

HOBBS OCD

SEP 25 2017

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

| | | | |
|--|---|--|-----------------|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 5. Lease Serial No. NMNM119280 | |
| 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 | | 7. If Unit or CA Agreement, Name and No. | |
| 3a. Address 600 West Illinois Ave Midland TX 79701 | | 8. Lease Name and Well No. 319617 SQUARE BILL FEDERAL COM 21H | |
| 3b. Phone No. (include area code) (432)683-7443 | | 9. API Well No. 30-025-44041 | |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SESE / 210 FSL / 924 FEL / LAT 32.080203 / LONG -103.401029 At proposed prod. zone NESE / 2440 FSL / 330 FEL / LAT 32.100832 / LONG -103.399138 | | 10. Field and Pool, or Exploratory WILDCAT / WOLFCAMP 17980 11. Sec., T. R. M. or Blk. and Survey or Area SEC 31 / T25S / R35E / NMP | |
| 14. Distance in miles and direction from nearest town or post office* 11 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) 210 feet | 16. No. of acres in lease 880.32 | 17. Spacing Unit dedicated to this well 240 | |
| 18. Distance from proposed location* to nearest well, drilling, completed, 3665 feet applied for, on this lease, ft. | 19. Proposed Depth 12630 feet / 19907 feet | 20. BLM/BIA Bond No. on file FED: NMB000215 | |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3274 feet | 22. Approximate date work will start* 09/01/2017 | 23. Estimated duration 30 days | |

24. Attachments

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) Mayte Reyes / Ph: (575)748-6945 | Date 04/05/2017 |
| Title Regulatory Analyst | | |
| Approved by (Signature) (Electronic Submission) | Name (Printed/Typed) Cody Layton / Ph: (575)234-5959 | Date 09/14/2017 |
| Title Supervisor Multiple Resources 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.

(Continued on page 2)

*(Instructions on page 2)

APPROVED WITH CONDITIONS

Ke
09/25/17



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

Operator Certification Data Report

09/18/2017

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: Mayte Reyes

Signed on: 03/16/2017

Title: Regulatory Analyst

Street Address: 2208 W Main Street

City: Artesia

State: NM

Zip: 88210

Phone: (575)748-6945

Email address: Mreyes1@concho.com

Field Representative

Representative Name: Rand French

Street Address: 2208 West Main Street

City: Artesia

State: NM

Zip: 88210

Phone: (575)748-6940

Email address: rfrench@concho.com



APD ID: 10400012396

Submission Date: 04/05/2017

Highlighted data reflects the most recent changes

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400012396

Tie to previous NOS?

Submission Date: 04/05/2017

BLM Office: CARLSBAD

User: Mayte Reyes

Title: Regulatory Analyst

Federal/Indian APD: FED

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

Lease number: NMNM119280

Lease Acres: 880.32

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

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: SQUARE BILL FEDERAL COM

Well Number: 21H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: WILDCAT

Pool Name: WOLFCAMP

Is the proposed well in an area containing other mineral resources? USEABLE WATER,OIL

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

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: SINGLE WELL

Multiple Well Pad Name:

Number:

Well Class: HORIZONTAL

Number of Legs:

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 11 Miles

Distance to nearest well: 3665 FT

Distance to lease line: 210 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: COG_Square_Bill_21H_C102_03-15-2017.pdf

Well work start Date: 09/01/2017

Duration: 30 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 | 210 | FSL | 924 | FEL | 25S | 35E | 31 | Aliquot SESE 3 | 32.08020 | -103.401029 | LEA | NEW MEXI CO | NEW MEXI CO | F | NMNM 119280 | 327 4 | 0 | 0 |
| KOP Leg #1 | 210 | FSL | 924 | FEL | 25S | 35E | 31 | Aliquot SESE 3 | 32.08020 | -103.401029 | LEA | NEW MEXI CO | NEW MEXI CO | F | NMNM 119280 | 327 4 | 0 | 0 |
| PPP Leg #1 | 330 | FSL | 330 | FEL | 25S | 35E | 31 | Aliquot SESE 1 | 32.08053 | -103.399111 | LEA | NEW MEXI CO | NEW MEXI CO | F | NMNM 119280 | -897 7 | 122 51 | 122 51 |

