

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTCar s and Field Office  
OCD HobbsFORM APPROVED  
BLM NO. 1004-0137  
Expires January 31, 2018Case Serial No.  
029519A**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.****SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
2. Name of Operator COG OPERATING LLC		7. If Unit or CA/Agreement, Name and/or No.
3a. Address ONE CONCHO CENTER 600 W ILLINOIS AVENUE MIDLAND, TX 79701-4287		8. Well Name and No. MAS FEDERAL 3H
3b. Phone No. (include area code) Ph: 575-748-6940		9. API Well No. 30-025-42950-00-S1
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 34 T20S R34E NWNE 190FNL 2310FEL		10. Field and Pool or Exploratory Area BERRY-BONE SPRING, NORTH
		11. County or Parish, State LEA COUNTY, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Onshore Order Variance
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

COG Operating LLC requests permission to install a Vapor Combustor Unit (VCU) at the Mas Federal #3H tank battery. This request is due to the fact that the cost of installing and operating equipment necessary to capture the gas exceeds the value of the gas over the life of the facility. COG Operating LLC understands that the following conditions apply:

1. COG Operating LLC may be required to provide economic justification and provide volume verification to the Authorized Officer upon request.
2. COG Operating LLC will comply with 43 CFR 3179 requirements.
3. If volume being combusted is less than 50 MCF of gas per day, it is considered unavoidably lost, therefore, no royalty obligation shall be accrued and will not be required to be reported.
  - a. Unavoidably Lost production shall mean (1) those gas vapors which are released (in this case combusted) from low-pressure storage tanks.
4. Essentially all measured combusted volumes over 50 MCF will require payment of royalties and

14. I hereby certify that the foregoing is true and correct. <b>Electronic Submission #421256 verified by the BLM Well Information System</b> <b>For COG OPERATING LLC, sent to the Hobbs</b> <b>Committed to AFMSS for processing by DEBORAH MCKINNEY on 05/29/2018 (18DLM0350SE)</b>	
Name (Printed/Typed) AMANDA AVERY	Title AUTHORIZED REPRESENTATIVE
Signature (Electronic Submission)	Date 05/23/2018

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By <u>DUNCAN WHITLOCK</u>	Title <u>TECHNICAL LPET</u>	Date <u>06/04/2018</u>
Conditions of approval, if any, are attached. Approval of this notice 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.		Office Hobbs

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.

(Instructions on page 2)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***MSB/OCD  
6/14/2018

## **Additional data for EC transaction #421256 that would not fit on the form**

### **32. Additional remarks, continued**

volumes need to be reported on OGOR B reports as disposition code 08.

5. Per 43 CFR 3162.7-5(d)/Onshore Order No.3.III.I.1, site facility diagram must be submitted within 60 days of equipment installation.

6. This approval does not authorize any additional surface disturbance.

7. Subject to like approval from NMOCD.

Attached are the following:

Site Security Diagram of the current tank battery, as well as the location of the VCU and the manifold line connecting the tanks to the VCU.

Contact name and number to retrieve information on volumes being combusted.

Specification sheet(s) for the VCU.

