

Application to Drill

Gruy Petroleum Management Co.
Empire 20 Federal Com 2
Unit Letter O Section 20
T18S - R29E 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 3513'
- 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: 11500'
- 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"	0-400'	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"	0-11500'	5 1/2"	17 15.5	8-R	ST&C	J-55 N-80/S-95

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9 Cementing & Setting Depth:

13 3/8"	Surface	Set 400' 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 11500' of 5 1/2" 48# ^{N-805-95 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'	11/8/00	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.
1000' - 11500'	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.

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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 H₂S 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 potentialed as a gas well.

Surface Use Plan

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- 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. From Hobbs go West on Highway 62-180 to Highway 529. Turn left on Highway 82. Go West to County road 360. Turn South to mile marker 18. Turn West on Caliche road, 1.1 mile. Turn North, 1/2 mile, then 1 mile west 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: A new access road will be built. The access road will run approximately 3000' due south of existing Empire 20 Federal No. 1.
- 3 LOCATION 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"

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- 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.

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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 recountered 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.

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11 OTHER INFORMATION:

- A. Topography consists of flat plain. Vegetation is mainly native grasses and Mesquite trees with Shinnery Oak.
- B. The wellsite is on Federal owned surface. The surface is leased to Boegle Farms, P.O. Box 460, Dexter, NM 88230-0460. 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 will be 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:

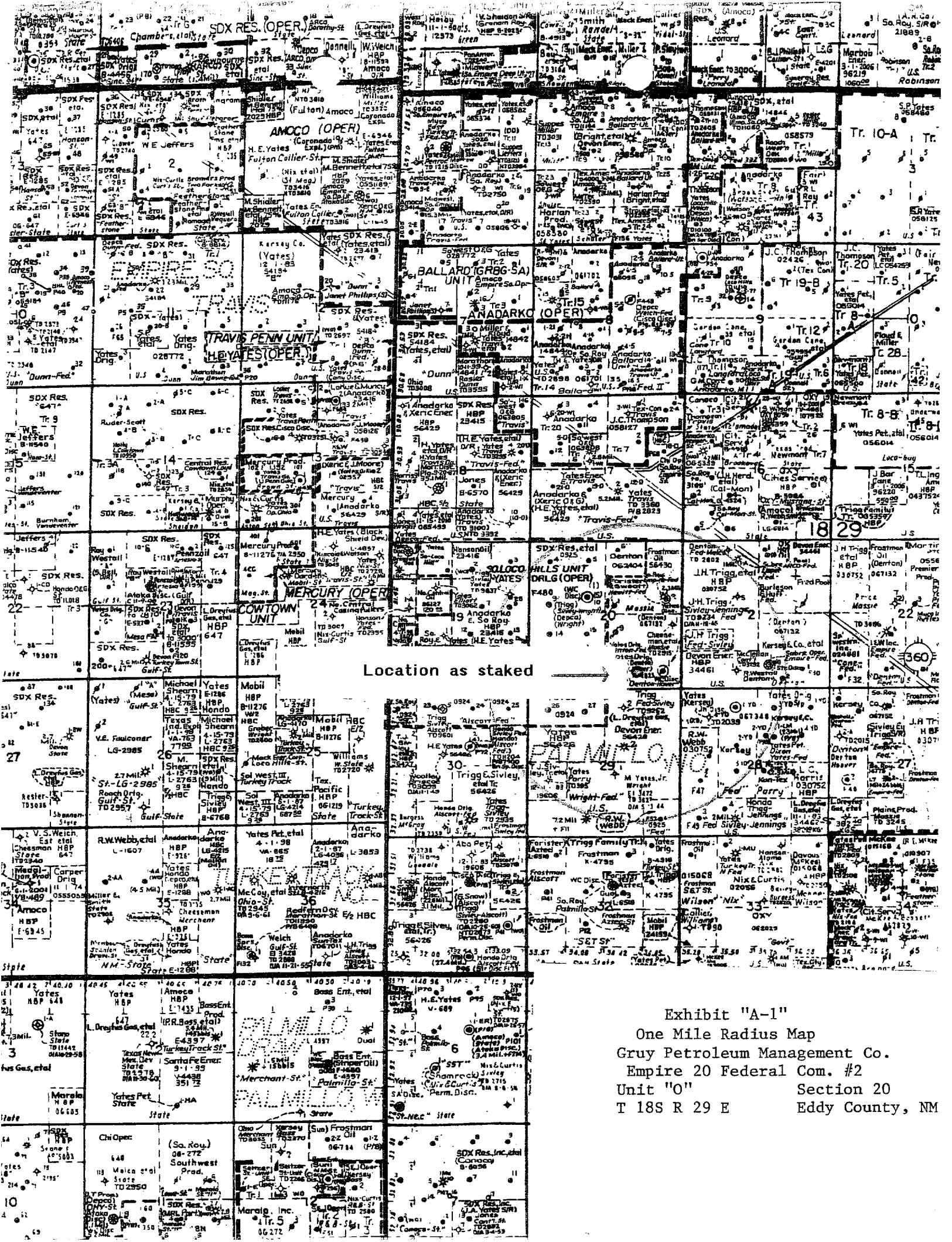
Gruy Petroleum Management Company
P.O. Box 14097
Irving, TX 75014
Office Phone: (972) 443-6489
Zeno Farris