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

| | 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 |
|-------------------|----------|--------------|---------|--------------|------|-------|---------|----------------------|---------------|---------------------|--------|-------------------|-------------------|------------|----------------|---------------|-----------|-----------|
| PPP Leg #1 | 264 0 | FNL | 330 | FEL | 25S | 35E | 31 | Aliquot SENE 1 | 32.08690 1 | - 103.3991 2 | LEA | NEW MEXI CO | NEW MEXI CO | F | NMNM 132954 | - 941 1 | 173 00 | 126 85 |
| EXIT Leg #1 | 231 0 | FSL | 330 | FEL | 25S | 35E | 30 | Aliquot NESE 4 | 32.10047 4 | - 103.3991 38 | LEA | NEW MEXI CO | NEW MEXI CO | F | NMNM 119280 | - 935 5 | 198 00 | 126 29 |
| BHL Leg #1 | 244 0 | FSL | 330 | FEL | 25S | 35E | 30 | Aliquot NESE 2 | 32.10083 2 | - 103.3991 38 | LEA | NEW MEXI CO | NEW MEXI CO | F | NMNM 119280 | - 935 6 | 199 07 | 126 30 |

APD ID: 10400012396

Submission Date: 04/05/2017

Highlighted data
reflects the most
recent changes

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

[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 |
|--------------|-----------------|-----------|---------------------|----------------|-------------|-------------------|---------------------|
| 17318 | UNKNOWN | 3324 | 0 | 0 | | NONE | No |
| 17348 | RUSTLER | 2181 | 1143 | 1143 | | NONE | No |
| 17349 | TOP OF SALT | 1806 | 1518 | 1518 | SALT | NONE | No |
| 17350 | BASE OF SALT | -1827 | 5151 | 5151 | ANHYDRITE | NONE | No |
| 17360 | LAMAR LS | -2038 | 5362 | 5362 | LIMESTONE | NATURAL GAS,OIL | No |
| 17345 | BELL CANYON | -2073 | 5397 | 5397 | | NONE | No |
| 17339 | CHERRY CANYON | -3058 | 6382 | 6382 | | NATURAL GAS,OIL | No |
| 18596 | BRUSHY CANYON | -4624 | 7948 | 7948 | | NATURAL GAS,OIL | No |
| 17316 | BONE SPRING | -5916 | 9240 | 9240 | SANDSTONE | NATURAL GAS,OIL | No |
| 18620 | AVALON | -5969 | 9293 | 9293 | | NATURAL GAS,OIL | No |
| 18620 | AVALON | -6245 | 9569 | 9569 | | NATURAL GAS,OIL | No |
| 17359 | BONE SPRING 1ST | -7061 | 10385 | 10385 | | NATURAL GAS,OIL | No |
| 17364 | BONE SPRING 2ND | -7601 | 10925 | 10925 | | NATURAL GAS,OIL | No |
| 17366 | BONE SPRING 3RD | -8731 | 12055 | 12055 | | NATURAL GAS,OIL | No |
| 17333 | WOLFCAMP | -9161 | 12485 | 12485 | SHALE | NATURAL GAS,OIL | Yes |

Section 2 - Blowout Prevention

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

Pressure Rating (PSI): 3M

Rating Depth: 12080

Equipment: Annular. Accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to the choke manifold. See attached for specs and hydrostatic test chart.

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

Choke Diagram Attachment:

COG_Square_Bill_21H_3M_Choke_03-15-2017.pdf

BOP Diagram Attachment:

COG_Square_Bill_21H_3M_BOP_03-15-2017.pdf

Pressure Rating (PSI): 5M

Rating Depth: 12700

Equipment: Annular, Blind Ram, Pipe Ram. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to the choke manifold. See attached for specs and hydrostatic test chart.

