

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Conservation Division, District 1
1625 N. French Drive
Hobbs, NM 88240

OMB NO. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1A. TYPE OF WORK

DRILL ☐

DEEPEN ☐

B. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER ☐

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

COG OPERATING, LLC.

(GREG WILKES 432-685-4341) 7443

3. ADDRESS AND TELEPHONE NO.

550 WEST TEXAS AVENUE SUITE 1300 MIDLAND, TEXAS 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface 1650' FNL & 1650' FWL SECTION 6 T26S-R38E LEA CO. NM

At proposed prod. zone 1350'

SAME

Per SN dated 3/22/05

Unit F

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

Approximately 7 miles Southeast of Jal New Mexico

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.

(Also to nearest drig. unit line, if any) 1650'

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

1320'

16. NO. OF ACRES IN LEASE

2240

17. NO. OF ACRES ASSIGNED TO THIS WELL

40

19. PROPOSED DEPTH

5600'

20. ROTARY OR CABLE TOOLS

ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3037' GR.

22. APPROX. DATE WORK WILL START WHEN APPROVED

23. PROPOSED CASING AND CEMENTING PROGRAM

Caution Controlled Water Basin

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor	NA	40'	Cement to surface with Redi-mix
12 1/4"	J-55 8 5/8"	32	975'	400 Sx. circulate cement to surf
7 7/8"	J-55 5 1/2"	17	5600'	500 Sx. Est. top of cement 2400'

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.

2. Drill 12 1/4" hole to 975'. Run and set 975' of 8 5/8" 32# J-55 ST&C casing. Cement with 200 Sx. of Class "C" 35/65 POZ, + 2% CaCl, + 1/4# Flocele/Sx, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface!

3. Drill 7 7/8" hole to 5600'. Run and set 5600' of 5 1/2" 17# J-55 L&C casing. Cement with 500 Sx. of Class "C" cement + additives, estimate top of cement 2400' from surface.

OPER. OGRID NO. 229137

PROPERTY NO. 301053

POOL CODE 34220

EFF. DATE 8/16/05

API NO. 30-025-37411

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

TITLE Agent

DATE 01/26/05

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

/s/ Joe G. Lara

TITLE

FIELD MANAGER

DATE

JUL 06 2005

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000**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**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Serial No. NM-0889
2. Name of Operator COG OPERATING, LLC. (ERICK NELSON 432-685-4342)	6. If Indian, Allottee or Tribe Name -----
3a. Address 550 WEST TEXAS AVENUE SUITE 1300 MIDLAND, TEXAS 79701	7. If Unit or CA/Agreement, Name and/or No. -----
3b. Phone No. (include area code) 432-685-4342	8. Well Name and No. M. D. SELF # 8
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)	9. API Well No.
	10. Field and Pool, or Exploratory Area JUSTIC, BLINEBRY, TUBB, DRINK.
	11. County or Parish, State LEA CO. NEW MEXICO

12. CHECK 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"/> Fracture Treat	<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 <u>Move</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>location</u>
	<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 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.)

1. COG OPERATING, LLC. requests the approval to move the location of Their M.D. SELF #8

FROM: 1650' FWL & 1650' FNL SECTION 6 T26S-R38E LEA CO. NEW MEXICO
TO: 1650' FWL & 1350' FNL SECTION 6 T26S-R38E LEA CO. NEW MEXICO

2. The reason for this request is to avoid disturbing an archaeological site at the original location.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Joe T. Janica

Title Agent

Signature

Date 03/22/05

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

/s/ Joe G. Lara

Title

FIELD MANAGER

Date

JUL 06 2005

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 FIELD OFFICE

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-37411	Pool Code 34220	Pool Name JUSTIC, BLINEBRY, TUBB, DRINKARD
Property Code 301053	Property Name M.D. SELF	Well Number 8
NCRTD No. 229137	Operator Name COG OPERATION LLC	Elevation 3036'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	6	26-S	38-E		1350	NORTH	1650	WEST	LEA

Bottom Hole Location If Different From Surface

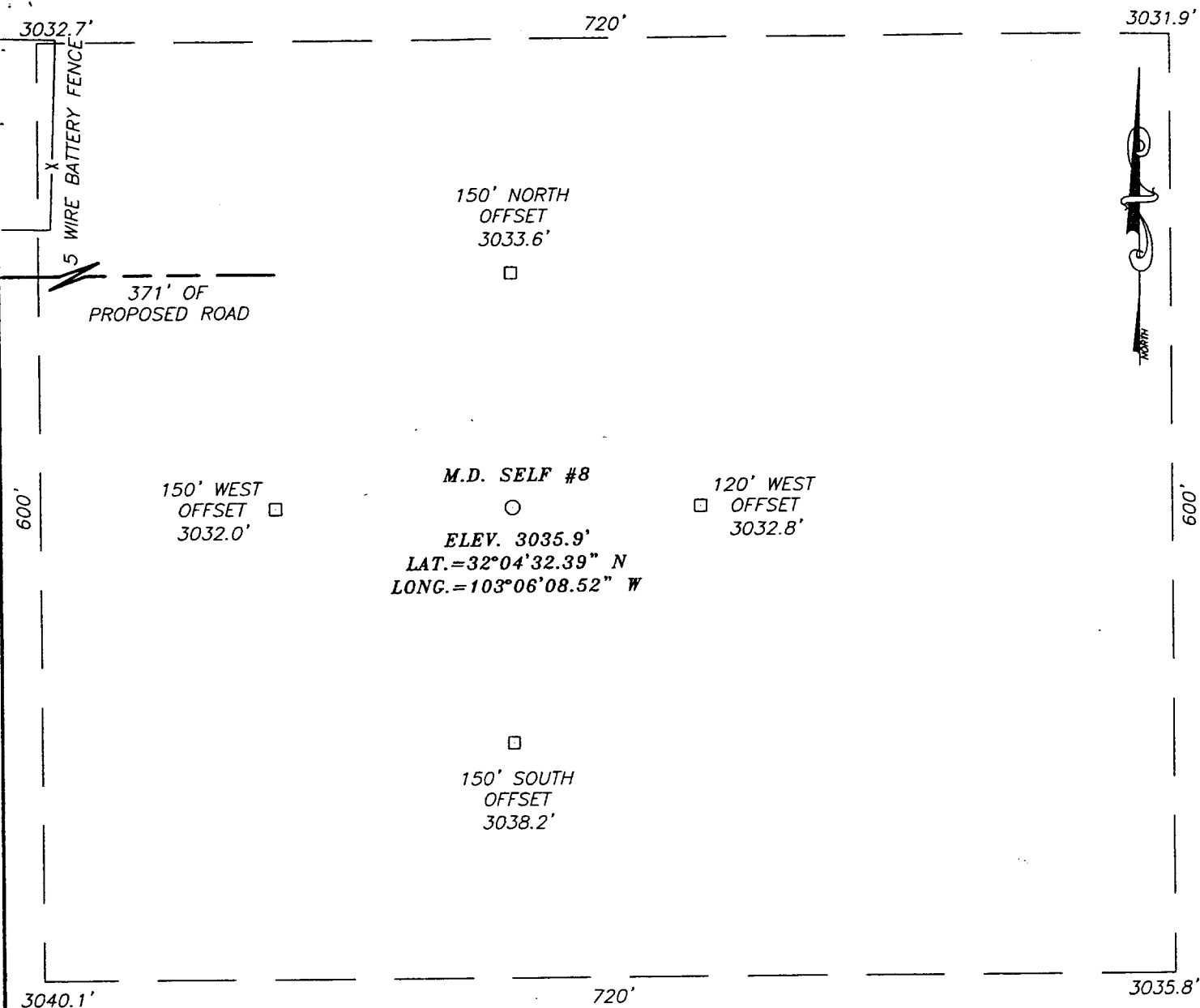
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No. NSL-5246
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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