- 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 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: Zeno Farris

DATE: 2 - 14 00

TITLE: Manager, Operations Administration



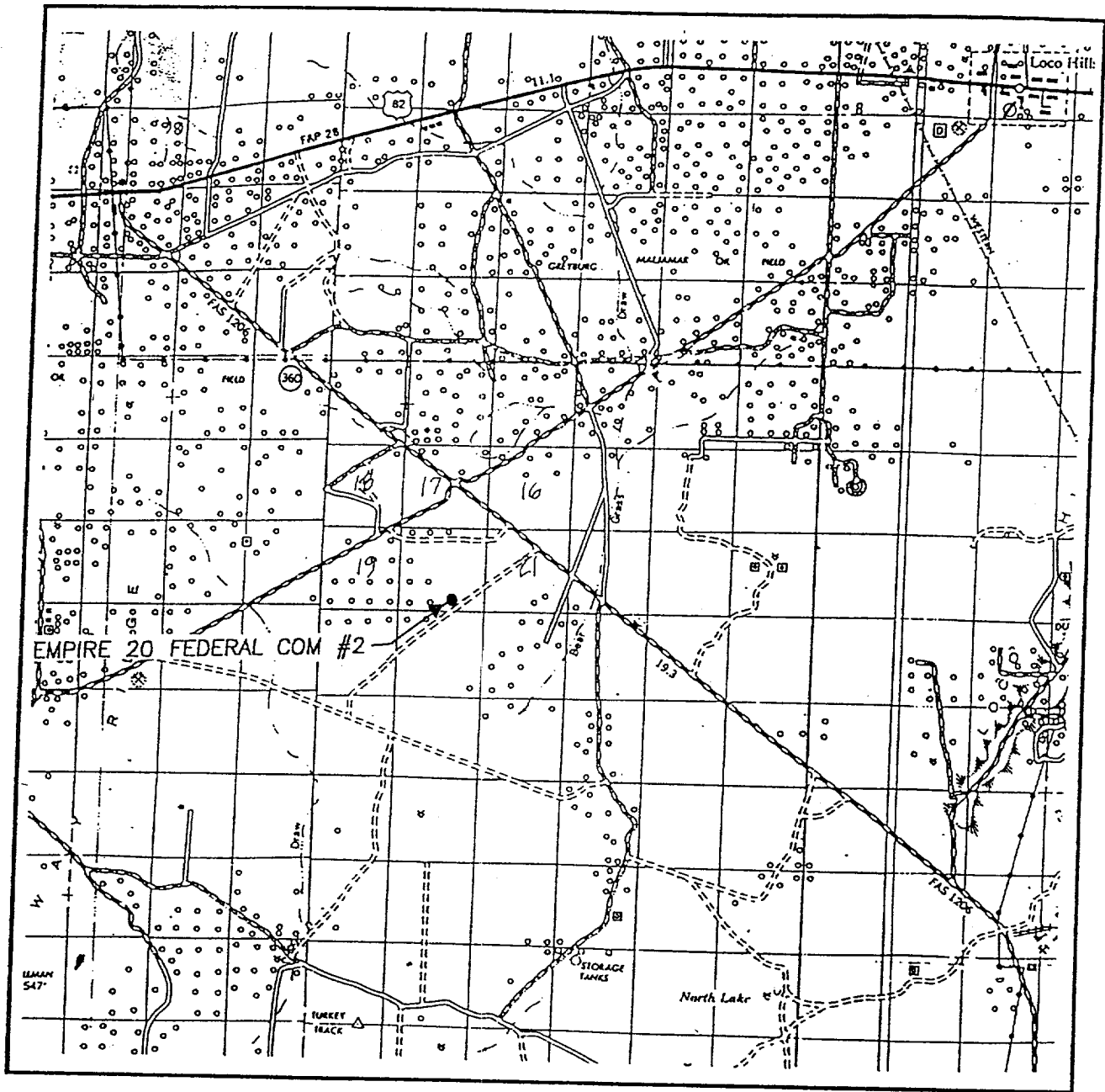


CONTOUR INTERVAL:
ILLINOIS CAMP NE - 5'

ILLINOIS CAMP NE, N.M.

Section 20 - "0" T18S-R29E

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 20 TWP. 18-S RGE. 29-E
 SURVEY N.M.P.M.
 COUNTY EDDY
 DESCRIPTION 660' FSL & 1650' FEL
 ELEVATION 3513
 GRUY PETROLEUM
 OPERATOR MANAGEMENT COMPANY
 LEASE EMPIRE 20 FEDERAL COM

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

Exhibit "C"
 Topographic Map Showing Roads and Directions
 Empire 20 Federal Com #2
 Section 20-"O" T18S-R29E

