Form 3160-3
(July 1992)

9/21/04 DE

APPLICATI

OPER. OGRID NO. 229137
PROPERTY NO. 34418
POOL CODE 97210
EFF. DATE 11/19/04
API NO. 30-025-36956

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

L-2

5. LEASE DESIGNATION AND SERIAL NO.
NM-~~96236~~ 60777

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

1a. TYPE OF WORK
DRILL [X]

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

8. FARM OR LEASE NAME, WELL NO.
MINIS "1" FEDERAL # 4

2. NAME OF OPERATOR
COG OPERATING, LLC. (ERICK NELSON 432-685-4342)

9. API WELL NO.
30-025-36956

3. ADDRESS AND TELEPHONE NO.
550 WEST TEXAS AVE. SUITE 1300 MIDLAND, TEXAS 79701 (432-685-4342)

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
2310' FNL & 330' FWL SECTIN 1 T21S-R32E LEA CO. NM
At proposed prod. zone SAME Lot 5 R-111-P-POTASH

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 45 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)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
330'	200	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
2000'	8500'	ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
CARLSBAD
3722' GR.

22. APPROX. DATE WORK WILL START*
WHEN APPROVED

23. CONTROLLED WATER BASIN

PROPOSED CASING AND CEMENTING PROGRAM See attachment to Geo. Rpt.

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8" H-40	48#	1550'	Circulate Cement To Surface WITN
12-1/4"	9-5/8", J-55	36&40#	3200'	~~500 Sx~~. circulate to Surface WITN
8-3/4"	7", J-55	19&23#	5350'	~~1000 Sx~~ Tie Back 200' Into 9-5/8"
6-1/8"	5", N-80	17#	8500'	~~600 Sx~~. Est top of cement 5000'

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to ~~500~~ 1550'. Run and set ~~500~~ 1550' of 13 3/8" 48# H-40 ST&C casing. ~~CEment with 500 Sx. of Class "C" cement + 2% CaCl, ¼# Flocele/Sx.~~ circulate cement to ~~surface.~~
3. Drill ~~11~~ 12-1/4" hole to 3200'. Run and set 3200' of ~~8 5/8"~~ 9-5/8 36&40#, ~~32#~~ J-55 ST&C casing. ~~Cement with 800 Sx. of Class "C" 50/50 POZ Light cement + additives, tail in with 200 Sx.~~ of Class "C" cement + additives, circulate cement to surface.
5. ~~4.~~ Drill ~~7 7/8"~~ 6-1/8" hole to 8500'. Run and set 8500' of ~~5½"~~ 5" 17# ~~J-55 LT&C~~ N-80 FJT casing. Cement ~~with 600 Sx. of Class "H" Premium Plus cement + additives~~, estimate top of cement 5000' from surface or 500' above the upper most pay interval.
4. Drill 8-3/4" hole to 5350'. Run and set 5350' of 7", 19&23#, J-55, FJT Casing. Tie Back At Least 200' Into 9-5/8" Casing.

Engineering O.K.: 09-21-2004: RHL

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 Joe T Janica TITLE Agent DATE 09/12/04

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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/ Linda S. C. Rundell TITLE STATE DIRECTOR DATE 10 NOV 2004

APPROVAL FOR 1 YEAR

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
30-025-36956	~~30214~~ 97210	HAT MESA-DELAWARE Southeast

Property Code	Property Name	Well Number
34418	MINIS "1" FEDERAL	4

OGRID No.	Operator Name	Elevation
229137	COG OPERATING, LLC	3722'

Surface Location

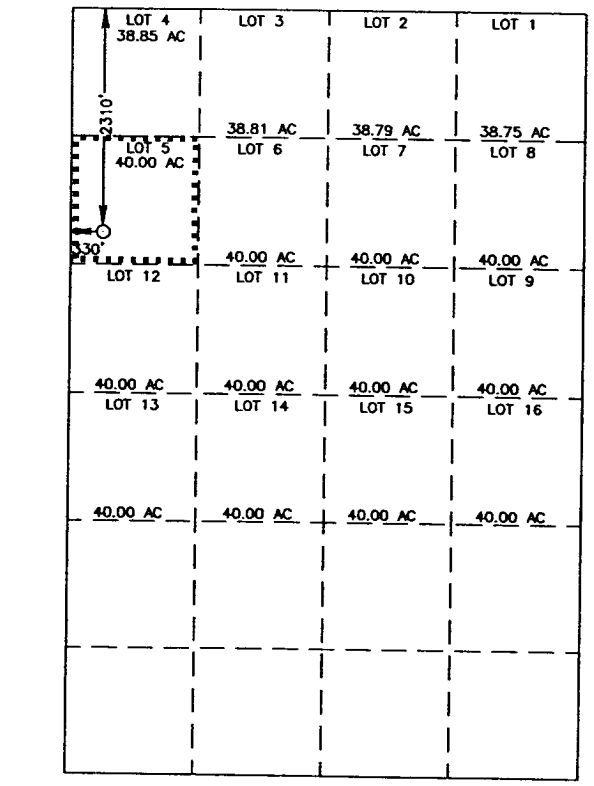
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
5	1	21-S	32-E		2310	NORTH	330	WEST	LEA

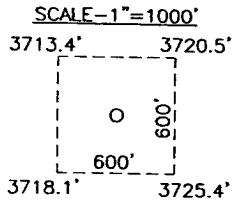
Bottom Hole Location If Different From Surface

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=621814.3 N
X=655163.7 E

LAT.=32°42'30.42" N
LONG.=103°49'43.98" W

OPERATOR CERTIFICATION

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

Joe T. Janica
Signature

Joe T. Janica
Printed Name

Agent
Title

09/12/04
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.