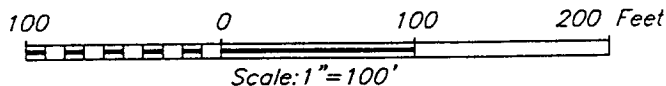
<p>GEODETIC COORDINATES NAD 27 NME Y=393426.3 N X=881292.2 E LAT.=32°04'32.39" N LONG.=103°06'08.52" W</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature <i>Joe T. Janica</i> Joe T. Janica Printed Name Agent Title 03/22/05 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>MARCH 15, 2005</p> <p>Date Surveyed Signature Professional Surveyor GARY C. EDISON 3/21/05 05.11.0454 Certified by GARY C. EDISON 12641</p>
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SECTION 6, TOWNSHIP 26 SOUTH, RANGE 38 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO



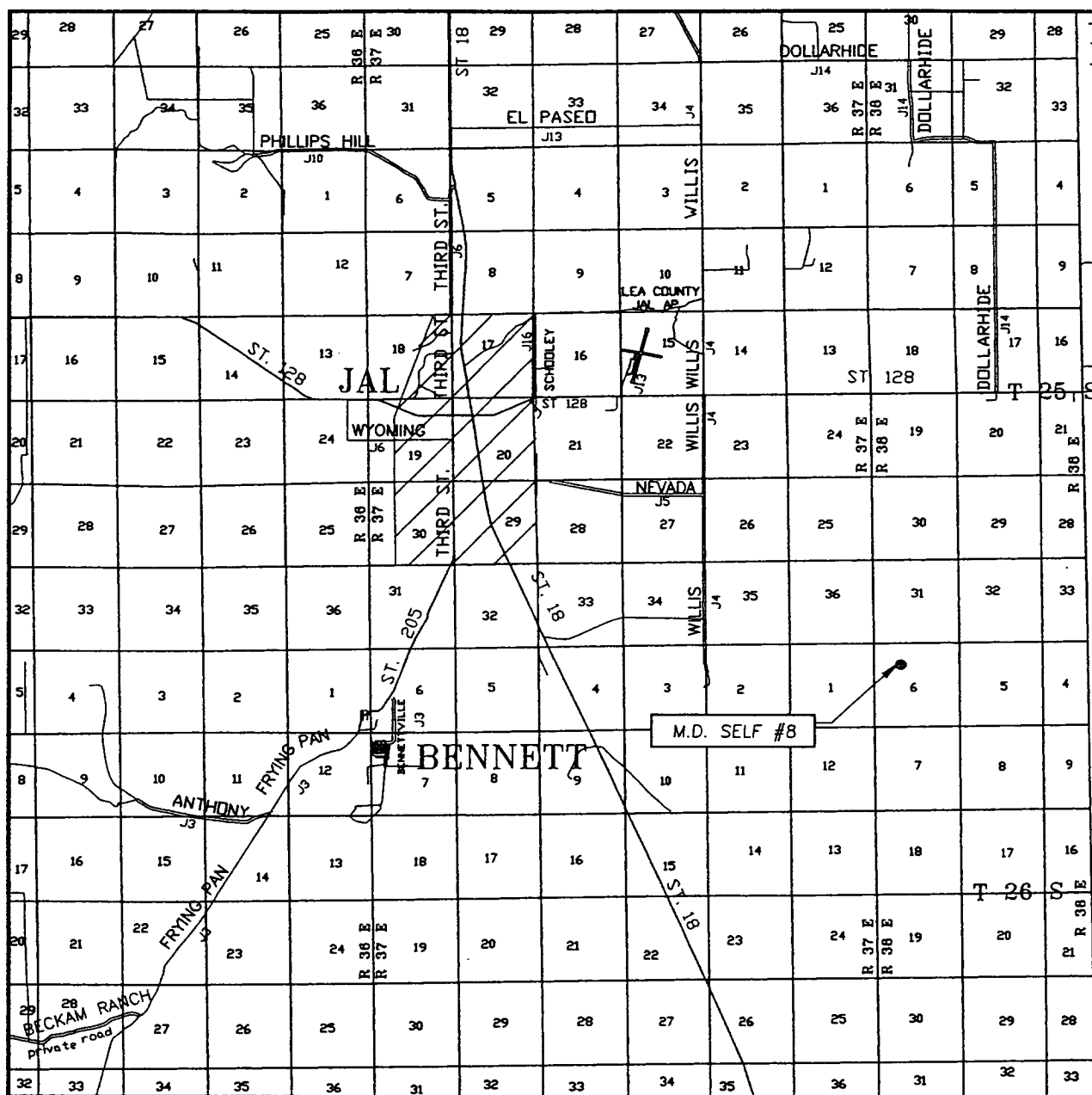
DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #18 AND ST. HWY. #128 IN JAL. GO EAST ON ST. HWY. #128 APPROX. 4.6 MILES. TURN RIGHT (SOUTH) AT LEASE ROAD AND GO SOUTH APPROX. 3.2 MILES. FOLLOW PROPOSED ROAD SURVEY APPROX. 371' EAST TO THIS LOCATION.

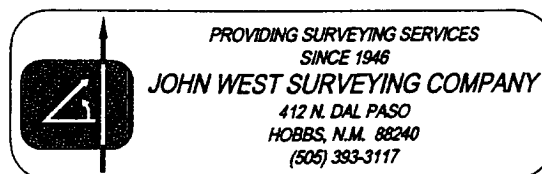


PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N. DAL PASO
 HOBBS, N.M. 88240
 (505) 393-3117

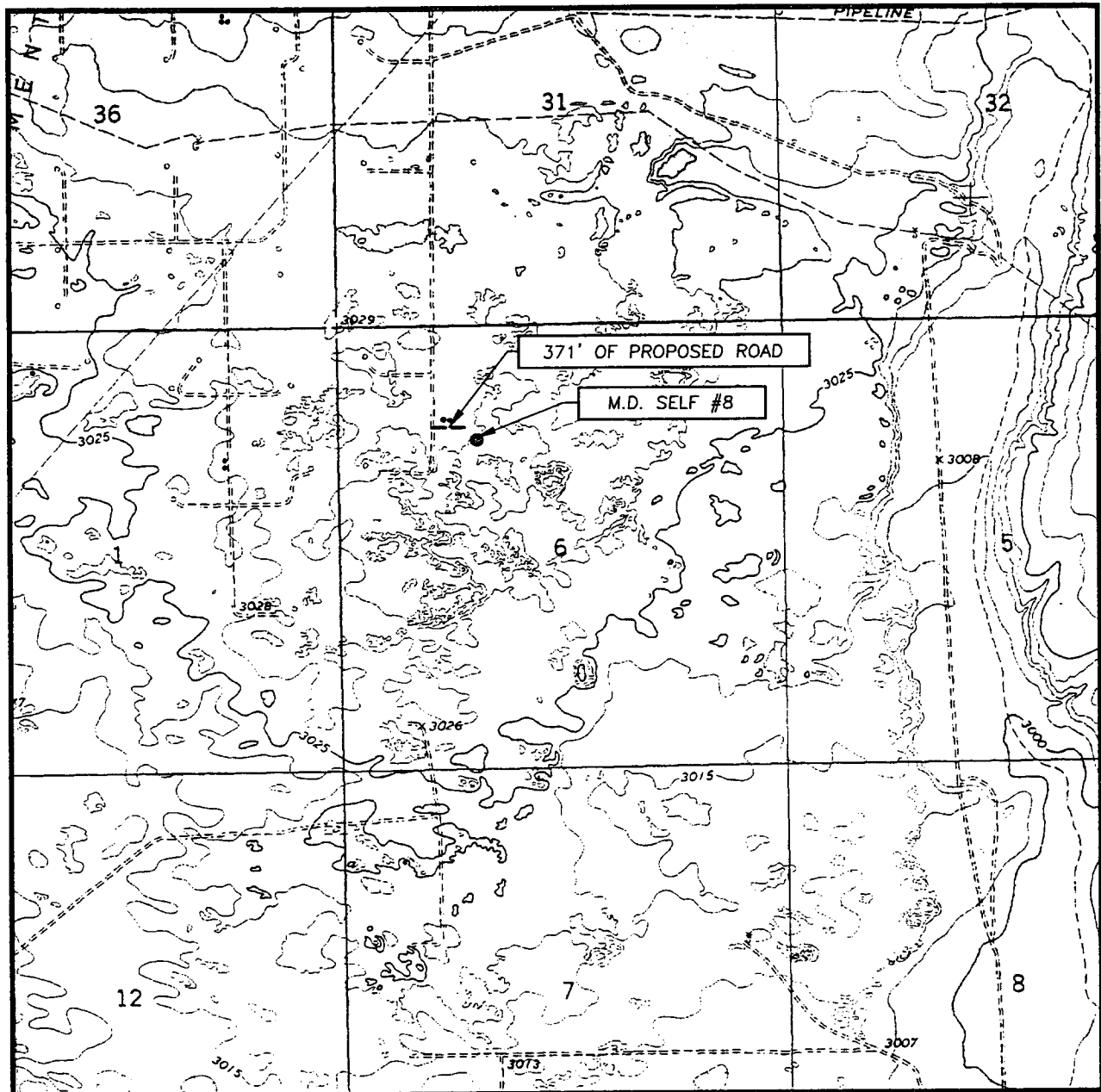
COG OPERATION LLC			
M.D. SELF #8 WELL LOCATED 1350 FEET FROM THE NORTH LINE AND 1650 FEET FROM THE WEST LINE OF SECTION 6, TOWNSHIP 26 SOUTH, RANGE 38 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.			
Survey Date: 03/15/05	Sheet 1 of 1 Sheets		
W.O. Number: 05.11.0454	Dr By: D. LOVE	Rev 1: N/A	
Date: 03/17/05	Disk: CD#4	05110454	Scale: 1"=100'