LOCATION PLAT

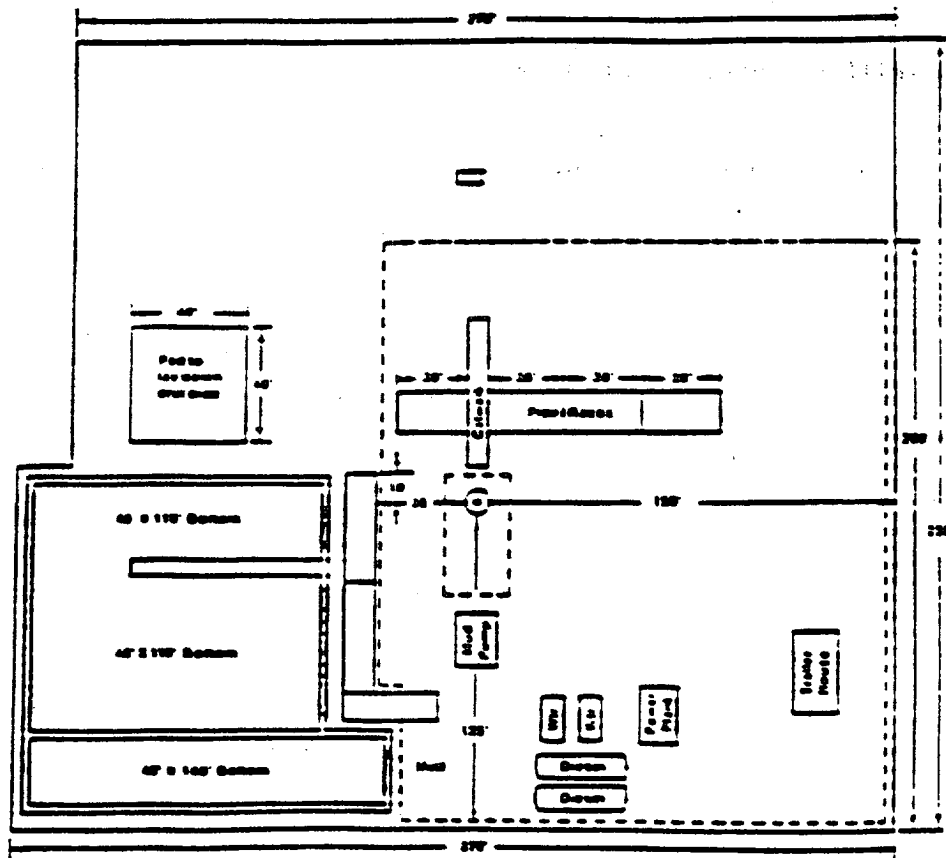
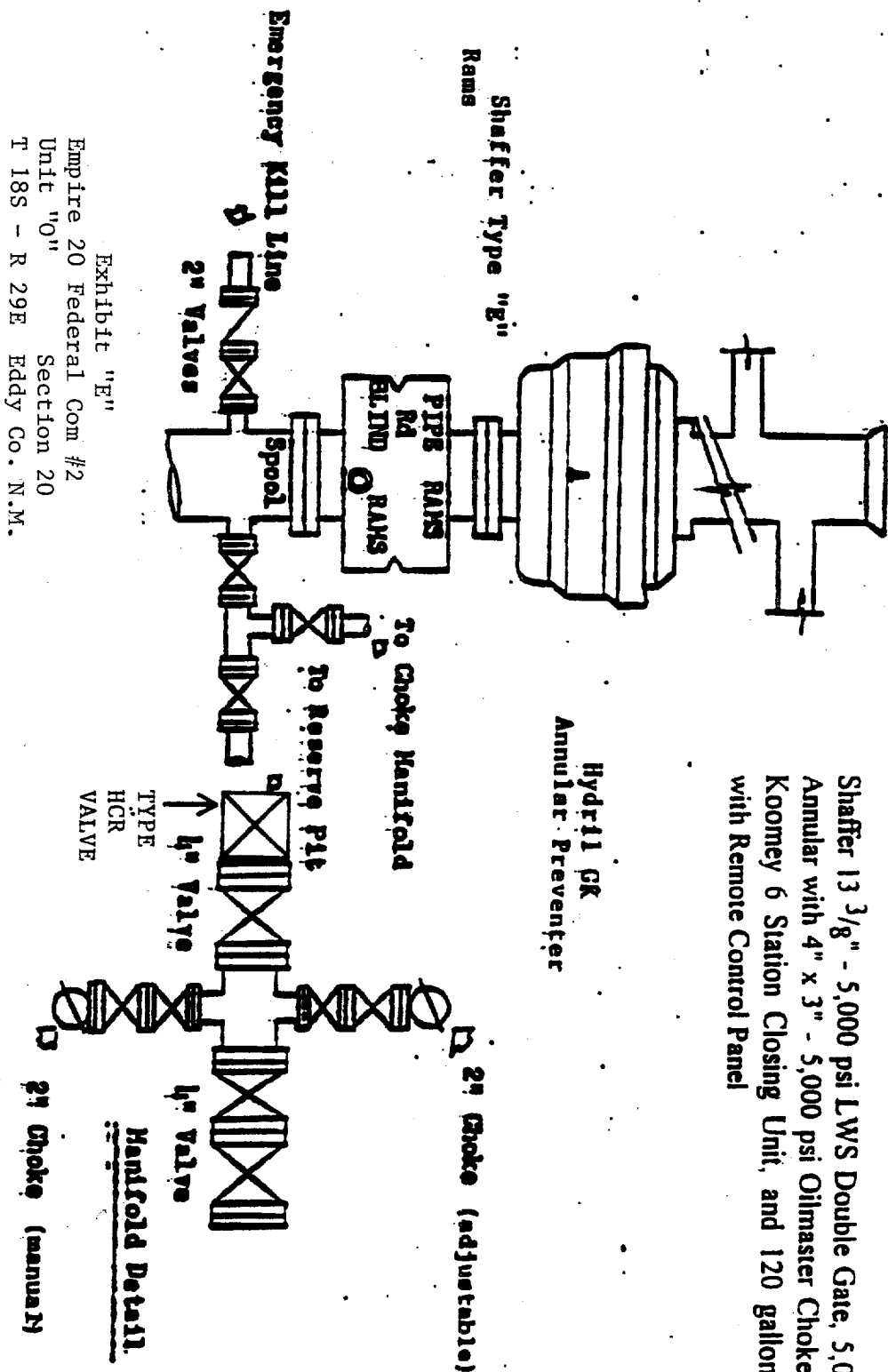


Exhibit "D"
 Rig Layout Plan
 Empire 20 Federal Com #2
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BLowout PREVENTOR SCHEMATIC



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 Accumulator with Remote Control Panel

Choke Manifold