DEPARTMENT OF THE INTERIOR (Other instructions on reverse side)
BUREAU OF LAND MANAGEMENT

New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, NM 88240

Form approved.
Budget Bureau No. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK: DRILL [XX] DEEPEN [ ] R-111-POTASH 667

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: COG OPERATING, LLC. 229137 (ERICK NELSON) 432-685-4341)

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: 990' FNL & 330' FWL SECTION 1 T21S-R32E LEA CO. NM
At proposed prod. zone: SAME

5. LEASE DESIGNATION AND SERIAL NO.: NM-060777

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ---

7. UNIT AGREEMENT NAME: ---

8. FARM OR LEASE NAME, WELL NO.: MINIS "1" FEDERAL # 5 34478

9. API WELL NO.: 30-025-37290

10. FIELD AND POOL, OR WILDCAT: HAT MESA-DELAWARE 30214

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SECTION 1 T21S-R32E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 40 miles Southwest of Hobbs New Mexico

12. COUNTY OR PARISH: LEA CO. 13. STATE: NEW MEXICO

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 330'

16. NO. OF ACRES IN LEASE: 320

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 1400'

19. PROPOSED DEPTH: 6800'

20. ROTARY OR CABLE TOOLS: ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3710' GR.

22. APPROX. DATE WORK WILL START*: WHEN APPROVED

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor	NA	40'	Cement to surfacewith Redi-mix
17½"	H-40,J-55 13 3/8"	48,54.5,68	1550'	800 Sx. Circulate cement
12¼"	J-55 9 5/8"	36 & 40	3200'	800 Sx. " "
8 3/4"	J-55 4½"	10.5	6800'	300 Sx. Est. Top of cement 3000'
* 8 3/4"	J-55 7"	23 & 26	5350'	300 Sx. " " " " "

* This 7" casing will be run as a liner back to 2800' if lost circulation is encountered in th Capitan Reef. If this liner is necessary a 6¼" hole will be drilled and 6800' of 4½" 10.5# J-55 LT&C casing will be run back to surface. The 4½" will be cemented with 300 Sx. of Class "C" cement + additives, estimate the top of cement 3000' FS.

WITNESS 13 3/8" and 9 5/8" Cement Jobs

SEE ATTACHED SHEET FOR MORE DETAIL CASING AND CEMENTTNG.

COG OPERATING, LLC. ACCEPTS THE RESPONSIBILITY OF THE OPERATION OF THIS LEASE.

CARLSBAD CONTROLLED WATER BASIN

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 Joel T. Jones TITLE Agent DATE 04/14/05

(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/ Jesse J. Juen TITLE ACTING STATE DIRECTOR DATE JUN - 6 2005

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001, makes 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.

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

2. Drill 17½" hole to 1550'. Run and set 1550' of 13 3/8" 48# H-40 & 54.5, 68# J-55 ST&C casing. Cement with 600 Sx. of 35/65 POZ Class "C" + additives, tail in with 200 Sx. of Class "C"C cement + 2% CaCl, + ¼# Flocele/Sx. circulate cement to surface.

3. Drill 12¼' hole to 3200'. Run and set 3200' of 9 5/8" 36 & 40# J-55 ST&C casing. Cement with 600 Sx. of 50/50 POZ Class "C" Light weight cement + additives, tail in with 200 Sx. of Class "C" cement + additives, circulate cement to surface.

4. Drill 8 3/4" hole to 6800'. Run and set 6800' of 4½" 10.5# J-55 LT&C casing. Cement with 300 Sx. of Class "C" cement + additives, estimate top of cement 3000' from surface.

* 5. If there is a problem with lost circulation in the Capitan Reef that cannot be solved, then drill to 5350' and run and set a 7" 23 & 26# J-55 ST&C liner from 5350' back to 2800'. Cement with 200 Sx. of 50/50 POZ Class "C" Light weight cement + additives, tail in with 100 Sx. of Class "C" cement + additives, estimate top of cement 3000' from surface. Then drill out with a 6¼" bit to 6800'. and run 6800' of 4½" 10.5# J-55 LT&C casing. Cement with 300 Sx. of Class "C" cement + additives, estimate top of cement 3000' from surface.

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	Pool Code	Pool Name
30-025-37290	30214	HAT MESA-DELAWARE

Property Code	Property Name	Well Number
34418	MINIS 1 FEDERAL	5

OGRID No.	Operator Name	Elevation
229137	COG OPERATING, LLC	3710'

Surface Location

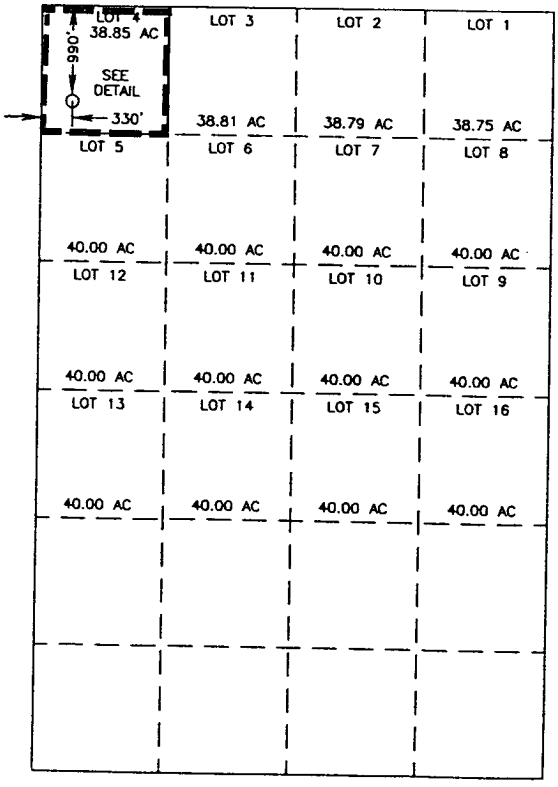
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	1	21-S	32-E		990	NORTH	330	WEST	LEA

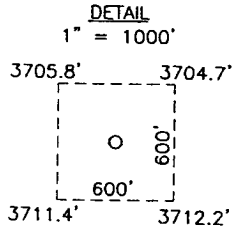
Bottom Hole Location If Different From Surface

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

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





GEODETIC COORDINATES
NAD 27 NME

Y=553410.9 N
X=715144.6 E

LAT.=32°31'10.20" N
LONG.=103°38'07.26" W

OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Joe T. Janica
Printed Name

Agent
Title

04/14/05
Date

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my belief.