LEASE _____ M.D. SELF _____



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:

JAL SE, TEX.-N.M. - 5'

CONTOURS IN SHIFTING SAND -25'

SEC. 6 TWP. 26-S RGE. 38-E

SURVEY _____ N.M.P.M.

COUNTY _____ LEA

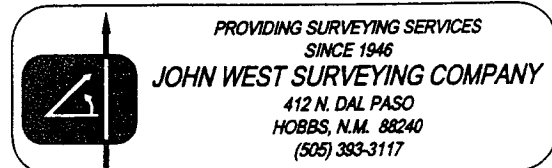
DESCRIPTION 1350' FNL & 1650' FWL

ELEVATION _____ 3036'

OPERATOR _____ COG OPERATING LLC

LEASE _____ M.D. SELF

U.S.G.S. TOPOGRAPHIC MAP
JAL SE, TEX.-N.M.



State of New Mexico

Energy, Minerals and Natural Resources Department

DISTRICT I

1625 N. FRENCH DR., HOBBES, NM 88240

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87506

OIL CONSERVATION DIVISION

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

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 34220	Pool Name JUSTIC BLINEBRY TUBB DRINKARD
Property Code	Property Name MD SELF	Well Number 8
OGRID No. 229137	Operator Name COG OPERATING, LLC.	Elevation 3037'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	6	26-S	38-E		1650	NORTH	1650	WEST	LEA

Bottom Hole Location If Different From Surface

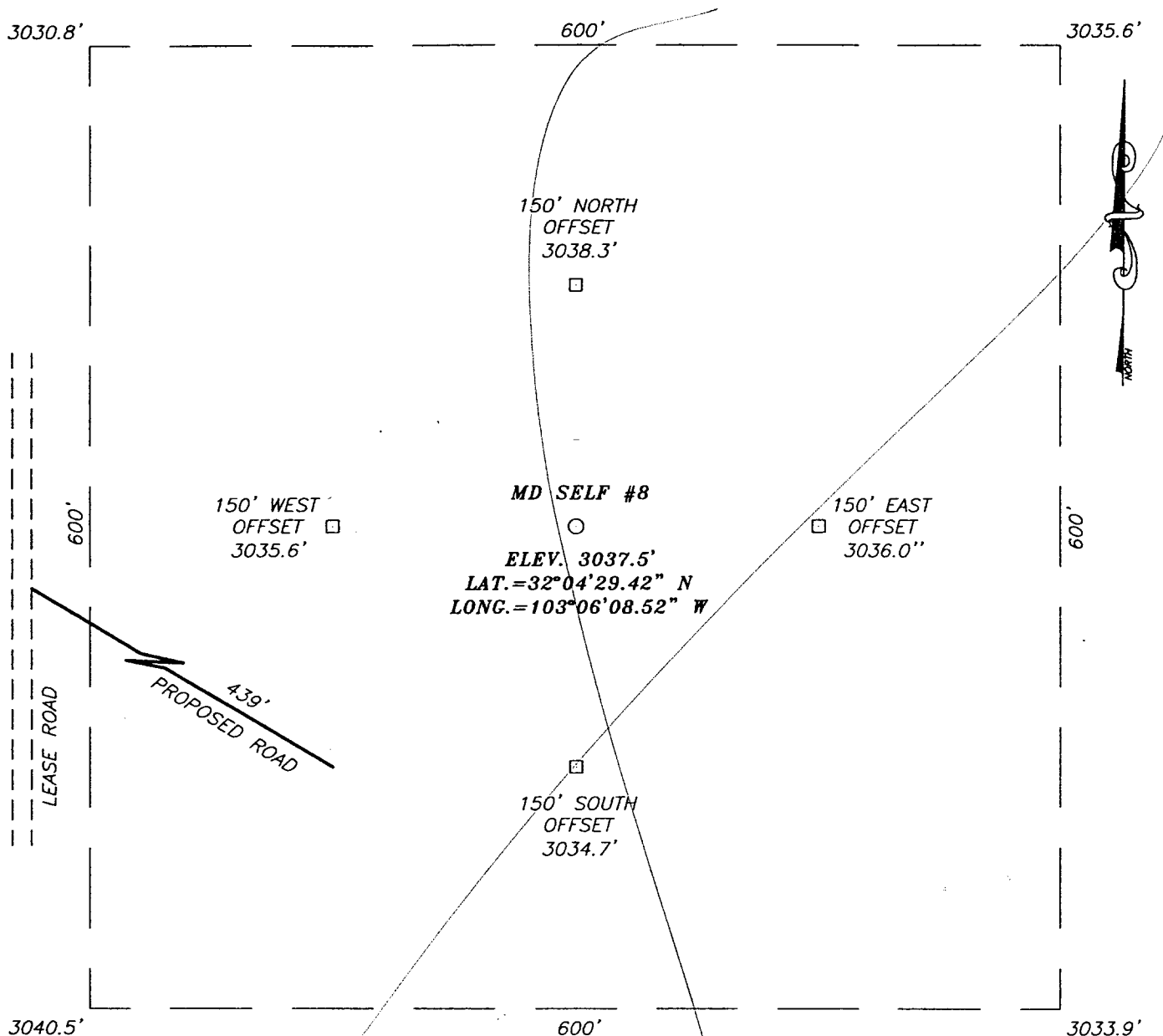
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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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

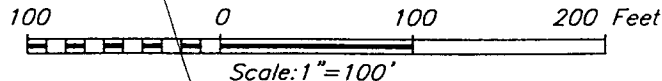
<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=393126.3 N X=881295.6 E</p> <p>LAT.=32°04'29.42" N LONG.=103°06'08.52" W</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Joe T. Janica</i> Signature Joe T. Janica Printed Name Agent Title 01/26/05 Date</p>
	<p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>DECEMBER 15, 2004</p> <p>Date Surveyed: DEL Signature & Seal of Professional Surveyor <i>Gary E. Edson</i> 12/23/04 04.11.1705 Certificate No. GARY EIDSON 12641</p>

SECTION 6, TOWNSHIP 26 SOUTH, RANGE 38 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM JAL GO EAST ON STATE HWY #128 FOR APPROX. 5.9 MILES. TURN RIGHT (SOUTH) AT LEASE RD. AND GO APPROX. 3.3 MILES TO A PROPOSED ROAD SURVEY ON EAST SIDE OF LEASE RD. FOLLOW PROPOSED ROAD SURVEY 439' FEET TO SOUTH WEST CORNER OF LOCATION.



PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N. DAL PASO
 HOBBS, N.M. 88240
 (505) 393-3117

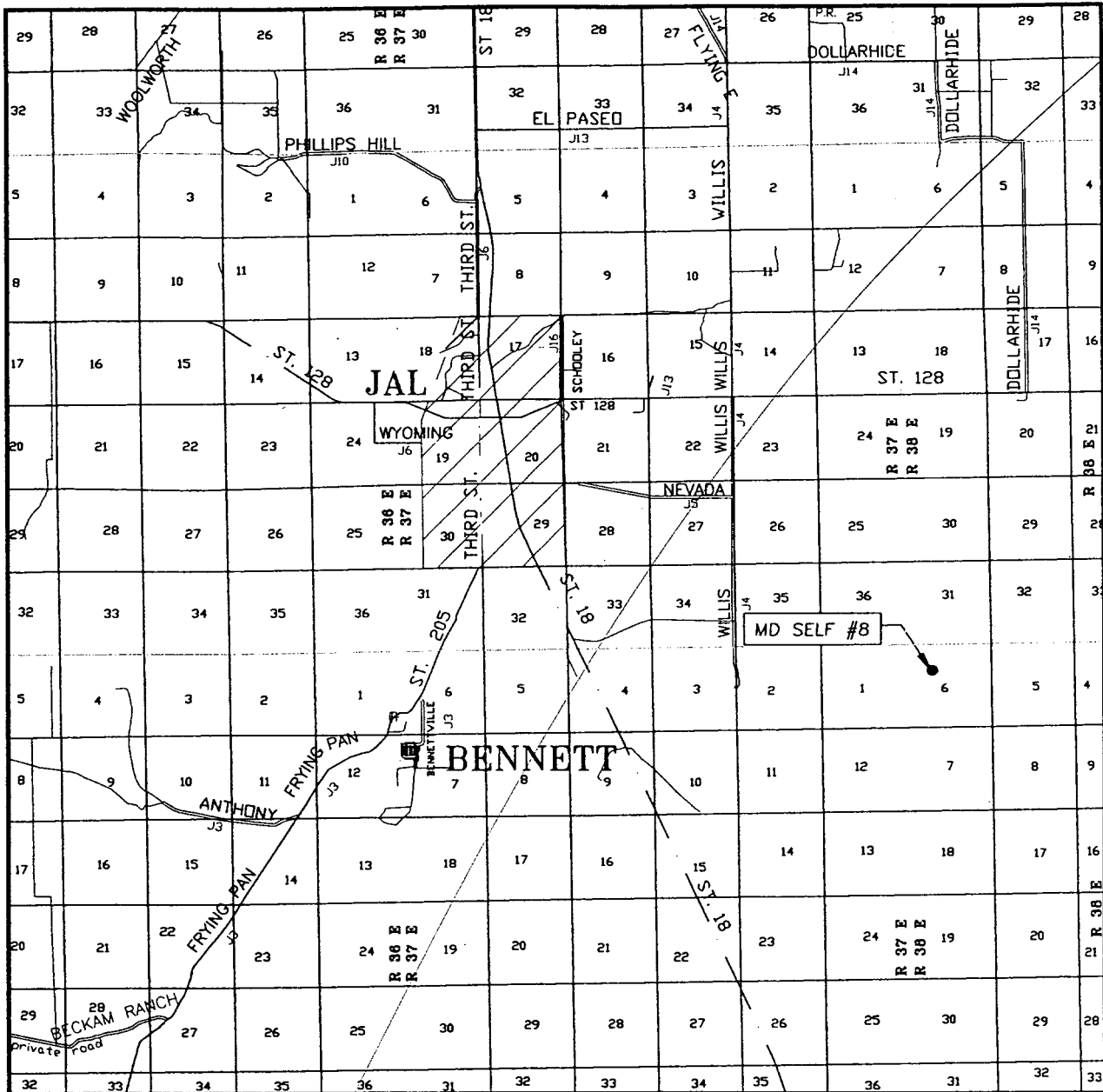
COG OPERATING

LLC

MD SELF #8 WELL
 LOCATED 1650 FEET FROM THE NORTH LINE
 AND 1650 FEET FROM THE WEST LINE OF SECTION 6,
 TOWNSHIP 26 SOUTH, RANGE 38 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO.

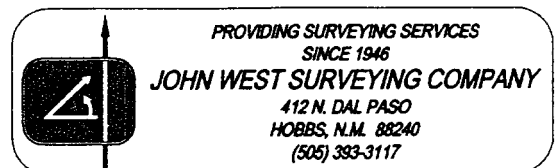
Survey Date: 12/15/04	Sheet 1 of 1 Sheets
W.O. Number: 04.11.1705	Dr By: DEL
Date: 12/20/04	Disk: CD#3
04111705	Scale: 1"=100'

VICINITY MAP

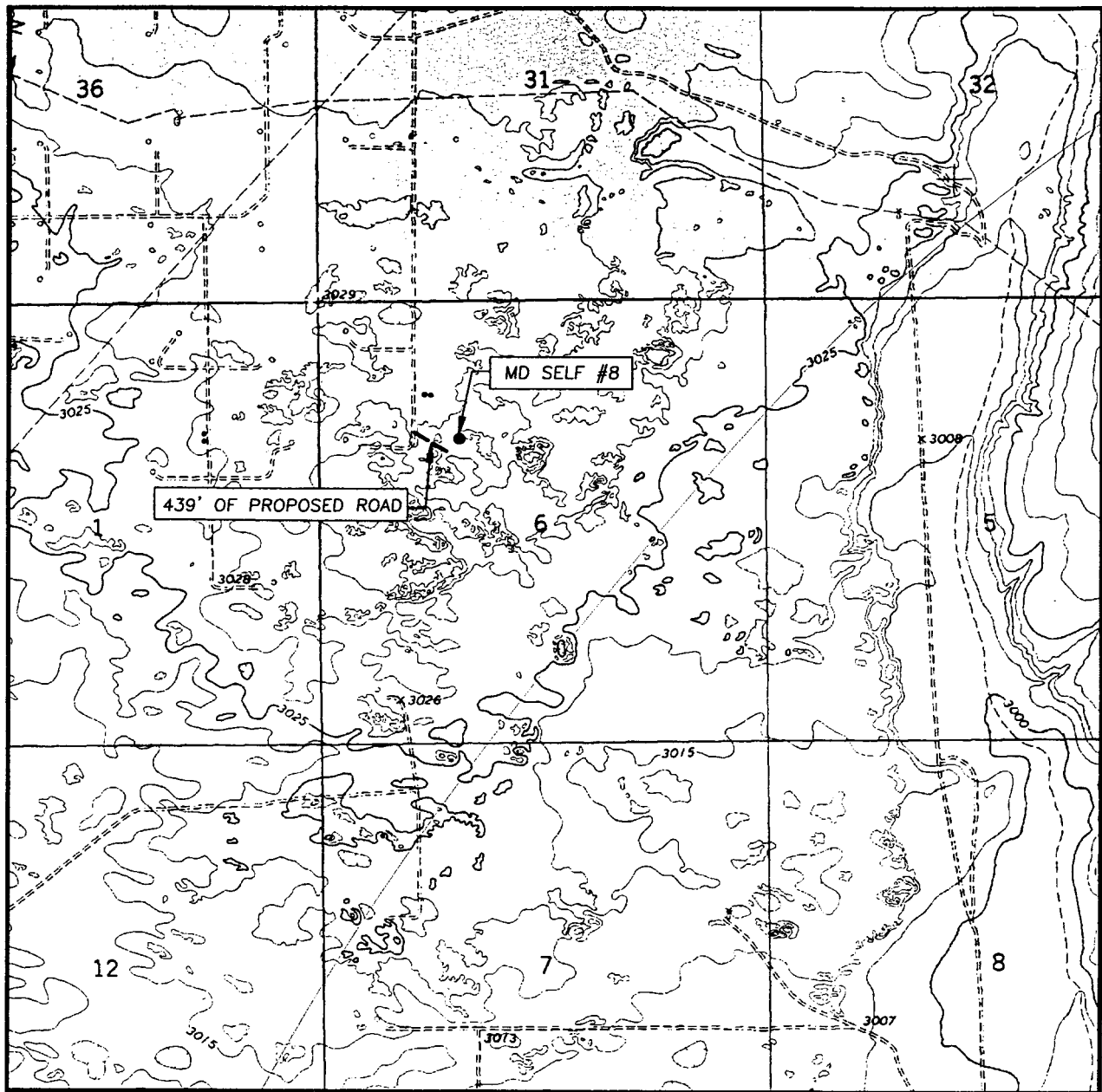


SCALE: 1" = 2 MILES

SEC. 6 TWP. 26-S RGE. 38-E
 SURVEY N.M.P.M.
 COUNTY LEA
 DESCRIPTION 1650' FNL & 1650' FWL
 ELEVATION 3037'
 OPERATOR COG OPERATING, LLC.
 LEASE MD SELF



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 5'
JAL SE, T.X.-N.M.