AUGUST 18, 2004
Date Surveyed JR

Signature & Seal of Professional Surveyor
GARY L. EIDSON
NEW MEXICO
12641
PROFESSIONAL SURVEYOR

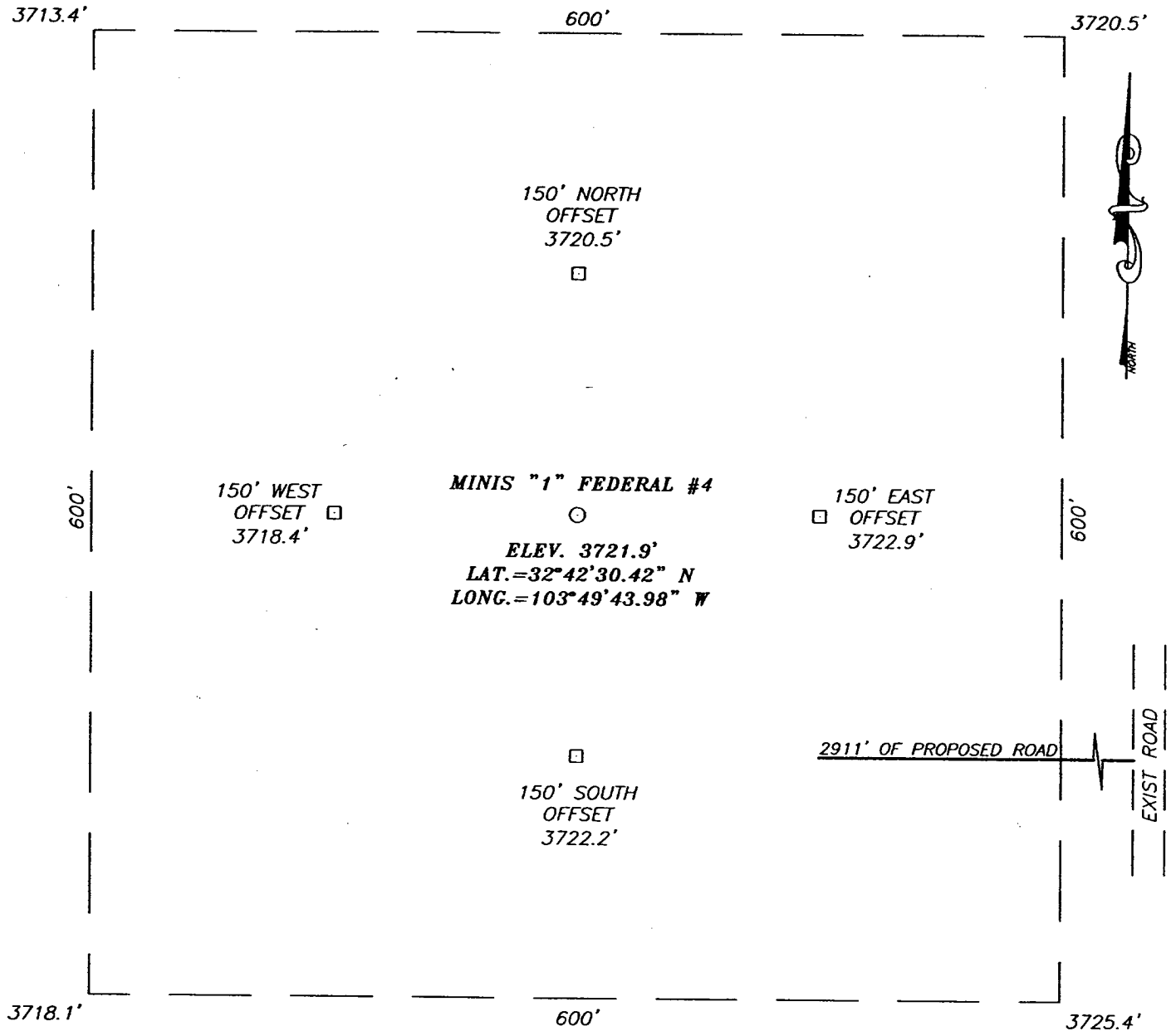
Gary L. Eidson 8/27/04
04.11.1063

Certificate No. GARY EIDSON 12641

EXHIBIT "A"

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

LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION U.S. HWY. 62-180 AND ST. HWY. #176, GO SOUTHEAST TO EAST ON ST. HWY. #176 APPROX. 6.3 MILES TO A CALICHE ROAD ON THE RIGHT. TURN RIGHT (SOUTH) AND GO APPROX. 0.4 MILES TO A PROPOSED ROAD SURVEY. FOLLOW PROPOSED ROAD SURVEY APPROX. 0.6 MILES TO PROPOSED LOCATION.

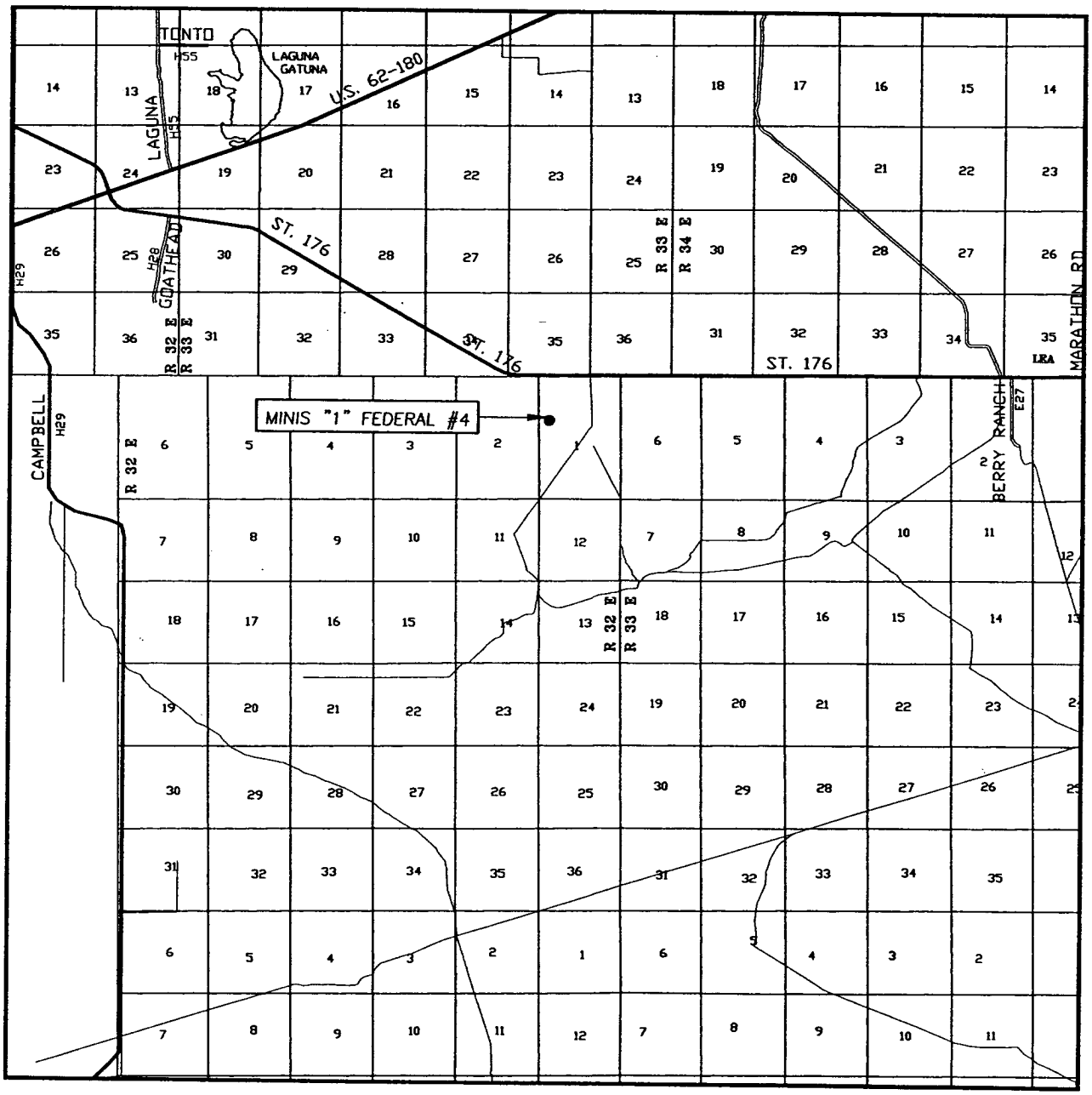
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

