

0934 *Barry* N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUBMIT IN TRIPLICATE*

(Other instructions on reverse side)

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. NM NM 96835	
1b. TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> WELL WELL OTHER ZONE <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTES OR TRIBE NAME	
2. NAME OF OPERATOR Gruy Petroleum Management Co.		7. UNIT AGREEMENT NAME Pending	
3. ADDRESS AND TELEPHONE NO. P.O. Box 140907 Irving TX 75014 972-401-3111		8. FARM OR LEASE NAME, WELL NO. Liberty 24 Federal Com No. 2	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* 1475' FSL & 940' FWL Section 24-25S-26E		9. API WELL NO. 30-015-33683	
10. FIELD AND POOL, OR WILDCAT Cottonwood Draw Morrow		11. SEC. T., R., M., BLOCK AND SURVEY OR AREA Sec. 24 T25S R26E	
12. COUNTY OR PARISH Eddy		13. STATE NM	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, T.O (Also to nearest drlg. unit line, if any) 940'		16. NO. OF ACRES IN LEASE 360	
17. NO. OF ACRES ASSIGNED TO THIS WELL 320 W/2		18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2155'	
19. PROPOSED DEPTH 13000'		20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3227' GR		22. APPROX. DATE WORK WILL START* 10-31-04	

RECEIVED

OCT 22 2004

COO-ARTE91A

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	J-55 13 3/8"	54.5 #	200'	350 sx circulate
12 1/4"	J-55 9 5/8"	40 #	1900'	950 sx circulate
8 3/4"	P-110 7"	26 #	10000'	1250 sx circulate
6 1/8"	P-110 4 1/2" liner	11.6 #	9500' - 13000'	235 sx TOC 9500

From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 - psi BOP system. We are requesting a variance for the 13 3/8" surface casing and BOP testing from Onshore Order No. 2, which states all casing strings below the conductor, shall be pressure tested to .22 psi per foot or 1500 # whichever is greater, but not to exceed 70% of the manufactures stated maximum internal yield. During the running of the surface pipe and the drilling of the intermediate hole we do not anticipate any pressures greater than 1000 # and are requesting a variance to test the 13 3/8" casing and BOP system to 1000 # psi, and use rig pumps instead of an independent service company.

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 Zeno Famy TITLE Mgr. Ops. Admin DATE 9-7-04

(This space for Federal or State office use)

PERMIT No. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY /s/ Joe G. Lara TITLE FIELD MANAGER DATE OCT 22 2004

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

Carlsbad Controlled Water Basin

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-144
March 12, 2004

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

Pit or Below-Grade Tank Registration or Closure

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

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

Operator: Gruy Petroleum Management Co. Telephone: 972-443-6489 e-mail address: zfarris@magnumhunter.com

Address: P.O. Box 140907, Irving, Tx 75014-0907

Facility or well name: Liberty 24 Federal Com # 2 API #: 30-D15-33483 U/L or Qtr/Qtr L Sec 24 T 25S R 26E

County: Eddy Latitude 320643.44 N Longitude 1041504.59 W NAD: 1927 ☒ 1983 ☐ Surface Owner Federal ☐ State ☐ Private ☐ Indian ☐

Pit

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

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

Below-grade tank

Volume: bbl Type of fluid:

Construction material:

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

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

Less than 50 feet

(20 points)

50 feet or more, but less than 100 feet

(10 points)

100 feet or more

(0 points)

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

Yes

(20 points)

No

(0 points)

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

Less than 200 feet

(20 points)

200 feet or more, but less than 1000 feet

(10 points)

1000 feet or more

(0 points)

Ranking Score (Total Points)

-0-

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

onsite ☐ offsite ☐ If offsite, name of facility (3) Attach a general description of remedial action taken including remediation start date and end

date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface ft. and attach sample results. (5) Attach soil sample results and a

diagram of sample locations and excavations.