MARCH 9, 2005
Date Surveyed JR

Signature & Seal of Professional Surveyor

GARY L. EIDSON
NEW MEXICO
12641
REGISTERED PROFESSIONAL SURVEYOR

3/15/05

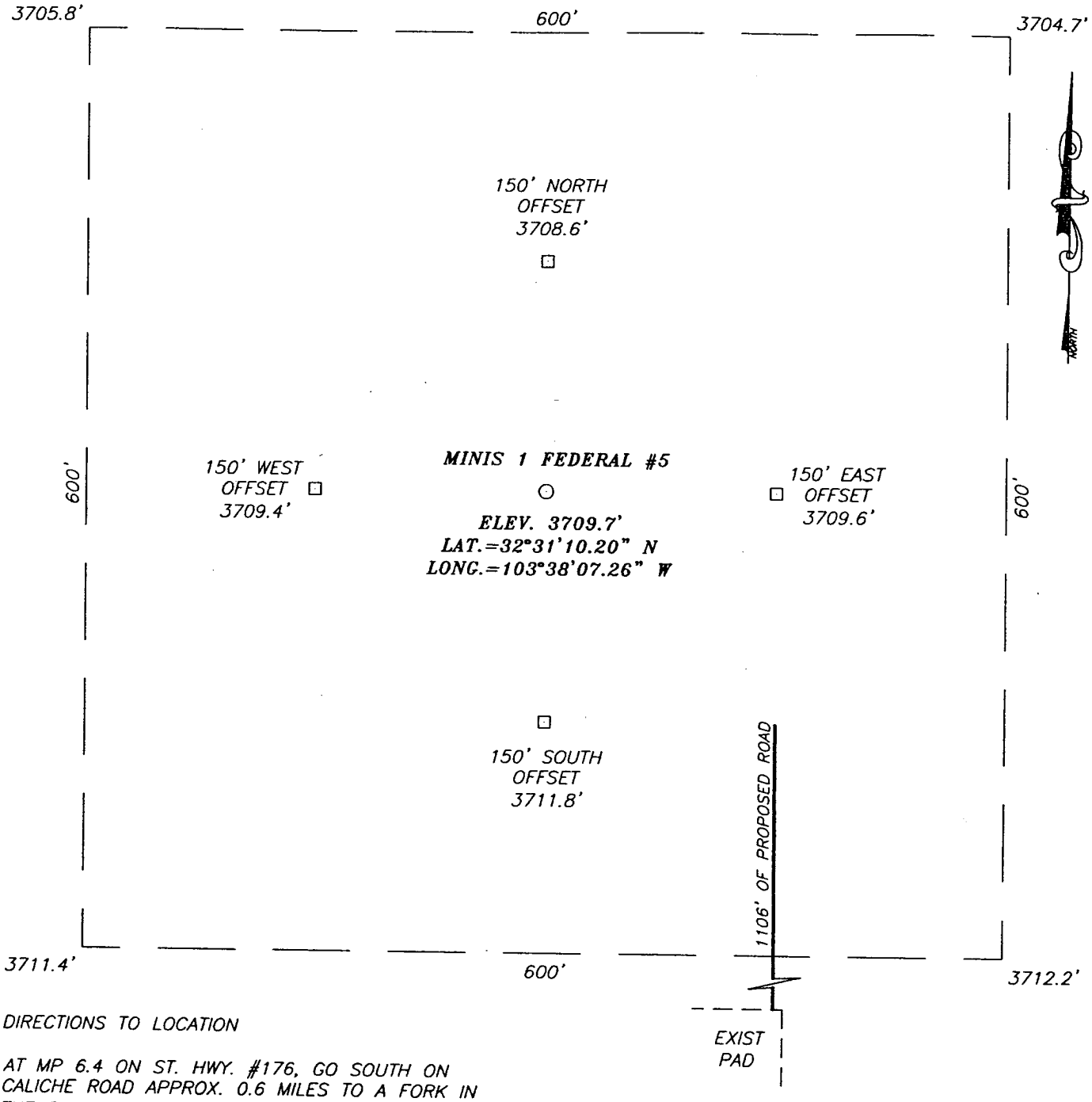
05.11.0396

Certificate No. GARY EIDSON 12641

EXHBIT "A"

SECTION 1, TOWNSHIP 21 SOUTH, RANGE 32 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

AT MP 6.4 ON ST. HWY. #176, GO SOUTH ON CALICHE ROAD APPROX. 0.6 MILES TO A FORK IN THE ROAD. VEERE RIGHT (SW) AND GO APPROX. 0.3 MILES. TURN RIGHT (NW) AND GO APPROX. 0.2 MILES TO A NEARBURG WELL, ROAD BENDS LEFT APPROX. 400' AROUND WELL AND TANKS. TURN RIGHT (NW) AND GO APPROX. 0.2 MILES TO THE MINIS FED. #4 WELL. FROM THE NE CORNER OF WELL PAD, FOLLOW PROPOSED ROAD SURVEY NORTH FOR APPROX. 1106' TO THIS LOCATION.

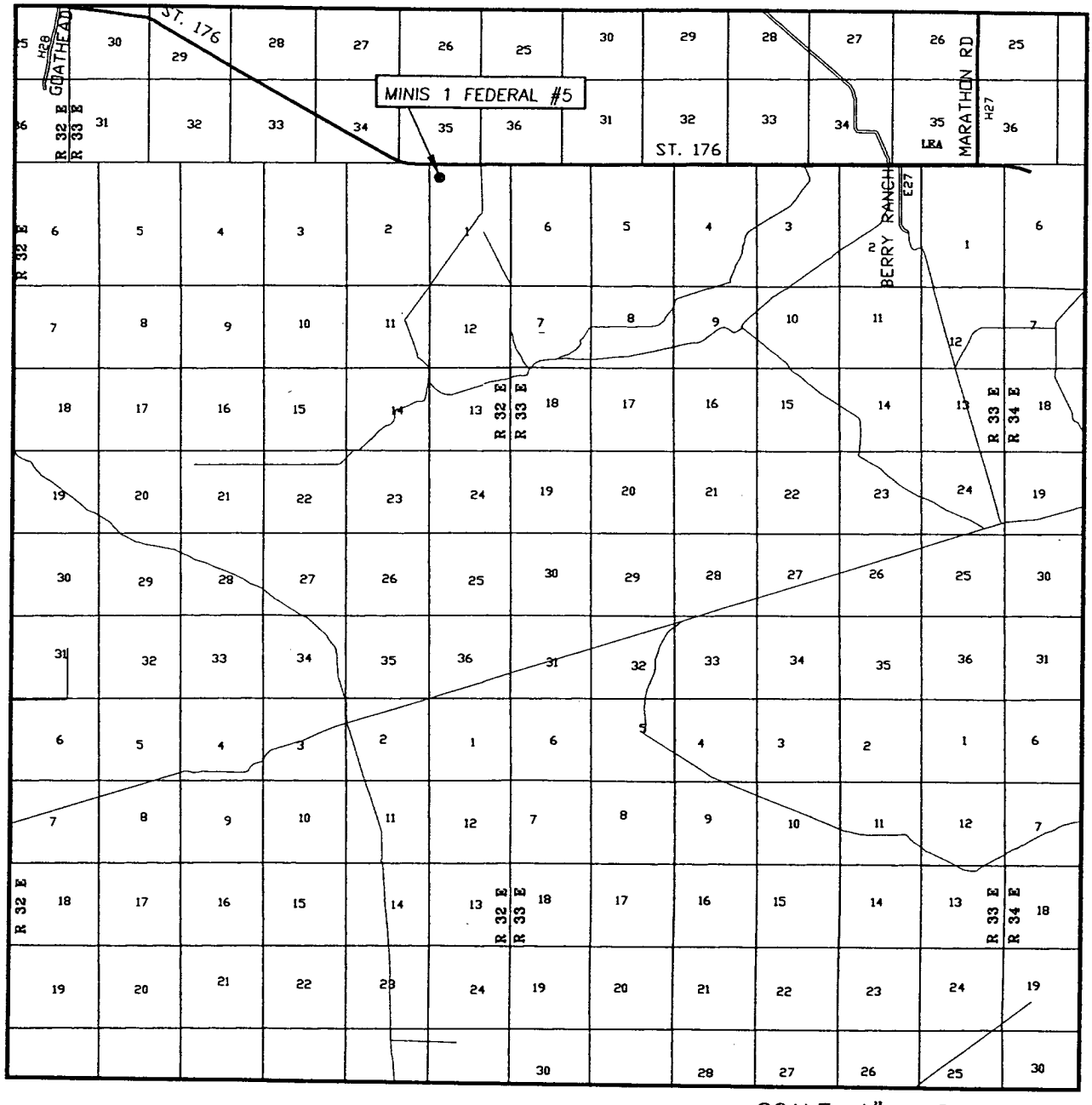
PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