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

Choke Diagram Attachment:

COG_Square_Bill_21H_5M_Choke_03-15-2017.pdf

BOP Diagram Attachment:

COG_Square_Bill_21H_5M_BOP_03-15-2017.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 |
|-----------|-------------|-----------|----------|-----------|----------|----------------|------------|---------------|-------------|----------------|-------------|----------------|-----------------------------|-------|--------|------------|-------------|----------|---------------|----------|--------------|---------|

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

| 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 | 13.5 | 10.75 | NEW | API | N | 0 | 1170 | 0 | 1170 | -9411 | -10581 | 1170 | N-80 | 45.5 | OTHER - BTC | 4.61 | 1.17 | DRY | 19.54 | DRY | 19.54 |
| 2 | INTERMEDIATE | 9.875 | 7.875 | NEW | API | N | 0 | 12080 | 0 | 12080 | -9411 | -21491 | 12080 | P-110 | 29.7 | OTHER - BTC | 1.26 | 1.15 | DRY | 3.03 | DRY | 3.03 |
| 3 | PRODUCTION | 6.75 | 5.0 | NEW | API | N | 0 | 19907 | 0 | 19907 | -9411 | -29318 | 19907 | P-110 | 18 | OTHER - BTC | 2 | 2.11 | DRY | 3.19 | DRY | 3.19 |

Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Square_Bill_21H_Casing_Prog_03-15-2017.pdf

Casing ID: 2 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Square_Bill_21H_Casing_Prog_03-15-2017.pdf

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

Casing Attachments

Casing ID: 3 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Square_Bill_21H_Casing_Prog_03-15-2017.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 | 1170 | 180 | 1.75 | 13.5 | 315 | 50 | Class C | 4% Gel + 1% CaCl2 |
| SURFACE | Tail | | 0 | 1170 | 250 | 1.34 | 14.8 | 335 | 50 | Class C | 2% CaCl2 |
| INTERMEDIATE | Lead | | 0 | 1208 0 | 990 | 3.6 | 10.3 | 3564 | 50 | Tuned Light Blend | As needed |
| INTERMEDIATE | Tail | | 0 | 1208 0 | 250 | 1.08 | 16.4 | 270 | 50 | Class H | As needed |
| PRODUCTION | Lead | | 0 | 1990 7 | 130 | 2.5 | 11.9 | 325 | 35 | 50:50:10 H Blend | As needed |
| PRODUCTION | Tail | | 0 | 1990 8 | 940 | 1.24 | 14.4 | 1165 | 35 | 50:50:2 Class H Blend | As needed |

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

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 |
|-----------|--------------|----------------------------------|----------------------|----------------------|---------------------|-----------------------------|----|----------------|----------------|-----------------|----------------------------|
| 1208 0 | 1990 7 | OIL-BASED MUD | 9.6 | 11 | | | | | | | |
| 0 | 1170 | OTHER : FW Gel | 8.6 | 8.8 | | | | | | | FW Gel |
| 1170 | 1208 0 | OTHER : Diesel Brine Emulsion | 8.4 | 9 | | | | | | | Diesel Brine Emulsion |

Section 6 - Test, Logging, Coring

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

None planned

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

CNL,GR

Coring operation description for the well:

None planned

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7265

Anticipated Surface Pressure: 4486.39

Anticipated Bottom Hole Temperature(F): 180

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:

COG_Square_Bill_21H_H2S_SUP_03-16-2017.pdf

COG_Square_Bill_21H_H2S_Schem_03-16-2017.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

COG_Square_Bill_21H_Direc_Plan_03-16-2017.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

COG_Square_Bill_21H_Drilling_Prog_03-16-2017.pdf

Other Variance attachment:

