

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

(Other instructions on  
reverse side)

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

1b. TYPE OF WELL

OIL ☐

GAS ☒

WELL

WELL

OTHER

SINGLE ☐

MULTIPLE ☐

ZONE

ZONE

2. NAME OF OPERATOR

Gruy Petroleum Management Co.

3. ADDRESS AND TELEPHONE NO.

P.O. Box 140907 Irving TX 75014 972-401-3111

4. LOCATION OF WELL

(Report location clearly and in accordance with any State requirements.)

Undes. Shugart Morrow, North

660' FSL & 1650' FEL

Unit B

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

6.2 miles Southeast of Loco Hills

15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, T.O

(Also to nearest drlg. unit line, if any) 990'

16. NO. OF ACRES IN LEASE

160

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

320.04

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

2970'

19. PROPOSED DEPTH

12500'

20. ROTARY OR CABLE TOOLS

Rotary

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

3707'

22. APPROX. DATE WORK WILL START\*

1-15-01

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	H-40 13 3/8"	48 #	550'	465 sx circulate
11"	K-55 8 5/8"	24 #	3200'	995 sx circulate
7 7/8"	N-80/S-95 5 1/2"	17 #	12500'	860 sx TOC 8500'

The proposed well will be drilled to a depth of 12500' and completed as a Turkey Track Morrow North (Atoka/Morrow) producer. From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 - psi BOP system.

Est TOC to be changed to cover Base Spring  
Prod. Zone. Conversation w/ Zone Farms 1/24/01  
B.L.H.

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS

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 location and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED

Zeno Fakhri

Mgr. Ops. Admin

DATE

12-18-00

(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

TITLE

DATE

JAN 23 2001

\*See Instructions On Reverse Side

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.

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

## OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 86500	Pool Name Turkey Track Morrow, North
Property Code 162683	Property Name MAGNUM 5 FEDERAL Com	Well Number 2
OGRID No.	Operator Name GRUY PETROLEUM MANAGEMENT CO.	Elevation 3707

#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	5	18 S	31 E		660'	SOUTH	1650	EAST	EDDY

#### 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 320.04	Joint or Infill Y	Consolidation Code P	Order No.						

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

LOT 4 39.97 AC	LOT 3 39.99 AC	LOT 2 40.01 AC	LOT 1 40.03 AC
		Magnum Federal 5 Com 1	
		2970'	
		Magnum Federal 5 Com 2	
		3710 3708	3708 3706 1650'

#### OPERATOR CERTIFICATION

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

*Zeno Farris*  
Signature  
Zeno Farris  
Printed Name  
Mgr. Operations Admin.  
Title  
12-18-00  
Date

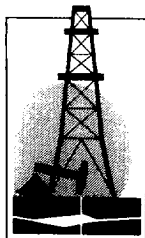
#### SURVEYOR CERTIFICATION

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

NOVEMBER 22, 2000

Date Surveyed  
Signature & Seal of Professional Surveyor  
*Gary E. Eidson* 11/5/00  
00-11-1486

Certificate No. RONALD J. EIDSON 3239  
GARY EIDSON 12641



## **Gruy Petroleum Management Co.**

600 East Las Colinas Blvd. • Suite 1100 • Irving, TX 75039 • (972) 401-3111 • Fax (972) 443-6450  
Mailing Address: P.O. Box 140907 • Irving, TX 75014-0907

*A wholly-owned subsidiary of Magnum Hunter Resources, Inc., an American Stock Exchange company*

### **STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS**

Bureau of Land Management  
2909 West 2<sup>nd</sup> Street  
Roswell New Mexico 88201-2019  
Attn: Ms. Linda Askwig

Gruy Petroleum Management Co. accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease No.: NMNM 91308

Legal Description: E/2 Sec 5, T18S-R31E  
Containing 320.00 acres, Eddy County New Mexico

Formation (S): Atoka - Morrow

Bond Coverage: Nationwide BLM Bond

BLM Bond File No.: NM 2575

Authorized Signature: \_\_\_\_\_

*Zeno Farris*

Representing Gruy Petroleum Management Co.