COG OPERATING, LLC

MINIS 1 FEDERAL #5 WELL
LOCATED 990 FEET FROM THE NORTH LINE
AND 330 FEET FROM THE WEST LINE OF SECTION 1,
TOWNSHIP 21 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Survey Date: 3/9/05	Sheet 1 of 1 Sheets		
W.O. Number: 05.11.0396	Dr By: J.R.	Rev 1:N/A	
Date: 3/14/05	Disk: CD#5	05110396	Scale:1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 1 TWP. 21-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 990' FNL & 330' FWL

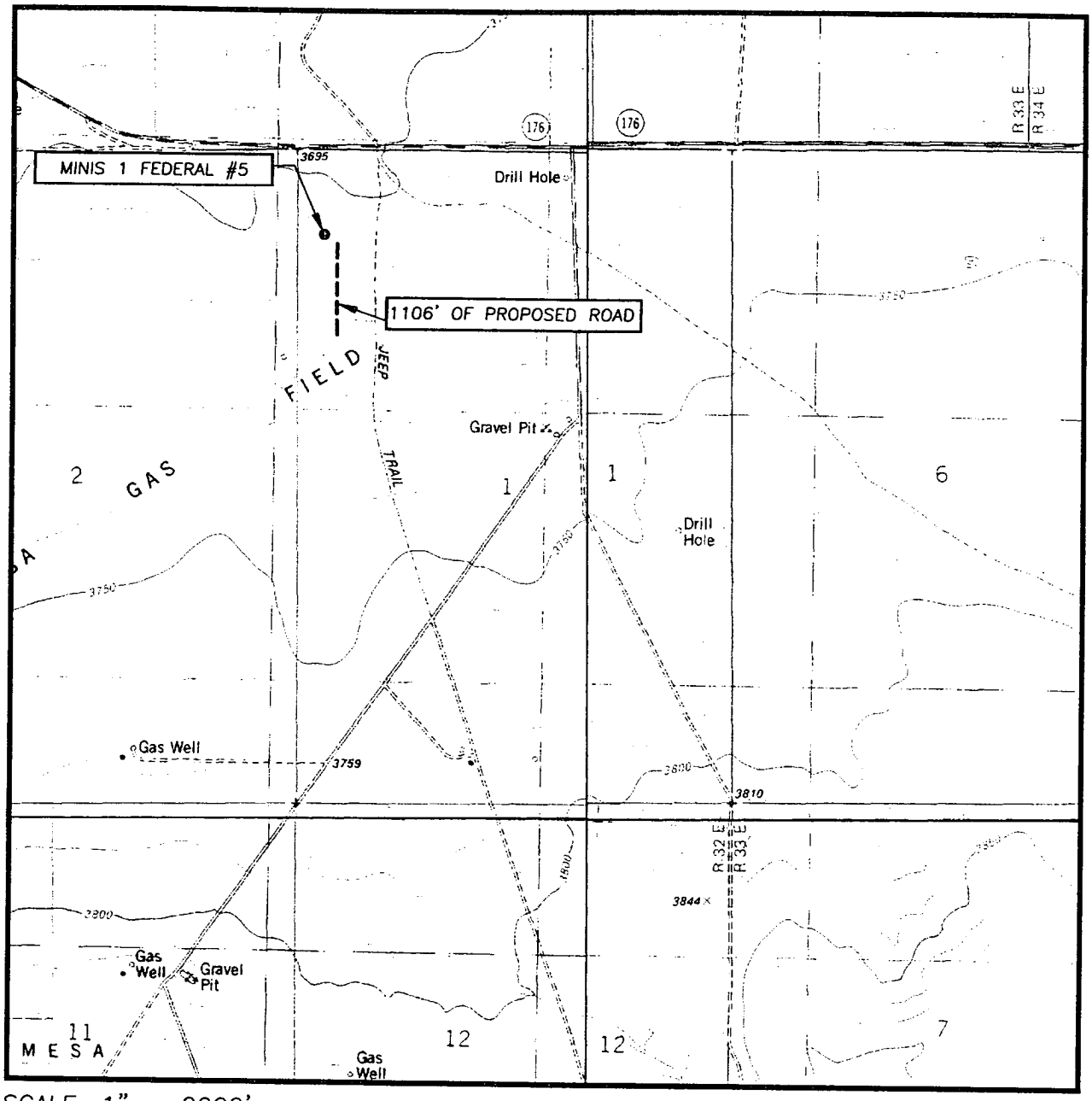
ELEVATION 3710'

OPERATOR COG OPERATING, LLC.

LEASE MINIS 1 FEDERAL

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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
LAGUNA GATUNA, N.M. – 10'
THE DIVIDE, N.M. – 10'
LEA, N.M. – 10'
GRAMA RIDGE, N.M. – 10'

SEC. 1 TWP. 21-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 990' FNL & 330' FWL

ELEVATION 3710'

OPERATOR COG OPERATING, LLC

LEASE MINIS 1 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
LAGUNA GATUNA, N.M.

