

COG OPERATING LLC Gunner 8 Federal Com 603H, 604H, 703H, 704H, 705H



## STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES OIL CONSERVATION DIVISION

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.

**CASE NO. 21066** 

## **TABLE OF CONTENTS**

- 1. Compulsory Pooling Application Checklist Case No. 21066
- 2. Compulsory Pooling Application Case No. 21066
- 3. COG Exhibit 1 Landman Affidavit
- 4. COG Attachment A C-102's for Case No. 21066
- 5. COG Attachment B Land Ownership Schematic of the Spacing Unit
- 6. COG Attachment C Well Proposal Letter with Accompanying AFEs
- 7. COG Exhibit 2 Geologist Affidavit
- 8. COG Attachment D General Location Map
- 9. COG Attachment E Subsea Structure Map
- 10. COG Attachment F Cross Section Location Map
- 11. COG Attachment G Stratigraphic Cross Section Map
- 12. COG Exhibit 3 Notice Affidavit and Notice of Publication

# COMPULSORY POOLING APPLICATION CHECKLIST

## ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS

Case: 21066	APPLICANT'S RESPONSE					
Date	February 6, 2020					
Applicant	COG Operating LLC					
Designated Operator & OGRID (affiliation if applicable)	OGRID # 229137					
Applicant's Counsel:	Michael Rodriguez					
Case Title:	Application of COG Operating LLC for Compulsory Pooling, Lea County, New Mexico					
Entries of Appearance/Intervenors:	-					
Well Family	Gunner Wells					
Formation/Pool						
Formation Name(s) or Vertical Extent:	Wolfcamp					
Primary Product (Oil or Gas):	Oil					
Pooling this vertical extent:	Wolfcamp A					
Pool Name and Pool Code:	Bobcat Draw Wolfcamp Pool (98094)					
Well Location Setback Rules:	Statewide					
Spacing Unit Size:	640 acres					
Spacing Unit						
Type (Horizontal/Vertical)	Horizontal					
Size (Acres)	640 acres					
Building Blocks:	40-acre spacing					
Orientation:	North-south					
Description: TRS/County	W/2 of Section 5 and W/2 of Section 8, Township 26 South, Range 34 East, N.M.P.M., Lea County, New Mexico					
Standard Horizontal Well Spacing Unit (Y/N), If No, describe	Yes					
Other Situations						
Depth Severance: Y/N. If yes, description	No					
Proximity Tracts: If yes, description	The completed interval for the proposed <b>Gunner 8 Fed Com 704H</b> will be within 330 feet of the line separating the W/2W/2 and the E/2W/2 of Sections 5 and 8, which allows inclusion of this acreage into a standard 640-acre, more or less, horizontal spacing unit.					
Proximity Defining Well: if yes, description	Gunner 8 Fed Com 704H (API # Pending)					
Applicant's Ownership in Each Tract	Exhibit 1, Attachment B					
Well(s)						
Name (API [if assigned]); Surface hole location; Bottom hole location; Completion target (TVD); Orientation, Completion status (standard or non-standard).	Exhibit 1, Attachment A					

Well #1	Gunner 8 Fed Com 603H (API # Pending)
Ψ CII #1	SHL: Approx. 220 FNL, 1980 FWL (Unit C); S5-T26S-34E, NMPM
	BHL: Approx. 50 FSL, 1815 FWL (Unit N); S8-T26S-34E, NMPM
	Completion Target: Wolfcamp formation (Approx. 12,645 feet TVD)
	Completion status: Standard
Well #2	Gunner 8 Fed Com 604H (API # Pending)
Ψ Cl1 π2	SHL: Approx. 250 FNL, 560 FWL (Unit D); S5-T26S-34E, NMPM
	BHL: Approx. 50 FSL, 825 FWL (Unit M); S8-T26S-34E, NMPM
	Completion Target: Wolfcamp formation (Approx. 12,645 feet TVD)
	Completion status: Standard
Well #3	Gunner 8 Fed Com 703H (API # Pending)
Well #3	SHL: Approx. 220 FNL, 2010 FWL (Unit C); S5-T26S-34E, NMPM
	BHL: Approx. 50 FSL, 2310 FWL (Unit N); S8-T26S-34E, NMPM
	Completion Target: Wolfcamp formation (Approx. 12,845 feet TVD) Completion status: Standard
Well #4	Gunner 8 Fed Com 704H (API # Pending)
Well #4	, · · · · · · · · · · · · · · · · · · ·
	SHL: Approx. 220 FNL, 1950 FWL (Unit D); S5-T26S-34E, NMPM
	BHL: Approx. 50 FSL, 1310 FWL (Unit M); S8-T26S-34E, NMPM
	Completion Target: Wolfcamp formation (Approx. 12,845 feet TVD)
VV-11 #6	Completion status: Standard
Well #5	Gunner 8 Fed Com 705H (API # Pending)
	SHL: Approx. 250 FNL, 530 FWL (Unit D); S5-T26S-34E, NMPM
	BHL: Approx. 50 FSL, 330 FWL (Unit M); S8-T26S-34E, NMPM
	Completion Target: Wolfcamp formation (Approx. 12,845 feet TVD)
II	Completion status: Standard
Horizontal Well First and Last Take Points	Exhibit 1, Attachment A
Completion Target (Formation, TVD and MD)	Exhibit 2, Attachment G
AFE Capex and Operating Costs	
Drilling Supervision/Month \$	\$8,000
Production Supervision/Month \$	\$800
Justification for Supervision Costs	Exhibit 1 (¶ 14), Attachment C
Requested Risk Charge	200%
Notice of Hearing	20076
Proposed Notice of Hearing	Exhibit 3
Proof of Mailed Notice of Hearing	Exhibit 5
(20 days before hearing)	Exhibit 3
Proof of Published Notice of	LAMOR J
Hearing (10 days before hearing)	Exhibit 3
Ownership Determination	LAMOR J
Land Ownership Schematic of the	
Spacing Unit	Exhibit 1, Attachment B
Tract List (including lease numbers	Daniole 1, I maximione D
and owners)	Exhibit 1, Attachment B
Pooled Parties (including ownership	LAMOR I, ARACIMICIE D
type)	Exhibit 1, Attachment B
Unlocatable Parties to be Pooled	N/A
Ownership Depth Severance	11/2
(including percentage above &	
below)	N/A
Joinder	LVIA
Sample Copy of Proposal Letter	Exhibit 1, Attachment C
Dample Copy of Hoposal Letter	Lamon 1, Anacimient C

List of Interest Owners (ie Exhibit A	T. Comments of the comment of the co				
of JOA)	Exhibit 1, Attachment B				
Chronology of Contact with Non-	Zamon i, ritualitati D				
Joined Working Interests	Exhibit 1 (¶ 12), Attachment C				
Overhead Rates In Proposal Letter	N/A				
Cost Estimate to Drill and Complete	Exhibit 1, Attachment C				
Cost Estimate to Equip Well	Exhibit 1, Attachment C				
Cost Estimate for Production	Daniel I, Petabline C				
Facilities	Exhibit 1, Attachment C				
Geology					
Summary (including special	PROPERTY OF THE PROPERTY OF TH				
considerations)	Exhibit 2				
Spacing Unit Schematic	Exhibit 2, Attachment D				
Gunbarrel/Lateral Trajectory	Extract 2, 1 ttucinion D				
Schematic	N/A				
Well Orientation (with rationale)	Exhibit 2				
Target Formation	Wolfcamp				
HSU Cross Section	Exhibit 2, Attachments F and G				
Depth Severance Discussion	N/A				
Forms, Figures and Tables					
C-102	Exhibit 1, Attachment A				
Tracts	Exhibit 1, Attachment B				
Summary of Interests, Unit	Exhibit 1, Attachment B				
Recapitulation (Tracts)	Exhibit 1, Attachment B				
General Location Map (including	Exmort 1, Attachment B				
basin)	Exhibit 1, Attachment B				
Well Bore Location Map	Exhibit 2, Attachment D				
Structure Contour Map - Subsea	Exhibit 2, Attachment D				
Depth	Exhibit 2, Attachment E				
Cross Section Location Map	Exhibit 2, Attuchment L				
(including wells)	Exhibit 2, Attachment F				
Cross Section (including Landing	DAMOR 2, Accomment 1				
Zone)	Exhibit 2, Attachment G				
Additional Information					
CERTIFICATION: I hereby					
certify that the information					
provided in this checklist is					
complete and accurate.					
Printed Name (Attorney or Party	TO SHOULD BE A SHO				
Representative):	Michael Rodriguez				
Signed Name (Attorney or Party	(1016) ()				
Representative):	1016				
Date:	2/3/2020				

## STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.

Case No. 21066

## **APPLICATION**

COG Operating LLC ("COG") through its undersigned attorneys, hereby files this application with the Oil Conservation Division pursuant to the provisions of N.M. Stat. Ann. § 70-2-17, for an order: (1) creating a 640-acre, more or less, horizontal spacing unit comprised of the W/2 of Section 5 and W/2 of Section 8, Township 26 South, Range 34 East, N.M.P.M., Lea County, New Mexico; and (2) pooling all uncommitted interests in the Wolfcamp Formation, Bobcat Draw Wolfcamp Pool [Pool Code: 98094]. In support of its Application, COG states:

- 1. COG (OGRID No. 229137) is a working interest owner in the proposed standard horizontal spacing unit and has the right to drill a well thereon.
- 2. COG proposes to dedicate the above-referenced horizontal spacing unit for its following proposed wells, which it proposes to drill simultaneously:
  - a. Gunner 8 Fed Com 603H well which will be horizontally drilled from a surface location in the NE/4NW/4 (Unit C) of Section 5 to a bottom hole location in the SE/4SW/4 (Unit N) of Section 8;
  - b. Gunner 8 Fed Com 604H well which will be horizontally drilled from a surface location in the NW/4NW/4 (Unit D) of Section 5 to a bottom hole location in the SW/4SW/4 (Unit M) of Section 8;

- c. Gunner 8 Fed Com 703H well which will be horizontally drilled from a surface location in the NE/4NW/4 (Unit C) of Section 5 to a bottom hole location in the SE/4SW/4 (Unit N) of Section 8;
- d. Gunner 8 Fed Com 704H well which will be horizontally drilled from a surface location in the NE/4NW/4 (Unit C) of Section 5 to a bottom hole location in the SW/4SW/4 (Unit M) of Section 8; and
- e. Gunner 8 Fed Com 705H well which will be horizontally drilled from a surface location in the NW/4NW/4 (Unit D) of Section 5 to a bottom hole location in the SW/4SW/4 (Unit M) of Section 8.

The completed interval for the proposed Gunner 8 Fed Com 704H will be within 330' of the line separating the W/2W/2 and the E/2W/2 of Sections 5 and 8, which allows inclusion of this acreage into a standard 640-acre, more or less, horizontal spacing unit. The completed interval for all proposed wells will meet the 330-foot standard offset from the outer boundaries of the horizontal spacing unit, and the first and last take points will remain within the 100-foot offset as required by the Statewide horizontal rules.

- 3. Because the proposed wells will be simultaneously drilled and completed, COG requests an extension of the 120-day period to drill and complete a well provided by the standard pooling order.
- 4. COG has sought in good faith and been unable to obtain voluntary agreement for the development of these lands from all the working interest owners in the subject horizontal spacing unit.
- 5. The pooling of interests will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.

6. In order to permit COG to obtain its just and fair share of the oil and gas underlying the subject lands, all uncommitted interests in this horizontal spacing unit should be pooled, and COG Operating LLC should be designated the operator of the proposed horizontal wells and spacing unit.

WHEREFORE, COG requests that, this Application be set for hearing before an Examiner of the Oil Conservation Division on February 6, 2020, and, after notice and hearing, the Division enter its order:

- A. Creating a 640-acre, more or less, standard horizontal spacing unit in the Wolfcamp Formation comprised of the W/2 of Section 5 and the W/2 of Section 8, Township 26 South, Range 34 East, N.M.P.M., Lea County, New Mexico;
- B. Approving the initial wells in the horizontal spacing unit;
- C. Pooling all uncommitted interests in the Wolfcamp Formation underlying the horizontal spacing unit;
- D. Designating COG as the operator of the spacing unit and horizontal well to be drilled thereon;
- E. Providing an extension of the 120-day requirement to drill and complete a well;
- F. Authorizing COG to recover its costs of drilling, equipping, and completing the wells, and allocating its costs among the well's interest owners;
- G. Approving actual operating charges and costs charged for supervision while drilling and after completion, together with a provision adjusting the rates pursuant to the COPAS accounting procedure; and

H. Setting a 200% penalty for the risk assumed by COG in drilling and completing the wells against any working interest owner who does not voluntarily elect to participate in the drilling of the wells.

Respectfully submitted,

**COG OPERATING LLC** 

Ocean Munds-Dry

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Elizabeth A. Ryan

Michael Rodriguez

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505-780-8000

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Attorneys for COG Operating LLC

Application of COG Operating LLC for Compulsory Pooling, Lea County, New Mexico. Applicant in the above styled cause seeks an order (1) creating a 640-acre, more or less, horizontal spacing unit comprised of the W/2 of Section 5 and the W/2 of Section 8. Township 26 South, Range 34 East, Lea County, New Mexico; and (2) pooling all uncommitted interests in the Wolfcamp Formation. Said spacing unit shall be dedicated to the Gunner 8 Fed Com 603H and 703H with surface locations in the NE/4NW/4 (Unit C) of Section 5 and bottom hole locations in SE/4SW/4 (Unit N) of Section 8; the Gunner 8 Fed Com 704H with a surface location in the NE/4NW/4 (Unit C) of Section 5 and the bottom hole location in the SW/4SW/4 (Unit M) of Section 8; and the Gunner 8 Fed Com 604H and 705H with surface locations in the NW/4NW/4 (Unit D) of Section 5 and the SW/4SW/4 (Unit M) of Section 8. The completed interval for the proposed Gunner 8 Fed Com 704H will be within 330' of the line separating the W/2W/2 and the E/2W/2 of Sections 5 and 8, which allows inclusion of this acreage into a standard 640-acre, more or less, horizontal spacing unit. The completed interval for all proposed wells will meet the 330-foot standard offset from the outer boundaries of the horizontal spacing unit, and the first and last take points will remain within the 100-foot offset as required by the Statewide horizontal rules. Also, to be considered will be the timing of the drilling and completing of said wells, the allocation of the cost thereof, the actual operating costs and charges for supervision, the designation of COG Operating LLC as operator of the wells, and the imposition of 200% charge for risk involved in drilling and completing said wells. Said area is located approximately 18 miles west (and slightly south) of Jal, New Mexico.

## STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES OIL CONSERVATION DIVISION

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APPLICATION OF COG OPERATING LLC
FOR COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO

CASE NO. 21066

## LANDMAN AFFIDAVIT

Adam Reker, of lawful age and being first duly sworn, declares as follows:

- 1. My name is Adam Reker, and I am a Landman with COG Operating LLC ("COG").
- 2. I have previously testified before the New Mexico Oil Conservation Division ("Division") as an expert witness in petroleum land matters and my credentials as a petroleum landman have been accepted by the Division as a matter of record.
- 3. I am familiar with the application filed by COG in this case and familiar with the status of the lands in the subject area.
- 4. None of the parties proposed to be pooled in this case have indicated opposition to this proceeding, therefore I do not expect any opposition at the hearing.
- 5. COG seeks an order pooling all uncommitted interests in the Wolfcamp formation, Bobcat Draw Wolfcamp Pool [Pool Code: 98094], underlying a standard 640-acre, more or less, horizontal spacing unit comprised of the W/2 of Section 5 and W/2 of Section 8, Township 26 South, Range 34 East, N.M.P.M., Lea County, New Mexico. This horizontal spacing unit will be dedicated to the following proposed initial wells, which it proposes to drill simultaneously:

- Gunner 8 Fed Com 603H well which will be horizontally drilled from a surface location in the NE/4NW/4 (Unit C) of Section 5 to a bottom hole location in the SE/4SW/4 (Unit N) of Section 8;
- Gunner 8 Fed Com 604H well which will be horizontally drilled from a surface location in the NW/4NW/4 (Unit D) of Section 5 to a bottom hole location in the SW/4SW/4 (Unit M) of Section 8;
- Gunner 8 Fed Com 703H well which will be horizontally drilled from a surface location in the NE/4NW/4 (Unit C) of Section 5 to a bottom hole location in the SE/4SW/4 (Unit N) of Section 8;
- Gunner 8 Fed Com 704H well which will be horizontally drilled from a surface location in the NE/4NW/4 (Unit C) of Section 5 to a bottom hole location in the SW/4SW/4 (Unit M) of Section 8; and
- Gunner 8 Fed Com 705H well which will be horizontally drilled from a surface location in the NW/4NW/4 (Unit D) of Section 5 to a bottom hole location in the SW/4SW/4 (Unit M) of Section 8.
- 6. The completed interval for the proposed Gunner 8 Fed Com 704H will be within 330 feet of the line separating the W/2W/2 and the E/2W/2 of Sections 5 and 8, which allows inclusion of this acreage into a standard 640-acre, more or less, horizontal spacing unit. The completed interval for all proposed wells will comply with the Division's statewide setback requirements.
  - COG Attachment A contains draft Form C-102s for the proposed wells.
- 8. No ownership depth severances exist within this proposed spacing unit, and there are no unleased mineral interests in the subject acreage.

- 9. COG Attachment B depicts the tracts of land comprising the proposed spacing unit in this case. The proposed spacing unit includes fee and federal lands. It also identifies the interest ownership and interest type by tract. COG is seeking to pool all uncommitted interests identified in red on this attachment.
- 10. All interest owners that COG seeks to pool are locatable. COG has conducted a diligent search of all public records in Lea County, including phone directories and computer databases.
- 11. COG Attachment C contains well proposal letters and AFEs for each well provided to the working interest owners COG is seeking to pool. The costs reflected on each AFE are consistent with what other operators have incurred for drilling similar horizontal wells in the area.
- 12. In my opinion, COG has made a diligent effort to reach agreement with the non-joined parties as indicated by the following <u>Chronology of Contact</u>:
  - Proposal Letters, JOA, and Comm Agreement delivered to all relevant parties.
  - Upon receipt of my proposals, Jetstream sold its leases to Brigham and Bellomy

    (Chief).
  - November 14, November 15, November 21, and December 2 Email Communication
     with Oxy concerning their questions about completion, the JOA etc.
  - December 3 and December 16th Emailed with MRC concerning Gunner
     Development and Comm.
  - January 2, January 7, January 15, January 23, and January 29 Email negotiations of JOA with Chevron.
  - Phone call with Chevron mid-January

- January 2, January 14, January 24 Discussed proposals, JOA, and OCD Hearing with Bellomy (Chief) via email.
- January 2, January 8, and January 17 emails with Brigham concerning the proposals and JOA.
- 13. In my opinion, COG has made a good faith effort to obtain voluntary joinder of the parties it is seeking to pool. If COG reaches an agreement with any of the parties it is seeking to pool before the Division enters an order, I will inform the Division that COG is no longer seeking to pool those parties.
- 14. COG has estimated the overhead and administrative costs for drilling and producing the proposed wells at \$8,000 per month while drilling and \$800 per month while producing. These costs are consistent with what other operators are charging in this area for similar wells.
- 15. I have provided COG's legal counsel a list of names and addresses of the owners COG seeks to pool and instructed that they be notified of this hearing. Additionally, notice of this hearing was timely published in the Hobbs News-Sun, a newspaper of general circulation in Lea County, New Mexico.
- 16. COG Exhibit 1 and Attachments A through C were either prepared by me or compiled under my direction and supervision.

THIS CONCLUDES AFFIANT'S STATEMENT.

Affiant

STATE OF	Texas	
COUNTY OF_	Midland	

SUBSCRIBED and SWORN to before me this and day of January by

Adam C. Reker.



Musser Rount

My Commission Expires:

9/9/2021

DISTRICT I

State of New Mexico 1825 N. PRENCE DR., HOBBS, NM B8240 Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

DISTRICT III 1000 RIO BRAZOS RD., AZTEC. NM 87410 Phone: (505) 334-8178 Fax: (505) 834-8170 DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (805) 476-3460 Fax: (805) 478-3462

	WELL LOCATION AND	ACREAGE DEDICATION PLAT		
API Number	Pool Code	Pool Name		
30-025-	98094	Bobcat Draw; Wolfcamp		
Property Code		FEDERAL COM 603H		
OGRID No. 229137		RATING, LLC Blevation 3339.2'		

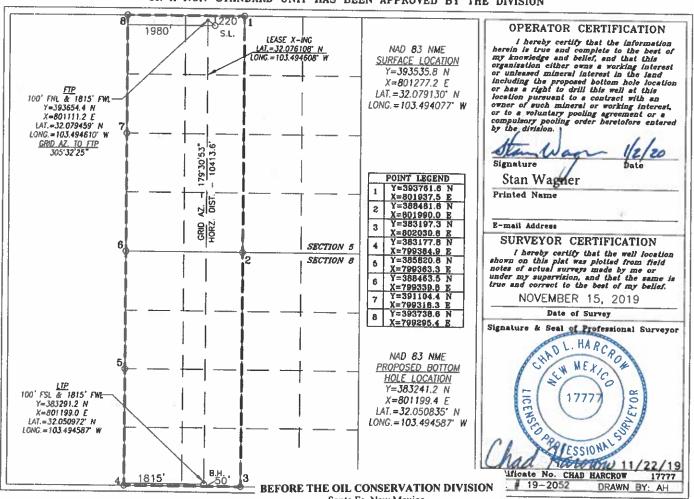
### Surface Location

UL or lot N	. Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
С	5	26-5	34-E		220	NORTH	1980	WEST	LEA

## Bottom Hole Location If Different From Surface

SOUTH	1815	WEST	LEA				
Dedicated Acres Joint or Infill Consolidation Code Order No.							

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



Santa Fe, New Mexico Case No. 21066 Attachment A Submitted by: COG OPERATING LLC Harring Date: February 6 2020

State of New Mexico DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 80240
FROM: (676) 303-6161 Fax: (676) 305-0720

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (676) 748-1283 Fax: (676) 746-9720

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-8170

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 67505 Phone: (505) 476-3460 Fax: (505) 476-3462

☐ AMENDED REPORT

_	WELL LOCATION AND ACREAGE DEDICATION PLAT	·
API Number	Pool Code Pool Na	me
Property Code	Property Name	Well Number
	GUNNER 8 FEDERAL COM	604H
OGRID No.	Operator Name COG OPERATING, LLC	Elevation 3333.4'

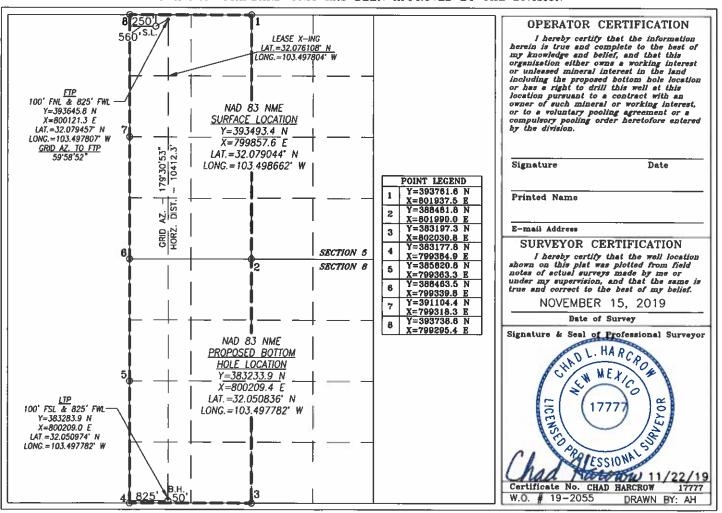
### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	5	26-S	34-E		250	NORTH	560	WEST	LEA

### Bottom Hole Location If Different From Surface

ĺ	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	М	8	26-S	34-E		50	SOUTH	825	WEST	LEA
	Dedicated Acres	Joint o	r Infill Co	nsolidation (	Code Ord	ler No-			<u> </u>	
ı										

### NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



DISTRICT I DISTRICT II 811 S. PIRST ST., ARTESIA, NM 88210 Phone: (878) 748-1883 Fax: (878) 748-9720 September 1

State of New Mexico 1825 N. FRENCH DR. HOBBS, NM 68240 Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 478-3460 Fax: (505) 478-3462

DISTRICT 111 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-8178 Fax: (506) 334-8170

☐ AMENDED REPORT

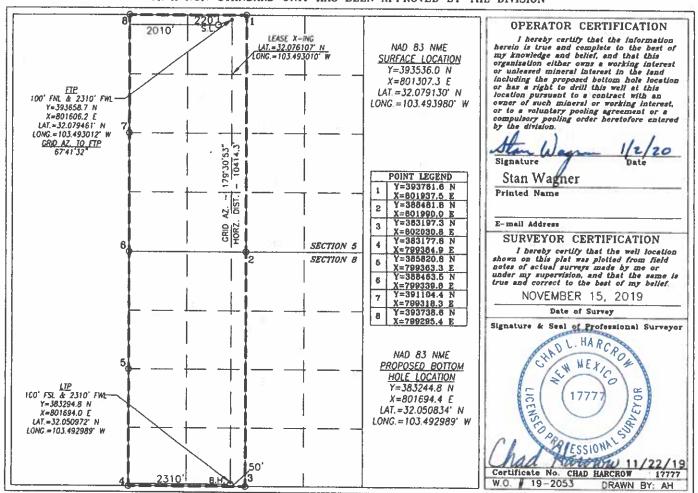
	WELL LOCATION AND	ACREAGE DEDICATION PLAT
API Number	Pool Code	Pool Name
30-025-	98094	Bobcat Draw; Upper Wolfcamp
Property Code		perty Name Well Number
	GUNNER B	FEDERAL COM 703H
OGRID No. 229137		rator Name Elevation
22713/	COG OPE	CRATING, LLC 3339.7'

### UL or lot No. Section Feet from the Township Let Idn Range North/South line Feet from the East/West line County 5 C 26-S 34-F 220 NORTH 2010 WEST LEA

Surface Location

### Bottom Hole Location If Different From Surface UL or lot No. Section Township Lot Idn Feet from the North/South line Feet from the East/West line County M 8 26-S 34 – E 50 SOUTH 2310 WEST LEA Dedicated Acres Joint or Infill Consolidation Code Order No. 640

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



DISTRICT I 1625 N. PRENCH DR., HOBBS, NM 86240 Phone: (676) 393-6181 Faz: (676) 393-0720 DISTRICT II 611 S. FIRST ST., ARTESIA, NM 88210 Phone: (576) 746-1283 Fax: (576) 748-9720

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 67410 Phone: (505) 334-5175 Fax: (505) 334-6170

Santa Fe, New Mexico 87505

□ AMENDED REPORT

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA PE, NM 67505 Phone: (505) 476-3460 Pax: (505) 476-3462

