32°55'00" | -104°57'33" | LEA | NEW MEXI CO | NEW MEXI CO | F | NMLC0 029406 B | 4411 | 0 | 0 |
| KOP Leg #1 | 220 | FEL | 110 | FEL | 17S | 32E | 5 | Aliquot SWNE | 32°55'00" | -104°57'33" | LEA | NEW MEXI CO | NEW MEXI CO | F | NMLC0 029406 B | 4411 | 110 | 110 |
| PPP Leg #1 | 220 | FEL | 110 | FEL | 17S | 32E | 5 | Aliquot NESE | 32°55'00" | -104°57'33" | LEA | NEW MEXI CO | NEW MEXI CO | F | NMLC0 029406 B | 4411 | 0 | 0 |

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

| | 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 | 100 | FSL | 990 | FEL | 17S | 32E | 8 | Aliquot SESE | 32.81191 04 | 103.7832 71 | LEA | NEW MEXI CO | NEW MEXI CO | F | NMLC0 064149 | 163 7 | 137 03 | 530 1 |
| BHL Leg #1 | 10 | FSL | 990 | FEL | 17S | 32E | 8 | Aliquot SESE | 32.81191 04 | 103.7832 71 | LEA | NEW MEXI CO | NEW MEXI CO | F | NMLC0 064149 | 163 7 | 137 03 | 530 1 |

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

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_20171019085445.pdf

BOP Diagram Attachment:

2M_ANNULAR_BOP_20171019085453.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 | 8.4 | 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 | 5226 | 0 | 5206 | | | 5226 | L-80 | 29 | LTC | 3.17 | 1.33 | DRY | 3.77 | DRY | 4.27 |
| 4 | PRODUCTION | 8.75 | 5.5 | NEW | API | N | 5226 | 13769 | 5206 | 5801 | | | 8543 | L-80 | 17 | LTC | 2.29 | 1.26 | DRY | 7.99 | DRY | 7.99 |

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Attachement_20171129095835.pdf

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Attachement_20171129095910.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Attachement_20171129095952.pdf

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Attachement_20171129125302.pdf

Section 4 - Cement

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

| 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 | 92 | Class C | 4%Gel+2% CaCl2+0.25pps CF |
| SURFACE | Tail | | | | 200 | 1.32 | 14.8 | 264 | | Class C | 2% CaCl2+0.25pps CF |
| INTERMEDIATE | Lead | | 0 | 2220 | 425 | 2.45 | 11.8 | 1041.25 | 136 | 50:50:10 C:Poz:Gel | 5%Salt+5pps LCM+0.25pps CF |
| INTERMEDIATE | Tail | | | | 200 | 1.32 | 14.8 | 264 | | Class C | 2% CaCl2 |
| PRODUCTION | Lead | | 0 | 5226 | 400 | 2.01 | 12.5 | 802 | 121 | 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 | | | | 400 | 1.37 | 14 | 802 | | 50:50:2 C:Poz:Gel | 5%salt+3pps LCM+0.6%SMS+1%FL-25+1%Ba-58+0.125pps |
| PRODUCTION | Lead | | 5226 | 15750 | 0 | 0 | 0 | 0 | | Isolation Packers | See Attached Production Cement Breakdown. |

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

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

| 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 | 920 | WATER-BASED MUD | 8.6 | 8.8 | | | | | | | |
| 5226 | 13769 | WATER-BASED MUD | 8.5 | 9.2 | | | | | | | |
| 0 | 5226 | 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: 2291

Anticipated Surface Pressure: 1014.73

Anticipated Bottom Hole Temperature(F): 108

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_20171019085530.pdf

Zeppo_5_Federal_Com_17H_H2S_Schematic_20171129125730.pdf

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Zeppo_5_Federal_Com_17H__Plan_1_07_25_18_20180730132326.pdf

Zeppo_5_Federal_Com_17H__Plan_1_07_25_18_AC_Report_20180730132340.pdf

Other proposed operations facets description:

7" to be run from surface to kickoff point and changed over to 5 ½" with DV Tool and ECP at kickoff point. 5 ½" casing will be run from kickoff point to TD and isolation packers set throughout curve and lateral. 7" to be cemented from kickoff point to surface.