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

APPLICATION TO DRILL

COG OPERATING, LLC.
MINIS "1" FEDERAL # 5
LOT "4" SECTION 1
T21S-R32E LEA CO. NM

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

1. Location of well: 990' FNL & 330' FWL SECTION 1 T21S-R32E LEA CO. NM

2. Ground Elevation above Sea Level: 3710' 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: 6800' GR.

6. Estimated tops of geological markers:

Rustler Anhydrite	1540'	Capitan Lime	3530'
Yates	3102	Delaware	5530'

7. Possible mineral bearing formations:

Delaware	Oil

8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-1550'	13 3/8"	48#,54.5#,68#	8-R	ST&C	H-40 J-55
12¼"	0-3200'	9 5/8"	36#, 40#	8-R	ST&C	J-55
8 3/4"	0-6800'	4½"	10.5	8-R	LT&C	J-55
Contingency for lost circulation in the Capitan Reef. 7" liner from 5350'-2800'						
8 3/4"	2800-5350'	7"	23# & 26#	8-R	ST&C	J-55
6¼"	0-6800'	4½"	10.5	8-R	LT&C	J-55

APPLICATION TO DRILL

COG OPERATING, LLC.
MINIS "1" FEDERAL # 5
LOT "4" SECTION 1
T21S-R32E LEA CO. NM

9. CASING CEMENTING & SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix.
13 3/8"	Surface	Set 1550' of 13 3/8" 483 H-40, 13 3/8" 54.5# J-55 ST&C casing. Cement with 600 Sx. of 35/65 Class "C" POZ + additives, tail in with 200 Sx. of Class "C" + 2% CaCl, circulate cement.
9 5/8"	Intermediate	Set 3200' of 9 5/8" 36# & 40# J-55 ST&C casing. Cement with 600 Sx. of Class "C" 50/50 POZ Light cement + additives, tail in with 200 Sx. of Class "C" cement + addotoves, circulate cement to surface.
7"	2nd Intermediate	If lost circulation is lost in the Capitan Reef and cannot be regained, drill to 5350' and set a 7" 23 & 26# J-55 ST&C Liner from 5350' back to 2800'. Cement with 200 Sx. of 50/50 Class "C" POZ Light cement + additives, tail in with 100 Sx. of Class "C" cement + 2% CaCl, estimate top of cement 3000' FS.
4½"	Production	If lost returns is not a problem omit the 7" liner and drill to 6800' and set 6800' of 4½" 10.5# J-55 LT&C casing. Cement with 300 Sx. of Class "C" cement + additives, eatimate top of cement 3000' from surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 series 3000 PSI working perssure B.O.P. consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams. The B.O.P. will be nippled up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once each 24 Hr. period and the blind rams will be operated when the drill pipe is out of on trips. Full opening stabbing valve and upper kelly cock will be available in case if needed. Exhibit "E-1" shows a hydraulically operated closing unit and a 3" 3000 PSI choke manifold with adjustable chokes. No abnormal pressures or temperatures are expected while drilling this well. No problems in offset wells.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-1550'	8.4-8.9	28-35	NC	Fresh water Spud Mud add paper to control seepage
1550-3200'	10.0-10.3	28-35	NC	Brine water use Lime for pH control, paper for seepage high visc sewwps to clean hole
3200-6400'	8.4-8.7	29-38	NC	Fresh water,LC material & high Visc. sweeps to clean hole
6400-6800'	8.4-8.7	34-40	10 cc or less	Fresh water starch for water loss control, Gel for viscosit high viscosity to clean hole.

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, and casing, viscosity, and water loss may have to be adjusted to meet these needs.

12. Testing, Logging and Coring Program:

A. Open hole logs: Dual Induction, SNP, LDT, Gamma Ray, Caliper from TD back to 3200' or 9 5/8" casing shoe. Cased hole log Gamma Ray, Neutron from 9 5/8" casing shoe back to surface.

B. No DST's or cores are planned at this time.

C. Mud logger may be rigged up on hole at 3200' and remain on hole to TD.

13. Potential Hazards:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H_2S detectors will be in place to detect any presence. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 3500 PSI, estimated BHT 145° .

14. Anticipated Starting Date and Duration of Operation:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 26 days. If production casing is run an additional 30 days to complete and construct surface facility and place well on production.

15. Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Delaware pay will be perforated and stimulated. The well will be swab tested and potentialed as an oil well.

1. All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:

   A. Characteristics of H_2S
   B. Physical effects and hazzards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid.
   F. Proper use of 30 minute pressure demand air pack.

2. H_2S Detection and Alarm Systems

   A. H_2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

3. Windsock and/or wind streamers

   A. Windsock at mudpit area should be high enough to be visible.
   B. Windsock at briefing area should be high enough to be visible.
   C. There should be a windsock 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, H_2S 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 telephoned 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.

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 seperator will be brought into service along with H_2S scavengers if necessary.

SURFACE USE PLAN

COG OPERATING, LLC.
MINIS "1" FEDERAL # 5
LOT "4" SECTION 1
T21S-R32E LEA CO. NM

1. EXISTING ROADS & PROPOSED ROADS: Area maps; Exhibit "B" is a reproduction of a County General Hi-way Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.

   A. Exhibit "A" shows the proposed well site as staked.

   B. From Hobbs take U.S. Hi-way 62-180 West toward Carlsbad to the junction of State Hi-way 176/62-180, turn Left on to 176 go approximately 6.3 miles, turn Right South follow caliche road approximately 1 mile, turn Right follow road Northwest .25 miles to Well # 3, continue on road to well # 4 , bear Right and follow new road to location.

   C. Exhibit "C" shows route of proposed flowline, road and powerline.

2. PLANNED ACCESS ROADS: Approximately 1100'of new road will be constructed.

   A. The access roads will be crowned and ditched to a 12' wide travel surface with a 40' Right-of-Way.

   B, Gradient of all roads will be less than 5.00%.

   C. If turn-outs are necessary they will be constructed.

   D. If needed roads will be surfaced with a mimimum of 4" of caliche. This material will be obtained from a local source.

   E. Center-line for new roads will be flagged. Earth-work will be will be done as field conditions require.

   F. Culverts will be placed in the access road if they are necessary. The roads will be constructed to utilaze low water crossings for drainage as required by topography.

3. LOCATIONS OF EXISTING WELLS IN A ONE MILE RADIUS. EXHIBIT "A-1"

   A. Water wells - None known

   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"

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 quaters 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 furthed 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.

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 encontered 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 completionphases. 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 furture 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.
MINIS "1" FEDERAL # 5
LOT "4" SECTION 1
T21S-R32E LEA CO. NM

11. OTHER INFORMATION:

A. Topography consists of sand dunes with a slight dip to the West. Deep sandy soil supports shinnery oak, native grasses, and an occasional mesquite tree.