COG OPERATING, LLC

MINIS "1" FEDERAL #4 WELL
LOCATED 2310 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: 08/18/04	Sheet 1 of 1 Sheets		
W.O. Number: 04.11.1063	Dr By: J.R.	Rev 1:N/A	
Date: 08/24/04	Disk: CD#10	04111063	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 2310' FNL & 330' FWL

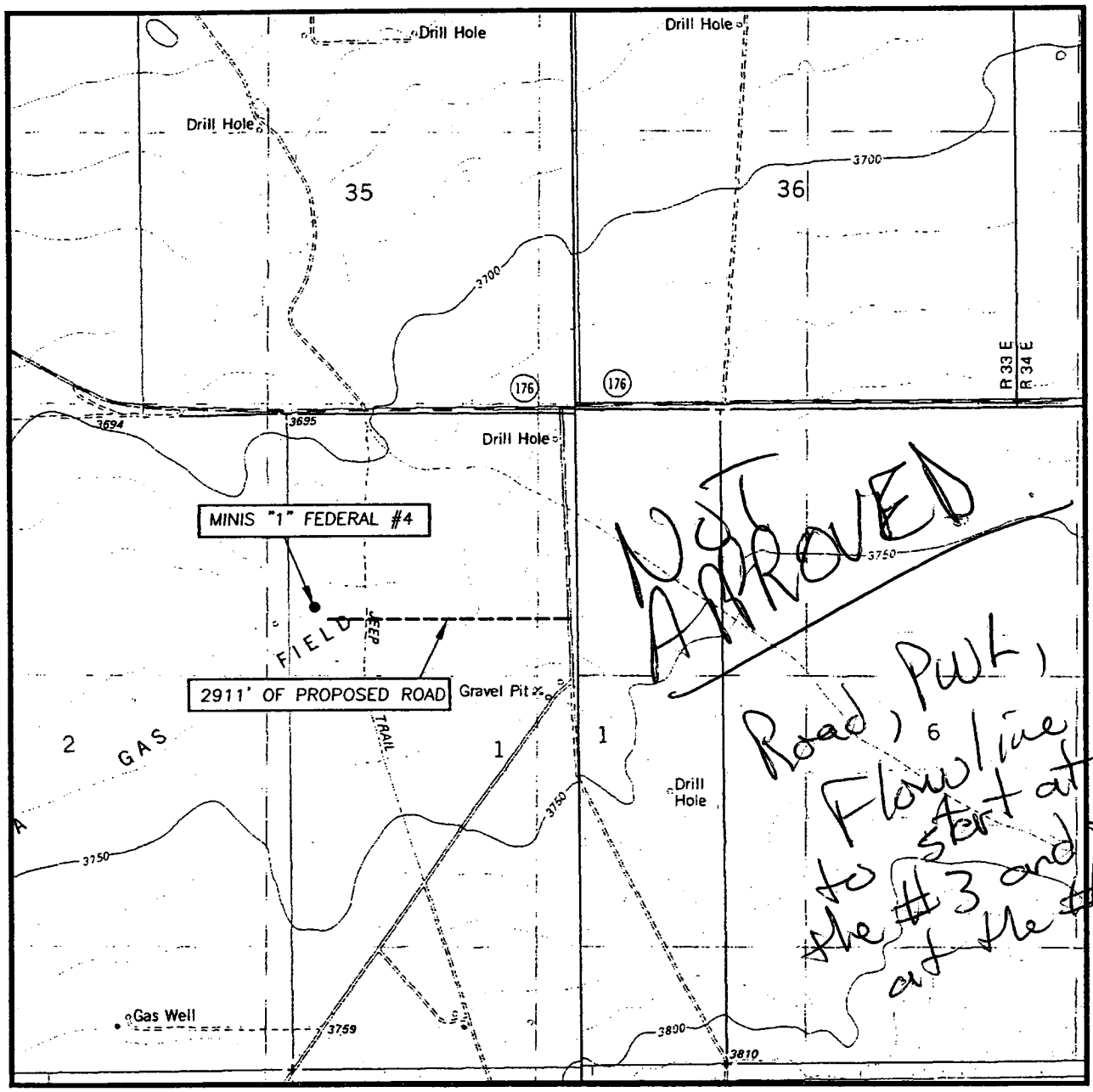
ELEVATION 3722'

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



NOT APPROVED
Road, Pwl, 6 Flowline to start at the #3 and terminate at the #4

SCALE: 1" = 2000'