COG_Square_Bill_21H_Flex_Hose_03-16-2017.pdf

Casing Program

| Hole Size | Casing Interval | | Csg. Size | Weight (lbs) | Grade | Conn. | SF Collapse | SF Burst | SF Body |
|---------------------------|-----------------|--------|-----------|--------------|-------|-------|-------------|----------|--------------------|
| | From | To | | | | | | | |
| 13.5" | 0 | 1170 | 10.75" | 45.5 | N80 | BTC | 4.61 | 1.17 | 19.54 |
| 9.875" | 0 | 12080 | 7.875" | 29.7 | P110 | BTC | 1.26 | 1.15 | 3.03 |
| 6.75" | 0 | 11580 | 5.5" | 23 | P110 | BTC | 2.00 | 2.11 | 3.19 |
| 6.75" | 11580 | 19,907 | 5" | 18 | P110 | BTC | 2.00 | 2.11 | 3.19 |
| BLM Minimum Safety Factor | | | | | | | 1.125 | 1 | 1.6 Dry 1.8 Wet |

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

The 5" casing will be run back 500' into the intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

Surface Use Plan
COG Operating LLC
Square Bill Federal Com #21H
SHL: 210' FSL & 924' FEL UL P
Section 31, T25S, R35E
BHL: 2440' FSL & 330' FEL UL I
Section 30, T25S, R35E
Lea County, New Mexico

OPERATOR CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road proposed herein; that I am familiar with the conditions that presently 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 COG Operating LLC, 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. Executed this 27th day of MARCH, 2017.

Signed: Mayte Reyes

Printed Name: Mayte Reyes

Position: Regulatory Analyst

Address: 2208 W. Main Street, Artesia, NM 88210

Telephone: (575) 748-6945

E-mail: mreyes1@concho.com

Field Representative (if not above signatory): Rand French

Telephone: (575) 748-6940. E-mail: rfrench@concho.com

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

09/18/2017

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: 10400012396**Submission Date:** 04/05/2017Highlighted data
reflects the most
recent changes**Operator Name:** COG OPERATING LLC**Well Name:** SQUARE BILL FEDERAL COM**Well Number:** 21H[Show Final Text](#)**Well Type:** OIL WELL**Well Work Type:** Drill

Section 1 - Existing Roads

Will existing roads be used? NO

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES**New Road Map:**

COG_Square_Bill_21H_Maps_Plats_03-16-2017.pdf

New road type: TWO-TRACK**Length:** 10180.4 Feet**Width (ft.):** 30**Max slope (%):** 33**Max grade (%):** 1**Army Corp of Engineers (ACOE) permit required?** NO**ACOE Permit Number(s):****New road travel width:** 14**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?** NO**New road access plan attachment:****Access road engineering design?** NO**Access road engineering design attachment:****Access surfacing type:** OTHER**Access topsoil source:** ONSITE**Access surfacing type description:** Caliche

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Blading

Access other construction information: No turnouts are planned. Re-routing access road around proposed well location.

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: None necessary.

Road Drainage Control Structures (DCS) description: None needed.

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:

COG_Square_Bill_21H_1_Mile_Data_03-16-2017.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: Production will be sent to the Square Bill Central Tank Battery facility. A surface flow line of approximately 473.7' of 3" steel pipe carrying oil, gas and water under a maximum pressure of 125 psi will go to the facility at the Square Bill Central Tank Battery location. We plan to install a 4" surface polyethylene pipe transporting Gas Lift Gas from the Square Bill Central Tank Battery to the Square Bill Federal Com #21H. The surface Gas Lift Gas pipe of approximately 473.7' under a maximum pressure of 125 psi will be installed as per the flowline plat.

Production Facilities map:

COG_Square_Bill_21H_Prod_Facility_03-16-2017.pdf

COG_Square_Bill_21H_Flowline_04-05-2017.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

Water source use type: INTERMEDIATE/PRODUCTION CASING

Water source type: OTHER

Describe type: Brine water will be obtained from the Salty Dog Brine station located in Section 5. T19S. R36E.