B. Surface is owned by the U.S. Government and is administered by the Bureau of Land Management. The surface is used for grazing livestock and the production of oil and gas.

C. An archaeological survey will be conducted on the location and access roads. This report will be filed with The Bureau of Land Management in the Carlsbad field office.

D. There are no dwellings in the near vicinity of this location.

12. OPERATORS REPRESENTIVES:

Before construction:

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

During and after construction:

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

13. CERTIFICATION: I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access roads, and that I am fimiliar with the conditions which currently exist, that the statements made in this plan are to the best of my knowledge 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 compformity 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 report.

NAME : Joe T. Janica
DATE : 04/14/05
TITLE : Agent

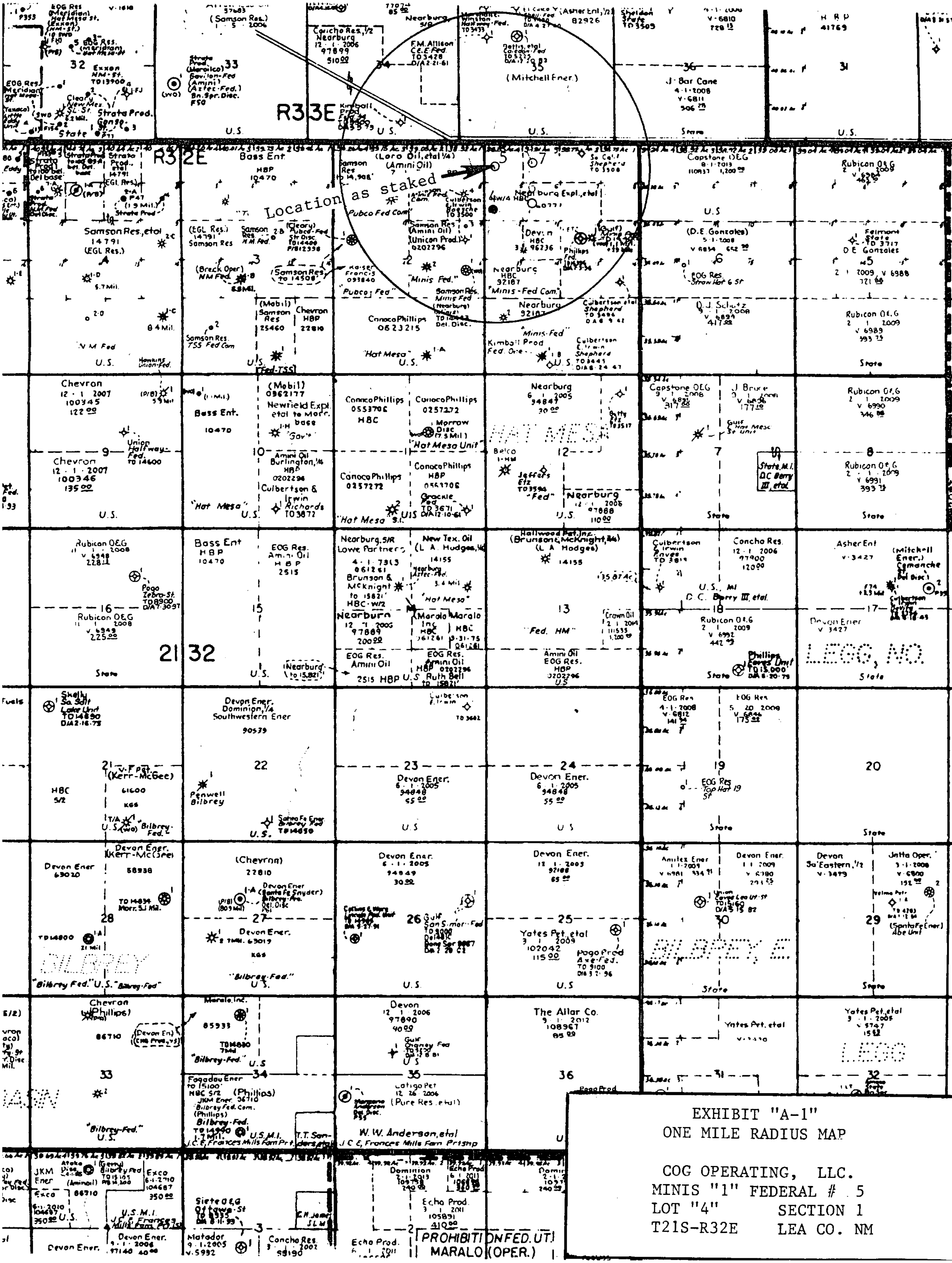


EXHIBIT "A-1"
ONE MILE RADIUS MAP

COG OPERATING, LLC.
MINIS "1" FEDERAL # 5
LOT "4" SECTION 1
T21S-R32E LEA CO. NM

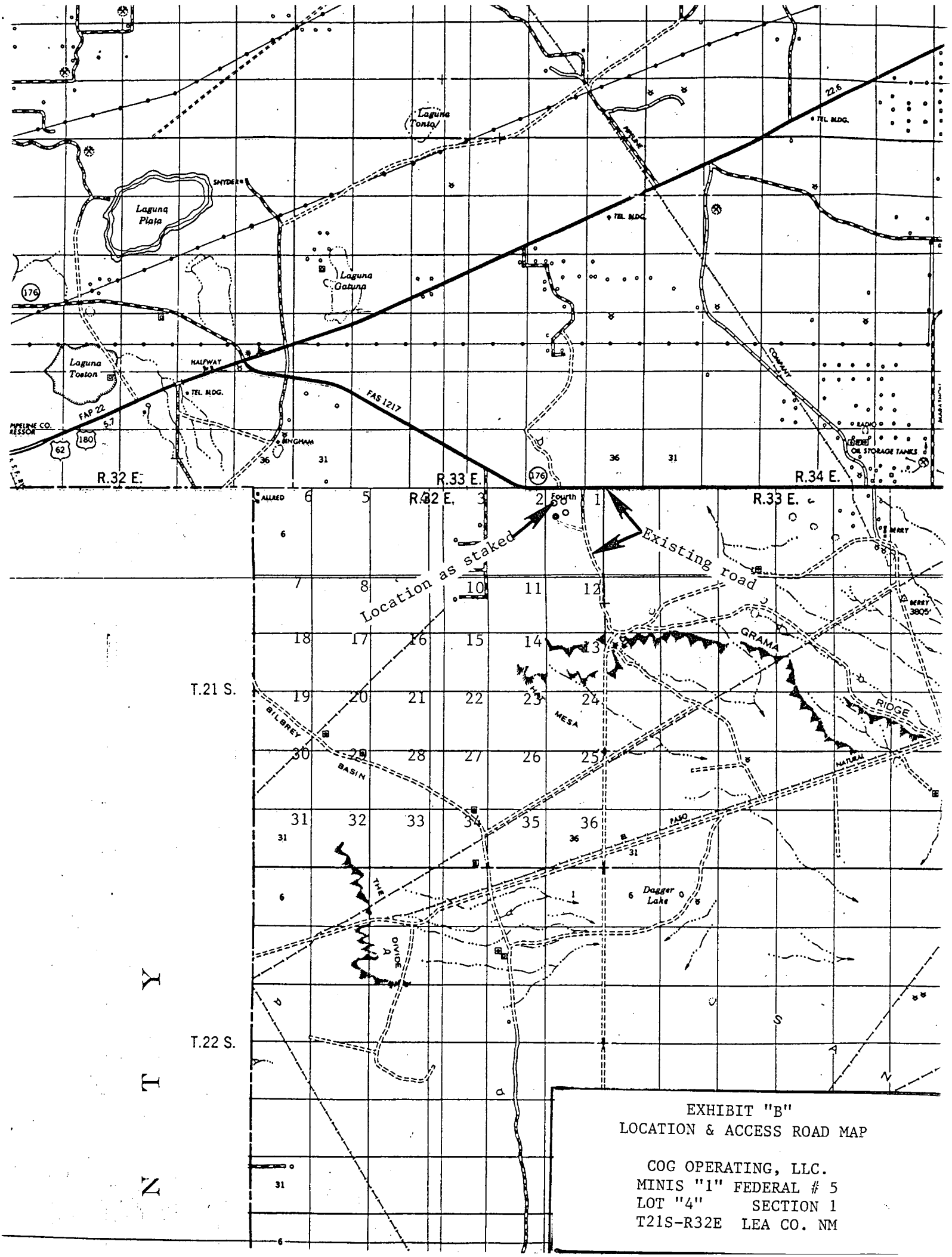
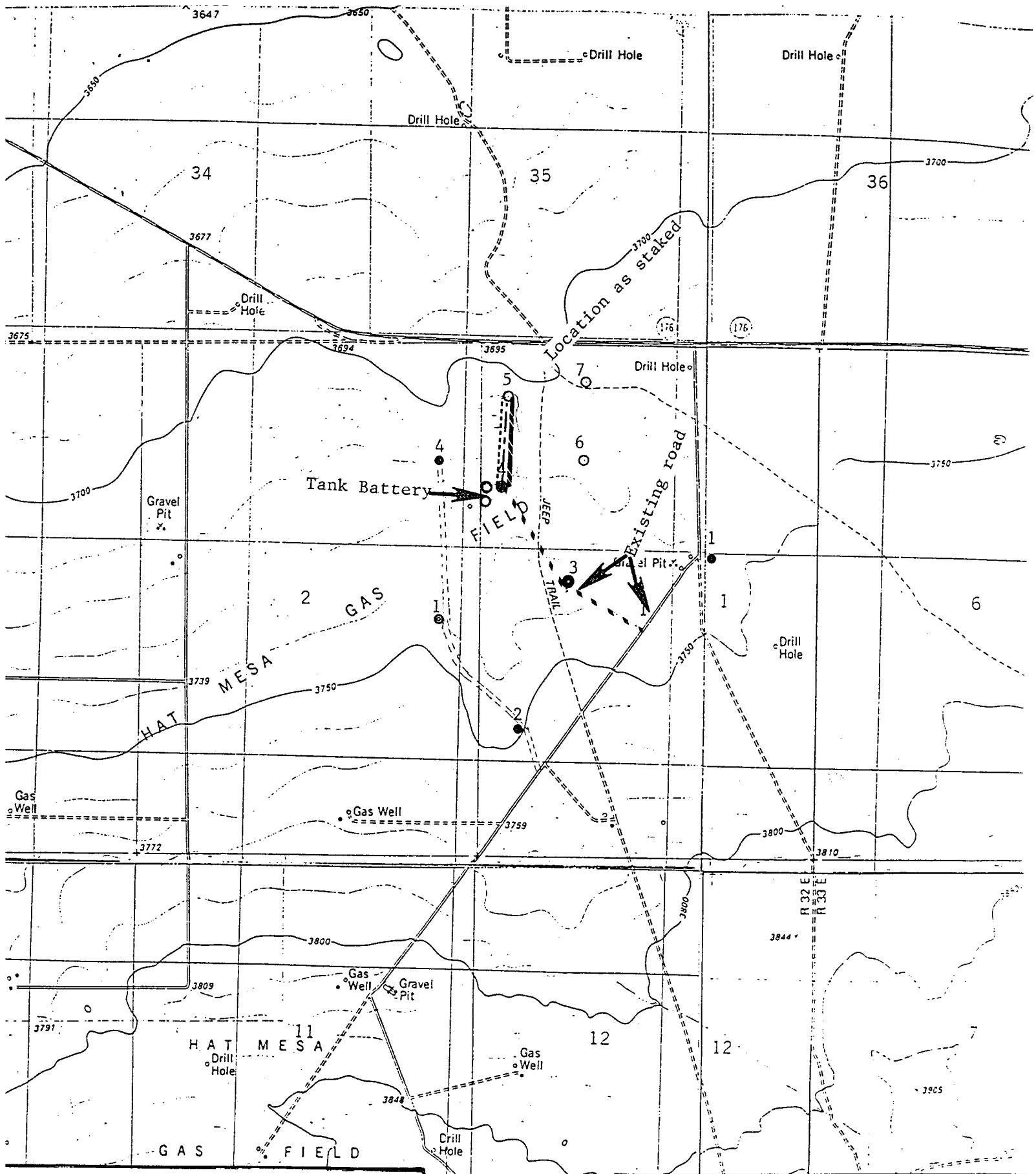


