Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
OCD Artesia

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

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 reverse side.

5. Lease Serial No.
NMNM53231

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM126440

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
BIG PAPI FED COM 2H

2. Name of Operator
COG OPERATING LLC
Contact: AMANDA AVERY
E-Mail: aavery@concho.com

9. API Well No.
30-015-37833-00-S1

3a. Address
600 W ILLINOIS AVENUE
MIDLAND, TX 79701

3b. Phone No. (include area code)
Ph: 575-748-6940

10. Field and Pool, or Exploratory
BONE SPRINGS
WILLOW LAKE-BONE SPRING, SE

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 4 T26S R29E NENW 330FNL 1980FWL

11. County or Parish, and State
EDDY COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Onshore Order Variance
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall 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 Horned Owl 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 NTL-4A 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

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 23 2016
RECEIVED

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #344389 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 07/12/2016 (16PP1684SE)

Name *(Printed/Typed)* AMANDA AVERY — Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission) — Date 07/12/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By DUNCAN WHITLOCK — Title TECHNICAL LPET — Date 09/12/2016

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 Carlsbad

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #344389 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.

The Big Papi tank vapor measurement method was performed in the following manner:

Measurement Instrument: Fox Instruments Thermal Mass Meter
? This meter technology was chosen due to its volume turndown capabilities
? The meter was calibrated for 3? diameter pipe.
? A standard gas analysis, comparable to the gas expected from the Big Papi production stream, was also inputted into the thermal mass meter transmitter for gas density calculations.
? The calibration of the meter allows for a span of 0-300 Mcfd.

The thermal mass meter was installed on the outlet of the production tanks. The valve to the combustor was placed in the closed position and all tank vapors were directed to the thermal mass meter. Our technician verified there were no leaks on the tank vent valves or thief hatches during testing. The tank vapors were measured for 4 hours during the hottest part of the day. Our cumulative 4-hour volume was then averaged over a 24 hour period to arrive at our 24-hr daily production. Due to the measurement period occurring during the heat of the day, we feel our measured volumes are higher than the actual production.

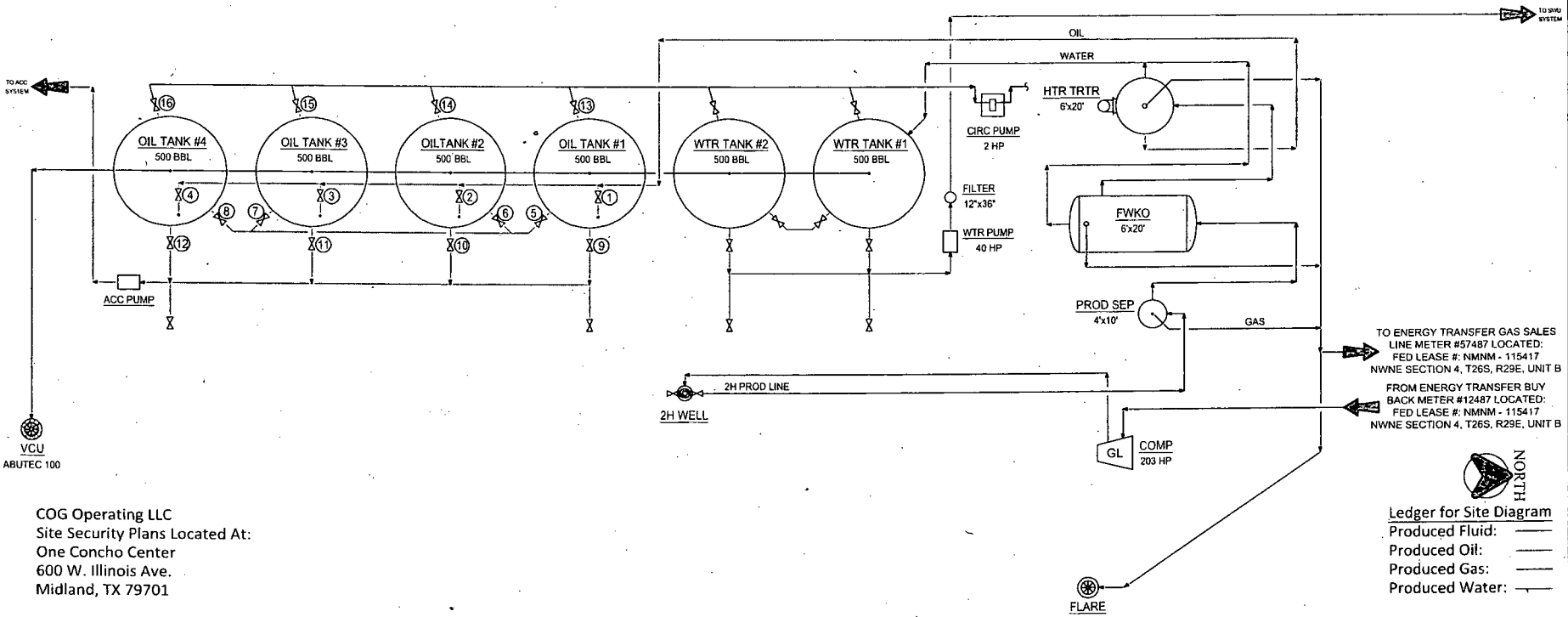
Attached are the following:
Site Security Diagram of the current tank battery, as well as the location of the VCU and the manifold line connecting the tanks to the VCU.
Placard information stating directions on how to retrieve volumes being combusted.
Specification sheet(s) for the VCU.