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: COMMERCIAL

Water source transport method: TRUCKING

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 30000

Source volume (acre-feet): 3.866793

Source volume (gal): 1260000

Water source use type: STIMULATION, SURFACE CASING

Water source type: OTHER

Describe type: Fresh water will be obtained from CP-1285 Water Well located in Section 5, T26S, R36E. The water will be purchased from Dinwiddie Cattle Co LLC. PO Box 963 Capitan, NM 88354.

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: PIPELINE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 450000

Source volume (acre-feet): 58.001892

Source volume (gal): 18900000

Water source and transportation map:

COG_Square_Bill_21H_Brine_H2O_03-28-2017.pdf

COG_Square_Bill_21H_Fresh_H2O_03-28-2017.pdf

Water source comments: Fresh water will be obtained from CP-1285 Water Well located in Section 5, T26S, R36E. The water will be purchased from Dinwiddie Cattle Co LLC. PO Box 963 Capitan, NM 88354. Brine water will be obtained from the Salty Dog Brine station located in Section 5. T19S. R36E.

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:

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

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: Caliche will be obtained from the actual well site if available. If not available onsite, caliche will be obtained from Dinwiddie Cattle Company LLC caliche pit located in Section 18. T25S. R35E. Phone 575-364-2489.

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling fluids and produced oil and water during drilling and completion operations

Amount of waste: 6000 barrels

Waste disposal frequency : One Time Only

Safe containment description: All drilling waste will be stored safely and disposed of properly

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Waste type: SEWAGE

Waste content description: Human waste and gray water

Amount of waste: 250 gallons

Waste disposal frequency : Weekly

Safe containment description: Waste will be properly contained and disposed of properly at a state approved disposal facility

Safe containmant attachment:

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

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Waste type: GARBAGE

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

Amount of waste: 125 pounds

Waste disposal frequency : Weekly

Safe containment description: Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

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

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Roll off cuttings containers on tracks

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

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

COG_Square_Bill_21H_Prod_Facility_03-16-2017.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: NO NEW SURFACE DISTURBANCE

Recontouring attachment:

Drainage/Erosion control construction: If needed, immediately following pad construction approximately 200' of straw waddles will be placed on the southwest side of the west side, 400' on the south side, and 200' on the southeast side of the east side of the location to reduce sediment impacts to fragile/sensitive soils.

Drainage/Erosion control reclamation: Reclaim the north side.

Wellpad long term disturbance (acres): 3.12

Wellpad short term disturbance (acres): 3.67

Access road long term disturbance (acres): 3.27

Access road short term disturbance (acres): 3.27

Pipeline long term disturbance (acres): 0

Pipeline short term disturbance (acres): 0

Other long term disturbance (acres): 0

Other short term disturbance (acres): 0

Total long term disturbance: 6.39

Total short term disturbance: 6.94

Reconstruction method: New construction of pad.

Topsoil redistribution: North 70'

Soil treatment: None

Existing Vegetation at the well pad: Shinnery Oak/Mesquite grassland

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Shinnery Oak/Mesquite grassland

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Shinnery Oak/Mesquite grassland

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: N/A

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

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

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Rand

Last Name: French

Phone: (432)254-5556

Email: rfrench@concho.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: N/A

Weed treatment plan attachment:

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

Monitoring plan description: N/A

Monitoring plan attachment:

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

COG_Square_Bill_21H_Closed_Loop_03-16-2017.pdf

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

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:

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 21H

SUPO Additional Information:

Use a previously conducted onsite? YES

Previous Onsite information: Onsite completed on 2/1/2017 by Gerald Herrera (COG) and Jeff Robertson (BLM).

Other SUPO Attachment

COG_Square_Bill_21H_Certification_03-28-2017.pdf

COG_Square_Bill_21H_GCP_05-30-2017.pdf