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

Date: 9-10-04

Printed Name/Title Zeno Farris Manager Operations Administration

Signature Zeno Farris

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

Approval: SEP 16 2004

Date:

Printed Name/Title

Signature

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 97377	Pool Name Cottonwood Draw; Morrow
Property Code	Property Name LIBERTY 24 FEDERAL COM	Well Number 2
OGRID No. 162683	Operator Name GRUY PETROLEUM MANAGEMENT COMPANY	Elevation 3227'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	24	25-S	26-E		1475	SOUTH	940	WEST	EDDY

Bottom Hole Location If Different From Surface

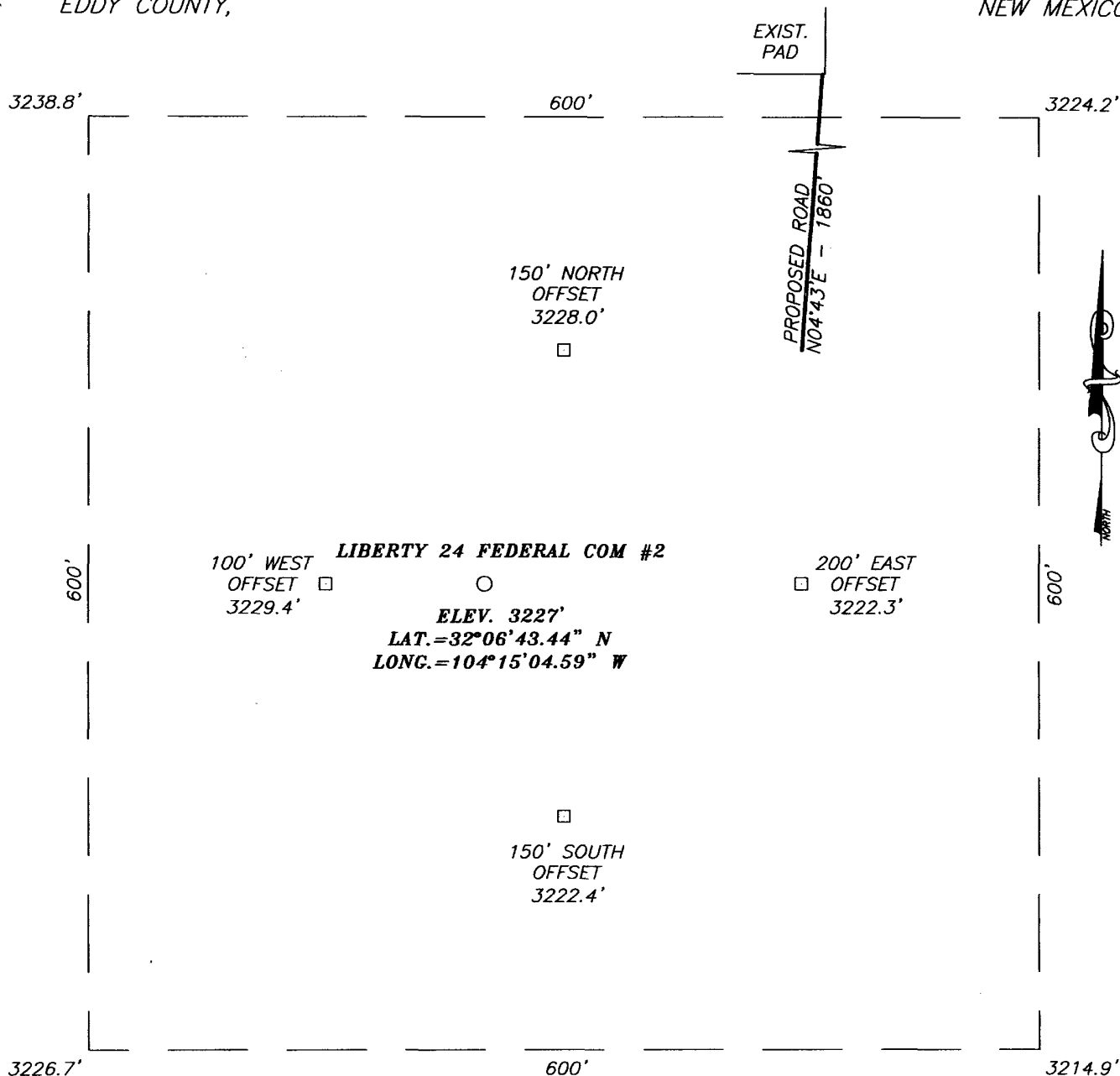
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	N	C	Pending