Name: Zeno Farris

Title: Manager, Operations Administration

Date: 12/18/00

## Application to Drill

Gruy Petroleum Management Co.  
Magnum Federal 5 Com 2  
Unit Letter O Section 5  
T18S - R31E Eddy County, NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

1 Location: 660' FSL & 1650' FEL Sec. 20 18S 29E

2 Elevation above sea level: GR 3707'

3 Geologic name of surface formation: Quaternary Aeolian Deposits

4 Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.

5 Proposed drilling depth: 12500'

6 Estimated tops of geological markers:

T/Salt	250'	Wolfcamp	8700'
B/Salt	800'	Cisco Canyon	9700'
Yates	1050'	Strawn	9900'
Queen	1975'	Atoka	10450'
Grayburg	2350'	Morrow	10650'
San Andres	2815'	Mississippian	11400'

7 Possible mineral bearing formation:

Wolfcamp	Oil
Atoka	Gas
Morrow	Gas

8 Casing program:

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
17 1/2"	0-550'	13 3/8"	48	8-R	ST&C	H-40
11"	0-3200'	8 5/8"	24	8-R	ST&C	K-55
7 7/8"	0-12500'	5 1/2"	17	8-R	ST&C	N-80 / S-95

## Application to Drill

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### 9 Cementing & Setting Depth:

13 3/8"	Surface	Set 550' of 13 3/8" H-40 48# ST&C casing. Cement with 465 Sx. Of Class "C" cement + additives, circulate cement to surface.
8 5/8"	Intermediate	Set 3200' of 8 5/8" K-55 24# ST&C casing. Cement in two stages, first stage cement with 795 Sx. Of Class POZ/C Cement + additives, second stage cement with 200 Sx. Of Class "C" + additives, circulate cement to surface.
5 1/2"	Production	Set 12500' of 5 1/2" NP-80 / S-95 17# ST&C casing. Cement with 860 Sx. of Class POZ/C Cement + additives. Estimated top of cement 8500'.

### 10 Pressure control Equipment:

Exhibit "E". A 13 3/8" 5000 PSI working pressure B.O.P. consisting of one set of blind rams and one set of pipe rams and a 5000 # annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 6000'. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. BOP unit will be hydraulically operated. BOP will be nipped up on the 8 5/8" casing and will be operated at least once a day while drilling and the blind

### 11 Proposed Mud Circulating System:

Depth	Mud Wt	Viscosity	Fluid Loss	Type Mud
0 - 450'	8.7 - 9.2	32 - 34	ay lose circ	Fresh water spud mud add paper to control seepage and high viscosity sweeps to clean hole.
400' - 3200'	10 - 10.3	28 - 29	ay lose cir	Brine water. Add paper as needed to control seepage and add lime to control pH (9-10). Use high viscosity sweeps to clean hole.
3200' - 8300'	1/8/00	28 - 29	NC	Fresh water. Paper for seepage. Lime for pH (9 - 9.5)
8300' - 10000'	9.2 - 9.4	28 - 29	NC	Cut brine. Caustic for pH control.
10000' - 12500	9.2 - 10.6	32 - 34	NC	XCD Polymer mud system.

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, the viscosity and water loss may have to be adjusted in order to meet these needs. Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until production casing is run and cemented.

## **Application to Drill**

Gruy Petroleum Management Co.  
Magnum Federal 5 Com 2  
Unit Letter O Section 5  
T18S - R31E Eddy County, NM

### 12 Testing, Logging and Coring Program:

- A. Mud logging program: One-man unit from 8000' to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DST's, or cores are planned at this time.

### 13 Potential Hazards:

No abnormal pressures or temperatures or H<sub>2</sub>S gas are expected. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 2500 PSI, estimated BHT 1000 .

### 14 Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 25 - 30 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

### 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 Morrow / Atoka pay will be perforated and stimulated. The well will be tested and potentialized as a gas well.