**MAS FEDERAL 3H BATTERY**  
NWNE SECTION 34, T20S, R34E, UNIT B  
LEA COUNTY, NM

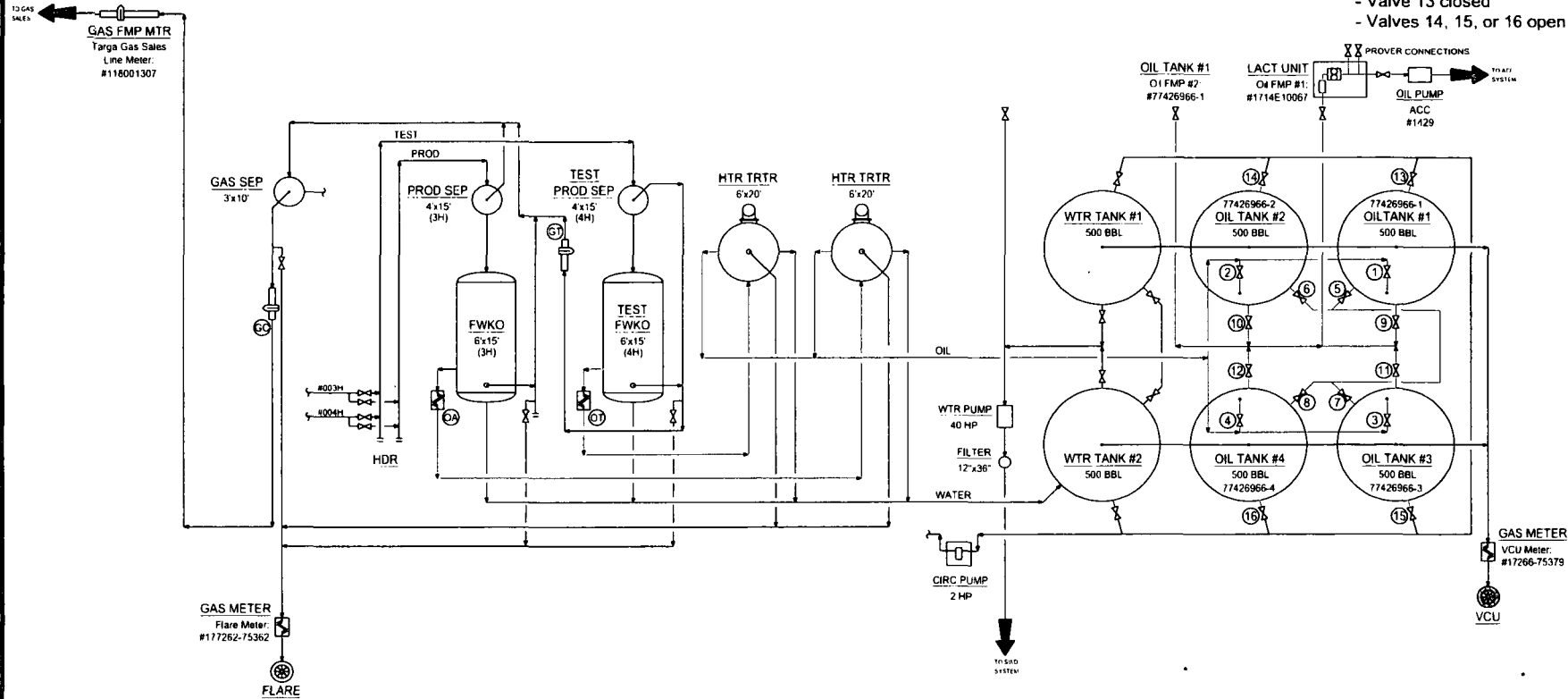
**WELLS:**  
MAS FEDERAL #003H: 30-025-42950  
MAS FEDERAL #004H: 30-025-43482

**OIL METERS**  
Allocation Meter (3H)  
(OA) #14647429  
Test Meter (4H)  
(OT) #14648492

**GAS METERS**  
Test Meter (4H)  
(GT) #39022279  
Check Meter  
(GC) #39022278

**Production Phase - Oil Tank #1**  
- Valve 1 open  
- Valves 2, 3, and 4 closed  
- Valves 5, 6, 7, and 8 open  
- Valves 9, 10, 11, and 12 closed  
- Valve 13 open  
- Valves 14, 15, and 16 closed

**Sales Phase - Oil Tank #1**  
- Valve 1 closed  
- Valves 2, 3, or 4 open  
- Valve 5 closed  
- Valves 6, 7, and 8 open  
- Valve 9 open  
- Valves 10, 11, and 12 closed  
- Valve 13 closed  
- Valves 14, 15, or 16 open



**NOTES:**

Type of Lease: Federal  
Federal Lease #: NMLC 029519A  
Property Code: 315664  
OGRID #: 229137

**Ledger for Site Diagram**  
Produced Fluid: \_\_\_\_\_  
Produced Oil: \_\_\_\_\_  
Produced Gas: \_\_\_\_\_  
Produced Water: \_\_\_\_\_

**CONFIDENTIALITY NOTICE**  
THIS DRAWING IS PROPERTY OF COG OPERATING LLC AND IS LOANED TO THE BORROWER FOR CONFIDENTIAL USE ONLY AND IS SUBJECT TO RETURN UPON REQUEST AND SHALL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISCLOSED OR DIRECTLY OR INDIRECTLY, AND USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SPECIALLY FURNISHED.