SEC. 6 TWP. 26-S RGE. 38-E

SURVEY N.M.P.M.

COUNTY LEA

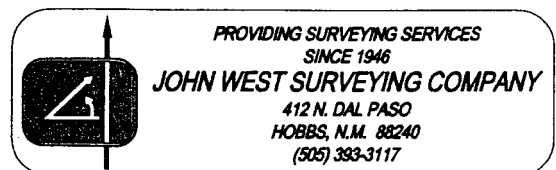
DESCRIPTION 1650' FNL & 1650' FWL

ELEVATION 3037'

OPERATOR COG OPERATING, LLC.

LEASE MD SELF

U.S.G.S. TOPOGRAPHIC MAP
JAL SE, T.X.-N.M.



PROVIDING SURVEYING SERVICES
SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

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.1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
COG Operating LLC3a. Address
550 W. Texas Ave., Suite 1300 Midland, TX 797013b. Phone No. (include area code)
432-685-43724. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1350' FNL; 1650' FWL
Unit F, Sec 6, T26S, R38E5. Lease Serial No.
NM0889

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
M. D. Self #8

9. API Well No.

10. Field and Pool, or Exploratory Area
Justic, Blinberry, Tubb, Drinkard11. County or Parish, State
Lea County, NM

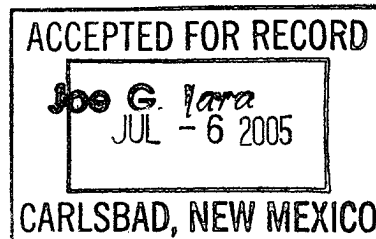
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

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"/> Fracture Treat	<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 Lease Responsibility
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Statement & Surface
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	Owner's Agreement

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 recompleat 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 recompleat 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 has received the surface owner's agreement concerning the surface use.

Attached is the Lease Responsibility Statement.



14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Diane Kuykendall

Title Regulatory Analyst

Signature

Date

06/24/2005

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

FIELD MANAGER

Date

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 FIELD OFFICE

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)

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Roswell Office
2909 West Second Street
Roswell, New Mexico 88201

Statement Accepting Responsibility for Operations

Operator name: COG Operating LLC
Street or box: 550 W. Texas, Suite 1300
City, State: Midland, TX
Zip code: 79701

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

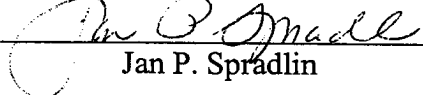
Lease No.: NM 0889

Legal Description of Land: Section 5 & 6, T26S, R38E

Formation(s) (if applicable):

Bond Coverage: (State if individually bonded or another's bond)
Statewide

BLM Bond File No.: NMB000215

Authorized Signature: 
Jan P. Spradlin

Title: Sr. Landman

Date: June 24, 2005

APPLICATION TO DRILL

COG OPERATING, LLC.
M. D. SELF # 8
UNIT "F" SECTION 6
T26S-R38E LEA CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

1. Location of well: 1650' FNL & 1650' FWL SECTION 6 T26S-R38E LEA CO. NM
2. Ground Elevation above Sea Level: 3037' GR.
3. Geological age of surface formation: Quaternary Deposits:
4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium to remove solids from hole.
5. Proposed drilling depth: 5600'
6. Estimated tops of geological markers:

Rustler Anhydrite	950'	Queen	3120'
Salado Salt	1050	San Andres	3670'
Yates	2400'	Blinebry	5150'
7 Rivers	2690'		
7. Possible mineral bearing formations:

Queen	Oil
Blinbrey	Oil
8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
12 $\frac{1}{4}$ "	0-975'	8 5/8"	32	8-R	ST&C	J-55
7 7/8"	0-5600'	5 $\frac{1}{2}$ "	17	8-R	LT&C	J-55

APPLICATION TO DRILL

COG OPERATING, LLC.

M. D. SELF # 8

UNIT "F"
T26S-R38E

SECTION 6
LEA CO. NM

9. CEMENTING & SETTING DEPTH:

20"	Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix.
8 5/8"	Surface	Set 975' of 8 5/8" 32# J-55 ST&C casing. Cement with 200 Sx. of 35/65 Class "C" POZ + 2% CaCl ₂ + 1/4# Flocele /Sx., tail in with 200 Sx. of Class "C" cement + 2% CaCl ₂ , circulate cement to surface.
5 1/2"	Production	Set 5600' of 5 1/2" 17# J-55 LT&C casing. Cement with 500 Sx. of Class "C" cement + additives, estimate top of cement 2400' from surface or at least 500' above the upper most pay interval.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams. The B.O.P. will be nipped up on the 8 5/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when the drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2" 3000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected in this well.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE SYSTEM
40-975'	8.4-8.7	29-38	NC	Fresh water native mud, add paper to control seepage and high viscosity sweeps to clean hole.
975-5600'	10.0-10.2	29-40	NC*	Brine water add Gel for viscosity, Lime for pH control, paper for seepage starch for water loss control.

* Water loss may be desired in order to protect pay intervals, log well and run casing.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, & casing the viscosity and/or water loss may have to be adjusted to meet these needs.

APPLICATION TO DRILL

COG OPERATING, LLC.

M. D. SELF # 8

UNIT "F"
T26S-R38E

SECTION 6
LEA CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Laterolog, SNP, LDT, Gamma Ray, Caliper from TD back to the 8 5/8" casing shoe.
- B. Run Gamma Ray, Neutron from 8 5/8" casing shoe to surface.
- C. No DST's or cores are planned at this time.
- D. Mud logger may be rigged up on hole at the Geologists request.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H²S in this area. If H²S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 2900 PSI, and Estimated BHT 140°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 18 days. If production casing is run then an additional 20 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Blaine formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialized as an oil well.

1. All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H₂S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
2. H₂S Detection and Alarm Systems
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of blowline (mud pit) and on derrick floor or doghouse.
3. Windsack and/or wind streamers
 - A. Windsack at mudpit area should be high enough to be visible.
 - B. Windsack at briefing area should be high enough to be visible.
 - C. There should be a windsack at entrance to location.
4. Condition Flags and Signs
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H₂S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well control equipment
 - A. See exhibit "E" & "E-1"
6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
7. Drillstem Testing
 - A. Exhausts will be watered.
 - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - C. If the location is near to a dwelling a closed DST will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.
9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H_2S scavengers if necessary.

SURFACE USE PLAN

COG OPERATING, LLC.

M. D. SELF # 8

UNIT "F"
T26S-R38E

SECTION 6
LEA CO. NM

1. EXISTING AND PROPOSED ROADS: Area maps: Exhibit "B" is a reproduction of a County General Hi-way map showing access roads to the location. Exhibit "C" is a reproduction of a USGS Topographic map showing existing roads in close proximity to the location and the proposed access roads. All existing roads will be maintained in a condition equal to or better than their current conditions. All new roads will be constructed to BLM specifications.
 - A. Exhibit "A" shows the location of the proposed well site as staked.
 - B. From Jal New Mexico take State Hi-way 128 East for 5.9 miles turn Right and go approximately 3.4 miles and location is on the East side of road.
 - C. Exhibit "C" is a topographic map that shows roads, flowlines, and powerlines that are proposed for this well.
2. PLANNED ACCESS ROADS: Approximately 375' of new road will be constructed.
 - A. The access road will be crowned and ditched to a 12' wide traveled surface with a 40' Right-Of-Way.
 - B. Gradient on all roads will be less than 5% if possible.
 - C. Turn-outs will be constructed where necessary.
 - D. If needed roads will be surfaced to the BLM requirements with material obtained from a local source.
 - E. Center line of new road will be flagged.
 - F. The new road will be constructed to utilize low water crossings where drainage currently exists, and culverts will be installed where necessary.
3. EXHIBIT "A-1" SHOWS THE BELOW LISTED TYPE WELLS WITHIN A 1 MILE RADIUS:
 - A. Water wells - Windmill approximately 1.3 miles North of location.
 - B. Disposal wells - None known
 - C. Drilling wells - None known
 - D. Producing wells - As shown on Exhibit "A-1"
 - E. Abandoned wells - As shown on Exhibit "A-1"

SURFACE USE PLAN

COG OPERATING, LLC.
M. D. SELF # 8
UNIT "F" SECTION 6
T26S-R38E LEA CO. NM

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Possible routes of pipelines, flowlines and powerlines are shown on Exhibit "C".