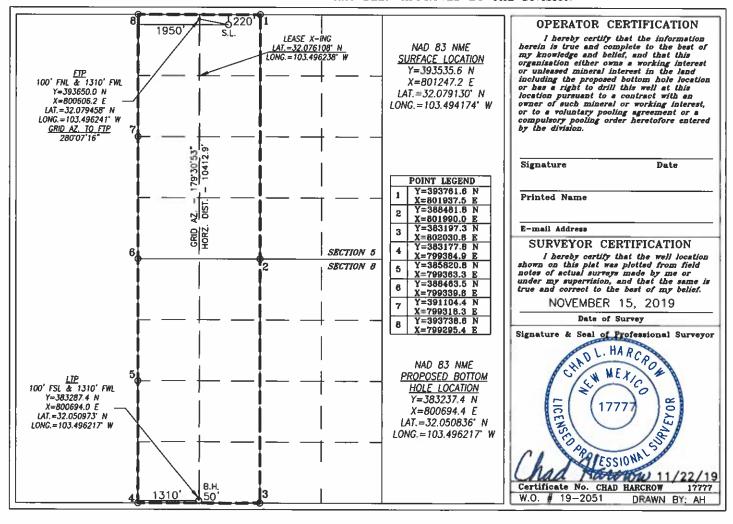
API Number	Pool Code	ACREAGE DEDICATIO	Pool Name					
Property Code	_	Derty Name FEDERAL COM	Well Numb					
OGRID No.		Operator Name COG OPERATING, LLC						
	Surfa	ce Location						

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	5	26-S	34-E		220	NORTH	1950	WEST	LEA

### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
М	8	26-S	34-E		50	SOUTH	1310	WEST	LEA
Dedicated Acre	Joint o	r Infill Co	nsolidation (	Code Or	der No.				
1									

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



DISTRICT I
1025 N. FRENCH DR., HOBBS, NM 88240
Fhone: (676) 993-6101 Fax: (676) 393-0720
DISTRICT II
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Phone: (676) 746-1283 Fax: (576) 746-9720

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505 Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 DISTRICT IV

☐ AMENDED REPORT

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 67505
Phone: (505) 476-3460 Pax: (505) 476-3462

WELL LOCATION AND ACREACE DEDICATION DIAG

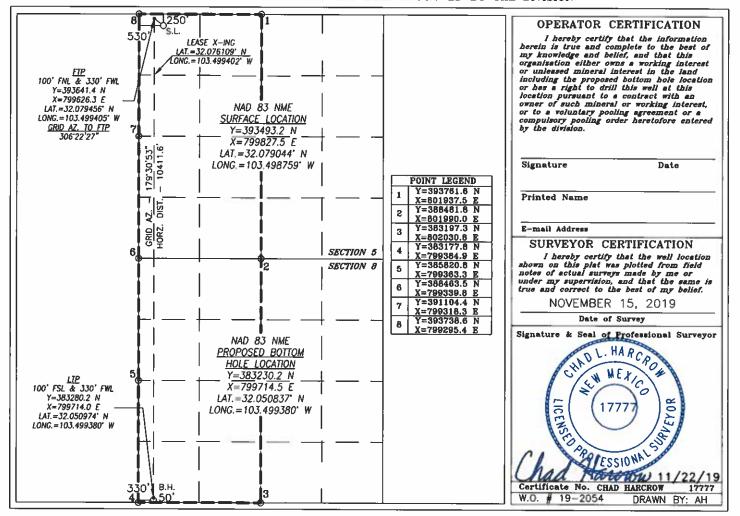
API Number	Pool Code Pool Na	me
Property Code	Property Name GUNNER 8 FEDERAL COM	Well Number 705H
OGRID No.	Operator Name COG OPERATING, LLC	Elevation 3333.0'

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	5	26-S	34-E		250	NORTH	530	WEST	LEA

### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County
М	8	26-S	34-E		50	SOUTH	330	WEST	LEA
Dedicated Acre	s Joint o	r Infill Co	nsolidation	Code Or	der No.				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

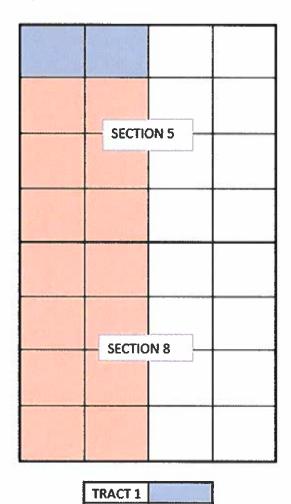


## **COG Operating, LLC—Gunner Federal Com Wells**

Township 26 South-Range 34 East, N.M.P.M.

Section 5: W/2
Section 8: W/2
Lea County, New Mexico

Limited in Depth to the Wolfcamp Formation



Tract 1 (Fee Lease #s 1 – 18) : Section 14: N/2NW/4 (80.00 Acres more or less)

(WI) COG Operating LLC	13.287035%
(WI) MRC Permian Company	36.805555%
(WI) Brigham Exploration	16.666667%
(WI) Oxy USA WTP Limited Partnership	12.291670%
(WI) Bellomy Group LLC (Chief Capital (O&G) II LLC)	10.763889%

TRACT 2

Tinfoil Federal Com Wells – Wolfcamp Pool

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 21066 Attachment B
Submitted by:
COG OPERATING LLC
Hearing Date: February 6, 2020

(WI) Marathon Oil Permian LLC 7.407407% (WI) Devon Energy Production Company LLC 2.083333% (WI) Chevron USA Inc. 0.694444% Total: 100.000000% **Participating Parties** Parties We Seek to Pool Tract 2 (Lease #19): Section 5: S/2NW/4, SW/4 Section 8: W/2 (WI) COG Operating LLC 100.000000% Total 100.000000%



BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico
Case No. 21066 Attachment C
Submitted by:

COG OPERATING LLC
Hearing Date: February 6, 2020

October 29, 2019

Via Certified Mail, Return Receipt Requested ATTN: NOJV Group CHEVRON U.S.A. INC. 6301 Deauville Blvd Midland, TX 79706

Well Proposal- Gunner 8 Federal Com #603H, #604H, #703H, #704H, #705H

W2 of Sections 5 and 8, T26S-R34E 640 Ac – Wolfcamp Formation Lea County, New Mexico

Dear Sir or Madam:

Re:

COG Operating LLC ("COG"), as Operator, hereby proposes the drilling of the following horizontal wells with productive laterals located in the W2 of Sections 5 and 8, T26S-R34E, Lea County, New Mexico (collectively, the "Operation"). The surface pad locations will be located in Units C and D of Section 5, T26S-R34E (or another legal location chosen by Operator).

- GUNNER 8 FEDERAL COM #603H, to be drilled to a depth sufficient to test the Wolfcamp formation at an approximate total vertical depth of 12,645 feet and a measured depth of 22,745 feet. The surface location for this well is proposed at approximately 220 FNL, 1980 FWL, or a legal location in Unit C of Section 5, and a bottom hole location at approximately 50 FSL, 1815 FWL, or a legal location in Unit N of Section 8. The dedicated horizontal spacing unit will be E2W2 of Sections 5 and 8, T26S-R34E, Lea County, New Mexico. The total estimated cost to drill and complete said well is \$12,384,900, as shown on the attached Authority for Expenditure ("AFE").
- GUNNER 8 FEDERAL COM #604H, to be drilled to a depth sufficient to test the Wolfcamp formation at an approximate total vertical depth of 12,645 feet and a measured depth of 22,745 feet. The surface location for this well is proposed at approximately 250 FNL, 560 FWL, or a legal location in Unit D of Section 5, and a bottom hole location at approximately 50 FSL, 825 FWL, or a legal location in Unit M of Section 8. The dedicated horizontal spacing unit will be W2W2 of Sections 5 and 8, T26S-R34E, Lea County, New Mexico. The total estimated cost to drill and complete said well is \$12,384,900, as shown on the attached AFE.
- GUNNER 8 FEDERAL COM #703H, to be drilled to a depth sufficient to test the Wolfcamp Formation at an approximate total vertical depth of 12,845 feet and a measured depth of 22,945 feet. The surface location for this well is proposed at approximately 220 FNL, 2010 FWL, or a legal location in Unit C of Section 5, and a bottom hole location at approximately 50 FSL, 2310 FWL, or a legal location in Unit N of Section 8. The dedicated horizontal spacing unit will be E2W2 of Sections 5 and 8, T26S-R34E, Lea County, New Mexico. The total estimated cost to drill and complete said well is \$12,384,900, as shown on the attached AFE.
- GUNNER 8 FEDERAL COM #704H to be drilled to a depth sufficient to test the Wolfcamp Formation at an approximate total vertical depth of 12,845 feet and a measured depth of 22,945 feet. The surface location for this well is proposed at approximately 220 FNL, 1950 FWL, or a legal location in Unit D of Section 5, and a bottom hole location at approximately 50 FSL, 1310 FWL, or a legal location in Unit M of Section 8. The dedicated horizontal spacing unit will be W2 of Sections 5 and 8, T26S-R34E, Lea County, New Mexico. The total estimated cost to drill and complete said well is \$12,384,900, as shown on the attached AFE.

• GUNNER 8 FEDERAL COM #705H, to be drilled to a depth sufficient to test the Wolfcamp Formation at an approximate total vertical depth of 12,845 feet and a measured depth of 22,945 feet. The surface location for this well is proposed at approximately 250 FNL, 530 FWL, or a legal location in Unit D of Section 5, and a bottom hole location at approximately 50 FSL, 330 FWL, or a legal location in Unit M of Section 8. The dedicated horizontal spacing unit will be W2W2 of Sections 5 and 8, T26S-R34E, Lea County, New Mexico. The total estimated cost to drill and complete said well is \$12,384,900, as shown on the attached AFE.

COG is proposing these wells under the terms of a new Operating Agreement which is included for your review and approval. It has the following general provisions:

- 100/300 Non-Consenting Penalty;
- \$8,000/\$800 Drilling and Producing Rate; and
- COG Operating LLC named as Operator.

## OFFER TO ACQUIRE WORKING INTEREST BY TERM ASSIGNMENT:

If you do not wish to participate in the Operation, COG would like to discuss the term assignment of your interest to COG under the following indicative terms:

- \$5000/acre bonus;
- 2 Year Primary Term; and
- Overriding Royalty Interest reserved unto assignor of the positive difference, if any, between existing burdens of record and 20%.

Please indicate your desire to term assign your Working Interest to COG by contacting me at the email or telephone number below. This invitation to discuss a term assignment remains open until thirty (30) days after your receipt of any pooling order obtained from the NMOCD.

In the interest of time, if we do not reach an agreement within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a horizontal spacing unit for the proposed wells.

Please indicate your participation elections in the spaces provided below, sign, and return this letter, along with a signed copy of the enclosed AFEs and a copy of your geologic requirements, to my attention at the letterhead address or by email to <a href="mailto:areker@concho.com">areker@concho.com</a>.

If you have any questions, please do not hesitate to contact me at 432-685-2515.

Sincerely,

**COG Operating LLC** 

Adam Reker, MBA, RPL

Landman

areker@concho.com

432-685-2515

	I/We hereby elect to participate in the drilling and completion of the GUNNER 8 FEDERAL COM #603H
	I/We hereby elect <u>not</u> to participate in the drilling and completion of the GUNNER 8 FEDERAL COM #603H
	I/We hereby elect to participate in the drilling and completion of the GUNNER 8 FEDERAL COM #604H
	I/We hereby elect <u>not</u> to participate in the drilling and completion of the GUNNER 8 FEDERAL COM #604H
	I/We hereby elect to participate in the drilling and completion of the GUNNER 8 FEDERAL COM #703H
	I/We hereby elect <u>not</u> to participate in the drilling and completion of the GUNNER 8 FEDERAL COM #703H
· · · · · · · · · · · · · · · · · · ·	I/We hereby elect to participate in the drilling and completion of the GUNNER 8 FEDERAL COM #704H
	I/We hereby elect <u>not</u> to participate in the drilling and completion of the GUNNER 8 FEDERAL COM #704H
	I/We hereby elect to participate in the drilling and completion of the GUNNER 8 FEDERAL COM #705H
<del> </del>	I/We hereby elect <u>not</u> to participate in the drilling and completion of the GUNNER 8 FEDERAL COM #705H
Ву:	
Name:	
Title:	
Date:	

WELL NAME:	GUNNER 8 FEDERAL COM #603H	PROSPECT NAME:	Bulldog 2634 (717038)
SHL:	Sec 5: 220 FNL & 1980 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	Sec 8: 50 FSL & 1815 FWL	OBJECTIVE:	Drill and Complete
FORMATION:	Wolfcamp	DEPTH:	22,745
LEGAL	Sec 5: 26S 34E	TVD:	12,645