CONTOUR INTERVAL:
LAGUNA GATUNA, N.M. – 10'

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

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 2310' FNL & 330' FWL

ELEVATION 3722'

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

COG Operating LLC
Minis "1" Federal #4
2310' FNL & 330' FWL
Lot #5- Sec.1-T21S, R32E
Lea County, NM

1. Well Plan

   Drill a 8500' Delaware test

2. Ground Elevation above Sea Level: 3722'

3. Proposed drilling depth: TD:8500'

4. Estimated tops of geological markers:

Rustler Anhydrite	1540'
Yates	3120'
Capitan Lime	3530'
Delaware	5530'
Bone Spring	8500'

5. Possible mineral bearing formations:

Delaware	Oil

6. Casing Program

Hole size	Interval	OD of Casing	Weight	Thread	Collar	Grade
17-1/2"	0' – 1550'	13-3/8"	48# & 54.5#	8rd	STC	H40
12 1/4"	1550' – 3200'	9-5/8"	36# & 40#	8rd	STC	J-55
8 ¾"	3200'- 5350'	7"	23# & 19#	FL4S	Flush JT	J-55
6 1/8"	5350' – 8500'	5"	17#	FL4S	Flush JT	N-80

7. Cementing and Setting Depth

13 3/8"	Surface	1550'	Set 1550' of 13 3/8" 48# & 54.5# H40 STC casing. Cement w/ 1400 sx class "C" cement + 2% CaCl2 + .25# flocele. Circulate cement
9 5/8"	Intermediate	3200'	Set 3200' of 9 5/8" 36# & 40# J-55 STC casing. Cement w/ 600 sx 50:50 Poz:C light cement + additives followed by 200 sx Class "C" cement. Circulate cement.
7"	Intermediate	5350'	Set 5350' 7" 19# & 23# J-55 Flush jt casing. Cement w/300 sx Class "C" light + additives followed by 200 sx Class "C". TOC @ 3000'
5-1/2"	Production	5000'- 8500'	Set 3500' of 5" 15# N-80 FL4S liner from 5000'- 8500'. Cement w/ 300 sx Class "H" plus additives. Est TOC @ +/- 5000'

APPLICATION TO DRILL

COG OPERATING, LLC.
MINIS "1" FEDERAL # 4
LOT # 5 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: 2310' FNL & 330' FWL SECTION 1 T21S-R32E

2. Ground Elevation above Sea Level: 3722' 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: 8500'

6. Estimated tops of geological markers:

Rustler Anhydrite	1540'	Delaware	5530'
Yates	3120'	Bone Spring	8500'
Capitan Lime	3530'		

7. Possible mineral bearing formations:

Delaware	Oil
Bone Spring	Oil

8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
25"	0-40	20"	NA	NA	NA	Conductor
17½"	0-500'	13 3/8"	48#	8-R	ST&C	H-40
11"	0-3200'	8 5/8"	32#	8-R	ST&C	J-55
7 7/8"	0-8500'	5½"	17#	8-R	LT&C	J-55

APPLICATION TO DRILL

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

9. CEMENTING & SETTING DEPTH:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 500' of 13 3/8" 48# H-40 ST&C casing. Cement with 500 Sx. of Class "C" cement + 2% CaCl, + ¼# Flocele/Sx. Circulate cement to surface.
8 5/8"	Intermediate	Set 3200' of 8 5/8" 32# J-55 ST&C casing. Cement with 800 Sx. of 50/50 POZ Class "C" Light cement + additives, tail in with 200 Sx. of Class "C" cement+ additives, circulate cement to surface.
5½"	Production	Set 8500' of 5½" 17# J-55 LT&C casing. CEment with 600 Sx. of Class "H" cement + additives, estimate top of cement 5000'.

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 nippled up on the 13 3/8" 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 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
40-500'	8.4-8.7	29-34	NC	Fresh water Spud Mud use paper to control seepage.
500-1550'	8.4-9.2	28-35	NC	Fresh water use paper to control seepage, mud to meet requirements to control fresh water.
1550-3200'	10.0-10.3	29-38	NC	Brine water use lime to control pH.
3200-8000'	8.4-8.9	29-38	NC	Fresh water High viscosity sweeps to clean hole
8000-8500'	8.4-8.6	30-38	8-10 cc	Fresh water, starch and Gel to control water loss and viscosity.

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.

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Dual Induction, LDT, SNP, Gamma Ray, Caliper from TD back to 8 5/8" casing shoe.

B. Cased hole logs: Gamma Ray, Neutron from 8 5/8" casing shoe back to surface.

C. Mud logger on hole at 3200' to TD.

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

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H^2S in this area. If H^2S 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 4500 PSI, and Estimated BHT 145°.

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 28 days. If production casing is run then an additional 30 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 Bone Spring formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as an Oil well

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

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.

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

SURFACE USE PLAN

COG OPERATING, LLC.
MINIS "1" FEDERAL # 4
LOT # 5 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 new road to location.

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

2. PLANNED ACCESS ROADS: Approximately 2000' 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 indicated proposed location of reserve and sump pits and living facilities.

C. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.

D. If needed, the reserve pit is to be lined with polyethelene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.

E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B 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 erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

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

11. OTHER INFORMATION:

A. Topography consists of low lying sand dunes with a gentle dip to the North-East. Vegetation consists of mesquite, soto, and native grasses.

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. No dwellings are located near to 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 AVE. SUITE 1300
MIDLAND, TEXAS 79701
ERICK NELSON
OFFICE PHONE 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 : 09/12/04
TITLE : Agent

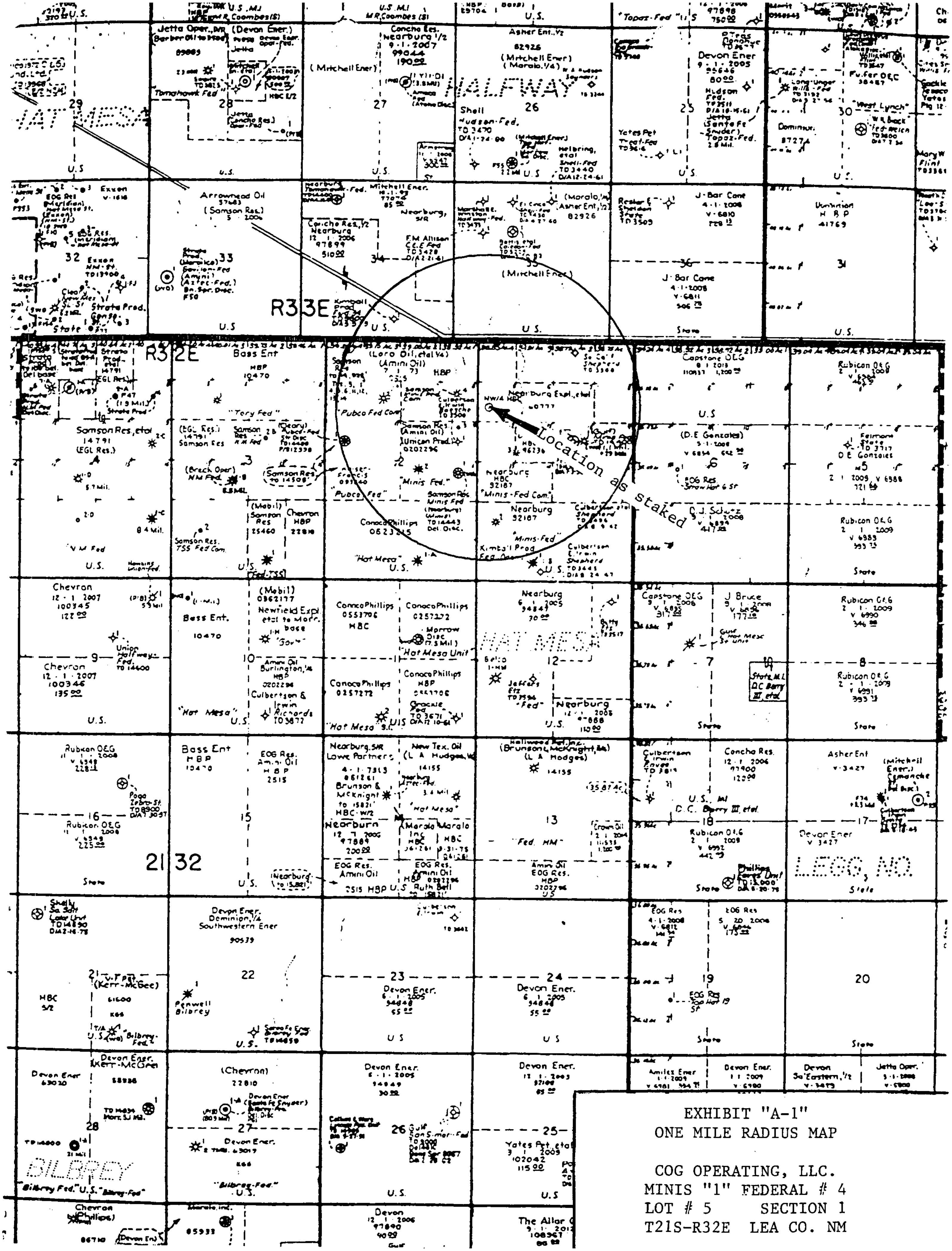