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

COG OPERATING, LLC.
MINIS "1" FEDERAL # 5
LOT "4" SECTION 1
T21S-R32E LEA CO. NM



EXISTING ROAD

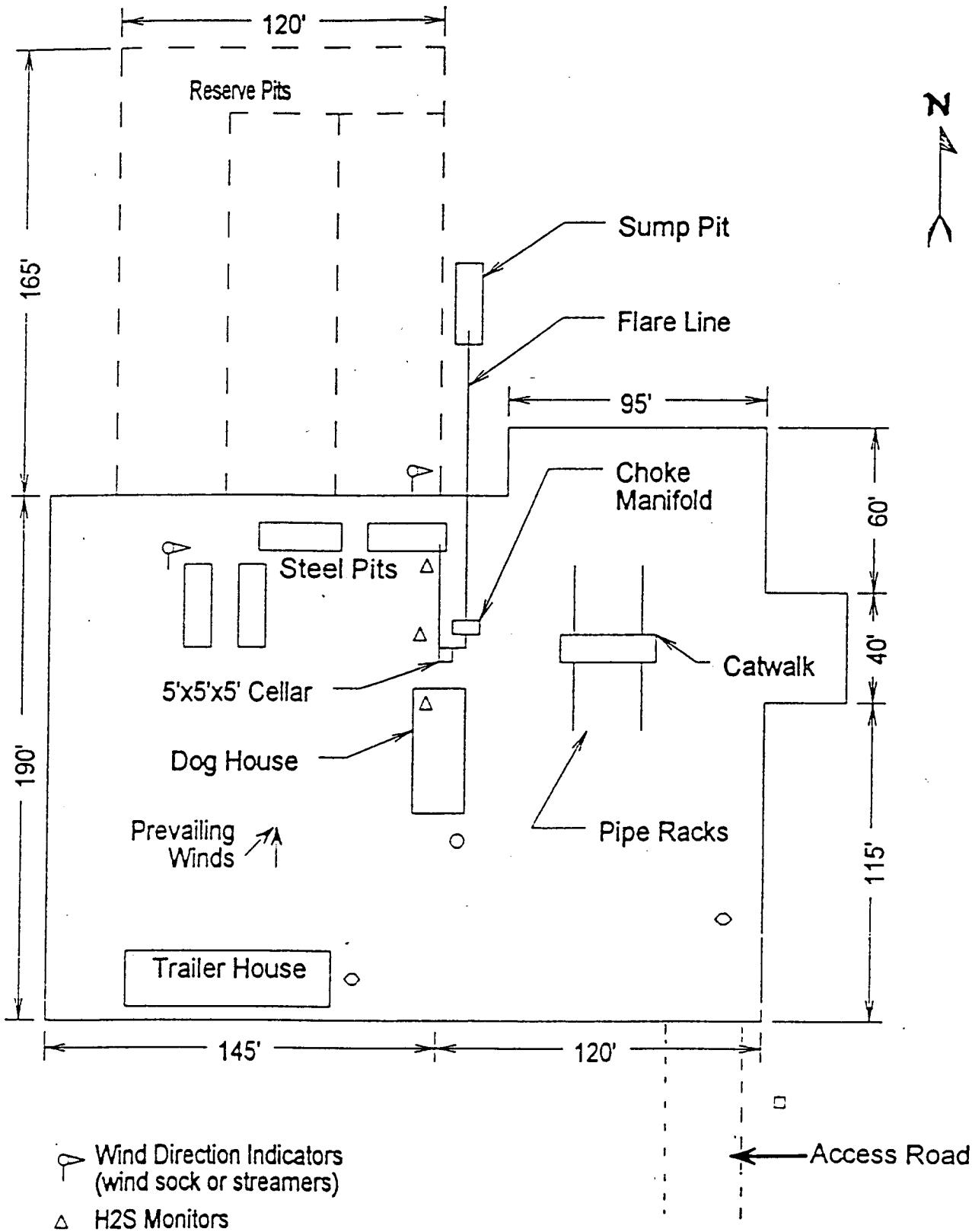
PROPOSED ROAD

PROPOSED FLOWLINE

PROPOSED POWERLINE

EXHIBIT "C"
TOPOGRAPHIC MAP SHOWINT
ROADS & DIRECTIONS TO

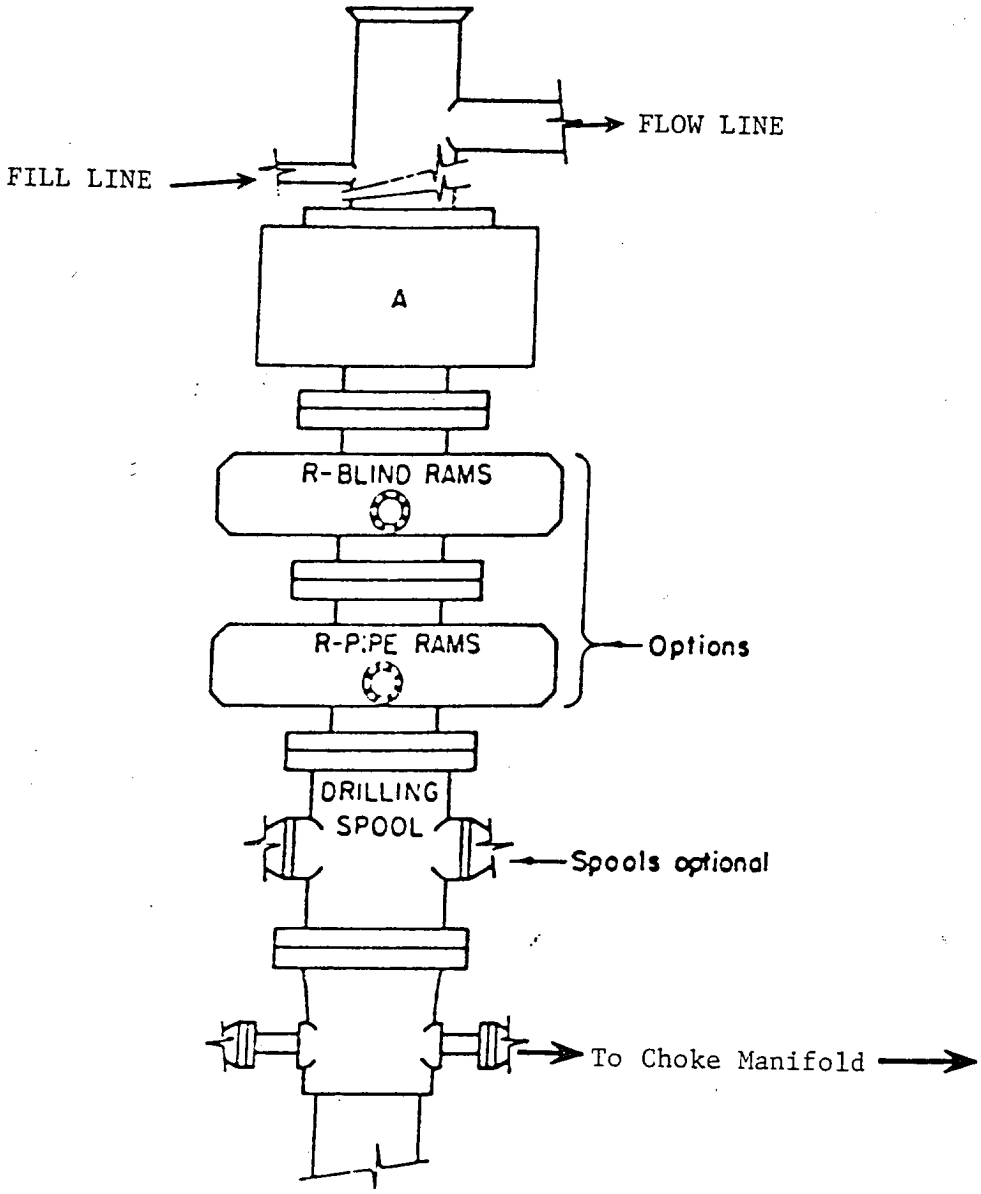
COG OPERATING, LLC.
MINIS "1" FEDERAL # 5
LOT "4" SECTION 1
T21S-R32E LEA CO. NM