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

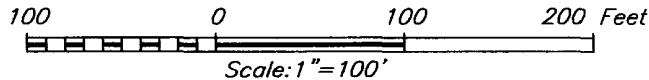
	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Zeno Farris</i></p> <p>Signature Zeno Farris Printed Name Mgr Operations Admin Title September 13, 2004 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>SEPTEMBER 1, 2004</p> <p>Date Surveyed Signature & Seal of Professional Surveyor Certificate No. GARY EDSON 12641</p>
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SECTION 24, TOWNSHIP 25 SOUTH, RANGE 26 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CO. RD. #720
 (BLACK RIVER VILLAGE) AND CO. RD. #742 (JOHN
 D. FAREHAND) GO SOUTH ON CO. RD. #742 8.0
 MILES. TURN RIGHT ON LEASE ROAD AND GO
 WEST 0.9 MILES TO LIBERTY 24 FED COM. #1. GO
 TO PROPOSED ROAD SURVEY AT THE SOUTHEAST
 CORNER OF PAD. FOLLOW ROAD SURVEY APPROX.
 1860' TO THIS LOCATION.



GRUY PETROLEUM MANAGEMENT COMPANY

LIBERTY 24 FEDERAL COM #2 WELL
 LOCATED 1475 FEET FROM THE SOUTH LINE
 AND 940 FEET FROM THE WEST LINE OF SECTION 24,
 TOWNSHIP 25 SOUTH, RANGE 26 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.

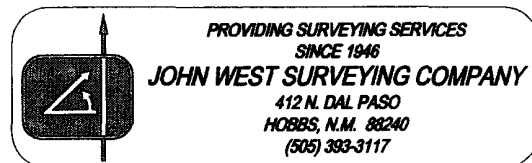
Survey Date: 9/1/04	Sheet 1 of 1 Sheets
W.O. Number: 04.11.1114	Dr By: LA
Date: 9/2/04	Disk: CD#3
04111114	Scale: 1"=100'

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

[illegible]

CONTOUR INTERVAL:
JUMPING SPRING, N.M. - 10'

U.S.G.S. TOPOGRAPHIC MAP
JUMPING SPRING, N.M.



Application to Drill

Gruy Petroleum Management Co.
Liberty 24 Federal Com No. 2
Unit Letter L Section 24
T25S - R26E 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: 1475' FSL & 940' FWL Sec. 24- 25S 26E
- 2 Elevation above sea level: GR 3227'
- 3 Geologic name of surface formation: Quaternary Alluvium Deposits
- 4 Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.
- 5 Proposed drilling depth: 13000'
- 6 Estimated tops of geological markers:

T/Salt	250'	Cisco Canyon	9928
B/Salt	800'	Strawn	10078
Delaware	1450	Atoka	10388
Bone Spring	6168	Morrow	11,158
Wolfcamp	8098	Barnett	11,768

- 7 Possible mineral bearing formation:

Strawn	Gas
Atoka	Gas
Morrow	Gas

- 8 Casing program:

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
17 1/2"	0-200'	13 3/8"	54.5	8-R	ST&C	J-55
12 1/4"	0-1900'	9 5/8"	40	8-R	ST&C	J-55
7 7/8"	0-10000'	7"	26	8-R	ST&C	P-110
6 1/8"	9500' - 13000'	4 1/2"	11.6	8-R	ST&C	P-110

Application to Drill

Gruy Petroleum Management Co.
Liberty 24 Federal Com No. 2
Unit Letter L Section 24
T25S - R26E Eddy County, NM

9 Cementing & Setting Depth:

13 3/8"	Surface	Set 200' of 13 3/8" J-55 54.5 ST&C casing. Cement with 350 Sx. Of Premium Plus cement + additives, circulate cement to surface.
9 5/8"	Intermediate	Set 1900' of 9 5/8" J-55 40# ST&C casing. Lead with 550 Sx. of Interfill C Cement + additives, tail with with 400 Sx. Of Premium Plus + additives, circulate cement to surface.
7"	Intermediate	Set 10000' of 7" P-110 26# ST&C casing. Cement in two stages, first stage cement with 750 Sx. of Class Interfill H/Super H Cement + additives. Second stage cement with 500 Sx of Interfill H/Super H, circulate cement to surface. .
4 1/2"	liner	Set 3500' of 4 1/2" P-110 11.6 # ST&C liner from 9500' to 13000'. Cement with 235 sx of Super H. TOC 9500'.