INTANGIBLE COSTS Title/Curative/Permit	201	Drig - Rig Release(D) 20,000		Completion(C)		Tank Btty Constrctn(TB)		Pmpg Equipment(PEQ)	TOTAL 20,000
Insurance	202	2,500	302	The second second		We Allegate the		75000,8770yEat285	2,500
Damages/Right of Way	203	20,000	303		351	1,000		e-sent services of	21,000
Wellbore Frac Prep Survey/Stake Location	204	7,000	304	67,000	352	544 Q4D (+-535L 244 489 4)		- AUTOR STOCK OF THE OWN	7,000
Location/Pits/Road Expense	205	180,000	305	10,000	353	26,000	366		216,000
Drilling / Completion Overhead	206	12,000	306	15,000		CHARLEST A SERVE		Supplemental Services	27,000
Turnkey Contract	207			No recommendation		TO CERCENSORY OF THE		Charles Hills Williams	0
Footage Contract  Daywork Contract	208 209	979,000				TANKS CASE TANKS		\$125CNS\$P\$P\$\$\$	979,000
Directional Drilling Services	210	472,000		Manager Britisher Co.				17 (2011) 1922 - 17 (1927) 3	472,000
Frac Equipment		until 1929 under 1914 i	307	1,070,000.00		LC209469985696556		一世の中国を対しては	1,070,000
Frac Chemicals Frac Proppant		Mile State Colonial C	308	434,000.00		What the Water State Committee		A SERVICE STREET OF THE SERVICE OF T	434,000 609,000
Frac Proppart Transportation		The Martin Shading	310	347,000.00		With Control of the Control		Value Collection (Marketin)	347,000
Fuel & Power	211	202,000	311	68,000.00	354		367		270,000
Water	212	100,000	312	551,000.00		Likewite was a moder	368		651,000
Bits Mud & Chemicals	213 214	184,000 380,000	313				369 370		380,000
Drill Stem Test	215	555,555	315	550,000.00		- 医红色性性 医皮肤			550,000
Coring & Analysis	216					MARKARIANTA		TO SELECT TO SELECT THE SELECT TH	0
Cement Surface	217	27,900				The state of the s		March Street Control Street	27,900 83,700
Cement Intermediate  Cement 2nd Intermediate/Production	218 219	83,700 116,300		45(2) 543 56(4) 2(146)		TO A VIRTURAL PROPERTY.		1. 1946 2.5 mg/154/324/154	116,300
Cement Squeeze & Other (Kickoff Plug)	220	,,		1450 CONTRACTOR		- ATHRESONS LINES A	371		0
Float Equipment & Centralizers	221	70,000		THE BUILDING		CONTRACTOR TO		See Mary Carlot Carlot Control	70,000
Casing Crews & Equipment	222 223	80,000	222	me summinet e		CANCELLANCE TO STATE OF THE STA	372	STATE OF THE STATE	000,000
Fishing Tools & Service Geologic/Engineering	223		323 324		355		373		
Contract Labor	225	6,500	325	20,000.00	356	160,000	374		186,500
Company Supervision	226	72,000	326	15,000.00 295,000.00	357	3,000	375		90,000
Contract Supervision Teeting Casing/Turbing	227 228	174,000 40,000	327 328	295,000.00 5,000.00	358	Professional Commencer	376		45,000
Testing Casing/Tubing Mud Logging Unit	229	71,000	329	68,000.00		HORSE ACTIONS	3.,	VALAYAR POTSARCA	139,000
Logging	230			ALTRONOUS AND		<b>新发生的数据</b>	378		0
Perforating/Wireline Services	231	10,000	331	404,000		THE WAS DESCRIBED AN	379 380		414,000
Stimulation/Treating Completion Unit		J. State State Control	332 333			The second district and the second	381		
Swabbing Unit		G. Dale Conservation by	334			PARTER AND INCOME	382		0
Rentals-Surface	235	240,000	335		359		383		240,000
Rentals-Subsurface	236	160,000	336	20,000	360	- North Printers and	384 385		285,000
Trucking/Forklift/Rig Mobilization Welding Services	237 238	<u>265,000</u> 6,000	337 338	5,000	361		386		11,000
Water Disposal	239		339	60,000	362	200,000	387		260,000
Plug to Abandon	240		340			nor trackships have		APRILATEDOR OF CORT	0
Seismic Analysis	241		341			ENGLISH STATE	389	AND STREET, ST	0
Miscellaneous Contingency	242 243	89,000	343	200,000	363	A CANADA SA	390		289,000
Closed Loop & Environmental	244	440,000	344		364		388		440,000
Dyed Diesel	245	en l'abella della la comi di Stationa	345			LANGE OF THE STATE OF		TARREST SECTIONS AND ADMINISTRATION OF THE PARTY OF THE P	495,000
Coil Tubing Flowback Crews & Equip		Loop State William	346	495,000		- 100 Total 15 to 1	392	120,000	120,000
Offset Directional/Frac	248		348				391	20,000	20,000
TOTAL INTANGIBLES		4,509,900		5,710,000		390,000		140,000	10,749,900
TANGIBLE COSTS									
Surface Casing	401	45,000		HERMAN, KONST		TO SECTION OF THE SEC		SERVICE AND SE	45,000
Intermediate Casing	402	275,000		STATE THE SA		envisable overs		THE MARKET HAVE BEEN AND THE	275,000
Production Casing/Liner	403	440,000	504	52,000		STATE OF STATE OF THE STATE OF	530	1-5-to to Remove to metal-	440,000 52,000
Tubing Wellhead Equipment	405	75,000	505			nothing to see the	531		97,000
Pumping Unit		SHOREWSTO.		programme or programme		- Wall Ser Charles	506		0
Prime Mover		- Limited Control		Property Medical Control		INTERPORTATION OF THE PROPERTY	507 508		0
Rods		AND CONTRACTOR OF THE CONTRACTOR	509	2000 100 100 100 100 100 100 100 100 100		A SHE ALL SCHOOL SHE	532		
Pumps-Sub Surface (BH) Tanks		et medicin highly sta	~0	THE VICTOR OF	510	45,000		(SWESPOSISMON)	45,000
Flowlines		Carpy September 1997		CONTRACTOR RESIDENCE	511	20,000		* [20] (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	20,000
Heater Treater/Separator		DANCESCO MEN AND R		CONTRACTOR OF THE STATE OF THE	512 513		533	· 地名美国拉克斯特	145,000
Electrical System Packers/Anchors/Hangers	414		514	66,000	313	100,000	534		66,000
Couplings/Fittings/Valves	415			respective services	515			CONTRACTOR OF THE PARTY	170,000
Dehydration					517			D. W. Charles Co.	0
Injection Plant/CO2 Equipment		SHIP CONTRACTOR		The Property of the Control of the C	518 521			STORY CONTRACTOR OF STAN	20,000
Pumps-Surface Instrumentation/SCADA/POC		NAMES OF STREET		Constraint Wester	522		529		15,000
Miscellaneous	419		519		523	15,000	535		15,000
Contingency	420		520		524		536	THE PROPERTY AND PERSONS	20,000
Meters/LACT  Elseas/Combustors/Emission		STATE OF STATE OF STATE OF		PROPERTY OF THE PROPERTY OF	525 526			UPOGNA DYSMES BOX	24,000
Flares/Combustors/Emission  Gas Lift/Compression			527		•	28.000			78,000
TOTAL TANGIBLES		835,000		190,000		610,000		140,000	1,635,000 12,384,900
TOTAL WELL COSTS		5,344,900		5,900,000		1,000,000	•	140,000	12,364,900
% of Total Well Cost		43%		48%		8%		1%	
COG Operating LLC				10/28/19					
COG Operating LLC		Date Prepared:							
COG Operating LLC		-							
		Date Prepared:  COG Operating LLC							
We approve:		-		CB-PS-KL	-	_	_	_	
We approve:		COG Operating LLC						_	
We approve:		COG Operating LLC				<u></u>	_	_	
We approve:% Working Interest Company: By:		COG Operating LLC	_					_	
We approve:		COG Operating LLC  By:	imate	CB-PS-KL	pavv	your share		_	
We approve:		COG Operating LLC  By:			рауу	your share	-	_	

WELL NAME:	GUNNER 8 FEDERAL COM #604H	PROSPECT NAME:	Bulldog 2634 (717038)
SHL:	Sec 5: 250 FNL & 560 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	Sec 8: 50 FSL & 825 FWL	OBJECTIVE:	Drill and Complete
FORMATION:	Wolfcamp	DEPTH:	22,745
LEGAL:	Sec 5: 26S 34E	TVD:	12,645

INTANGIBLE COSTS		<u>Drlg - Rig</u> <u>Release(D)</u>		Completion(C)		Tank Bttv Constrctn(TB)		Pmpg Equipment(PEQ)	TOTAL
Title/Curative/Permit	201 202	20,000	302	DECEMBER OF		THE PERSON NAMED IN COLUMN TO SEE A SECOND		SHOW A SECURE OF STREET	20,000
Damages/Right of Way	202	20,000	303		351	1,000		minimum states of a	21,000
Wellbore Frac Prep		Filming (out twen	304	67,000		estimate very a substitute		台方的各种的是共和国	67,000
Survey/Stake Location	204	7,000		A Strain Alberta.	352				7,000
Location/Pits/Road Expense	205	180,000	305	10,000	353	26,000	366		216,000
Drifting / Completion Overhead	206	12,000	306	15,000				-11000000000000000000000000000000000000	27,000
Turnkey Contract	207			or to want to the street of				The service of the service of	0 0
Footage Contract	208 209	979,000		SUPPLIES HE WAS TO SELECT		THE CONTRACTOR AND THE CONTRACTOR		LEASE AN EMPLOYED AT A	979,000
Daywork Contract Directional Orilling Services	210	472,000		Towns triples and Salaron		washing to the		A STATE OF THE RESIDENCE OF THE RESIDENC	472,000
Frac Equipment	210	No. of the latest Country	307	1,070,000.00		Land Service Commission		The country of the state of the same	1,070,000
Frac Chemicals		VENTY OF BUILDING	308	434,000.00		STATEMENT AND STATEMENT		TO COMPLETE STATE OF	434,000
Frac Proppant		1947-000 NEEL 1	309	609,000.00		Self-discussion of the Control		HEARTS CONTRACTOR	609,000
Frac Proppant Transportation			310	347,000.00		activities of the second		VETER BELLEVIOLET TO	347,000
Fuel & Power	211	202,000	311	68,000.00	354		367		270,000
Water	212	100,000	312	551,000.00			368		651,000
Bits	213 214	184,000 380,000	313 314				369 370		184,000 380,000
Mud & Chemicals Drill Stem Test	215	300,000	315	550,000.00		Comestation and Art	3,0	AND VERY STATE OF	550,000
Coring & Analysis	216			Toroug wurth der eine Englische		STEVEN HOLLS SECTION		AND PARENT SAFETY	0
Cement Surface	217	27,900		SOUTH PROPERTY OF		TO THE PARTY OF TH		5-9-9-0-M-5-5-4-95B	27,900
Cement intermediate	218	83,700		TESTED 15/5/6/2012		per register, when we		A STANSON SOUNDS OF	83,700
Cement 2nd Intermediate/Production	219	116,300		s same serie are subjective				STATE AND ADDRESS OF THE	116,300
Cement Squeeze & Other (Kickoff Plug)	220			THE WASHINGTON		_30344344C-480334	371		0
Float Equipment & Centralizers	221	70,000						Service of the State of the Sta	70,000 80,000
Casing Crews & Equipment  Eiching Tools & Septice	222 223	000,008	323	L. STROME STREET		The state of the s	372	THE PARTY OF THE PARTY.	000,08
Fishing Toots & Service  Geologic/Engineering	223		324		355		373		0
Contract Labor	225	6,500	325	20,000.00	356	160,000	374		186,500
Company Supervision	226	72,000	326	15,000.00	357	3,000	375		90,000
Contract Supervision	227	174,000	327	295,000.00	358		376		469,000
Testing Casing/Tubing	228	40,000	326	5,000.00		THE PRESENCE OF	377		45,000
Mud Logging Unit	229	71,000	329	68,000.00		THE PARK THE PARK TO SERVICE AND THE PARK THE PA			139,000
Logging	230 231	10,000	331	404,000		THE WATER OF THE ACT	378 379		414,000
Perforating/Wireline Services	231	10,000	332	404,000		on Path ages Sticken has	380	<del></del>	0
Stimulation/Treating Completion Unit		mathematical states	333			Control of the second	381		0
Swabbing Unit		06045986978001-40-665	334				382		0
Rentals-Surface	235	240,000	335		359		383		240,000
Rentals-Subsurface	236	160,000	336			-CACCASCV SANTE	384		160,000
Trucking/Forklift/Rig Mobilization	237	265,000	337	20,000	360		385		285,000
Welding Services	238	6,000	338	5,000	361	202.000	386		260,000
Water Disposal	239		339	60,000	362	200,000	387	a acartino and a readout a	200,000
Plug to Abandon	240 241		340 341			THE PART SOUTH THE		of the behavior strong	0
Seismic Analysis Miscellaneous	242		342			12/15/00/LIPE, 129/	389		0
Contingency	243	89,000	343	200.000	363		390		289,000
Closed Loop & Environmental	244	440,000	344		364		388		440,000
Dyed Diesel	245		345	402,000		1292/03/24/05/05/04/12		DESCRIPTION OF THE PROPERTY.	
Coll Tubing		SENSON AND ACTOR	346	495,000		Indiana - Adams		400,000	495,000
Flowback Crews & Equip		ELEVORESCHIEDEN -	347			A STATE OF S	392	120,000	120,000
Offset Directional/Frac	248	4,509,900	340	5,710,000		390,000	331	140,000	10,749,900
TOTAL INTANGIBLES		4,503,500		5,110,000					
TANGIBLE COSTS									
Surface Casing	401	45,000		Emily States					45,000
Intermediate Casing	402	275,000		accessional accional as see		CORTAL BROWN		NAMES OF STREET	275,000
Production Casing/Liner	403	440,000				- Carry Man Proposition of		MISSING AUCESTON	440,000
Tubing		L-Stylepo-Roule	504	52,000		Dept. and Programme Co.	530		52,000 97,000
Wellhead Equipment	405	75,000	505	22,000		STATE OF THE WAY	531 506		97,000
Prime Mover		The Age and the State of the Control		THE STATE OF THE		ACTORDORES ESTA	507		0
Prime Mover Rods		- 4101 344 400		Color of the Street St.		A THIRTHEON BYACLIN	508		
Pumps-Sub Surface (BH)		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	509			TOTAL CONTRACTOR	532		0
Tanks		HOSTING FOR BUILDING		ELPROVED ATTEMPTOR	510			and completely the office of the	45,000
Flowlines		SECOND PUREL			511	20,000		52,536,690,036,596	20,000
Heater Treater/Separator		HARMERSON TA		ILL, Vender Service	512			and the second state of	145,000
Electrical System		THE WORLD WELL AND		20 CO	513	108,000	533 534		108,000 66,000
Packers/Anchors/Hangers	414		514	66,000	515	170,000	534	CONTRACTOR OF THE OWNER OF	170,000
Couplings/Fittings/Valves	415	U.F. LIGHTING			517	170,000		THE GREAT PROPERTY OF	0
Dehydration Injection Plant/CO2 Equipment		STATES THE STATES		三世界。四朝公路。	518			Characterist Linear	0
Pumps-Surface		25 (4) (4) (4) (4) (5) (6)		compression of the process	521			ALCOHOL: NO PROPERTY	20,000
Instrumentation/SCADA/POC		THE PERSONAL PROPERTY.		Horagh Care M	522		529		15,000
Miscellaneous	419		519		523		535		15,000
Contingency	420		520		524		536	TORS, ed to 2 mars for the	20,000
Meters/LACT				PLANT WITH EBROY	525 526			SCHOOLS INVESTIGATION	24,000
Flares/Combustors/Emission		75 415, VO 1 455, ROLD	527	50,000			528	A STATE OF THE PERSON OF THE P	78,000
Gas Lift/Compression TOTAL TANGIBLES		835,000	404.7	190,000		610,000		0	1,635,000
TOTAL WELL COSTS		5,344,900		5,900,000		1,000,000		140,000	12,384,900
								1%	
% of Total Well Cost		43%		48%		8%		1%	
COG Operating LLC									
		Date Prepared:		10/28/19					
		COG Operating LLC							
We approve:% Working Interest		By:		CB-PS-KL					
The explored namener		<u>-1</u> :				<del></del>		_	
Company:									
Вуг									
Printed Name:									
Printed Name:		This AFE is only an est	mate.	By signing you agree to	pay y	rour share			
Printed Name: Title: Date:		This AFE is only an est of the actual costs incu		By signing you agree to	pay y	our share			

