

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

HOBBS OCD

SEP 26 2017

RECEIVED

17-383

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

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 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. (319617) SQUARE BILL FEDERAL COM 1H	
3b. Phone No. (include area code) (432)683-7443		9. API Well No. 30-025-44048	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SESE / 210 FSL / 957 FEL / LAT 32.080203 / LONG -103.401136 At proposed prod. zone NESE / 2440 FSL / 660 FEL / LAT 32.100834 / LONG -103.400204		10. Field and Pool, or Exploratory WILDCAT / WOLFCAMP (17980)	
14. Distance in miles and direction from nearest town or post office* 11 miles		11. Sec., T. R. M. or Blk. and Survey or Area SEC 31 / T25S / R35E / NMP	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 210 feet		12. County or Parish LEA	
16. No. of acres in lease 880.32		13. State NM	
17. Spacing Unit dedicated to this well 240		18. Distance from proposed location* to nearest well, drilling, completed, 3656 feet applied for, on this lease, ft.	
19. Proposed Depth 12345 feet / 19620 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* 08/01/2017	
		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**

Ka  
09/26/17



## 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:** 03/28/2017

**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:** mreyes1@concho.com

<b>APD ID:</b> 10400012753	<b>Submission Date:</b> 04/05/2017	<div style="background-color: yellow; padding: 2px;">Highlighted data reflects the most recent changes</div> <a href="#">Show Final Text</a>
<b>Operator Name:</b> COG OPERATING LLC		
<b>Well Name:</b> SQUARE BILL FEDERAL COM	<b>Well Number:</b> 1H	
<b>Well Type:</b> OIL WELL	<b>Well Work Type:</b> Drill	

## Section 1 - General

<b>APD ID:</b> 10400012753	<b>Tie to previous NOS?</b>	<b>Submission Date:</b> 04/05/2017
<b>BLM Office:</b> CARLSBAD	<b>User:</b> Mayte Reyes	<b>Title:</b> Regulatory Analyst
<b>Federal/Indian APD:</b> FED	<b>Is the first lease penetrated for production Federal or Indian?</b> FED	
<b>Lease number:</b> NMNM119280	<b>Lease Acres:</b> 880.32	
<b>Surface access agreement in place?</b>	<b>Allotted?</b>	<b>Reservation:</b>
<b>Agreement in place?</b> NO	<b>Federal or Indian agreement:</b>	
<b>Agreement number:</b>		
<b>Agreement name:</b>		
<b>Keep application confidential?</b> YES		
<b>Permitting Agent?</b> NO	<b>APD Operator:</b> COG OPERATING LLC	
<b>Operator letter of designation:</b>		

## Operator Info

**Operator Organization Name:** COG OPERATING LLC

**Operator Address:** 600 West Illinois Ave

**Operator PO Box:** Zip: 79701

**Operator City:** Midland      **State:** TX

**Operator Phone:** (432)683-7443

**Operator Internet Address:** RODOM@CONCHO.COM

## Section 2 - Well Information

<b>Well in Master Development Plan?</b> NO	<b>Mater Development Plan name:</b>	
<b>Well in Master SUPO?</b> NO	<b>Master SUPO name:</b>	
<b>Well in Master Drilling Plan?</b> NO	<b>Master Drilling Plan name:</b>	
<b>Well Name:</b> SQUARE BILL FEDERAL COM	<b>Well Number:</b> 1H	<b>Well API Number:</b>
<b>Field/Pool or Exploratory?</b> Field and Pool	<b>Field Name:</b> WILDCAT	<b>Pool Name:</b> WOLFCAMP
<b>Is the proposed well in an area containing other mineral resources?</b> USEABLE WATER,OIL		

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 1H

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: 3656 FT

Distance to lease line: 210 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: COG\_Square\_Bill\_1H\_C102\_03-28-2017.pdf

Well work start Date: 08/01/2017

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	957	FEL	25S	35E	31	Aliquot SESE	32.080203	-103.401136	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 119280	3274	0	0
KOP Leg #1	210	FSL	957	FEL	25S	35E	31	Aliquot SESE	32.080203	-103.401136	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 119280	3274	0	0
PPP Leg #1	330	FSL	660	FEL	25S	35E	31	Aliquot SESE	32.080532	-103.400177	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 119280	-1726	500	500

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 1H

	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	660	FEL	25S	35E	31	Aliquot SENE 1	32.08690 -	103.4001 85	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 132954	- 908 2	144 00	123 56
EXIT Leg #1	231 0	FSL	660	FEL	25S	35E	30	Aliquot NESE 7	32.10047 -	103.4002 03	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 119280	- 907 1	194 00	123 45
BHL Leg #1	244 0	FSL	660	FEL	25S	35E	30	Aliquot NESE 4	32.10083 -	103.4002 04	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 119280	- 907 1	196 20	123 45