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 9 5/8" & 7" casing and will be operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling

11 Proposed Mud Circulating System:

Depth	Mud Wt	Viscosity	Fluid Loss	Type Mud
0 - 200'	8.4 - 8.6	30 - 32	May lose circ.	Fresh water spud mud add paper to control seepage and high viscosity sweeps to clean hole.
200' - 1900'	9.7 - 10.0	28 - 29	May lose circ	Brine water. Add paper as needed to control seepage and add lime to control pH (9-10). Use high viscosity sweeps to clean hole.
1900' - 8300'	8.4 - 9.9	28 - 29	NC	Fresh water. Paper for seepage. Lime for pH (9 - 9.5)
8300' - 10000'	8.45 - 8.9	28 - 29	NC	Cut brine. Caustic for pH control.
10000' - 13000'	8.9 - 9.7	29 - 45	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.
Liberty 24 Federal Com No. 2
Unit Letter L Section 24
T25S - R26E 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 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 4000 PSI, estimated BHT 190.

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 35 - 45 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

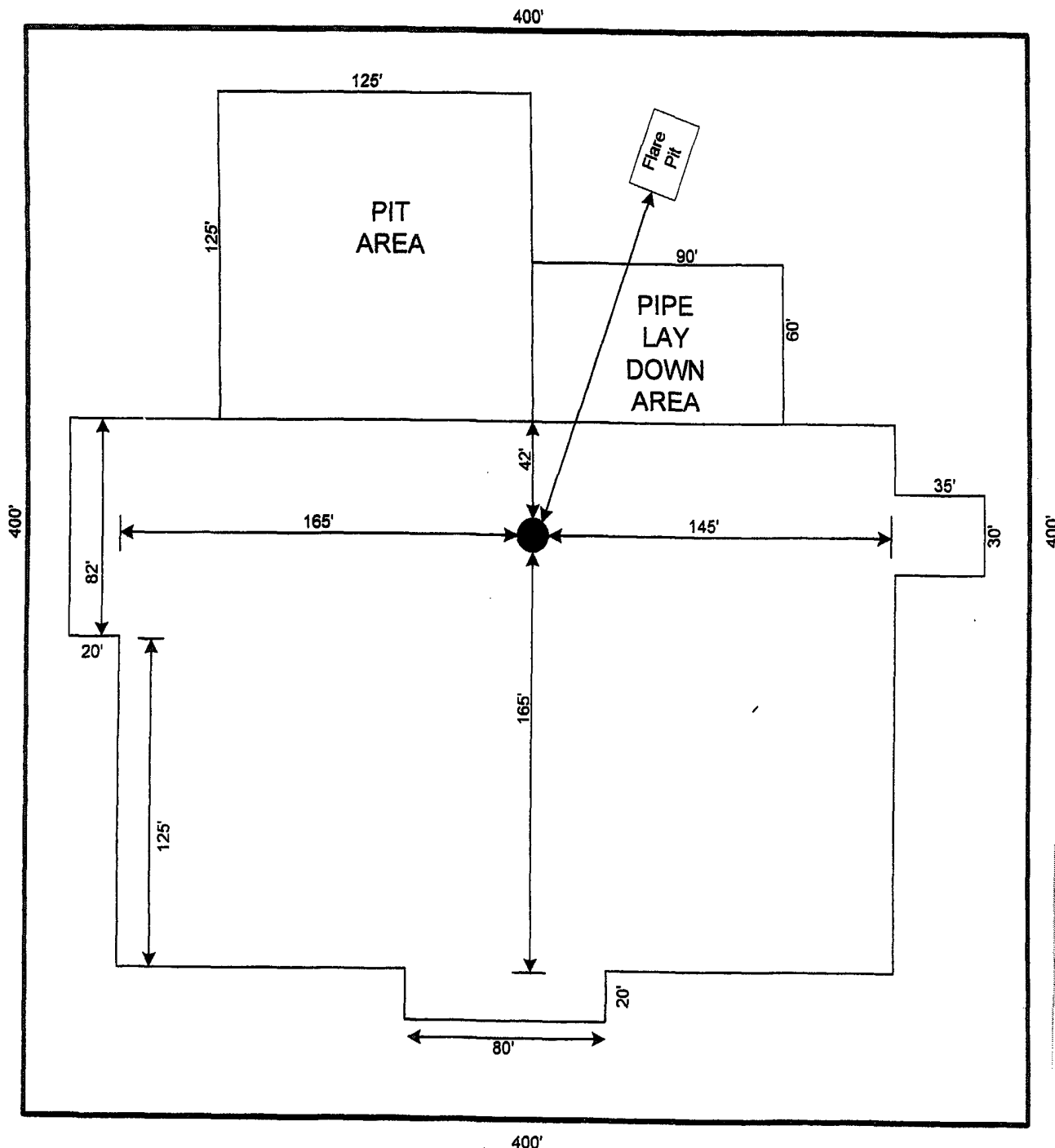
15 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Strawn / Morrow / Atoka pay will be perforated and stimulated. The well will be tested and potentialed as a gas well.