EXHIBIT "A-1"
ONE MILE RADIUS MAP

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

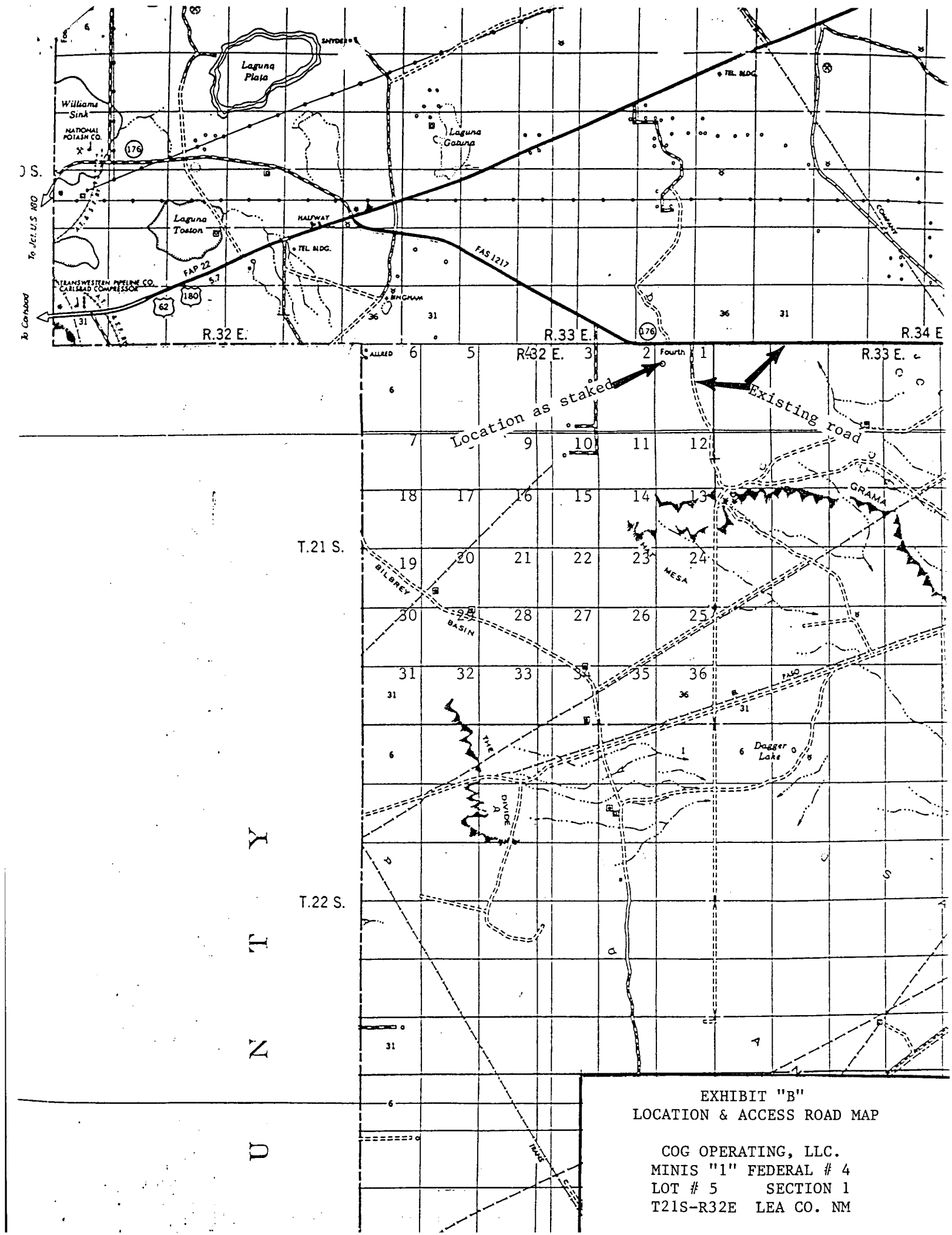


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

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

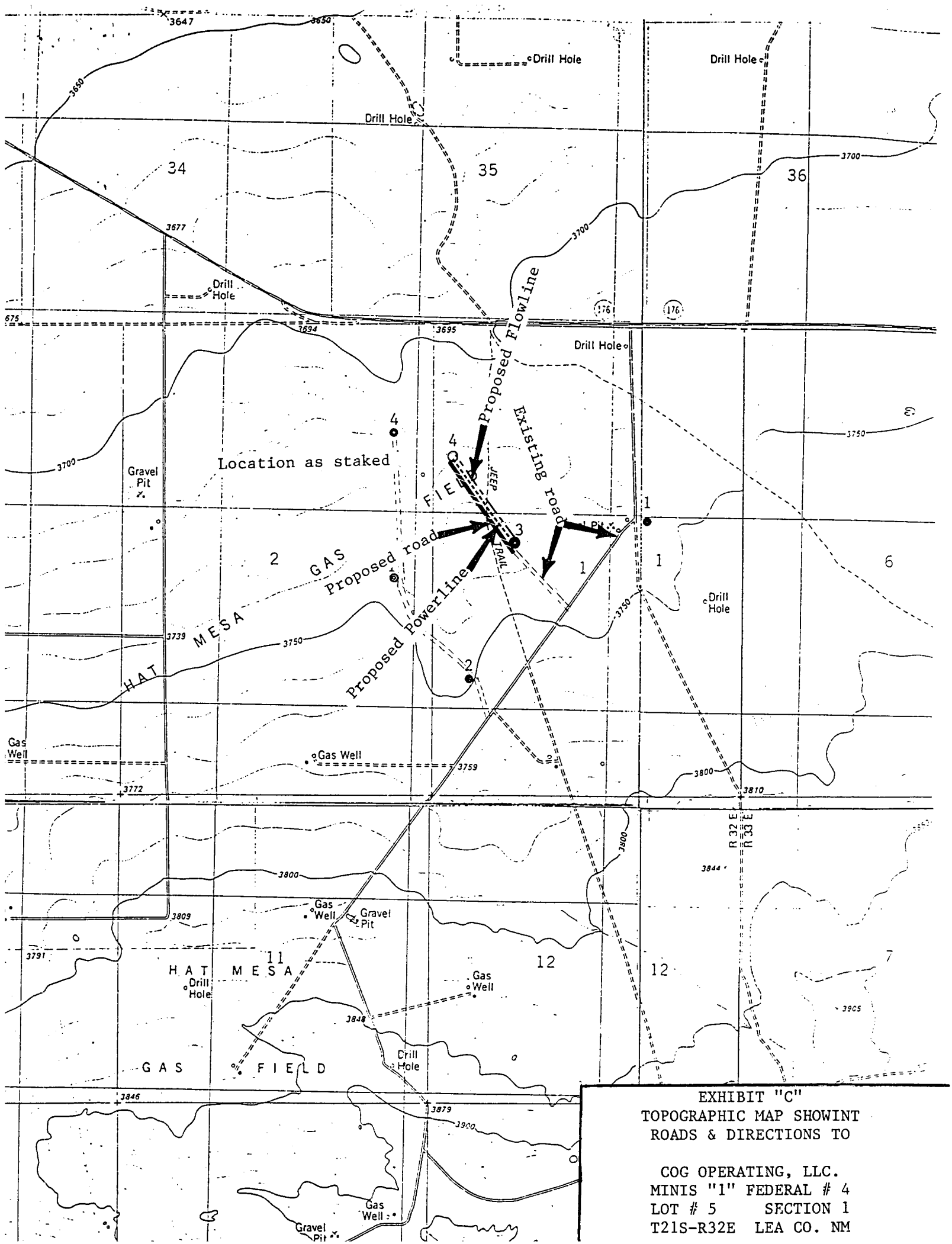
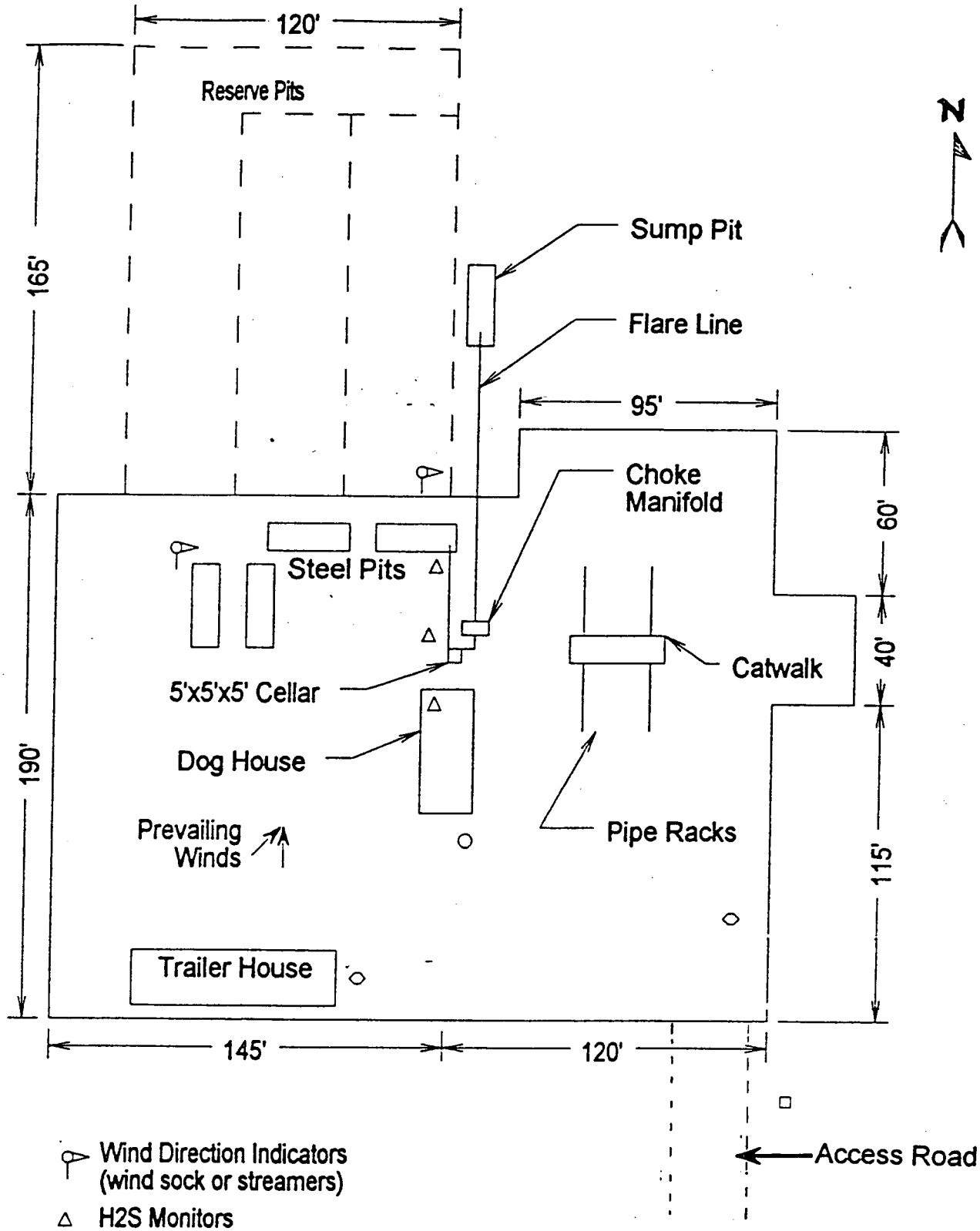