## Hydrogen Sulfide Drilling Operations Plan

- 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
  - 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 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, H2S present in dangerous concentration. Only emergency personnel admitted to location.
- 5 Well control equipment
  - A. See exhibit "E"
- 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 location is near any 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<sub>2</sub>S has on tubular goods and other mechanical equipment.
- 9 If H<sub>2</sub>S 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<sub>2</sub>S scavengers if necessary.



## Surface Use Plan

Gruy Petroleum Management Co.  
Magnum Federal 5 Com 2  
Unit Letter O Section 5  
T18S - R31E Eddy County, NM

- 1 Existing Roads: Area maps, Exhibit "B" is a reproduction of Lea Co. General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads 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. Go 5miles east of Loco Hills or 1/2 mile West of junction 529/82. Mile marker 138 Hwy 82. Turn South on 222 (Shugart Road) South 2.6 miles. Turn West 3/10 mile. East into location.
  - C. Construct power lines and lay pipelines that will be necessary to produce this lease along road R-O-W.
- 2 PLANNED ACCESS ROADS: No new access roads planned.
- 3 LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A"
  - A. Water wells - None known
  - B. Disposal wells - None known
  - C. Drilling wells - None known
  - D. Producing wells - As shown on Exhibit "A"
  - E. Abandoned wells - As shown on Exhibit "A"

## Surface Use Plan

Gruy Petroleum Management Co.  
Magnum Federal 5 Com 2  
Unit Letter O Section 5  
T18S - R31E Eddy County, NM

- 4 If, on completion this well is a producer Gruy Petroleum Management Co. will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied with a Sundry Notice.

5 LOCATION AND TYPE OF WATER SUPPLY:

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

6 SOURCE OF CONSTRUCTION MATERIAL:

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

7 METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pit.
- B. All trash, junk and other waste material will be contained in trash cages or 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 supplier including broken sacks.
- D. Sewage from living quarters will drain into holes with a minimum depth of 10'. These holes will be covered during drilling and will be back filled upon completion. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for breaking out. In the event that drilling fluids do not evaporate in a reasonable time they will be hauled off by transports and be disposed of at a state approved disposal facility. Later pits will be broken out to speed drying. Water produced during testing will be put in reserve pits. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8 ANCILLARY FACILITIES:

- A. No camps or airstrips to be constructed.

## Surface Use Plan

Gruy Petroleum Management Co.  
Magnum Federal 5 Com 2  
Unit Letter O Section 5  
T18S - R31E Eddy County, NM

### 9 WELL SITE LAYOUT

- A. Exhibit "D" shows location and rig layout.
- B. This exhibit indicates proposed location of reserve and trash pits; and living facilities.
- C. Mud pits in the active circulating system will be steel pits and 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 PVC or polyethylene line. 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 recontoured 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

Gruy Petroleum Management Co.  
Magnum Federal 5 Com 2  
Unit Letter O Section 5  
T18S - R31E Eddy County, NM

### 11 OTHER INFORMATION:

- A. Topography consists of a 2% slope to the south, on the south side of a low sandy rise with re-worked red sandy paleosols soils. Vegetation is mainly native grasses, yucca, and an occasional mesquite and sandsage..
- B. The wellsite is on Federal owned surface. The surface is leased to Williams & Son Cattle Co. P.O. Box 30 Maljamar, NM 88264. They will notified of our intention to drill prior to any activity. The land is used mainly for cattle ranching and oil and gas production.
- C. An Archaeological survey has been conducted of the location and proposed roads, then this report will be filed with the Bureau of Land Management in the Carlsbad BLM office.
- D. There are no known dwellings within 1 1/2 mile of this location.