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped to location in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of drill site, if additional material is needed it will be obtained from a local source and transported over the access roads as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by the supplier, including broken sacks.
- D. Waste water from living quarters will be drained into holes with a minium of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-John will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for furthred drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approve disposal site. Later pips will be broken out to speed drying. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in storage tanks and sold.

8. ANCILLARY FACILITIES:

- A. No camps or air strips will be constructed on location.

SURFACE USE PLAN

COG OPERATING, LLC.

M. D. SELF # 8

UNIT "F"
T26S-R38E

SECTION 6
LEA CO. NM

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the proposed well site layout.
- B. This Exhibit shows the location of reserve pit, sump pits, and living facilities.
- C. Mud pits in the active circulating system will be steel pits and the reserve pits will be unlined unless subsurface conditions encountered during pit construction indicate that a plastic liner is required to contain lateral migration.
- D. If needed the reserve pits will be lined with polyethelene. The pit liner will be no less than 6 mils thick and the liner will be extended at least 3 feet over the top of the dikes and secured in place to keep edge of liner in place.
- E. The reserve pit will be fenced on three sides and fenced with four strands of barbed wire during drilling and completion phases. The 4th side will be fenced after drilling operations are complete and the drilling rig has moved out. If the well is a producer the mud pits will remain fenced in until the mud has dried up enough to break out the pits and reclaimed according to BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE:

Rehabilitation of the location and reserve pits will be allowed to dry properly, fluids may be moved and disposed of in accordance with article 7-E as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any will be reshaped to the original configuration with provisions made to alleviate future erosion. In case of the well completed as a producer the drilling pad will be necessary to construct production facilities. After the area has been shaped and contoured top soil from the spoil pile will be placed over the disturbed area to the extent possible so that revegetation procedures can be accomplished to comply with the BLM specifications.

If the well is a dry hole the pad and road area will be contoured to match the existing terrain. Top soil will be spread to the extent possible and revegetation will be carried out according to the BLM specifications.

Should the well be a producer the previously noted procedures will apply to those areas which are not required for production facilities.

SURFACE USE PLAN

COG OPERATING, LLC.
M. D. SELF # 8
UNIT "F" SECTION 6
T26S-R38E LEA CO. NM

11. OTHER INFORMATION:

- A. Topography consists of low lying sand dunes with a low dip to the South-East general strike trending Northeast-Southwest. Vegetation consists of meaquite, snake weed, limited shinnery, and native grasses.
- B. The surface is owned by D.K. Boyd of Midland, Texas, the minerals are owned by The U.S. Department of Interior and is administered by The Bureau of Land Management. Surface is used for grazing of livestock and the production of oil and gas.
- C. An archaeological survey will be conducted and the results will be filed with The Bureau of Land Management Carlsbad Field office in Carlsbad NM.
- D. There are no domestic dwellings located within one mile of the location.

12. OPERATORS REPRESENTATIVE:

Before construction:

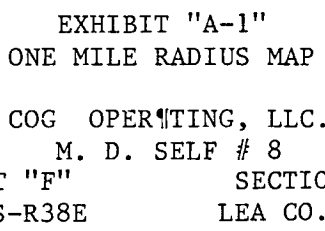
TIERRA EXPLORATION, INC.
P.O. BOX 2188
HOBBS, NEW MEXICO 88241
JOE T. JANICA
OFFICE PHONE 505-391-8503

During and after construction:

COG OPERATING, LLC.
550 WEST TEXAS AVE
SUITE 1300
MIDLAND, TEXAS 79701
ERICK NELSON 432-685-4342

13. CERTIFICATION: I hereby certify that I or persons under my direct supervision have inspected the proposed drill site and access route, that I am familiar with the conditions which currently exist, that the statements made in this plan are to the best of my knowledge, are true and correct, and that the work associated with the operations proposed herein will be performed by COG OPERATING, LLC. it's contractors/subcontractors is in the conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME : Joe T Janica
DATE : _____
TITLE : Agent