Other proposed operations facets attachment:

Closed_Loop_Schematic_20171019085540.pdf

Zeppo_5_Federal_Com_17H_Contingent_Multi_Stage_Cmt_Plan_20171129125855.pdf

Zeppo_5_Federal_Com_17H_Production_Cement_Breakdown_20171129130054.pdf

Zeppo_5_Federal_Com_17H_GCP_20180730132356.pdf

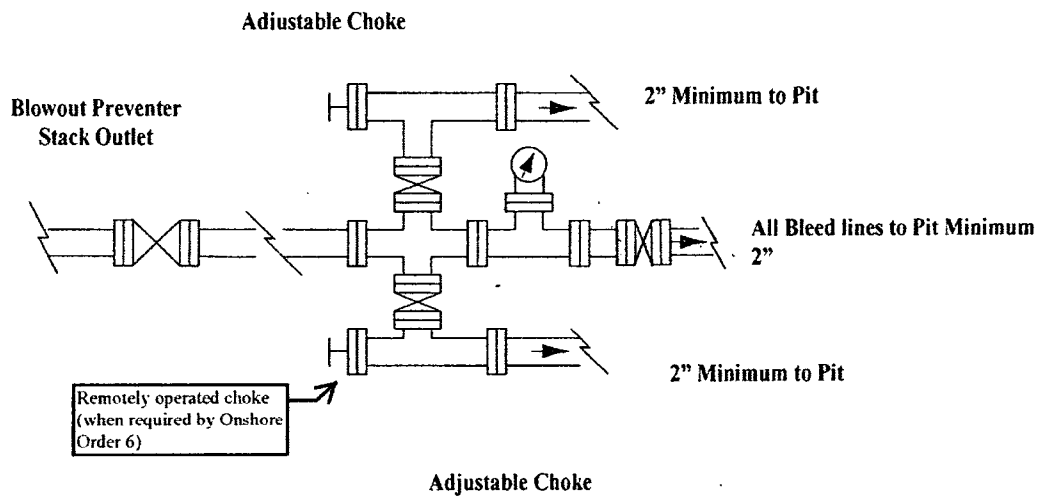
Other Variance attachment:

COG Operating LLC

Exhibit #9

Choke Schematic

Choke Manifold Requirement (2000 psi WP)