REFERENCE DRAWINGS		NO.		DATE		DESCRIPTION		BY		CHK		APP		DATE	
A				08/01/12		ISSUE FOR SITE PERMITTING		CMB						08/07/12	
B				04/03/17		UPDATED FOR MAS FED 3H BTY		CMB						08/07/12	
COG OPERATING LLC		ONE CONCHO CENTER		600 WEST ILLINOIS AVENUE		MIDLAND, TEXAS 79701									
SITE SECURITY PLANS		LOCATED AT:													

REVISIONS		NO.		DATE		DESCRIPTION		BY		CHK		APP		DATE	
A				08/01/12		ISSUE FOR SITE PERMITTING		CMB						08/07/12	
B				04/03/17		UPDATED FOR MAS FED 3H BTY		CMB						08/07/12	

ENGINEERING RECORD		NO.		DATE		DESCRIPTION		BY		CHK		APP		DATE	
DRN				08/01/12		ISSUE FOR SITE PERMITTING		CMB						08/07/12	
DES				04/03/17		UPDATED FOR MAS FED 3H BTY		CMB						08/07/12	
CHK															
APP															
DATE															
FILE NO.															
FACE OVER															
OPER OVER															
SCALE															

**CONCHO**  
NORTHERN DELAWARE BASIN ASSET  
PRODUCTION FACILITIES  
SITE FACILITY DIAGRAM  
MAS FEDERAL 3H BATTERY

LEA COUNTY  
TOWNSHIP/RANGE  
MULTIPLE

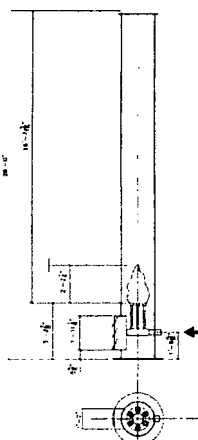
CONCHO NO. D-1700-81-005

NEW MEXICO  
REV B

INTERNAL DEGRADATION CALCULATIONS

Flow Rate 1157 SCFH  
Temperature Vapor 550 deg R  
Pav 10 in WC  
Temperature Air 545 deg R  
H<sub>2</sub>O Ratio 8.5  
Diameter 24 in  
Ambient air density 0.075 lb/ft<sup>3</sup>

Formula C = 1  
MW deg 42.00  
H<sub>2</sub>O Ratio 0.1657  
Mass flow 21.283 Lbs/sec  
Air required 2.1810 Lbs/sec 25.3694 SCFH  
CO<sub>2</sub> 0.4230 Lbs/sec 5.47 SCFH  
H<sub>2</sub>O 0.1649 Lbs/sec 2.54 SCFH  
N<sub>2</sub> 1.72 Lbs/sec 23.54 SCFH  
Exit Mass 2.2929 Lbs/sec 34.652 SCFH  
MW 28.74  
Heat input 2576 BTU/sec  
Temperature rise 1048 ft deg F/sec  
Total Volume 42.11 ACFT  
Stack Area 3.14 SF  
Velocity 29.32 fpm  
Stack height 21.86 ft  
Residence 0.78 sec  
Pavitt 0.1935 in WC  
Area req'd (air mass) 273 in<sup>2</sup>  
Grill size 44x23 in



BURNER  
Vs = 2.2929 Lbs/sec  
Mass exit = 2.2929 x Vs = 185.18 fpm  
AREA = 936 in<sup>2</sup>  
P = 10.4 in WC  
L = 21.86 ft

RELATED PERFORM. DATA	8/1/18
DESCRIPTION	DATE
Edge CXV 24" Combustor Data Sheet	

**Mike Powell - Construction Foreman**

**432-254-7619**