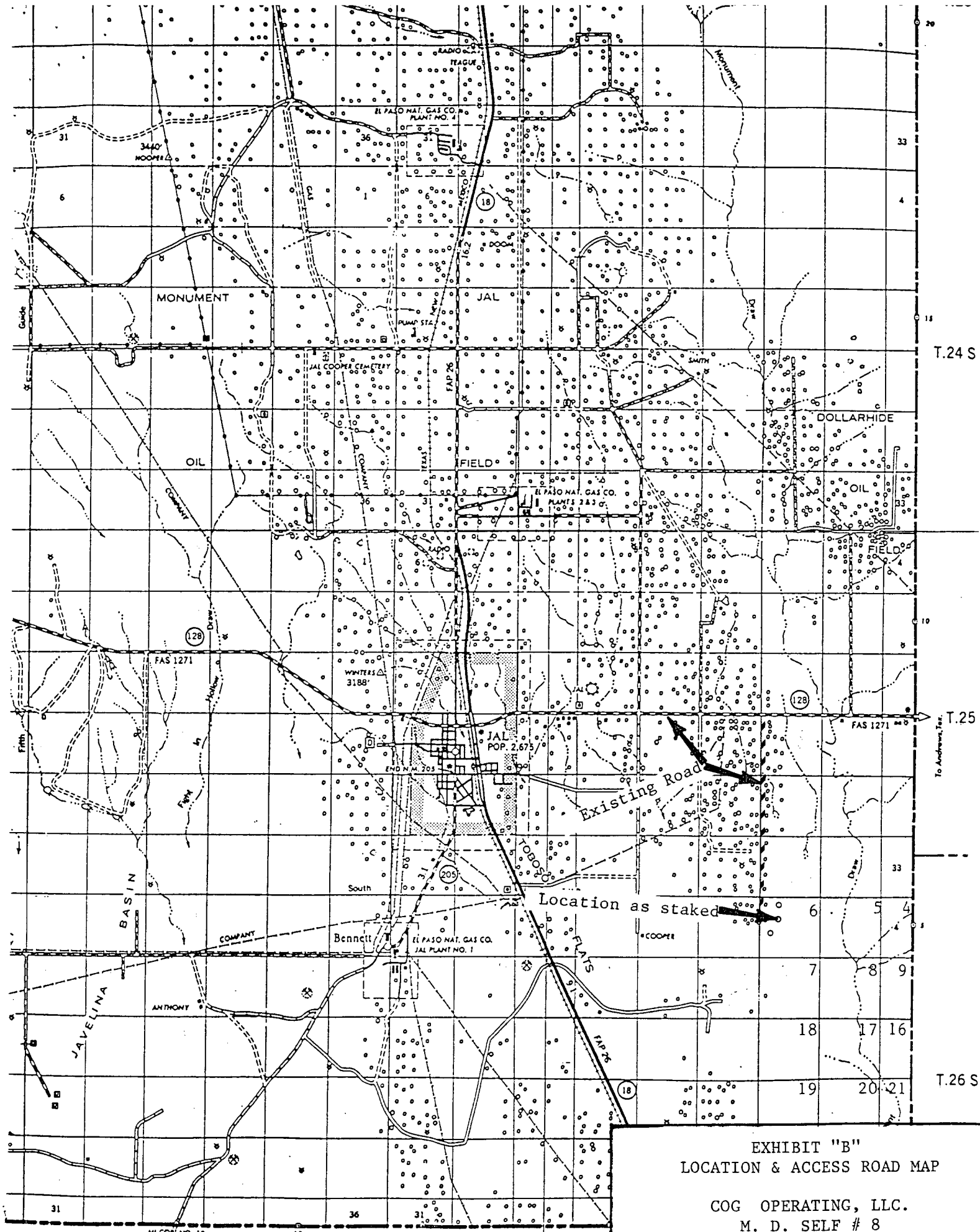
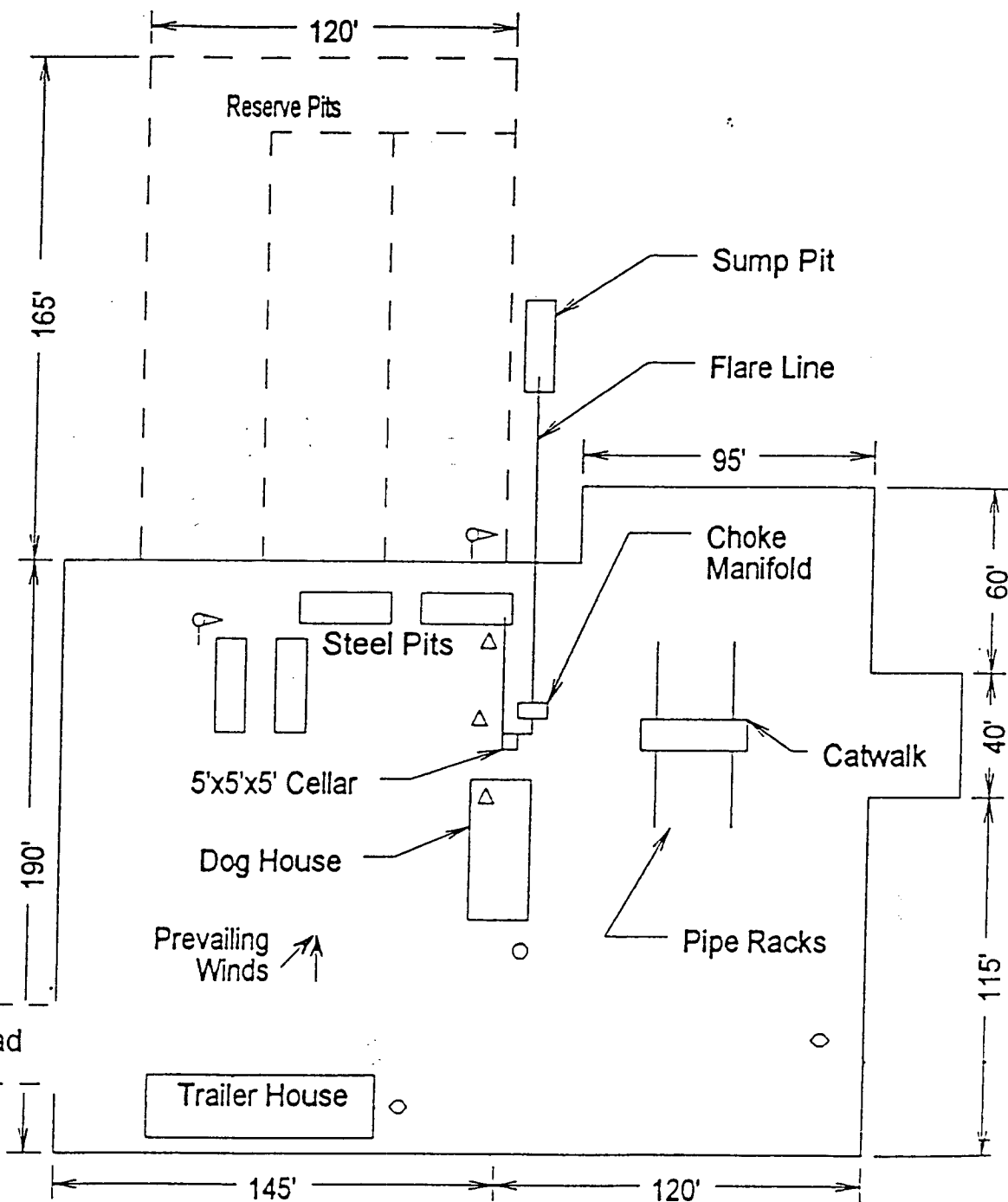


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

COG OPERATING, LLC.
M. D. SELF # 8
UNIT "F" SECTION 6
T26S-R38E LEA CO. NM

ML COR. NO. 12
2896'
R.36 E.

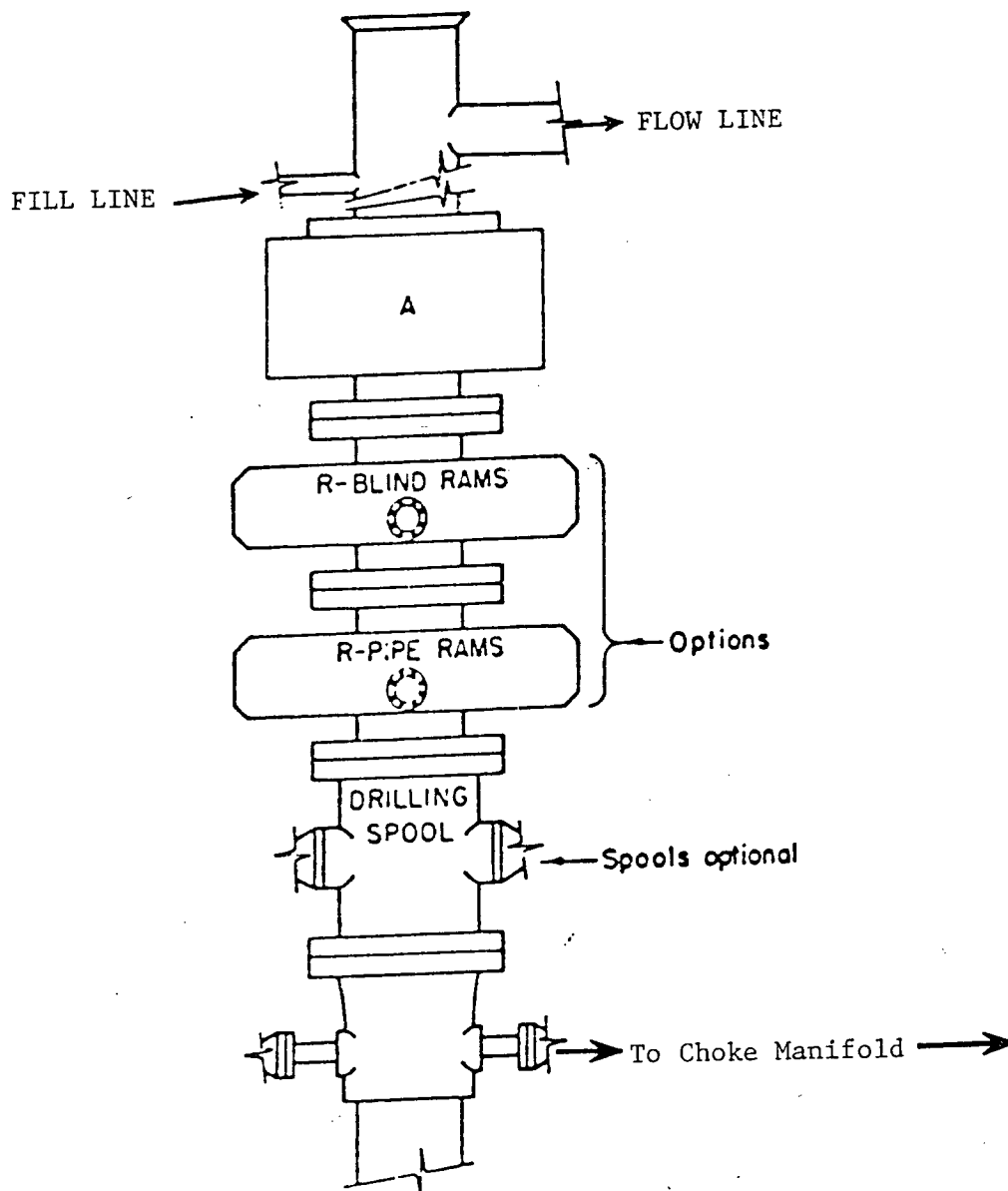
R.37 E.