### 12 OPERATORS REPRESENTATIVE:

Gruy Petroleum Management Company  
P.O. Box 14097  
Irving, TX 75014  
Office Phone: (972) 443-6489  
Zeno Farris

- 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, true and correct; and that the work associated with the operations proposed herein will be performed by Gruy Petroleum Management Company contractors/subcontractors 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: Zeno Farris

DATE: 12/18/00

TITLE: Manager, Operations Administration

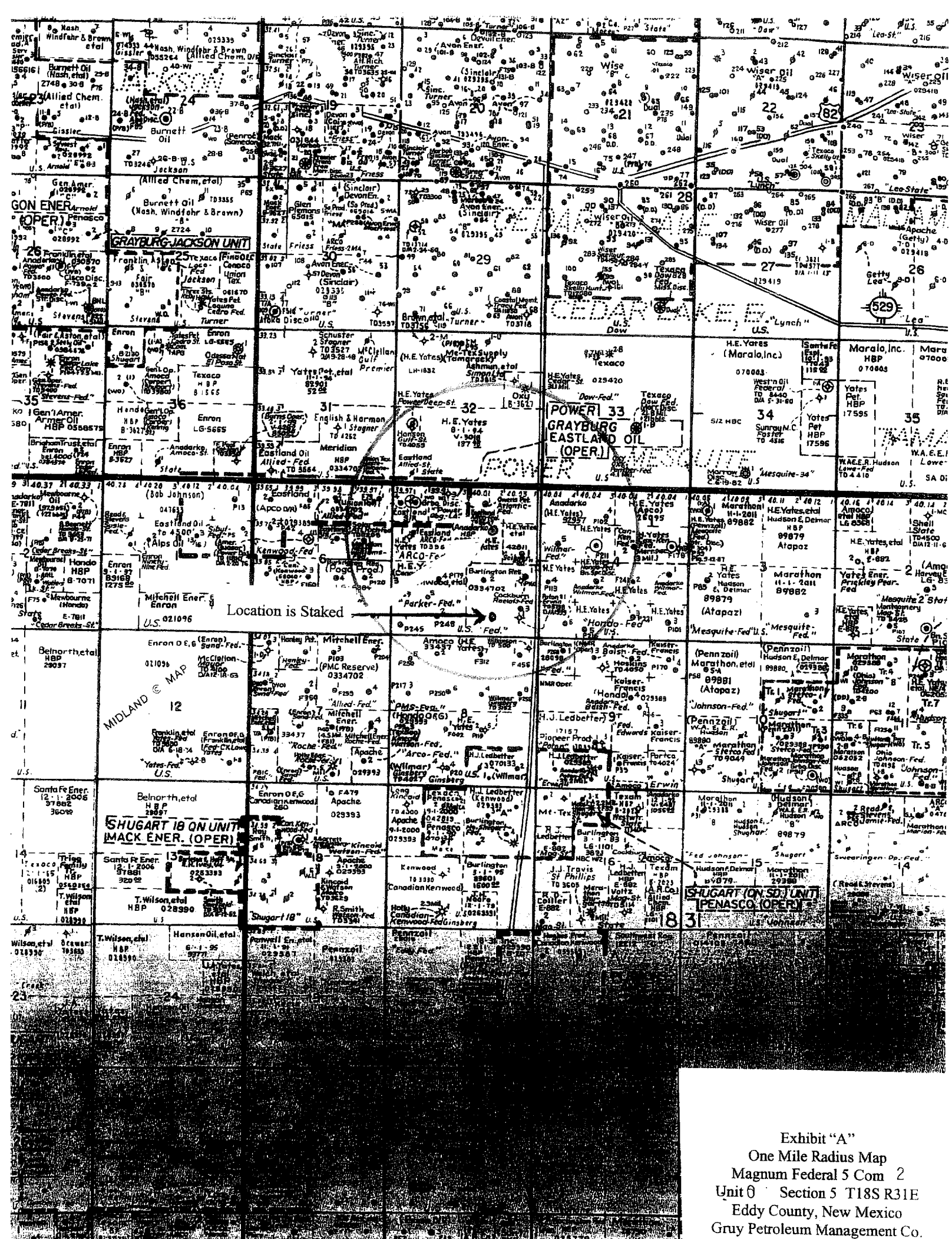
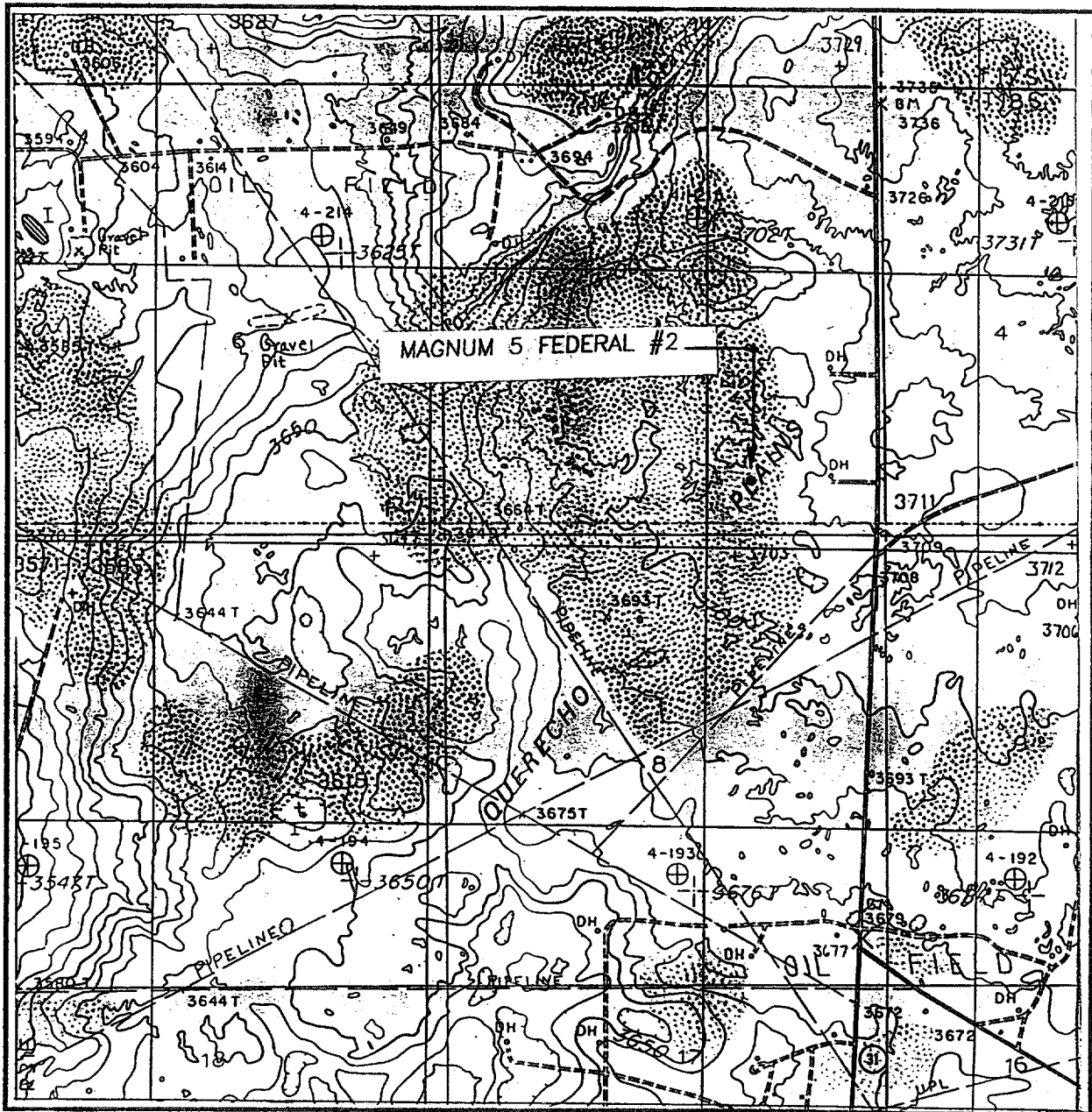