WELL NAME:	GUNNER 8 FEDERAL COM #703H	PROSPECT NAME:	Bulldog 2634 (717038)
SHL:	Sec 5: 220 FNL & 2010 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	Sec 8: 50 FSL & 2310 FWL	OBJECTIVE:	Drill and Complete
FORMATION:	Wolfcamp	DEPTH:	22,945
LEGAL:	Sec 5: 26S 34E	TVD:	12,845

INTANGIBLE COSTS Title/Curative/Permit	201	Drig - Rig Release(D) 20,000		Completion(C)		Tank Btty Constrctn(TB)		Pmpg Equipment(PEQ)	<u>TOTAL</u> 20,000
Insurance	202	2,500	302			PRESIDENT CONTRACTOR		\$45,000 BERGS 457,000 In-	2,500
Damages/Right of Way	203	20,000	303		351	1,000		TOTAL MEDICAL MERC	21,000
Wellbore Frac Prep		offshill e-consister - W	304	67,000		AND PRINCIPLE		ASST BRIDGES CHARLE	67,000
Survey/Stake Location Location/Pits/Road Expense	204 205	7,000	305	10,000	352 353	26,000	366	THE RESERVE OF THE PARTY OF THE	216,000
Drilling / Completion Overhead	206	12,000	306	15,000	000			Level Participated	27,000
Turnkey Contract	207			NAME OF THE OWNER OF THE OWNER.		I rear whom the gottlen for		. A 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0
Footage Contract	208			CONTROL OVER				A CONTRACTOR OF THE PARTY OF TH	0 0 000
Daywork Contract	209 210	979,000 472,000		a Competitional Comme		THE PERSON NAMED OF THE PERSON			979,000 472,000
Directional Drilling Services Frac Equipment	210	- UTS. 7. ALVESTON	307	1,070,000.00		SOME STATE OF STATE		residential Matternan	1,070,000
Frac Chemicals		THE WAY THE WASTERNAME	308	434,000.00		THE SHAPE SENT		F1000 H200 H200 H200 H200 H200 H200 H200	434,000
Frac Proppant		Texasion services	309	609,000.00		TO STATE OF STREET		AND THE PROPERTY.	609,000
Frac Proppant Transportation	211	202,000	310	347,000.00 68,000.00	354	A STATE OF THE STA	367		270,000
Fuel & Power Water	212	100,000	312	551,000.00	۳۰	SESTIMATION PRODUCTION	368		651,000
Bits	213	184,000	313			and American Paris	369		184,000
Mud & Chemicals	214	380,000	314			INDENSITY REPORT	370	and the second of an artist	380,000
Drift Stem Test	215 216		315	550,000.00				NO SERVICIO DE CARRESPERO	550,000
Coring & Analysis Cement Surface	217	27,900		Section of the second		LATE STREET, ST.		Orași Santania (Pa	27,900
Cement Intermediate	218	83,700		Turs Hivis His differs		SAGE STREET		STREET, SELECT	83,700
Cement 2nd Intermediate/Production	219	116,300		也是他们实现整个地位。		2.47290 PMS2 (12)		全方表现在全体成为165%	116,300
Cernent Squeeze & Other (Kickoff Plug)	220	70,000		PROPERTY OF STREET		The official States of	371	A LOS DE CASA ANNO DE SUITE	70,000
Float Equipment & Centralizers  Casing Crews & Equipment	221 222	80,000				See SA Marine		US WEST WAS THE	80,000
Fishing Tools & Service	223	441448	323				372		0
Geologic/Engineering	224		324		355		373		0
Contract Labor	225	6,500 72,000	325 326	20,000.00	358 357	160,000 3,000	374 375		186,500 90,000
Company Supervision  Contract Supervision	226 227	174,000	326 327	295,000.00	357	3,000	376	<del></del>	469,000
Testing Casing/Tubing	228	40,000	328		, 50	7,40756A-967974	377		45,000
Mud Logging Unit	229	71,000	329	68,000.00		West Strain Contract		15000000000000000000000000000000000000	139,000
Logging	230	40.000	331	404,000		of the unit of Superior	378 379		414,000
Perforating/Wireline Services Stimulation/Treating	231	10,000	331			221,000 15,0740	380	<del></del>	0
Completion Unit		CHARGE RESERVED	333			(1995年)	381		0
Swabbing Unit		SALES AND A TWO	334			Name to Assess the Control of the Co	382		0
Rentals-Surface	235	240,000	335		359	Name and American Street	383 384		240,000 160,000
Rentals-Subsurface Trucking/Forklift/Rig Mobilization	236 237	160,000 265,000	336 337	20,000	360	The contract of the section of the s	385		285,000
Welding Services	238	6,000	338		361		386		11,000
Water Disposal	239		339		362	200,000	387		260,000
Plug to Abandon	240		340			and Holder State			0
Seismic Analysis	241 242		341			CARS DESIGNATIONS	389	SACHER SELECT FOR THE SALE	- 0
Miscellaneous Contingency	243	89,000	343		363	THE STATE OF THE S	390		289,000
Closed Loop & Environmental	244	440,000	344		364		386		440,000
Dyed Diesel	245		345			Later days of the party			495,000
Coli Tubing Flowback Crews & Equip		TO THE SAME THE PARTY OF THE PARTY.	346 347	495,000		NOT AN ARE RECEIVED BY	392	120,000	120,000
Offset Directional/Frac	248		348			9150H000+023F3	391	20,000	20,000
TOTAL INTANGIBLES		4,509,900		5,710,000		390,000		140,000	10,749,900
TANCIDI E COCTO									
TANGIBLE COSTS Surface Casing	401	45,000						2012/07/19 19:02:00	45,000
Intermediate Casing	402	275,000		A NAME OF STREET		25代表数字/2016年6月1日		使用3000000000000000000000000000000000000	275,000
Production Casing/Liner	403	440,000		ALCOHOLD IN MARKED		at earlichtechers		- Committee of the Comm	440,000
Tubing	405	75,000	504 505	52,000 22,000		AND STREET STREET	530 531		52,000 97,000
Wellhead Equipment	400	weet Manual Control And	300			House State of the	506		0
Prime Mover		223400 (1802/8030) (1805)		也是如此不知识的知识			507		0
Rods		THE INCH STREET		STATE WAS IN		400 名字(WE 11) 11 14 14 15 A	508		0
Pumps-Sub Surface (8H) Tanks			509	a territoria de la constanta d	510	45,000	532	SUPPLEMENT OF THE PARTY.	45,000
Flowlines		CONTRACTOR N		PERSONAL ADMINISTRA	511	20,000		STATISTICS AND STATISTICS	20,000
Heater Treater/Separator		1.05645.03C.250		THE STATE OF THE S	512	145,000		And herebyen have	145,000
Electrical System		A (APPENDAGE)		TO POSSESS THE WEST	513	108,000	533 534		108,000
Packers/Anchors/Hangers Countings/Editions/Alphan	414		514	66,000	515	170,000	534	THE USE OF LOWER WITH	170,000
Couplings/Fittings/Valves Dehydration	413	-001140 -0074 F	•	ESTERNING TO	517	110,000		in analysis for a const	0
Injection Plant/CO2 Equipment		A75-78 KA-6		A STATE OF STATE	518			MARCHEN CARRIED	0
Pumps-Surface				U. Alderski politik ozari	521	20,000	***	THE SHOP WAS TO	20,000
Instrumentation/SCADA/POC	419	TO REPORT OF THE PARTY OF	519	CONTRACT STORY	522 523	15,000	529 535		15,000
Miscellaneous  Contingency	420		520		524	10,000	536		0
Meters/LACT	-	New States of the second of the			525	20,000		All SANDON AND AND AND AND AND AND AND AND AND AN	20,000
Flares/Combustors/Emission		CAMPANIA PARA		SELECTION OF THE PERSON OF THE	526	24,000	528	magaziya razar aktiye i	78,000
Gas Lift/Compression TOTAL TANGIBLES		835,000	527	50,000 190,000	516	28,000 610,000	⊋Zij		1,635,000
TOTAL WELL COSTS		5,344,900	•	5,900,000		1,000,000		140,000	12,384,900
		<del></del>	•			8%		1%	
% of Total Well Cost COG Operating LLC		43%		48%		079			
		Date Prepared:		10/28/19					
We norme:		COG Operating LLC							
We approve:% Working Interest		ву:		CB-PS-KL		· · · · · · · · · · · · · · · · · · ·		_	
Company:									
Ву:									
Printed Name:									
Title:		This AFE is only an esti of the actual costs incur		. By signing you agree to	рау у	our share			
Devo.		AL ALE ACMES COSTS SICOS							

WELL NAME:	GUNNER 8 FEDERAL COM #704H	PROSPECT NAME:	Bulldog 2634 (717038)
SHL:	Sec 5: 220 FNL & 1950 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	Sec 8: 50 FSL & 1320 FWL	OBJECTIVE:	Drill and Complete
FORMATION:	Wolfcamp	DEPTH:	22,945
LEGAL:	Sec 5: 26S 34E	TVD:	12,845