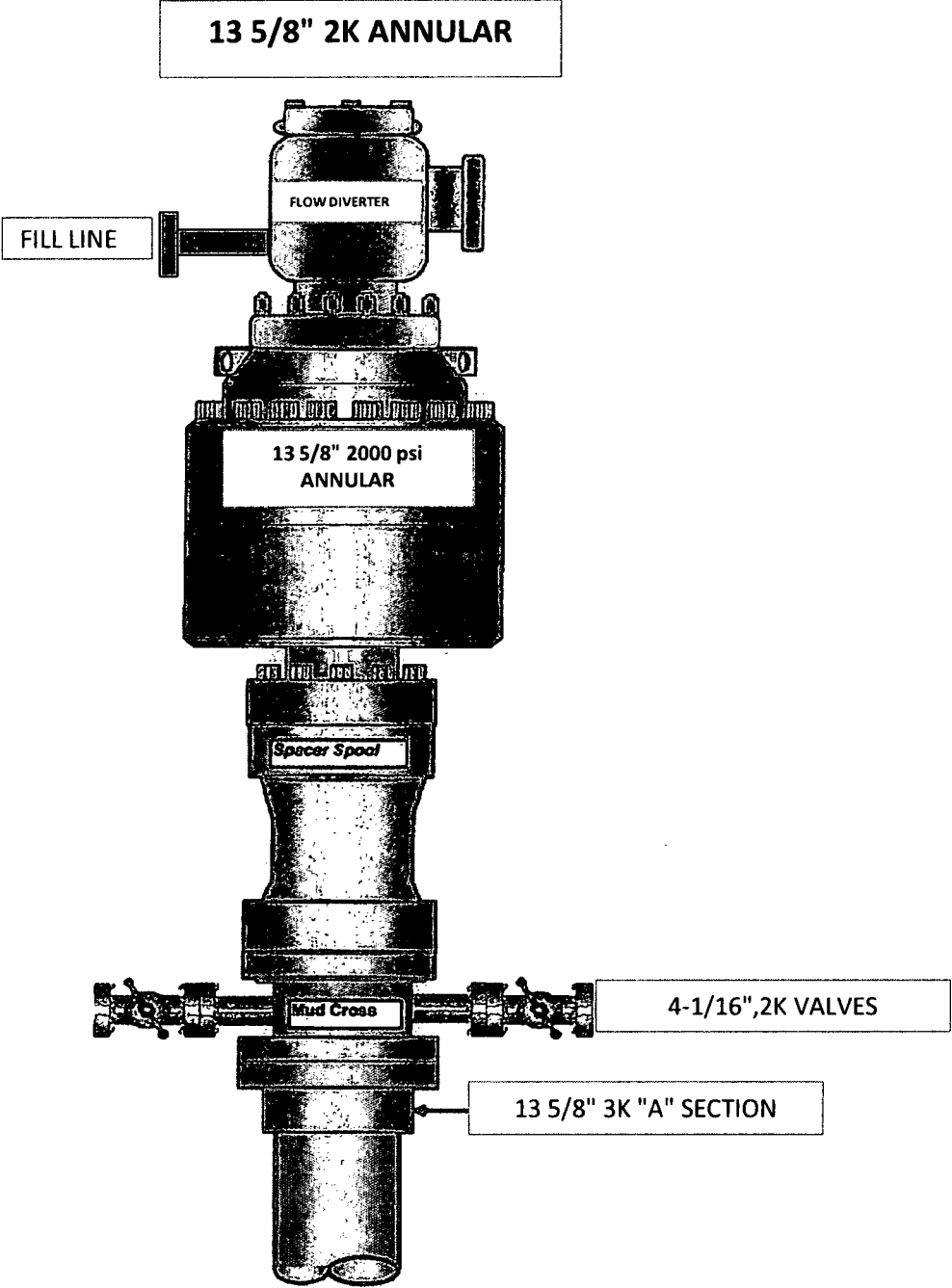


NOTES REGARDING THE BLOWOUT PREVENTERS

Master Drilling Plan Eddy County, New Mexico

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 2000 psi WP minimum.
4. All fittings to be flanged.
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi WP minimum.
6. All choke and fill lines to be securely anchored especially ends of choke lines.
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
8. Kelly cock on Kelly.
9. Extension wrenches and hands wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.
11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.

Exhibit #10



Casing Program

| | Collapse SF | Burst SF | Tension SF |
|---------------------------|-------------|----------|--------------------|
| BLM Minimum Safety Factor | 1.125 | 1 | 1.6 Dry 1.8 Wet |

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Assumed 9.0ppg MW equivalent pore pressure from 9 5/8" shoe to deepest TVD in wellbore.

BLM standard formulas were used on all SF calculations.

Casing design does meet and/or exceed BLM's minimum standards.

The pipe will be kept at a minimum 1/3 fluid fill to avoid approaching the collapse pressure rating of the casing.

This well is not located within the Capitan Reef.

This well is not located in the SOPA or in the R-111-P.

This well is not located in a high or critical Cave/Karst area.

This is not a walking operation.

We will not be pre-setting casing.

All completion intervals are planned to be fracture stimulated.