Surface Use Plan

Gruy Petroleum Management Co.
Liberty 24 Federal Com No. 2
Unit Letter L Section 24
T25S - R26E 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. From the intersection of Eddy County road # 720 (Blackriver Village Rd) and Eddy County Road # 742 (John C Forehand Rd), go south 8.0 miles. Turn right on lease road and go west 0.9 miles to Liberty 24 Fed Com # 1. Go to proposed road survey at Southeast corner of pad follow proposed road survey to
- 2 PLANNED ACCESS ROADS: 1860' of access road will be constructed.
- 3 LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A"
 - A. Water wells - Baily well in NE/4 of Sec 27
 - 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"



RIG # 80

**GRUY PETROLEUM
MANAGEMENT COMPANY
IRVING TEXAS**

SCALE 1"=60'

Exhibit D

Rig Layout Plan

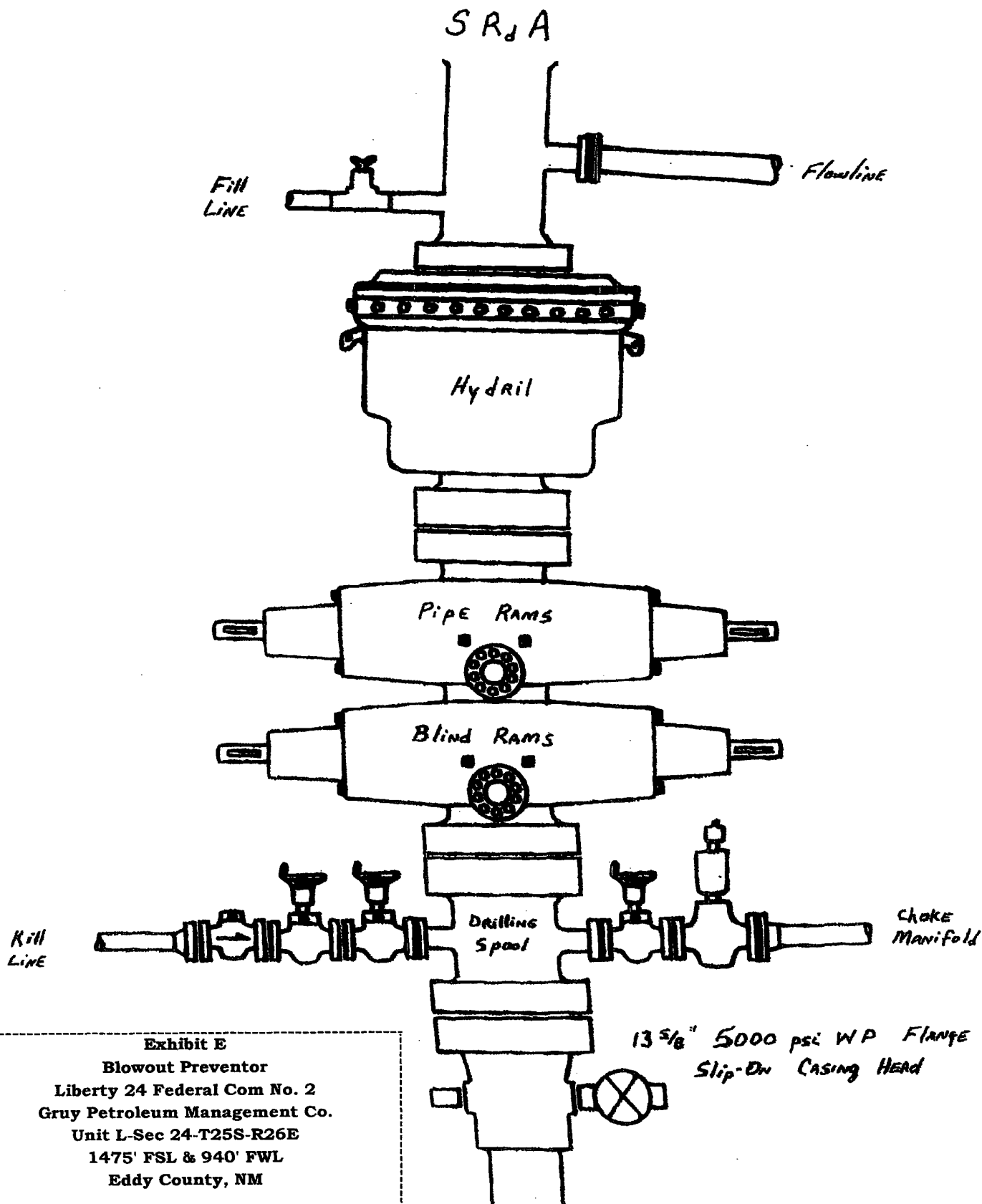
Liberty 24 Federal Com No. 2

Gruy Petroleum Management Co.

Unit L-Sec 24-T25S-R26E

1475' FSL & 940' FWL

Eddy County, NM



**DRILLING OPERATIONS
CHOKE MANIFOLD
5M SERVICE**

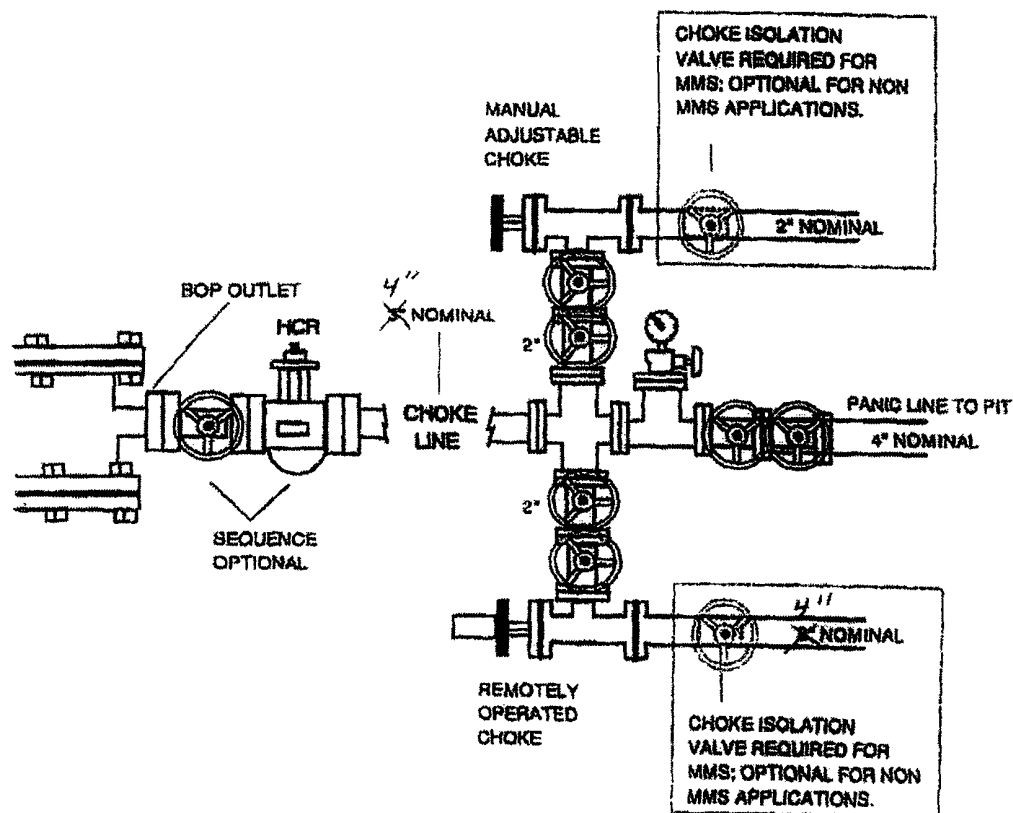


Exhibit E-Cont'd
Blowout Preventor-Choke Manifold
Liberty 24 Federal Com No. 2
Gruy Petroleum Management Co.
Unit L-Sec 24-T25S-R26E
1475' FSL & 940' FWL
Eddy County, NM