INTANGIBLE COSTS Title/Curative/Permit	201	Orig - Rig Release(D) 20,000		Completion(C)		Tank Btty Constrctn(TB)		Pmpg Equipment(PEQ)	TOTAL 20,000
Insurance	202	2.500	302	35,000,000,000				いるなどの作品はおりません	2,500
Damages/Right of Way	203	20,000	303		351	1,000		naching and supply	21,000
Wellbore Frac Prep		along which the self-	304	67,000				TO SERVICE ARREST	67,000
Survey/Stake Location	204	7,000		CONTRACTOR SECTION	352			TO MISTING PROPERTY.	7,000
Location/Pits/Road Expense	205 206	180,000	305	10,000	353	26,000	366	ACT STOTE OF STATE OF	27,000
Drilling / Completion Overhead Turnkey Contract	207	12,000	300	PORT YOU THE STATE		Particular structures of		CONTRACTOR SERVICES	0
Footage Contract	208			Tax Tree's mission		SEED ANY ROSESSE		TOTAL PROPERTY.	0
Daywork Contract	209	979,000		The second second		-T Phin (4612), July 271		The Edition of the Party of the	979,000
Directional Drilling Services	210	472,000		SCHOOL STANDARD		THE PERSON NAMED IN COLUMN		Activities the R. Little	472,000
Frac Equipment		EWALL MAY	307	1,070,000.00		STATE STREET,		**************************************	1,070,000
Frac Chemicals		ASSESSMENT OF A STATE	308	434,000.00		Control of the State of the Sta		TO THE REPORT OF THE PRINT	434,000 609,000
Frac Proppant Frac Proppant Transportation		Afficial Testes of Afficia	310	609,000.00 347,000.00		Company of the Compan		PER TOTAL TENEDRAL CO.	347,000
Fuel & Power	211	202,000	311		354	THE REAL PROPERTY AND ADDRESS OF THE PERSON NAMED IN	367		270,000
Water	212	100,000	312	551,000.00		and the Linear Robert	368		651,000
Bits	213	184,000	313			The Market Street	369		184,000
Mud & Chemicals	214	380,000				man Table and St.	370		380,000
Drill Stem Test	215		315	550,000.00		DOMESTIC STREET, STREE		TO SHARE A COMPLETE STREET STREET	550,000
Coring & Analysis	216 217	27,900		CASA DE DESERVA DE LA CASA		or all the RESEA SHOULD be as		THE STANSANCE OF THE STANSANCE	27,900
Cement Surface Cement Intermediate	218	83,700		Control of the Contro		- CHARLESON AND		NEWS PROPERTY.	83,700
Cement 2nd Intermediate/Production	219	116,300		TR 5.75 AL 1990 LDS		15-17-16-20 Table 1-01-14-2		- CONTRACTOR PROPERTY.	116,300
Cement Squeeze & Other (Kickoff Plug)	220			CATANA CALAMA		Linkers House Co.	371		0
Float Equipment & Centralizers	221	70,000		2550112/15/05		- SOURCE AND SHEET ST		THE PARTY OF	70,000
Casing Crews & Equipment	222	80,000		THE STATE OF STREET		SO HEAVY HIGH YORK	270	Manager Control of the Control of th	00,000
Fishing Tools & Service	223		323		355	The second second second second	372 373		0
Geologic/Engineering Contract Labor	224 225	6,500	324	20,000.00	356	160,000	374		186,500
Company Supervision	225	72,000	325	15,000.00	357	3,000	375		90,000
Contract Supervision	227	174,000	327	295,000.00	358		376		469,000
Testing Casing/Tubing	228	40,000	328	5,000.00		WHEN SOME TO SEE	377		45,000
Mud Logging Unit	229	71,000	329	68,000.00		. Works Election		AND SUBSTICE	139,000
Logging	230			Total of leave		MANAGE SERVICES	378		414 000
Perforating/Wireline Services	231	10,000	331	404,000		CONTRACTOR OF STREET	379 380		414,000
Stimulation/Treating		PROCESS OF THE PROCES	332			Which the bull to a	381		0
Completion Unit Swabbing Unit		Zene bacondoe, a	334	<del></del>		CHARLES CONTRACTORS	382		0
Rentals-Surface	235	240.000			359		383		240,000
Rentals-Subsurface	236	160,000	336			ANALYSIA STATE OF THE	384		160,000
Trucking/Forklift/Rig Mobilization	237	265,000		20,000	360		385		285,000
Welding Services	238	6,000		5,000	361		386		11,000 260,000
Water Disposal	239		339	60,000	362	200,000	387	Land American	280,000
Plug to Abandon	240 241		340			- and white he was		AND STATESON	
Seismic Analysis Miscellaneous	242		342			YYACHUC EXAN AU	389		0
Contingency	243	89,000	343	200,000	363		390		289,000
Closed Loop & Environmental	244	440,000			364		388		440,000
Dyed Diesel	245		345	402,000		- was also do with Take our		10 10 10 10 10 10 10 10 10 10 10 10 10 1	495,000
Coil Tubing Flowback Craws & Equip		THE REPORT OF THE PARTY OF THE	346 347	495,000		THE SAME STATE OF THE SAME STA	392	120,000	120,000
Offset Directional/Frac	248		348			CAR HADING SHOP	391	20,000	20,000
TOTAL INTANGIBLES		4,509,900		5,710,000		390,000		140,000	10,749,900
						*			
TANGIBLE COSTS								Control of the Control	
Surface Casing	401	45,000		THE PROPERTY AND IN		The state of the s		en a State of the State of	45,000 275,000
Intermediate Casing	402 403	275,000						artikan province disease	440,000
Production Casing/Liner Tubing	403	440,000				The state of the s			
Welthead Equipment			504	52,000		STEPPENSON, STREET	530		52,000
	405	75,000	504 505	52,000 22,000		SALOMETRIANS ACTION AS ACT OF A TRANSPORT ASSAULT OF	531		97,000
Pumping Unit	405	75,000				Syroundless, J. Charless of the Control of the Cont	531 506		97,000 0
Prime Mover	405	75,000					531 506 507		97,000 0
Prime Mover Rods	405	75,000	505				531 506 507 508		97,000 0 0
Prime Mover Rods Pumps-Sub Surface (BH)	405	75,000			510	45 000	531 506 507		97,000 0 0 0
Prime Mover Rods Pumps-Sub Surface (BH) Tanks	405	75,000	505		510 511	45,000 20,000	531 506 507 508	- Contractive of the Contractive	97,000 0 0 0
Prime Mover Rods Pumps-Sub Surface (BH) Tanks Flowlines	405	75,000	505			45,000 20,000 145,000	531 506 507 508	- Contract State (Contract of Contract of	97,000 0 0 0 0 0 45,000 20,000
Prime Mover Rods Pumps-Sub Surface (BH) Tanks	405	75,000	505	22,000	511	20,000	531 506 507 508 532	- 12 - 12 february (1 of 1 o	97,000 0 0 0 0 0 45,000 20,000 145,000
Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator  Electrical System  Packers/Anchors/Hangers	414	75,000	505		511 512 513	20,000 145,000 108,000	531 506 507 508 532		97,000 0 0 0 0 45,000 20,000 145,000 108,000
Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator  Electrical System  Packers/Anchors/Hangers  Couplings/Fittings/Valves		75,000	505	22,000	511 512 513 515	20,000 145,000 108,000	531 506 507 508 532		97,000 0 0 0 0 45,000 20,000 145,000 66,000
Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator  Electrical System  Packers/Anchors/Hangers  Couplings/Fittings/Valves  Dehydration	414	75,000	505	22,000	511 512 513 515 517	20,000 145,000 108,000	531 506 507 508 532		97,000 0 0 0 0 45,000 20,000 145,000 108,000 68,000 170,000
Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator  Electrical System  Packers/Anchors/Hangers  Couplings/Fittings/Valves  Dehydration  Injection Plant/CO2 Equipment	414	75,000	505	22,000	511 512 513 515	20,000 145,000 108,000	531 506 507 508 532		97,000 0 0 0 0 45,000 20,000 145,000 66,000 170,000 0 0
Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator  Electrical System  Packers/Anchors/Hangers  Couplings/Fittings/Valves  Dehydration  Injection Plant/CO2 Equipment  Pumps-Surface	414	75,000	505	22,000	511 512 513 515 517 518	20,000 145,000 108,000	531 506 507 508 532		97,000 0 0 0 0 45,000 20,000 106,000 68,000 170,000 0 0 20,000 15,000
Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator  Electrical System  Packers/Anchors/Hangers  Couplings/Fittings/Valves  Dehydration  Injection Plant/CQ2 Equipment	414	75,000	505 509 514	22,000 66,000	511 512 513 515 517 518 521 522 523	20,000 145,000 108,000 170,000	531 506 507 508 532 533 534		97,000 0 0 0 45,000 20,000 145,000 66,000 170,000 0 20,000 15,000
Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator  Electrical System  Packers/Anchors/Hangers  Couplings/Fittings/Valves  Dehydration Injection Plant/CQ2 Equipment  Pumps-Surface  Instrumentation/SCADA/POC  Miscellaneous  Contingency	414 415	75,000	505 509 514	22,000 66,000	511 512 513 515 517 518 521 522 523 524	20,000 145,000 108,000 170,000 20,000 15,000	531 506 507 508 532 533 534		97,000 0 0 0 0 45,000 20,000 145,000 0 0 0 0 20,000 170,000 0 0 20,000 15,000
Prime Mover Rods Pumps-Sub Surface (BH) Tanks Flowfines Heater Treater/Separator Electrical System Packers/Anchors/Hangers Couplings/Fittings/Valves Dehydration Injection Plant/CO2 Equipment Pumps-Surface Instrumentation/SCADA/POC Miscellaneous Contingency Meters/LACT	414 415 419	75,000	505 509 514	22,000 66,000	511 512 513 515 517 518 521 522 523 524 525	20,000 145,000 108,000 170,000 20,000 15,000 20,000	531 506 507 508 532 533 534		97,000 0 0 0 0 45,000 20,000 145,000 170,000 0 20,000 15,000 0 20,000
Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator  Electrical System  Packers/Anchors/Hangers  Couplings/Fittings/Valves  Dehydration  Injection Plant/CO2 Equipment  Pumps-Surface  Instrumentation/SCADA/POC  Miscellaneous  Contingency  Meters/LACT  Flares/Combustors/Emission	414 415 419	75,000	505 509 514 514	66,000	511 512 513 515 517 518 521 522 523 524 525 526	20,000 145,000 108,000 170,000 20,000 15,000 20,000 24,000	531 506 507 508 532 533 534 529 535 536		97,000 0 0 0 45,000 20,000 145,000 108,000 66,000 170,000 0 20,000 15,000 0 20,000 20,000 20,000
Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator  Electrical System  Packers/Anchors/Hangers  Couplings/Fittings/Valves  Dehydration  Injection Plant/CQ2 Equipment  Pumps-Surface  Instrumentation/SCADA/POC  Miscellaneous  Contingency  Meters/LACT  Flares/Combustors/Emission  Gas Lift/Compression	414 415 419		505 509 514 519 520	22,000 66,000	511 512 513 515 517 518 521 522 523 524 525 526	20,000 145,000 108,000 170,000 20,000 15,000 20,000	531 506 507 508 532 533 534		97,000 0 0 0 0 45,000 145,000 166,000 20,000 15,000 15,000 20,000 24,000 24,000
Prime Mover Rods Pumps-Sub Surface (BH) Tanks Flowlines Heater Treater/Separator Electrical System Packers/Anchors/Hangers Couplings/Fittings/Valves Dehydration Injection Plant/CO2 Equipment Pumps-Surface Instrumentation/SCADA/POC Miscellaneous Contingency Meters/LACT Flares/Combustors/Emission	414 415 419	75,000 835,000 5,344,900	509 509 514 519 520	22,000 66,000	511 512 513 515 517 518 521 522 523 524 525 526	20,000 145,000 108,000 170,000 20,000 15,000 20,000 24,000 28,000	531 506 507 508 532 533 534 529 535 536	1	97,000 0 0 0 0 45,000 20,000 145,000 66,000 170,000 15,000 20,000 24,000 78,000
Prime Mover Rods Pumps-Sub Surface (BH) Tanks Flowlines Heater Treater/Separator Electrical System Packers/Anchors/Hangers Couplings/Fittings/Valves Dehydration Injection Plant/CO2 Equipment Pumps-Surface Instrumentation/SCADA/POC Miscellaneous Contingency Meters/LACT Flares/Combustors/Emission Gas Lift/Compression TOTAL TANGIBLES TOTAL WELL COSTS	414 415 419	835,000 5,344,900	509 509 514 519 520	\$0,000 \$5,000 \$5,000 \$5,000	511 512 513 515 517 518 521 522 523 524 525 526	20,000 145,000 108,000 170,000 20,000 15,000 20,000 24,000 28,000 610,000	531 506 507 508 532 533 534 529 535 536	140,000	97,000 0 0 0 0 45,000 20,000 145,000 66,000 170,000 15,000 20,000 24,000 78,000
Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator Electrical System  Packers/Anchors/Hangers  Couplings/Fittings/Valves  Dehydration Injection Plant/CQ2 Equipment  Pumps-Surface Instrumentation/SCADA/PQC  Miscellaneous  Contingency Meters/LACT  Flares/Combustors/Emission  Gass Lift/Compression  TOTAL TANGIBLES  TOTAL WELL COSTS  % of Total Well Cost	414 415 419	835,000	509 509 514 519 520	\$0,000 190,000	511 512 513 515 517 518 521 522 523 524 525 526	20,000 145,000 108,000 170,000 20,000 15,000 20,000 24,000 28,000 610,000	531 506 507 508 532 533 534 529 535 536		97,000 0 0 0 0 45,000 20,000 145,000 66,000 170,000 15,000 20,000 24,000 78,000
Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator Electrical System  Packers/Anchors/Hangers  Couplings/Fittings/Valves  Dehydration Injection Plant/CQ2 Equipment  Pumps-Surface Instrumentation/SCADA/PQC  Miscellaneous  Contingency Meters/LACT  Flares/Combustors/Emission  Gass Lift/Compression  TOTAL TANGIBLES  TOTAL WELL COSTS  % of Total Well Cost	414 415 419	835,000 5,344,900	509 509 514 519 520	\$0,000 \$5,000 \$5,000 \$5,000	511 512 513 515 517 518 521 522 523 524 525 526	20,000 145,000 108,000 170,000 20,000 15,000 20,000 24,000 28,000 610,000	531 506 507 508 532 533 534 529 535 536	140,000	97,000 0 0 0 0 45,000 20,000 145,000 66,000 170,000 15,000 20,000 24,000 78,000
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Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator Electrical System  Packers/Anchors/Hangers  Couplings/Fittings/Valves  Dehydration Injection Plant/CQ2 Equipment  Pumps-Surface Instrumentation/SCADA/POC Miscellaneous  Contingency  Meters/LACT Flares/Combustors/Emission  Gas Lift/Compression  TOTAL TANGIBLES  TOTAL WELL COSTS  % of Total Well Cost  COG Operating LLC  We approve: % Working Interest	414 415 419	835,000 5,344,900 43% Date Prepared: COG Operating LLC	509 509 514 519 520	50,000 190,000 5,900,000 48%	511 512 513 515 517 518 521 522 523 524 525 526	20,000 145,000 108,000 170,000 20,000 15,000 20,000 24,000 28,000 610,000	531 506 507 508 532 533 534 529 535 536	140,000	97,000 0 0 0 0 45,000 20,000 145,000 66,000 170,000 15,000 20,000 24,000 78,000
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Prime Mover  Rods  Pumps-Sub Surface (BH)  Tanks  Flowlines  Heater Treater/Separator Electrical System  Packers/Anchors/Hangers  Couplings/Fittings/Valves  Dehydration Injection Plant/CO2 Equipment  Pumps-Surface Instrumentation/SCADA/POC  Miscellaneous  Contingency Meters/LACT Flares/Combustors/Emission  Gas Lift/Compression  TOTAL TANGIBLES  TOTAL WELL COSTS  % of Total Well Cost  We approve:% Working Interest  Company: By:  Printed Name: Tide:	414 415 419	B35,000 5,344,900 43% Date Prepared: COG Operating LLC By:	505 509 514 519 520	50,000 190,000 5,900,000 48%	511 512 513 515 517 518 521 522 523 524 525 526 516	20,000 145,000 108,000 170,000 20,000 15,000 24,000 24,000 610,000 1,000,000	531 506 507 508 532 533 534 529 535 536	140,000	97,000 0 0 0 0 0 45,000 20,000
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WELL NAME:	GUNNER 8 FEDERAL COM #705H	PROSPECT NAME:	Bulldog 2634 (717038)
SHL:	Sec 5: 250 FNL & 530 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	Sec 8: 50 FSL & 330 FWL	OBJECTIVE:	Drill and Complete
FORMATION:	Wolfcamp	DEPTH	22,945
LEGAL:	Sec 5: 26S 34E	TVD:	12,845