- 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.
MINIS "1" FEDERAL # 5
LOT "4" SECTION 1
T21S-R32E LEA CO. NM

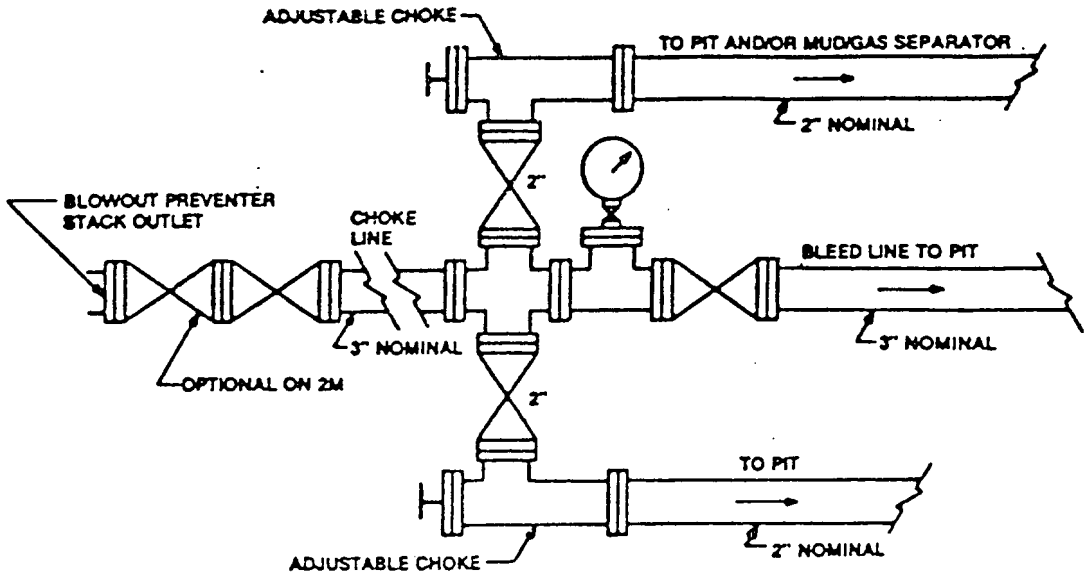


ARRANGEMENT SRRA

900 Series
3000 PSI WP

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

COG OPERATING, LLC.
MINIS "1" FEDERAL # 5
LOT "4" SECTION 1
T21S-R32E LEA CO. NM



Typical choke manifold assembly for 3M WP system

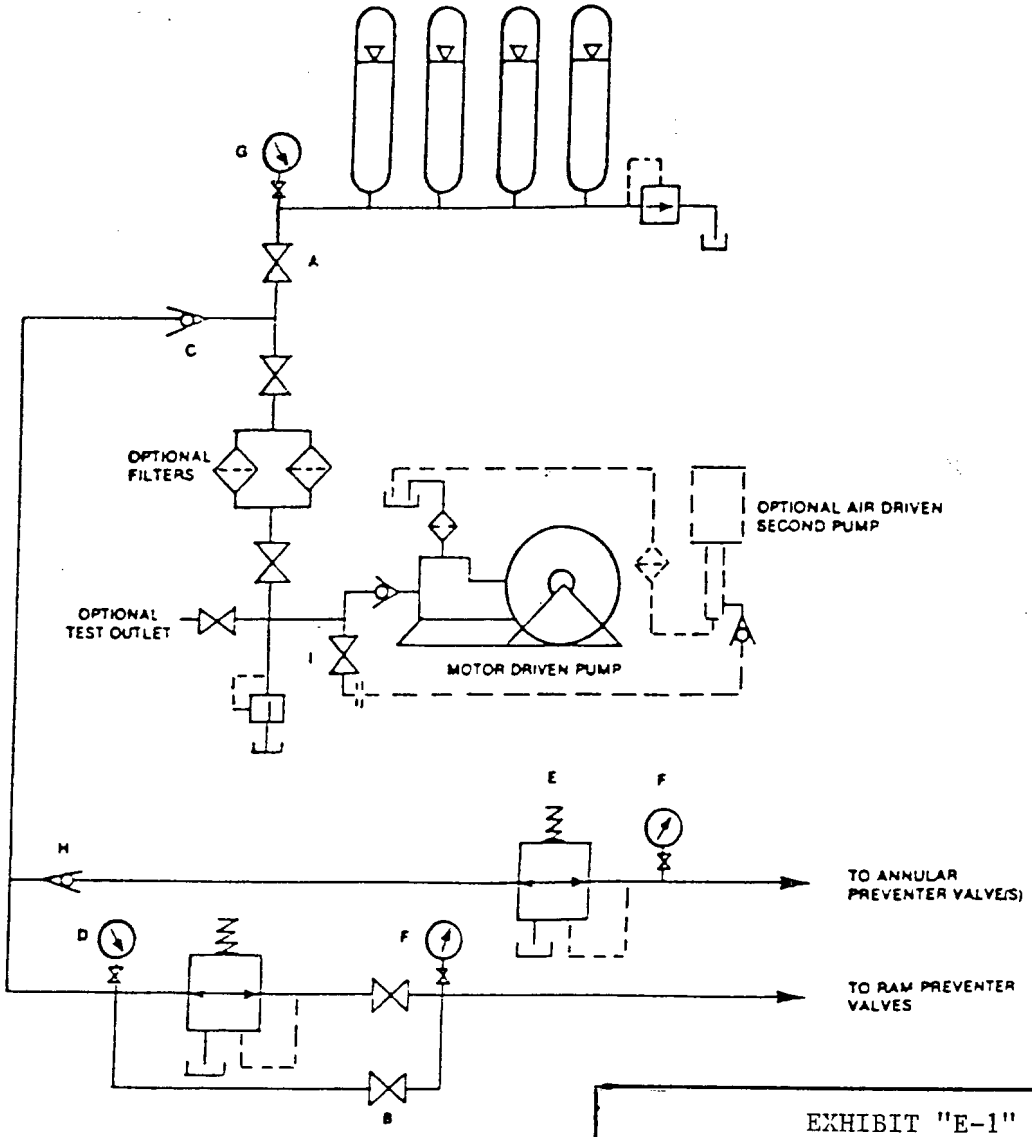


EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

COG OPERATING, LLC.
MINIS "1" FEDERAL # 5
LOT "4" SECTION 1
T21S-R32E LEA CO. NM