EXHIBIT "C"
TOPOGRAPHIC MAP SHOWINT
ROADS & DIRECTIONS TO

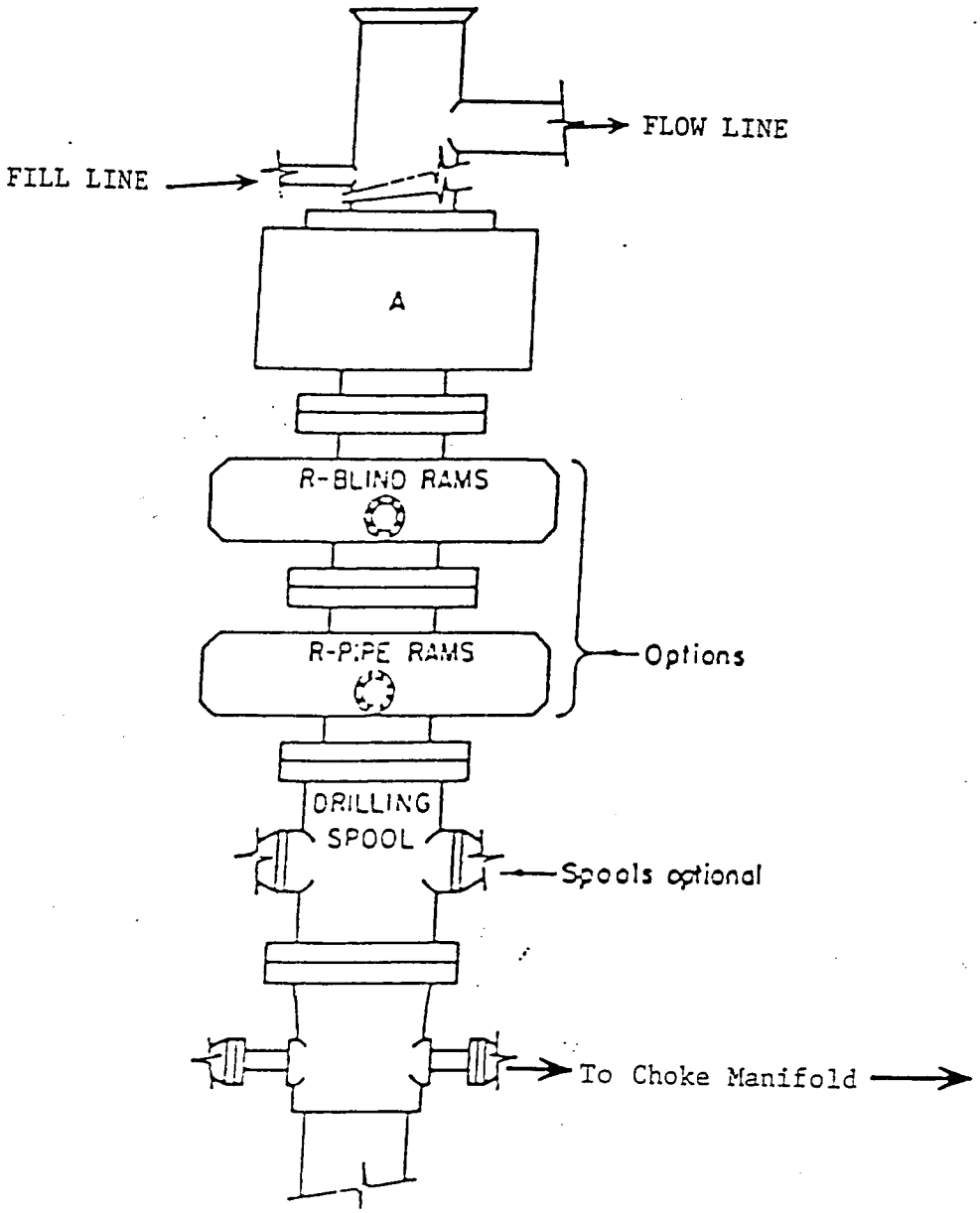
COG OPERATING, LLC.
MINIS "1" FEDERAL # 4
LOT # 5 SECTION 1
T21S-R32E LEA CO. NM