BIG PAPI FEDERAL COM 2H BATTERY
NENW SECTION 4, T26S, R29E, UNIT C
EDDY COUNTY, NM

WELLS:
BIG PAPI FEDERAL COM #002H: 30-015-37833

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



COG Operating LLC
Site Security Plans Located At:
One Concho Center
600 W. Illinois Ave.
Midland, TX 79701

Ledger for Site Diagram
Produced Fluid: ——
Produced Oil: ——
Produced Gas: ——
Produced Water: ——

NOTES:

Type of Lease: Federal
Federal Lease #: NMNM - 115417
Property Code: 308596
OGRID #: 229137

CONFIDENTIALITY NOTICE
THIS DRAWING IS PROPERTY OF COG OPERATING LLC AND IS LENT TO THE BORROWER FOR CONFIDENTIAL USE ONLY AND IS SUBJECT TO RETURN UPON REQUEST AND SHALL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY, NOR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS SPECIFICALLY FURNISHED.

REFERENCE DRAWINGS

NO.	TITLE

COG OPERATING LLC
600 WEST ILLINOIS AVENUE
MIDLAND, TEXAS 79701

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK.	APP.
A	06/01/12	ISSUE FOR SITE PERMITTING	CRB		
B	06/07/16	UPDATED FOR BIG PAPI FED COM 2H BTY	CMB		

ENGINEERING RECORD

	BY	DATE
DRN:	CRB	06/01/12
DES:	CRB	06/01/12
CHK:		
APP:		
AFE NO:		
FACIL ENGR:	C. BLEDSOE	
OPER ENGR:	VARIES	
SCALE:	NONE	

CONCHO

NEW MEXICO BASIN ASSET
-- PRODUCTION FACILITIES
SITE FACILITY DIAGRAM
BIG PAPI FEDERAL COM 2H BATTERY
EDDY COUNTY NEW MEXICO

TWNSHP/RANGE: MULTIPLE
DWG NO.: D-1700-B1-005
REV: B

EDGE
MANUFACTURING & TECHNOLOGY
2606 W CR 130, Midland TX 79705
432-687-7060

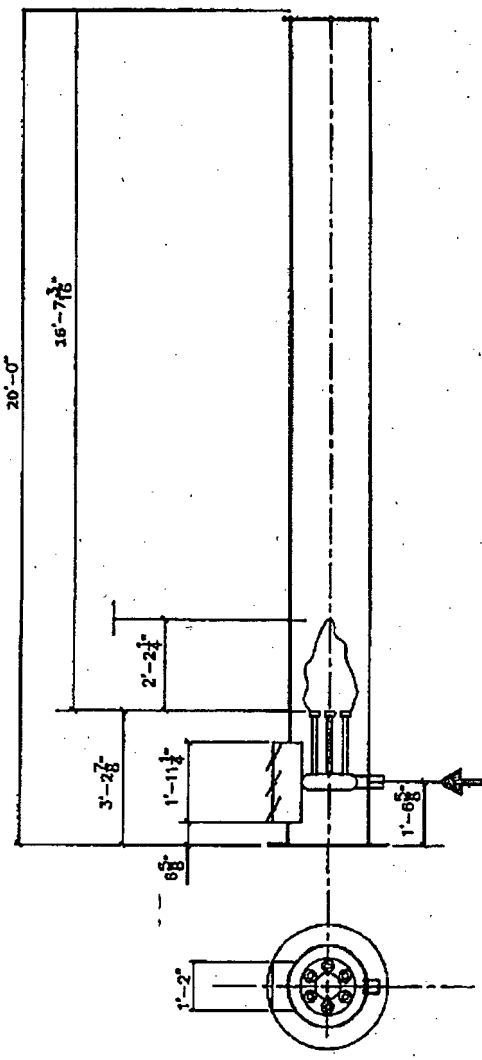
THERMAL OXIDATION CALCULATIONS

Flow Rate 1.157 SCFS
Temperature (vapor)585 deg. R
Pav 10in.W.C.
Temperature (air) 545 deg. R
Hgt:D Ratio 8.5
Diameter 24 in.
Ambient air density 0.0716 lb./cf

	C	H		
Formula	36	6		
MW avg	42.00			
H:C Ratio	0.1667			
Mass flow	0.1283	Lbs/sec		
Air required	2.1810	Lbs/sec	29.0694	SCFS
CO2	0.4030	Lbs/sec	3.47	SCFS
H2O	0.1649	Lbs/sec	6.94	SCFS
N2	1.72	Lbs/sec	23.59	SCFS
Exit Mass	2.2909	Lbs/sec	34.0052	SCFS
MW 28.72				

Heat Input	2576 BTU/sec.
Temperature rise	1049.10 deg. F/sec
Total Volume	92.11 ACFS
Stack Area	3.14 SF
Velocity	29.32 fps
Stack height	21.66 ft.
Residence	0.78 sec.

Pdraft	0.1935 in.WC
Area req'd (air intake)	273 in.2
Grill size	14x23 in.



BURNER

Vs	=892 fps
Mach exit	=.202xVs=180.18fps
AREA	=.996 in.2
△ P	=10.4 in.WC
Lf	=2.19 ft.

HEADER INLET

REV.	DESCRIPTION	DATE
1	REVISED PER FINAL DATA	8/14/14

Edge CXV 24" Combustor Data Sheet