Casing Program

| | Collapse SF | Burst SF | Tension SF |
|---------------------------|-------------|----------|--------------------|
| BLM Minimum Safety Factor | 1.125 | 1 | 1.6 Dry 1.8 Wet |

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

SUPO Data Report

10/17/2018

APD ID: 10400012702

Submission Date: 11/29/2017

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Type: OIL WELL

Well Number: 17H

Well Work Type: Drill

Highlighted data
reflects the most
recent changes

[Show Final Text](#)

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Zeppo_5_Federal_Com_17H_Vicinity_plat_20180730132430.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_17H_New_Road_plat_20180730132445.pdf

New road type: RESOURCE

Length: 29.76

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: 30

New road access direction 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_20171019085620.pdf

Access road drainage direction? NO

Operator Name: COG OPERATING LLC

Well Name: ZEPPU 5 FEDERAL COM

Well Number: 17H

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: BOTH

Access surfacing type description: Gravel

Access on-site topsoil source depth: 0

On-site topsoil source description: Grading material will consist of native soils. Gravel will be obtained from the adjacent well site if available. Secondary candidate sources will be a Federal owned Catcher Pit located in the NWNW of Sec 35, T19S, R25E.

On-site 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 sweeping: 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_17H_New_Road_plat_20180730132445.pdf

New road type: RESOURCE

Length: 355.42 Feet Width (ft): 30

Max slope (%): 3 Max grade (%): 1

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road gravel 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.

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

New road access plan or profile prepared? YES

New road access plan attachment:

New_Access_Road_Plan_20171019085620.pdf

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: ON SITE

Access surfacing type description: Gravel

Access on-site topsoil source description:

Off-site topsoil source description:

On-site 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: N/A

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_17H_New_Road_plat_20180730132445.pdf

New road type:

Length:

Width (ft):

Max slope (%):

Max grade (%):

Army Corps of Engineers (ACOE) permit required?

ACOE Permit Number(s):

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

New road travel width:

New road access single turnout:

New road access plan or profile prepared?

New road access plan attachment:

New_Access_Road_Plan_20171019085620.pdf

Access road engineering design?

Access road engineering design attachment:

Access surfacing type:

Access topsoil source:

Access surfacing type description:

Access on-site 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_17H_1mileRadius_Map_20180801112547.pdf

Existing Wells description:

Operator Name: COG OPERATING LLC

Well Name: ZEPPPO 5 FEDERAL COM

Well Number: 17H

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: If the well is productive, contemplated facilities will be as follows: Two (2) proposed flowlines, will follow an archaeologically approved route to the Zeppo 5 Fed Com #15H Federal Tank Battery located in Section 5 in T17S R32E. The flowlines will be SDR 7 3" poly line laid on the surface and will be approximately 2657 feet in length. Normal working pressure of the flowlines will be below 70 psi and carry a mixture of produced oil, water, and gas. Flowlines will follow existing well-traveled or proposed roads. The tank battery and facilities including all flow lines and piping will be installed according to API specifications.

Production Facilities map:

Zeppo_5_Federal_Com_17H_Flowlines_Map_20180730132518.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_20171019085836.pdf

Loco_Hills_Water_Disposal_Co_Water_Supply_20171019085844.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 private wells location described on the attached "Loco Hills Water Disposal Co" map attached to this APD. James R. Maloney, 575-677-2118. A secondary water source will be from 1 and/or all of the 3 private wells location depicted on the attached "Caswell Ranch Water Supply" Map. No water well will be drilled on the location.

New water well? NO

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

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:

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 NMSLO Caliche Pit located in S2/SW4 of Sec 32, T16S, R30E. A third candidate source will be Caswell Ranch owned Caliche Pit located in NESE of Sec 9, T17S, R32E.

Construction Materials source location attachment:

Construction_Turn_Over_Procedure_20171019085905.pdf

Caswell_Ranch_Caliche_Pit_20171019090554.pdf

NMSLO_Caliche_Pit_20171019090604.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: Dteel 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.