Exhibit "A"  
One Mile Radius Map  
Magnum Federal 5 Com 2  
Unit 0 Section 5 T18S R31E  
Eddy County, New Mexico  
Gruy Petroleum Management Co.

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'  
LOCO HILLS N.M.

SEC. 5 TWP. 18-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FSL & 1650' FEL

ELEVATION 3707

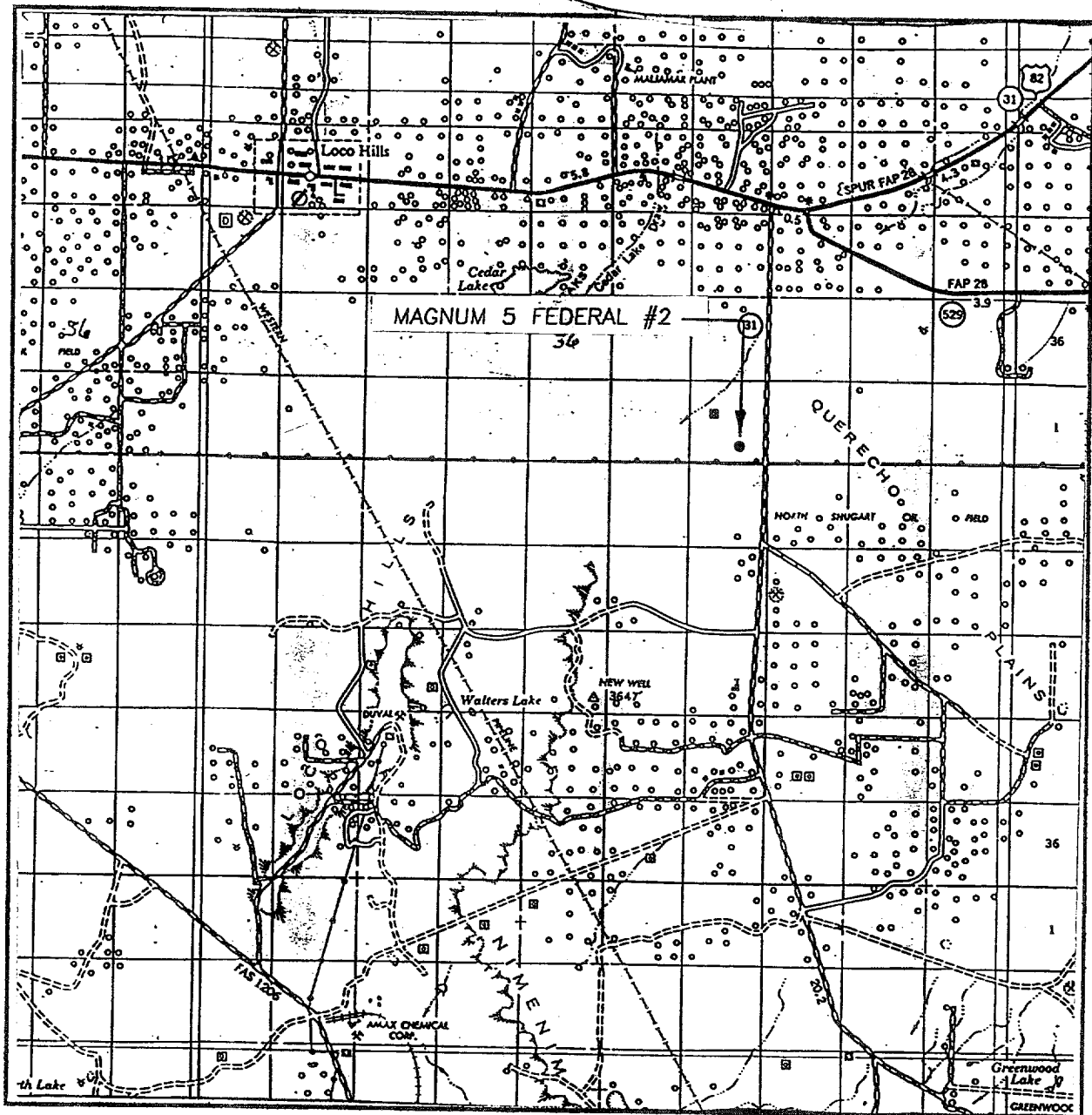
OPERATOR GURY PETROLEUM MANAGEMENT CO.