ITANGIBLE COSTS  Be/Curative/Permit	201	<u>Drlg - Rig</u> <u>Release(D)</u> 20,000		Completion(C)		Tank Btty Constrctn(TB)		Pmpg Equipment(PEQ)	TOTAL 20,00
surance	202	2,500	302			THE RESERVE AND ASSESSED.		ALCOHOLOGICA CONTRA	2,50
mages/Right of Way	203	20,000	303		351	1,000		・ジストの記録をおりませますので	21,00
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ac Equipment		143000000 1552000	307	1,070,000.00		- IP MATERIAL TO		WHEE SHOP SHARE SHOPS	1,070,00
ac Chemicals		Section Management	308	434,000.00		PERSONAL PROPERTY.		The William Park Control	434,00
ec Proppant			309	609,000,00		P.D. accomposed to the		Settlement Settlement	609,00
ac Proppant Transportation		STEWNS THE	310	347,000.00		v masses also white an		CONTRACTOR OF THE	347,00
el & Power	211	202,000	311	00.000,89	354		367		270,00
ater	212	100,000	312	551,000.00		CHARLEST TROOPS	368		651,00
3	213	184,000	313				369		184,00
ed & Chemicals	214	380,000	314			In health on the second	370		380,00
ill Stem Test	215		315	550,000.00				TOTAL PROPERTY.	550,00
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cologic/Engineering	224		324		355	A STATE OF THE STA	373		
ontract Labor	225	6,500	325	20,000.00	356	160,000	374		186,50
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ontract Supervision	227	174,000	327	295,000.00	358		376		469,00
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ud Logging Unit	229	71,000	329	68,000.00		THE SHAPE SHAPE ST		ATT MAN TO LOCATION	139,0
gging	230			- W199 (C. 200)		TOPERAFERENCES.	378		
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vabbing Unit		Department of the second	334				382		
entals-Surface	235	240,000	335		359		383		240,00
entals-Subsurface	236	160,000	336				384		160,0
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eiding Services	238	6,000	338	5,000	361 362	200.000	386 387		260,0
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scellaneous	242		342			ALEKKY ALEK	389		
ontingency	243	69,000	343	200,000	363		390		289,0
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scellaneous	419		519		523	15,000	535		15,0
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## STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES OIL CONSERVATION DIVISION

APPLICATION OF COG OPERATING LLC
FOR COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO

CASE NO. 21066

## **GEOLOGIST AFFIDAVIT**

Cody Bacon, of lawful age and being first duly sworn, declares as follows:

- 1. My name is Cody Bacon, and I am a Geologist with COG Operating LLC ("COG").
- 2. I have previously testified before the New Mexico Oil Conservation Division ("Division") as an expert witness in petroleum geology matters and my credentials have been accepted and made a matter of public record.
- 3. I am familiar with the application filed by COG in this case and I have conducted a geologic study of the lands in the subject area.
- 4. COG is targeting the Wolfcamp formation with its proposed Gunner 8 Fed Com Well Nos. 603H, 604H, 703H, 704H, and 705H (collectively called the "Wells").
- 5. COG Attachment D is a locator map displaying COG's acreage in yellow. Existing producing wells in the Wolfcamp A interval are represented by solid red lines. The approximate wellbore paths for the proposed Wells are marked by red dashed lines.
- 6. COG Attachment E is a subsea structure map that I prepared for the top of the Wolfcamp A interval that is representative of the targeted interval within the Wolfcamp formation. There are three data points indicated by red crosses. I used the Wolfcamp structure because it is a reliable regional marker and the target intervals lie just below this marker. The approximate

wellbore paths for the proposed Wells are depicted by red dashed lines. The map shows that the formation is gently dipping to the east-southeast in this area. I do not observe any faulting, pinchouts, or other geologic impediments to developing the targeted Wolfcamp A interval with horizontal wells in this area.

- 7. COG Attachment F overlays a cross-section line in green consisting of two wells penetrating the Wolfcamp formation that I used to construct a stratigraphic cross-section from A to A'. I consider these well logs to be representative of the geology in the area.
- 8. COG Attachment G is a stratigraphic cross-section using the representative wells depicted on COG Attachment F. Each well in the cross-section contains gamma ray, resistivity, and porosity logs. The proposed target intervals in the Wolfcamp formation are labeled on the exhibit. The cross-section demonstrates that the targeted intervals are continuous across the proposed spacing unit.
- 9. In my opinion, the stand-up orientation of the proposed wells is the preferred orientation for horizontal well development in this area and is appropriate to efficiently and effectively develop the subject acreage.
- 10. Based on my geologic study, the targeted interval underlying the subject area is suitable for development by horizontal wells, and the acreage comprising the proposed spacing unit will contribute, more-or-less, equally to the production from the wellbores.
- 11. In my opinion, the granting of COG's application will be in the best interest of conservation, the prevention of waste, and the protection of correlative rights.
- 12. COG Exhibit 2 and Attachments D through G were either prepared by me or compiled under my direction and supervision.

THIS CONCLUDES AFFIANT'S STATEMENT.

		M.C.	ody Bacon
STATE OF	Texas		
COUNTY OF_	Midland		
M. Cody	RIBED and SWORN to Bacon.  Melissa L Dimit Notary Public, State of Texas Notary ID 12542763-4 My Commission Exp. 09-09-2021	pefore me this 29 day	PUBLIC Tennary 2020, by
My Commissio	n Expires:		
9/9/2	الح0		

**Gunner 8 Federal Com** 603H,604H,703H,704H,705H BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 21066 Attachment D
Submitted by:
COG OPERATING LLC
Hearing Date: Echruary 6, 2020

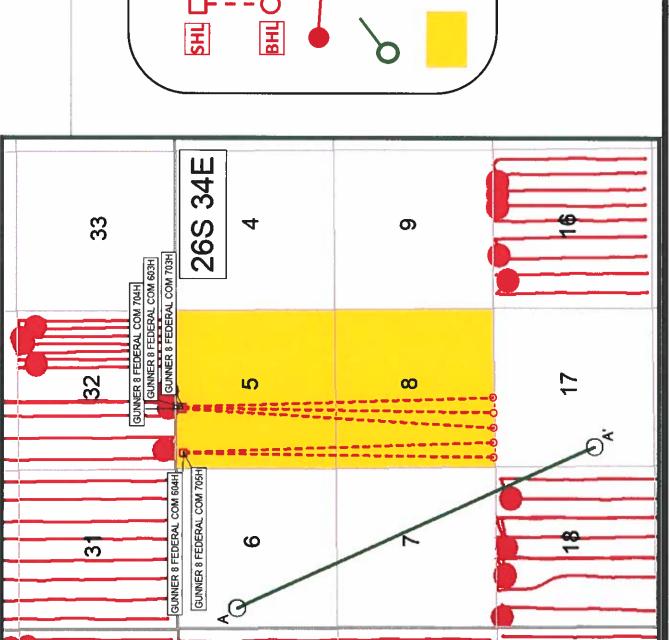


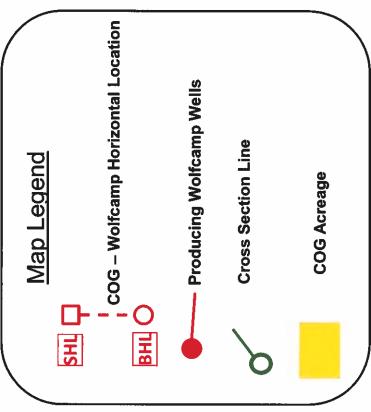
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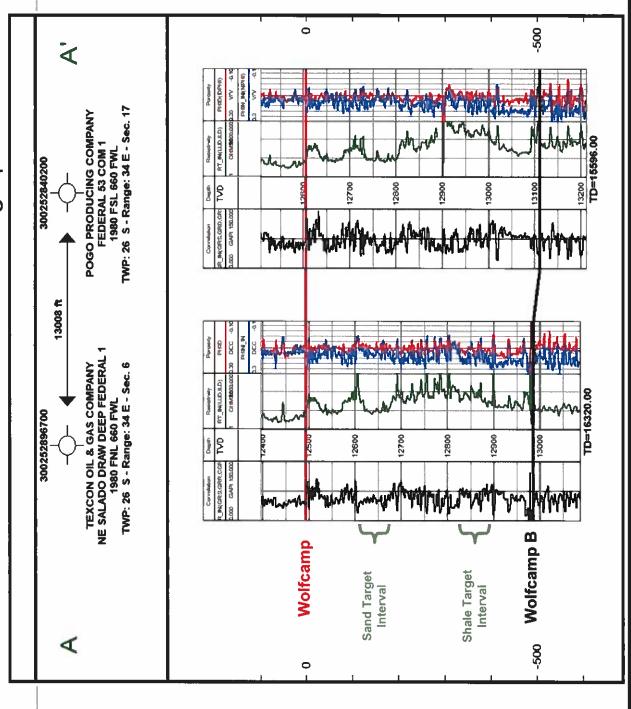
BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 21066 Attachment E
Submitted by:
COG OPERATING LLC
Hearing Date: February 6, 2020







BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 21066 Attachment F
Submitted by:
COG OPERATING LLC
Hearing Date: Esbruary 6, 2020





BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 21066 Attachment G
Submitted by:
COG OPERATING LLC
Hearing Date: Ecbruary 6, 2020

# STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.

**CASE NOS. 21066** 

### <u>AFFIDAVIT</u>

STATE OF NEW MEXICO ) ss. COUNTY OF SANTA FE )

Michael Rodriguez, attorney and authorized representative of COG Operating LLC, the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Application was provided under the notice letter and proof of receipts attached hereto.

Michael Rodriguez

SUBSCRIBED AND SWORN to before me this 3<sup>rd</sup> day of January 2020 by Michael Rodriguez.



ary Public



January 17, 2020

### VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED

TO: ALL INTEREST OWNERS SUBJECT TO POOLING PROCEEDINGS

Re: Case No. 21066: Application of COG Operating LLC for compulsory pooling,

Lea County, New Mexico. Gunner 8 Fed Com Well Nos. 603H, 604H, 703H,

704H and 705H.

### Ladies and Gentlemen:

This letter is to advise you that COG Operating LLC has filed the enclosed application with the New Mexico Oil Conservation Division seeking a non-standard spacing and proration unit and compulsory pooling, Lea County, New Mexico.

This application has been set for hearing before a Division Examiner at 8:15 a.m. on February 6. 2020. The hearing will be held in Porter Hall in the Oil Conservation Division's Santa Fe Office located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Parties appearing in cases are required by Division Rule 19.15.4.13(B) to file a Pre-Hearing Statement four days in advance of a scheduled hearing. This statement must be filed at the Division's Santa Fe office at the above-specified address and should include: the names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to hearing.

Asa Ortin

77 Ocean Munds-Dry Senior Counsel

COG Operating LLC

1836 ROYALTY PARTNERS, LLC 306 W. Wall Street, Suite 620 Midland, TX 79701

FORTIS MINERALS II, LLC 1111 Bagby St, Suite 2150 Houston, TX 77002

JOHN V. McCARTHY, II PO BOX 3688 Bernice, OK 74331

JUBILEE ROYALTY HOLDINGS, LLC PO Box 192 New York, NY 10024

SUSAN M DUFF 50 Sequoyah Blvd Shawnee, OK 74801

SUGARBERRY OIL & GAS CORPORATION 5950 Cedar Springs Rd, Suite 230 Dallas, TX 75235-6803

TUNDRA AD3, LP 2100 Ross Ave, Suite 1870, LB-9 Dallas, TX 75201

YATES BROTHERS PO BOX 1394 Artesia, NM 88211-1394

ATTN: NOJV Group CHEVRON U.S.A. INC. 6301 Deauville Blvd Midland, TX 79706

DEVON ENERGY PRODUCTION COMPANY, LLC 333 West Sheridan Avenue Oklahoma City, OK 73102

\*JETSTREAM NEW MEXICO, LLC PO Box 471396 Fort Worth, TX 76147

MARATHON OIL PERMIAN LLC 5555 San Felipe St Houston, TX 77056

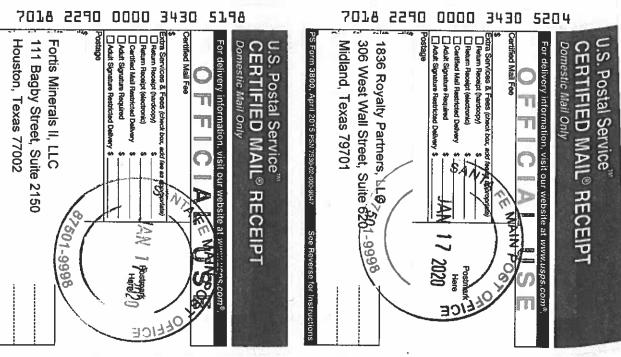
MRC PERMIAN COMPANY 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240 NOVO OIL & GAS NORTHERN DELAWARE, LLC 1001 W. Wilshire Blvd, Suite 206 Oklahoma City, OK 73116

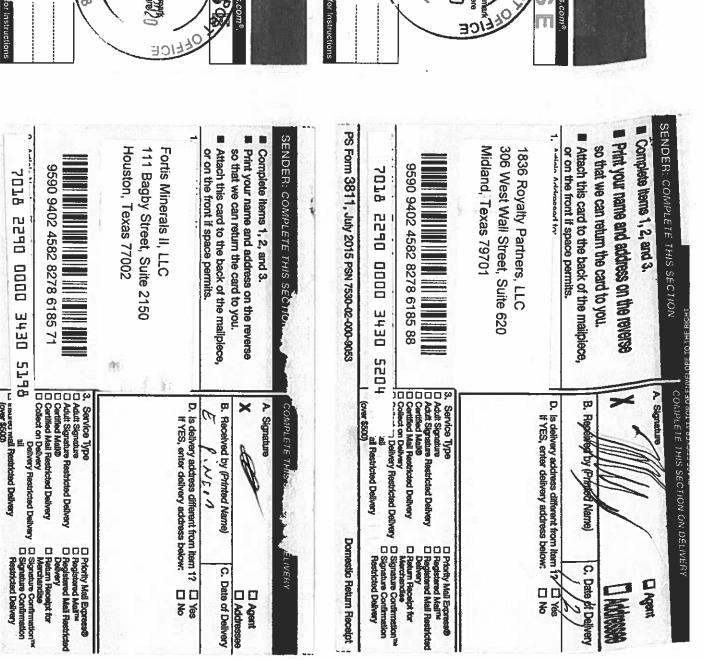
OXY USA WTP Limited Partnership 5 Greenway Plaza, Suite 110 Houston, TX 77046