- ⏏ Wind Direction Indicators
(wind sock or streamers)
- △ H2S Monitors
(alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- Sign and Condition Flags

EXHIBIT "D"
RIG LAY OUT PLAT

COG OPERATING, LLC.
M. D. SELF # 8
UNIT "F" SECTION 6
T26S-R38E LEA CO. NM

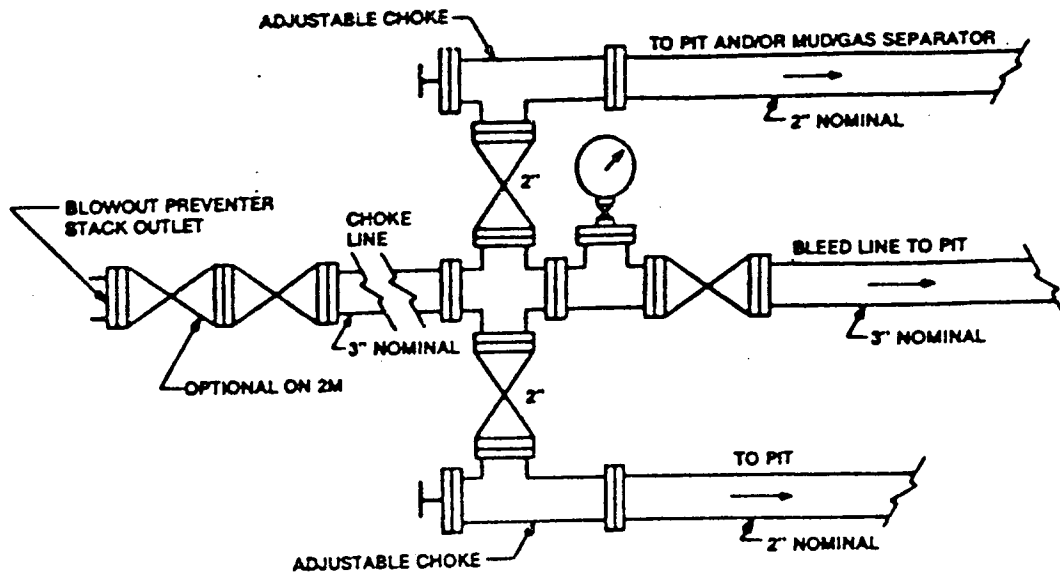


ARRANGEMENT SRRA

900 Series
3000 PSI WP

EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

COG OPERATING, LLC.
M. D. SLF # 8
UNIT "F" SECTION 6
T26S-R38E LEA CO. NM



Typical choke manifold assembly for 3M WP system

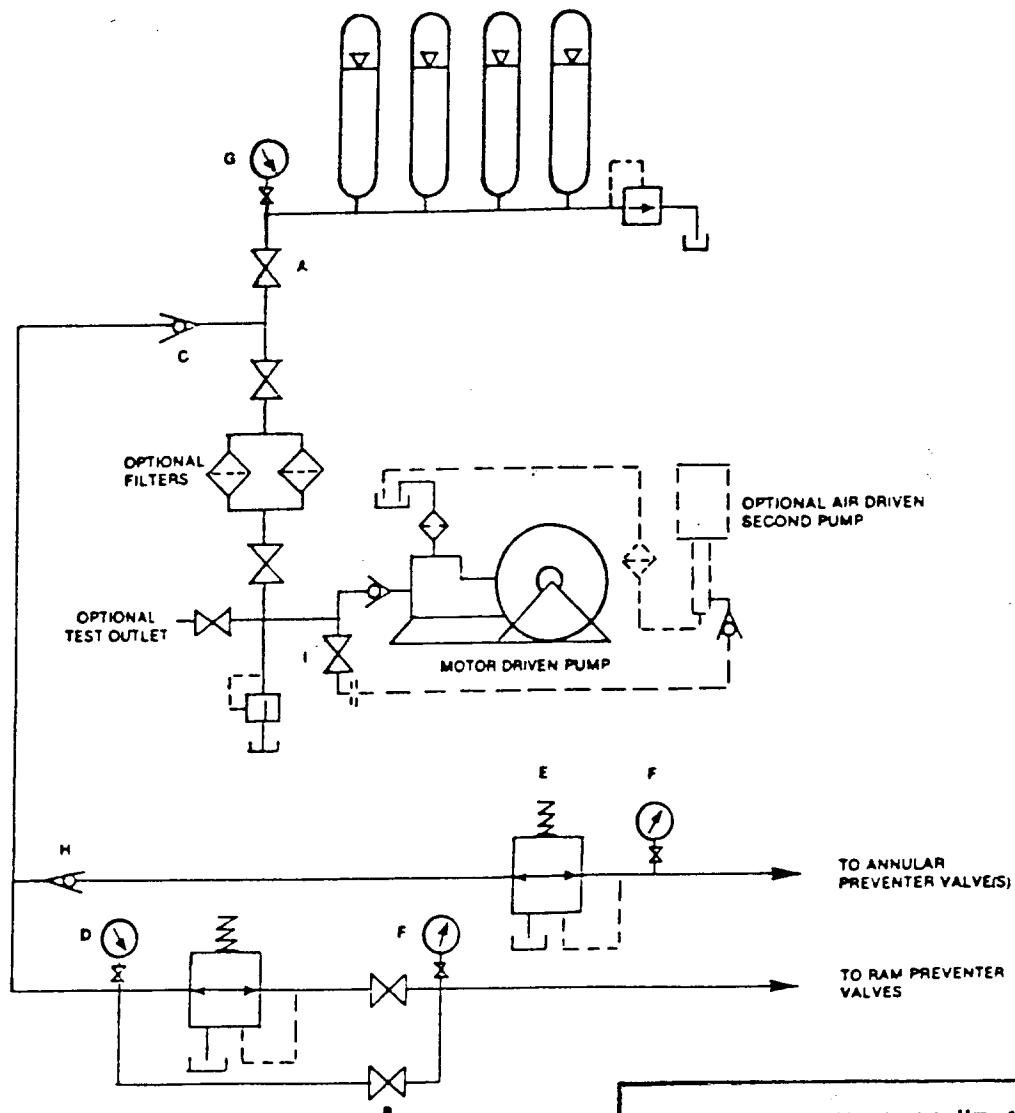


EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

COG OPERATING, LLC.
M. D. SELF # 8
UNIT "F" SECTION 6
T26S-R38E LEA CO. NM

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: COG OPERATING, LLC. Telephone: 432-685-4342 e-mail address: _____
Address: 550 WEST TEXAS AVENUE SUITE 1300 MIDLAND, TEXAS 79701
Facility or well name: M. D. SELF # 8 API #: 30-025-3741 W/L or Qtr/Qtr: "F" Sec: 6 T: 26S R: 38E
County: LEA Latitude: 32°04'32.4" Longitude: 103°06'08.5" NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☐ State ☐ Private ☒ Indian ☐

Pit

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☐ Thickness: 12 mil Clay ☐ Volume

15M bbl

Below-grade tank

Volume: _____ bbl Type of fluid: _____

Construction material: _____

Double-walled, with leak detection? Yes ☐ If not, explain why not. _____

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) 180'

Less than 50 feet	(20 points)
50 feet or more, but less than 100 feet	(10 points)
100 feet or more	(0 points)
0	0

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes	(20 points)
No	(0 points)
0	0

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet	(20 points)
200 feet or more, but less than 1000 feet	(10 points)
1000 feet or more	(0 points)
0	0

Ranking Score (Total Points)

0

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility: _____ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative NMOCD-approved plan ☐.

Date: 03/22/05

Printed Name/Title: Joe T. Janica / Agent

Signature: Joe T. Janica

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and or regulations.

Approval:

Date:

Printed Name/Title:

AUG 17 2005

ORIGINAL SIGNED BY
PAUL F. KAUTZ
PETROLEUM ENGINEER

Signature: Paul F. Kautz