- 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 # 4
LOT # 4 SECTION 1
T21S-R32E LEA CO. NM

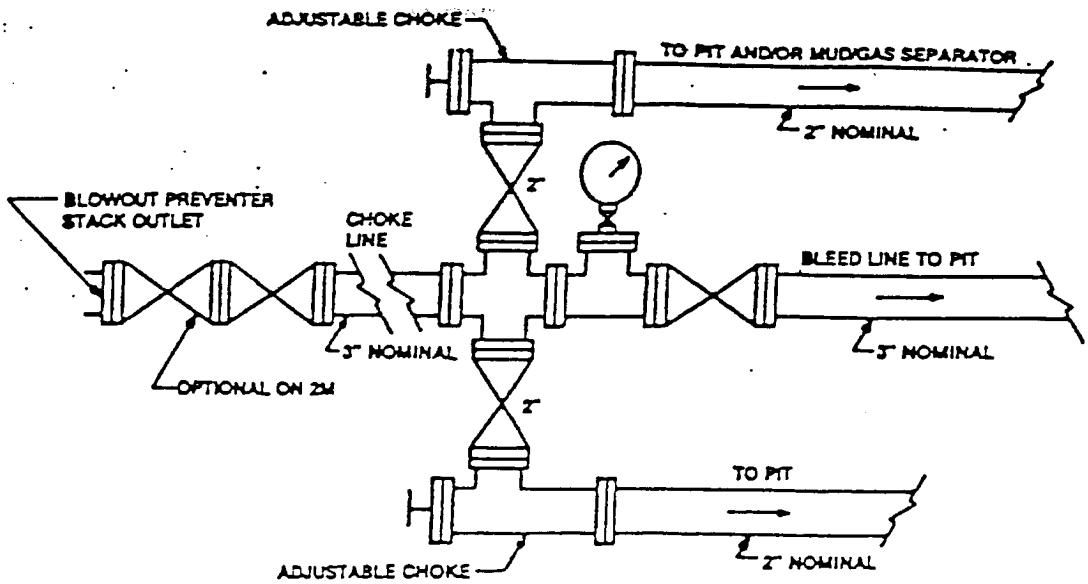


ARRANGEMENT SRRA

900 Series
3000 PSI WP

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

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



Typical choke manifold assembly for 3M WP system

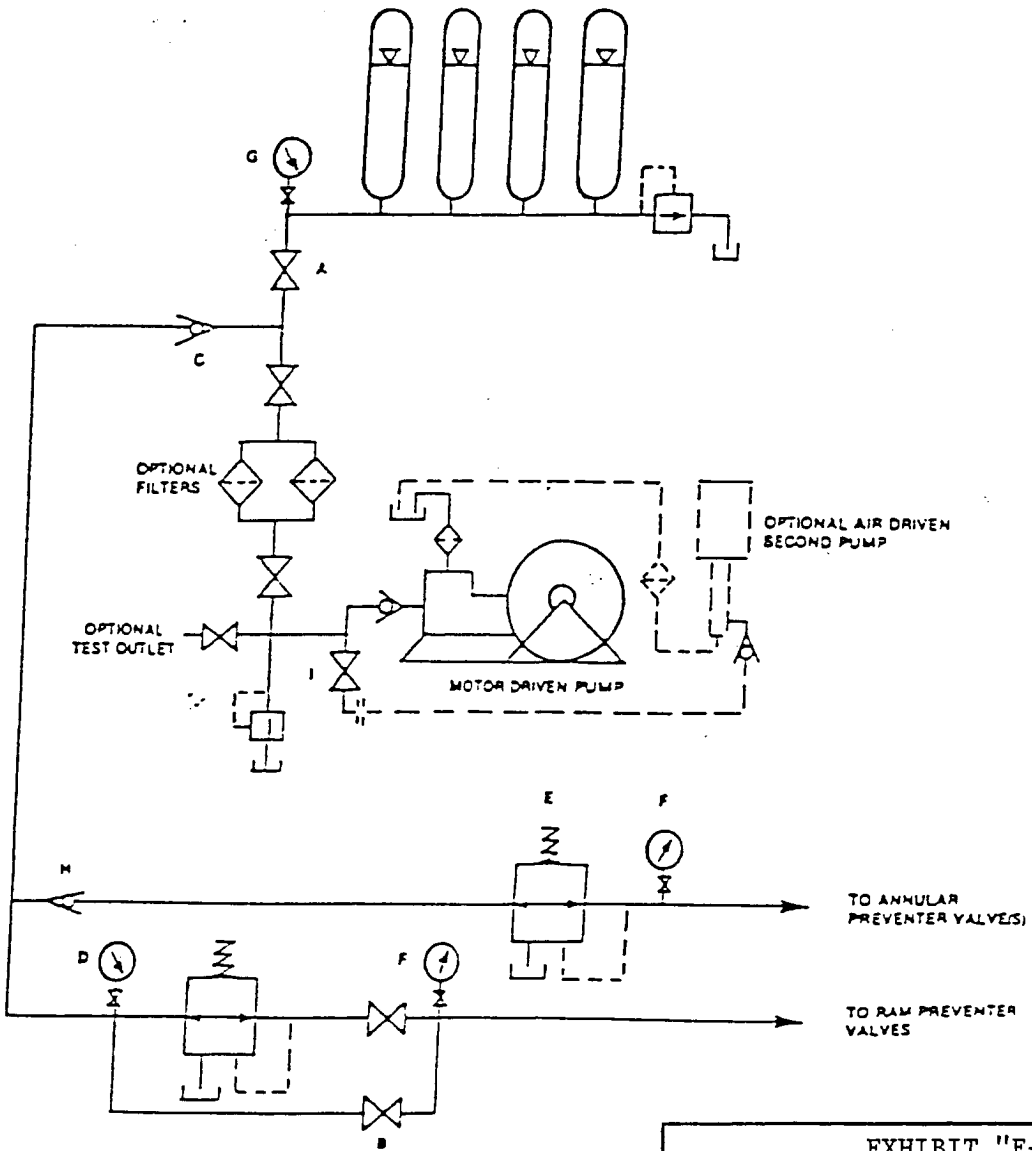


EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

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