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

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

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

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 pounds

Waste disposal frequency : Daily

Safe containment description: Closed Loop System

Safe containmant attachment:

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

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

Operator Name: COG OPERATING LLC

Well Name: ZEPPO 5 FEDERAL COM

Well Number: 17H

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

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_17H_Well_Site_plat_20180730132648.pdf

Zeppo_5_Federal_Com_17H_Interim_Reclamation_plat_20180730132654.pdf

Comments:

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: ZEPP0 5 FEDERAL COM

Multiple Well Pad Number: 7

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): 2.36

Wellpad short term disturbance (acres): 3.27

Access road long term disturbance (acres): 0.24

Access road short term disturbance (acres): 0.24

Pipeline long term disturbance (acres): 1.1260331

Pipeline short term disturbance (acres): 1.1260331

Other long term disturbance (acres): 0

Other short term disturbance (acres): 0

Total long term disturbance: 3.726033

Total short term disturbance: 4.636033

Disturbance Comments:

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:

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

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 |
|-----------|-------------|
|-----------|-------------|

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:

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

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:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Operator Name: COG OPERATING LLC

Well Name: ZEPP0 5 FEDERAL COM

Well Number: 17H

Fee Owner: OLANE CASWELL

Phone: (806)637-7004

Surface use plan certification: YES

Surface use plan certification document:

Zeppo_5_Federal_Com_17H_Surface_Use_Plan_Certification_20171129130459.pdf

Fee Owner Address: 1702 GILLHAM RD., 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: 17H

Fee Owner: OLANE CASWELL

Phone: (806)637-7004

Surface use plan certification: YES

Surface use plan certification document:

Zeppo_5_Federal_Com_17H_Surface_Use_Plan_Certification_20171129130631.pdf

Fee Owner Address: 1702 GILLHAM RD., 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: 17H

Fee Owner: OLANE CASWELL

Phone: (806)637-7004

Surface use plan certification: YES

Surface use plan certification document:

Zeppo_5_Federal_Com_17H_Surface_Use_Plan_Certification_20171129130638.pdf

Fee Owner Address: 1702 GILLHAM RD., 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; therefor 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: Onsite performed on 01/17/2018 by Will DeGush (PLM), Tim Baker (COG), Bryan Chavez (RSC).

Other SUPO Attachment



November 17, 2017

Bureau of Land Management
620 E. Greene St.
Carlsbad, NM 8820

RE: **Zeppo 5 Federal Com #17H**
SL: 2490' FNL & 1375' FEL
Section 5, T17S, R32E, Unit G

To Whom It May Concern:

COG Operating LLC has a Private Surface Owner Agreement with Olane Caswell whose address is 1702 Gillham Rd., Brownfield, TX 79316, for the Zeppo 5 Federal Com 17H well pad, pipelines and access road in Unit P of Section 5, T17S, R32E, Lea County, New Mexico.

Sincerely,

A handwritten signature in black ink, appearing to read "Robyn M. Russell".

Robyn M. Russell
Regulatory Analyst
COG Operating LLC
Ph: (432) 685-4385
Email: Russell@concho.com



November 17, 2017

Bureau of Land Management
620 E. Greene St.
Carlsbad, NM 8820

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Regulatory Analyst
COG Operating LLC
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Robyn M. Russell
Regulatory Analyst
COG Operating LLC
Ph: (432) 685-4385
Email: Russell@concho.com



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

PWD Data Report

10/17/2018

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:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

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

10/17/2018

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:



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

Drilling Plan Data Report

10/17/2018

APD ID: 10400012702

Submission Date: 11/29/2017

Operator Name: COG OPERATING LLC

Well Name: ZEPO 5 FEDERAL COM

Well Number: 17H

Well Type: OIL WELL

Well Work Type: Drill



[Show Final Text](#)

Section 1 - Geologic Formations

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