LEASE MAGNUM 5 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP  
LOCO HILLS N.M.

JOHN WEST SURVEYING  
HOBBS, NEW MEXICO  
(505) 393-3117

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 5 TWP. 18-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FSL & 1650' FEL

ELEVATION 3707

OPERATOR GURY PETROLEUM MANAGEMENT CO.

LEASE MAGNUM 5 FEDERAL

JOHN WEST SURVEYING  
HOBBS, NEW MEXICO  
(505) 393-3117

# LOCATION PLAT

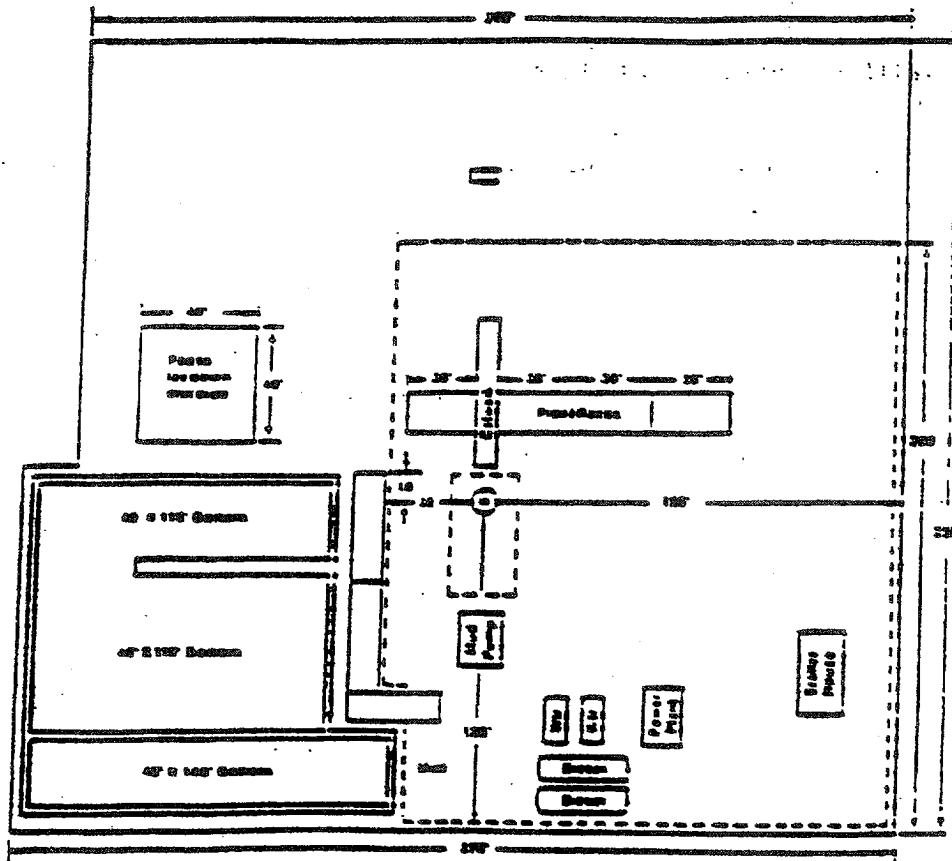
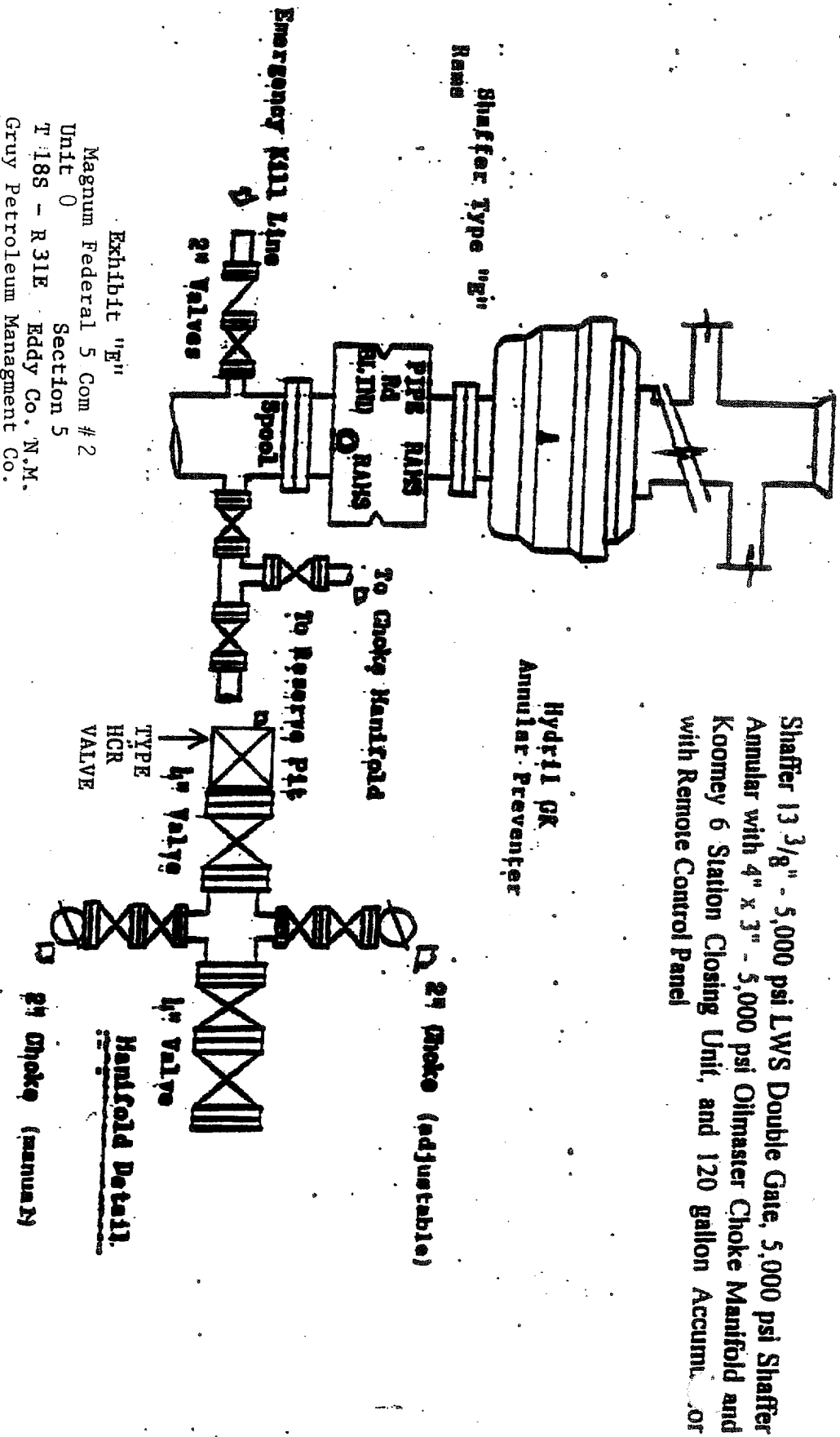


Exhibit "D"  
 Rig Layout Plan  
 Magnum Federal 5 Com #2  
 Unit 0 Section 5  
 T 18S -R 31E Eddy Co., NM  
 Gruy Petroleum Management Co.



# BLowout PREVENTOR SCHEMATIC



Shafter 13 3/8" - 5,000 psi LWS Double Gate, 5,000 psi Shafter Annular with 4" x 3" - 5,000 psi Oilmaster Choke Manifold and Koomey 6 Station Closing Unit, and 120 gallon Accum. or with Remote Control Panel

Exhibit "E"  
Magnum Federal 5 Com #2  
Unit 0 Section 5  
T 18S - R 31E Eddy Co. N.M.  
Gruy Petroleum Management Co.