\*Brigham Exploration Company, LLC 5914 W Courtyard, Suite 200 Austin, TX 78730

\*Bellomy Exploration, LLC 1700 Pacific Ave, Suite 2220 Dallas, TX 75201

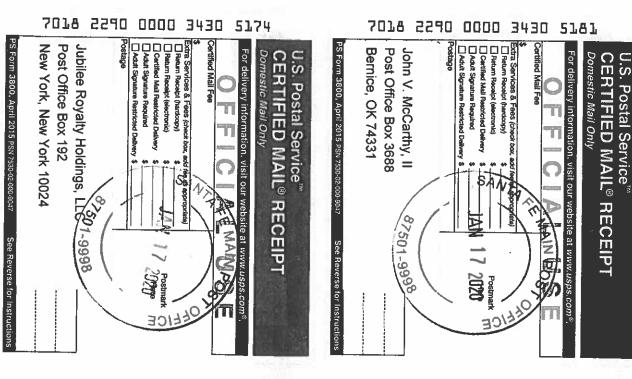
<sup>\*</sup>Jetsream's interest went to Brigham and Bellomy

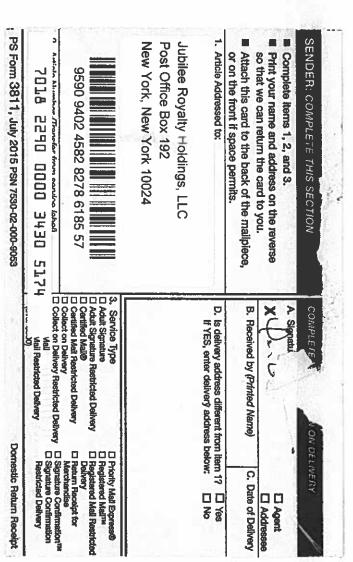




PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt





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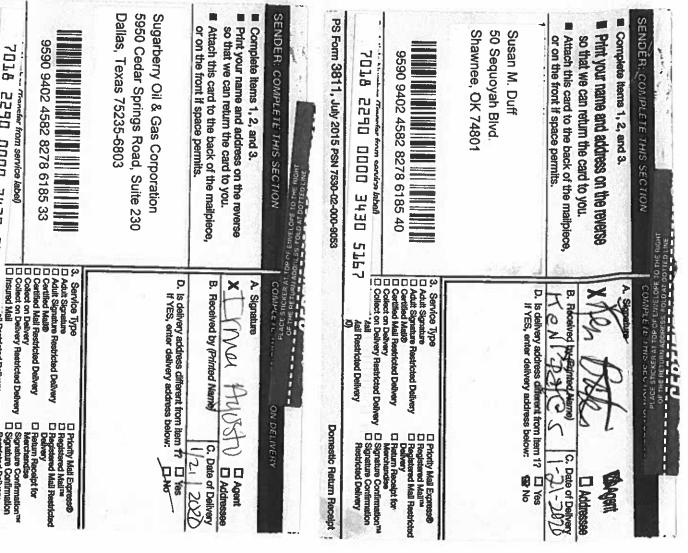
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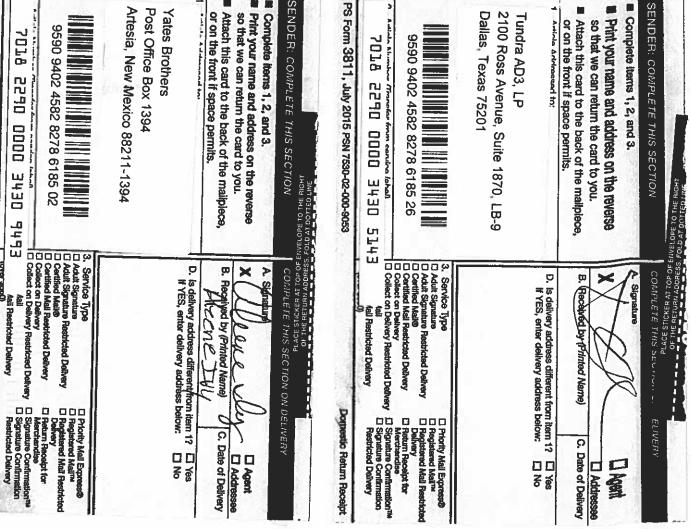
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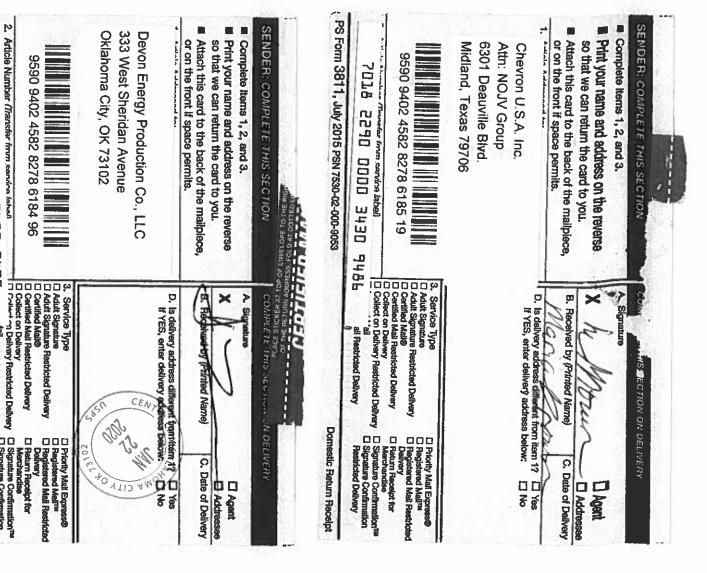
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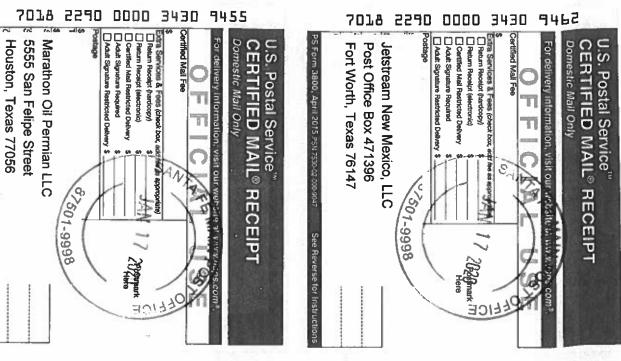


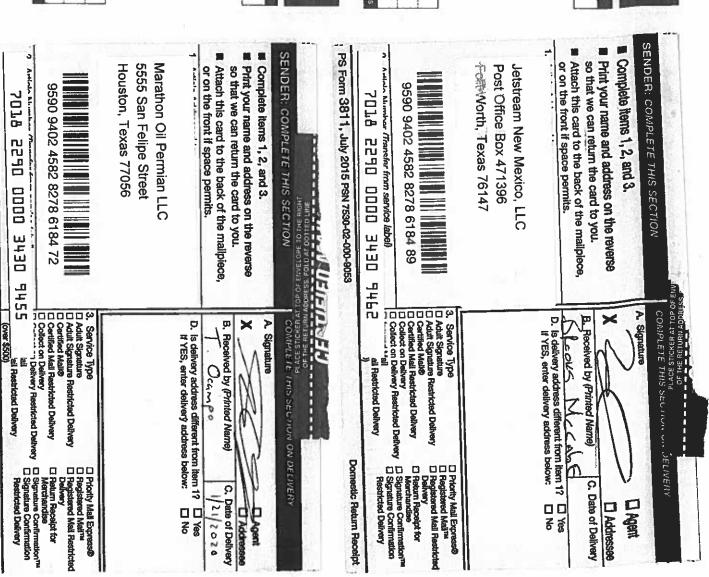
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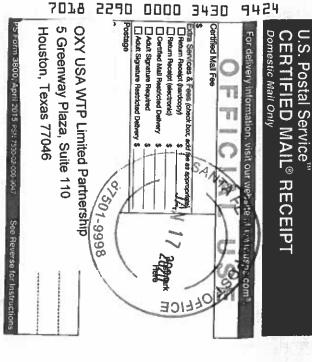
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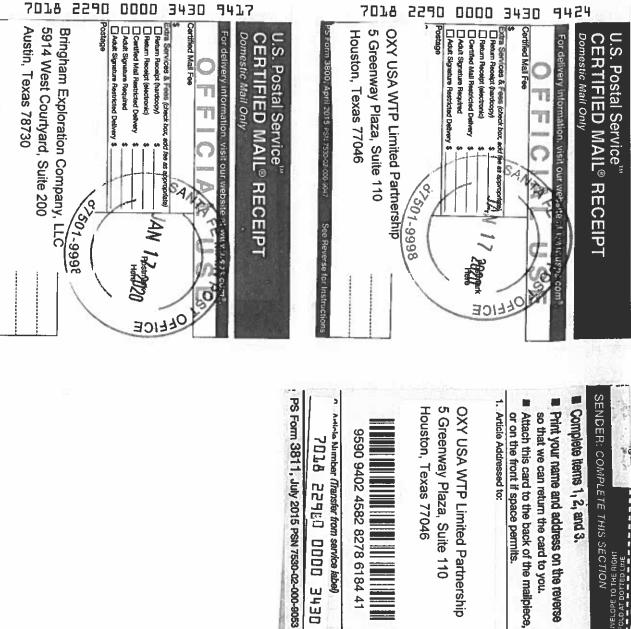
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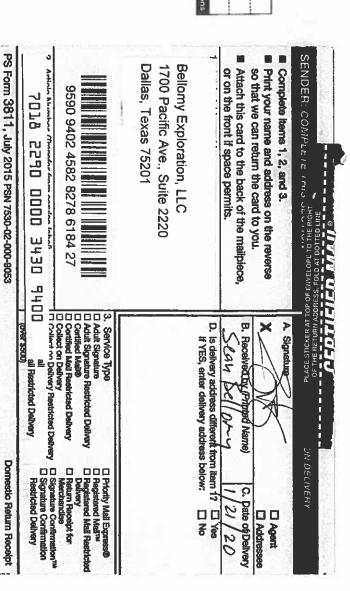
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# **Affidavit of Publication**

STATE OF NEW MEXICO COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

> Beginning with the issue dated January 22, 2020 and ending with the issue dated January 22, 2020.

Publisher

Sworn and subscribed to before me this 22nd day of January 2020.

Business Manager

January 29, 2023

(Seal)

OFFICIAL SEAL

GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

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LEGAL NOTICE January 22, 2020

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
SANTA FE, NEW MEXICO

The State of New Mexico through its Oil Conservation Division hereby gives notice pursuant to law and the Rules and Regulations of the Division of the following public hearing to be held at 8:15 A.M. on February 6, 2020, in the Oil Conservation Division Hearing Room at 1220 South St. Francis, Santa Fe, New Mexico, before an examiner duly appointed for the hearing. If you are an individual with a disability who is in need or a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing, please contact Florene Davidson at 505-476-3458 or through the New Mexico Relay Network, 1-800-659-1779 by January 28, 2020. Public documents including the agenda and minutes can be provided in various accessible forms. Please contact Florene Davidson if a summary or other type of accessible form is needed.

STATE OF NEW MEXICO
All named parties and persons
Having any right, title, interest
or claim in the following cases
and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian whether or not so stated.)

To: All Overriding Royalty Interest Owners, Non-Participating Royalty Interest Owners, Pooled Parties, and Working Interest Owners, including: 1836 Royalty Partners, LLC; Fortis Minerals II, LLC; John V. McCarthy, II, his successors or assigns; Jubilee Royalty Holdings, LLC; Susan M. Duff, her successors or assigns; Sugarberry Oll & Gas Corporation; Tundra AD3, LP; Yates Brothers, a Partnership; Chevron U.S.A. Inc.; Davon Energy Production Company, LLC; Jetstream New Mexico, LLC; Marathon Oll Permian LLC; MRC Permian Company; Novo Oll & Gas Northern Delaware, LLC; OXY USA WTP Limited Partnership; Brigham Exploration Company, LLC; and Bellomy Exploration, LLC.

Case No. 21066: Application of COG Operating LLC for Compulsory Pooling, Lea County, New Mexico. Applicant in the above styled cause seeks an order (1) creating a 640-acre, more or less, horizontal spacing unit comprised of the Wi2 of Section 5 and Wi2 of Section 8, Township 26 South, Range 34 East, N.M.P.M. Lea County, New Mexico; and (2) pooling all uncommitted interests in the Wolfcamp Formation, Bobcat Draw Wolfcamp Pool [Pool Code: 98094]. Said spacing unit shall be dedicated to the Gunner 8 Fed Com 603H and 703H with surface locations in the NE/4NW/4 (Unit C) of Section 5 and bottom hole locations in SE/4SW/4 (Unit N) of Section 8, the Gunner 8 Fed Com 704H with a surface location in the NE/4NW/4 (Unit C) of Section 5 and the bottom hole location in the SW/4SW/4 (Unit M) of Section 8. The completed interval for the proposed Gunner 8 Fed Com 704H will be within 330' of the line separating the W/2W/2 and the E/2W/2 of Sections 5 and 8, which allows inclusion of this acreage into a standard 640-acre, more-or-less, horizontal spacing unit. The completed interval for all proposed wells will meet the 330-foot standard offset from the outer boundaries of the horizontal spacing unit, and the first and last take points will remain within the 100-foot offset as required by the Statewide horizontal rules. Also, to be considered will be the timing of the drilling and completing of said wells, the allocation of the cost thereof, the actual operating costs and charges for supervision, the designation of COG Operating LLC as operator of the wells, and the imposition of 200% charge for risk involved in drilling and completing said wells. Said area is located approximately 18 miles west (and slightly south) of Jal, New Mexico.

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COG Operating LLC - SANTA FE 1048 PASEO DE PERALTA SANTA FE, NM 87501