APD ID: 10400012753

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: 1H

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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	3246	0	0		NONE	No
17348	RUSTLER	2103	1143	1143		NONE	No
17718	TOP SALT	1728	1518	1518	SALT	NONE	No
17722	BASE OF SALT	-1797	5043	5043	ANHYDRITE	NONE	No
17719	LAMAR	-2116	5362	5362	LIMESTONE	NATURAL GAS,OIL	No
15332	BELL CANYON	-2151	5397	5397		NONE	No
15316	CHERRY CANYON	-3136	6382	6382		NATURAL GAS,OIL	No
17713	BRUSHY CANYON	-4702	7948	7948		NATURAL GAS,OIL	No
17688	BONE SPRING	-5994	9240	9240	SANDSTONE	NATURAL GAS,OIL	No
19973	UPPER AVALON SHALE	-6047	9293	9293		NATURAL GAS,OIL	No
17769	AVALON SAND	-6323	9569	9569		NATURAL GAS,OIL	No
15338	BONE SPRING 1ST	-7139	10385	10385		NATURAL GAS,OIL	No
17737	BONE SPRING 2ND	-7679	10925	10925		NATURAL GAS,OIL	No
17738	BONE SPRING 3RD	-8809	12055	12055		NATURAL GAS,OIL	No
17709	WOLFCAMP	-9239	12485	12485	SHALE	NATURAL GAS,OIL	Yes

## Section 2 - Blowout Prevention

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 1H

Pressure Rating (PSI): 3M

Rating Depth: 11870

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\_1H\_3M\_Choke\_03-28-2017.pdf

BOP Diagram Attachment:

COG\_Square\_Bill\_1H\_3M\_BOP\_03-28-2017.pdf

Pressure Rating (PSI): 5M

Rating Depth: 12450

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\_1H\_5M\_Choke\_03-28-2017.pdf

BOP Diagram Attachment:

COG\_Square\_Bill\_1H\_5M\_BOP\_03-28-2017.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
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Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 1H

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	-9071	-9966	1170	N-80	45.5	OTHER - BTC	4.61	1.19	DRY	19.54	DRY	19.54
2	INTERMEDIATE	9.875	7.875	NEW	API	N	0	11870	0	11870	-9071	-20771	11870	P-110	29.7	OTHER - BTC	1.28	1.18	DRY	3.08	DRY	3.08
3	PRODUCTION	6.75	5.0	NEW	API	N	0	19620	0	19620	-9071	-31281	19620	P-110	18	OTHER - BTC	2.06	2.17	DRY	3.28	DRY	3.28

**Casing Attachments**

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG\_Square\_Bill\_1H\_Casing\_Prog\_03-28-2017.pdf

Casing ID: 2 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG\_Square\_Bill\_1H\_Casing\_Prog\_03-28-2017.pdf



Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 1H

### Casing Attachments

Casing ID: 3 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG\_Square\_Bill\_1H\_Casing\_Prog\_03-28-2017.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	1187 0	970	3.6	10.3	3492	50	Tuned Light Blend	As needed
INTERMEDIATE	Tail		0	1187 0	250	1.08	16.4	370	50	Class H	As needed
PRODUCTION	Lead		0	1962 0	110	2.5	11.9	275	35	50:50:10 H Blend	As needed
PRODUCTION	Tail		0	1962 0	950	1.24	14.4	1175	35	50:50:2 Class H Blend	As needed

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 1H

## 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
0	1170	OTHER : FW Gel	8.6	8.8							FW Gel
1170	1187 0	OTHER : Diesel Brine Emulsion	8.4	9							Diesel Brine Emulsion
1187 0	1962 0	OIL-BASED MUD	9.6	11							

## 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:** 1H

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 7065

**Anticipated Surface Pressure:** 4346.68

**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\_1H\_H2S\_Schem\_03-28-2017.pdf

COG\_Square\_Bill\_1H\_H2S\_SUP\_03-28-2017.pdf

## Section 8 - Other Information

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

COG\_Square\_Bill\_1H\_AC\_Report\_03-28-2017.pdf

COG\_Square\_Bill\_1H\_Direc\_Plan\_03-28-2017.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

COG\_Square\_Bill\_1H\_Drill\_Prog\_03-28-2017.pdf

**Other Variance attachment:**

COG\_Square\_Bill\_1H\_Flex\_Hose\_03-28-2017.pdf

APD ID: 10400012753

Submission Date: 04/05/2017

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reflects the most  
recent changes

Operator Name: COG OPERATING LLC

Well Name: SQUARE BILL FEDERAL COM

Well Number: 1H

[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\_1H\_Maps\_Plats\_03-28-2017.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:** 1H

**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\_1H\_1\_Mile\_Map\_Data\_03-28-2017.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 #1H. 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\_1H\_Prod\_Facility\_03-28-2017.pdf

COG\_Square\_Bill\_1H\_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:** 1H

**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\_1H\_Brine\_H2O\_03-28-2017.pdf

COG\_Square\_Bill\_1H\_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:** 1H

**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:** 1H

**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:** 1H

## 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\_1H\_Prod\_Facility\_03-28-2017.pdf

**Comments:**

## Section 10 - Plans for Surface Reclamation

**Type of disturbance:** NEW

**Recontouring attachment:**

**Drainage/Erosion control construction:** If needed, immediately following pad construction approximately 200' of straw wattles 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:** 1H

**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
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**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:** 1H

**Monitoring plan description:** N/A

**Monitoring plan attachment:**

**Success standards:** N/A

**Pit closure description:** N/A

**Pit closure attachment:**

COG\_Square\_Bill\_1H\_Closed\_Loop\_03-28-2017.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:** 1H

**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\_1H\_Certification\_03-28-2017.pdf

COG\_Square\_Bill\_1H\_GCP\_05-30-2017.pdf

## 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 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: