Form 3160-3 (July 1992)

N.M. Oil Cons. DIV-DIS 2 UNITED STATES 1301 W. Grand Avenue Other instructions on DEPARTMENT OF THE INTERIORS, NIV. (Other instructions on DEPARTMENT OF THE INTERIORS, NIV.)

OMB NO. 1004-0136

Expires: February 28, 1995

5. LEASE DESIGNATION AND SERIAL NO.

NM 41645

БОГ	TEAU OF LAND	MANAGEM	CINI			14141 110 15	
Al	PPLICATION FOR	PERMIT TO	DRILL OF	R DEEPEN		6. IF INDIAN, ALLOTTES OF	R TRIBE NAME
1a. TYPE OF WORK	DRILL X		DEEPEN			UNIT AGREEMENT NAM	AE
16. TYPE OF WELL							
OIL [_ WELL	_ GAS X WELL	OTHER	SINGLE ZONE	MULTIPLE ZONE		8 FARM OR LEASE NAME	WELL NO. 33622
2. NAME OF OPERATOR	VVC-L	OTHER	ZUNE	ZONE			
Gruy Petroleum	Management Co.	162	483			Federal 13 Co.	III NO. 4
3. ADDRESS AND TELEPH						30-015	-3/1166
	7 Irving TX 75014 9			RECEIV	ED	10. FIELD AND POOL, OR	WILL DOAT
4. LOCATION OF WELL	(Report location clearly and	in accordance with a	ny State requirem	nents.")		White City; Peni	m 87280
				JUL 0 7 2	005	11. SEC. T.,R.,M., BLOCK	AND SURVEY
1620' ENIL &	1400' FEL Section 1	2 255-26E		CODEMAIN		OR AREA	TOES DOCE
	DIRECTION FROM NEAREST TO						T25S R26E
17 miles South o						Eddy	NM
15. DISTANCE FROM PROF LOCATION TO NEA			16. NO. OF ACR	ES IN LEASE	17. NO. OF	ACRES ASSIGNED	
PROPERTY OR LEA	····-•	400'	44	n	10 11 110 11	640	
(Also to nearest drlg. unit 18. DISTANCE FROM PROF	. III le, II arry)			19. PROPOSED DEPTH	120 5	ROTARY OR CABLE TOOLS	
TO NEAREST WELL,	DRILLING COMPLETE	ED,		19. PROPOSED DEPTH	20.	COTART OR CABLE TOOLS	
OR APPLIED FOR, OI	V THIS LEASE, FT.	25:	59'	13000'		Rotary	
21. ELEVATIONS (Show who	ether DF, RT, GR, etc.) 10 ' GR	Cartel	bad Contr	Hed Weter Book	L 8	22. APPROX. DATE WORK 06-30-05	WILL START
23	PR	OPOSED CASIN	IG AND CEM	ENTING PROGRAM	·:	· · · · · · · · · · · · · · · · · · ·	
SIZE OF HOLE	GRADE, SIZE OF		WEIGH	T PER FOOT	SETT	NG DEPTH	QUANTITY OF CEMENT
17-1/2"	J-55 13 3/8"		54.5 #	•	200		225 sx circulate
12 1/4"	NS-110 9 5/8		40 #		3200		1000 sx circulate
8 3/4"	P-110 5 1/2	"	17 #	İ	130	00'	1920 sx TOC 2700'
from the base of t	he surface nine thr	ough the runr	ning of pro	duction casing the	- well w	ill he equinned wit	h a 5000 - psi BOP
	- •	•				• • •	der No. 2, which states
<u>-</u>	elow the conductor			_	_		
•		•		, ,			
exceed 70% of the	manufactures stat	ted maximum	internal yi	eld. During the ru	nning o	f the surface pipe	and the drilling of
he intermediate he	ole we do not antic	ipate any pre	ssures gre	ater than 1000 # a	and are	requesting a varia	nce to test the
3 3/8" casing and	BOP system to 10	00 # psi, and	use rig pur	mps instead of an	indeper	ndent service com	pany.
IN ABOVE SPACE, DI	ESCRIBE PROPOSED	PROGRAM: (	f proposal is to	deepen give data on press	ent producti	ve zone and proposed new	v productive zone.
If proposal is to drill or dee	pen directionally, give pertir						
SIGNED	Zeno Fo	me's	TITLE	Mgr. Ops. Admin		DATE 0	06-06-05
(This space for Federal or State of PERMIT No.	fice use)			APPROVAL D	ATE		
Application approval does not wan	rant or certify that the applicant hold	s legal or equitable title to	those rights in the s	ubject lease which would entitle the	applicant to c	onduct operations thereon.	0 =
APPROVED BY	/s/ Joe G.	. Lara	TITLE	FIELD MAN	AGE	R DATE	JUL 0 5 2005
TW- 4011 C C	Saction 1001 makes i			On Reverse Side	A Dayer of	APPROVAL F	FOR 1 YEAR

United States any false, fictitious or fraudulent statements or representations and matter within its jurisdiction. 5.11 19.5

SPECIAL STIPULATIONS ATTACHED

N. French Dr., Hobbs, NM 88240 oistrict 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 \[ \]
of action. Begistration of a pit or below-grade tank M. Closure of a pit or below-grade tan

	or below-grade tank \( \overline{\ov	
December 2015 De	972_443_6489e-mail address: zfarris@magnumhu	inter.com
	U/L or Qtr/Qtr G Sec 13 T	2.25S p. 26F
County: Eddy Latitude 320757.47 N Longitude 1041		
Lantide 220737.4714 Longitude 2011	NAD: 1927 🔼 1983 🔝 Surface	Owner Federal A State   Filvate   Indian
<u>Pit</u>	Below-grade tank	
<u>Cype:</u> Drilling ☑ Production ☐ Disposal ☐	Volume:bbl Type of fluid:	
Workover ☐ Emergency ☐	Construction material:	
Lined Unlined	Double-walled, with leak detection? Yes   If	not, explain why not.
Liner type: Synthetic   Thickness 12 mil Clay □ Volume		
bbl		JUN 1 3 2005
Depth to ground water (vertical distance from bottom of pit to seasonal high	Less than 50 feet	(20 points) OOD-AMTEDIA
water elevation of ground water.)	50 feet or more, but less than 100 feet	(10 points)
value elevation of ground water.)	100 feet or more	(0 points)
Mallhood protection area. (Lorg than 200 feet from a minute demonstra	Yes	(20 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	No	( ( 0 points)
water source, or less than 1000 feet from all other water sources.)		
Distance to surface water: (horizontal distance to all wetlands, playas,	Less than 200 feet	(20 points)
rrigation canals, ditches, and perennial and ephemeral watercourses.)	200 feet or more, but less than 1000 feet	(10 points)
streament, ditency, and percuinal and epitement whereoutses,	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	t's relationship to other equipment and tanks. (2) In-	dicate disposal location:
onsite Offsite If offsite, name of facility		
date. (4) Groundwater encountered: No \( \text{Yes} \) If yes, show depth be	<del>-</del>	
diagram of sample locations and excavations.	son ground surface	imple results. (c) I mach son sample results
I hereby certify that the information above is true and complete to the best of been/will be constructed or closed according to NMOCD guidelines Date: 06-09-05	, a general permit 🔲, or an (attached) alternativ	e OCD-approved plan 🔲.
Printed Name/Title Zeno Farris Manager Operations Administration	_Signature Zono Fa	u,
Your certification and NMOCD approval of this application/closure does not otherwise endanger public health or the environment. Nor does it relieve the regulations.	ot relieve the operator of liability should the content	ts of the pit or tank contaminate ground water or
Approval: Dad: UN 1 4 2005 J - II Day Printed Name/Title	Signature	



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., a NYSE company MHR

# 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.:

NM - 41645

Legal Description:

All Sec 13, T25S-R26E

Containing 640 acres, Eddy County New Mexico

Formation (S):

Morrow/Pennsylvanian

Bond Coverage:

Nationwide BLM Bond

BLM Bond File No.: NM 2575

Authorized Signature:

Representing Gruy Petroleum Management Co.

Name: Zeno Farris

Title: Manager, Operations Administration

Date: 06/06/05

# **Application to Drill**

Gruy Petroleum Management Co. Federal 13 Com No. 4 Unit Letter G Section 13 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:

1620' FNL & 1400' FEL Sec. 13 25S 26E

2 Elevation above sea level:

GR 3240'

3 Geologic name of surface formation:

**Quaternery 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	200'	Cisco Canyon	9928
B/Salt	800'	Strawn	10078
Delaware	1500	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"	0-3200'	9 5/8"	40	8-R	ST&C	NS-110	
7 7/8"	0-13000'	5 1/2"	17	8-R	ST&C	N-80 / S-95	

#### **Application to Drill**

Gruy Petroleum Management Co. Federal 13 Com No. 4 Unit Letter G Section 13 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 225 Sx. Of Class "C" cement + additives, circulate cement to surface.
9 5/8"	Intermediate	Set 3200' of 9 5/8" NS-110 40# ST&C casing or casing sufficient to reach the base of the reef complex. Cement in two stages, first stage cement with 775 Sx. Of Class POZ/C Cement + additives, second stage cement with 225 Sx. Of Class "C" + additives, circulate cement to surface.
5 1/2"	Production	Set 13000' of 5 1/2" NP-80 / S-95 17# ST&C casing. Cement in two stages, first stage cement with 870 Sx. of Class POZ/C Cement + additives. Second stage cement with 1050 Sx of Class "C" Estimated top of cement 2700'.

#### 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 nippled up on the 9 5/8" 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' - 3200'	9.7 - 10.0	28 - 29	•	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'	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. Federal 13 Com No. 4 Unit Letter G Section 13 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 <u>4000</u> PSI, estimated BHT <u>190</u>.

#### 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 <u>Strawn / Morrow / Atoka pay will be perforated and stimulated</u>. The well will be tested and potentialed 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.
- 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 telephones will be available at most drilling foreman's trailer or living quarters.
- 7 Drillstem Testing Not Anticipated

# **Hydrogen Sulfide Drilling Operations Plan**

- Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.
- 9 If H2S 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 H2S scavengers if

#### Surface Use Plan

Gruy Petroleum Management Co. Federal 13 Com No. 4 Unit Letter G Section 13 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 County Road # 720 (Black River Rd.) and County Road # 742 (Forehand Rd.) Go south on Co. Rd. 742 for 7.0 miles. Turn right, west and go 0.5 miles to a proposed road survey. Follow proposed road survey north 249' to this location.
- 2 PLANNED ACCESS ROADS: 249' of access road will be constructed.
- 3 LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A"

A. Water wells - None Know
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"

#### State of New Mexico

DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505	WELL LOCATION AND	ACREAGE DEDICATION PLAT	□ AMENDED REPORT
API Number	Pool Code	Pool Name	
		White City; Penn (Gas)	
Property Code	Prop	erty Name	Well Number
	FEDERA	AL 13 COM	4
OGRID No.	Oper	ator Name	Elevation
162683	GRUY PETROLEUM I	MANAGEMENT COMPANY	3240'

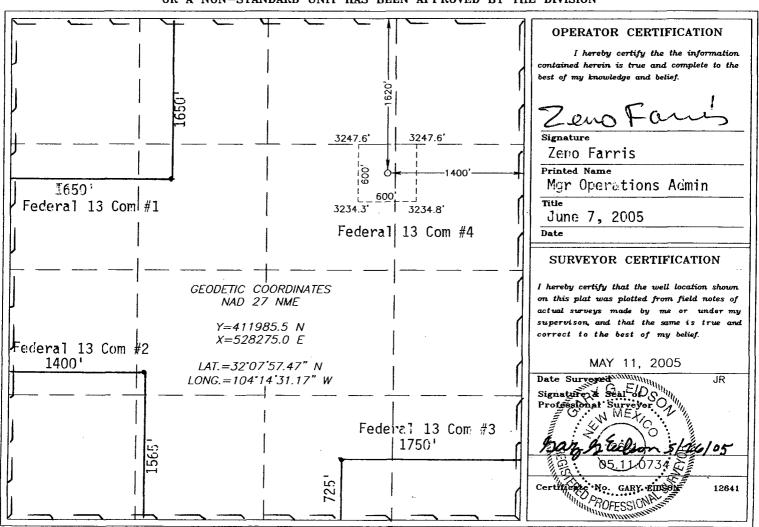
#### Surface Location

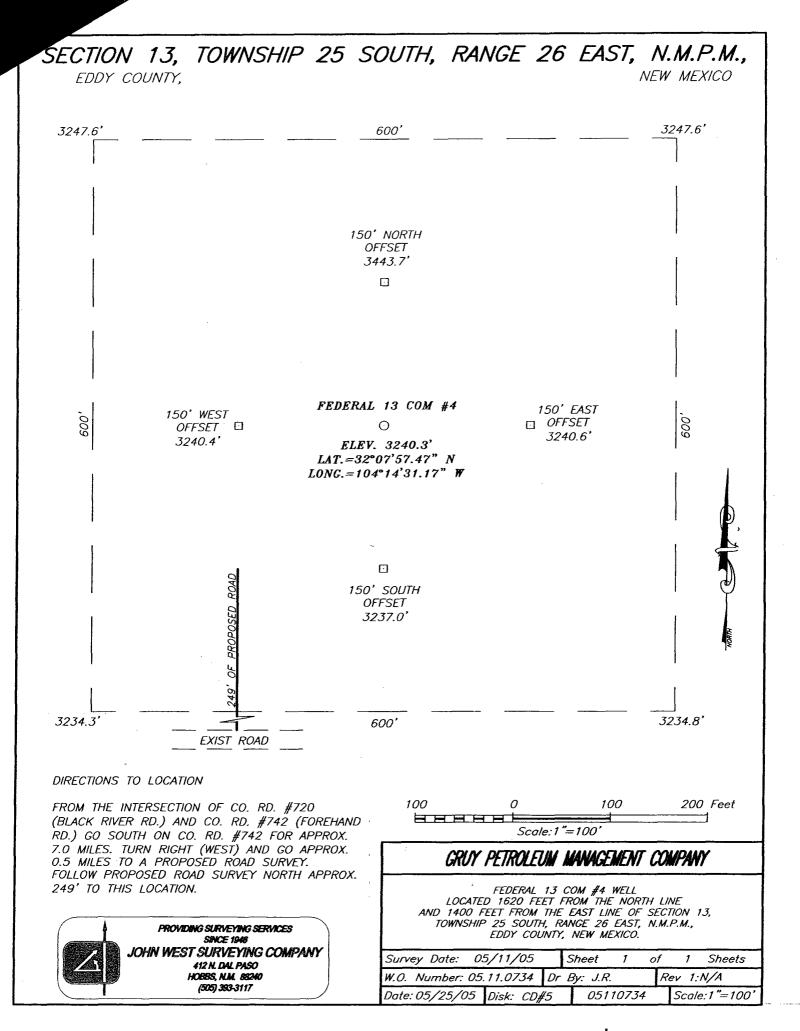
-	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	G	13	25-S	26-E		1620	NORTH	1400	EAST	EDDY

## Bottom Hole Location If Different From Surface

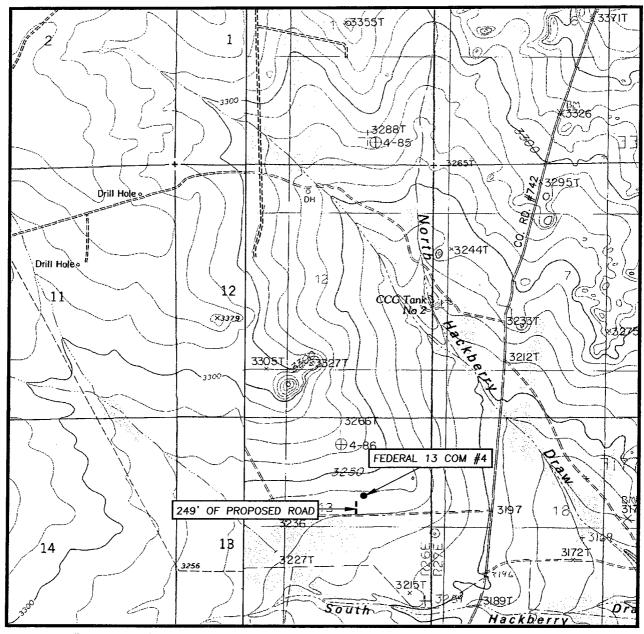
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint o	r Infill Co	onsolidation	Code Or	der No.		<u> </u>		

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





# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 13 TWP. 25-S RGE. 26-E

SURVEY N.M.P.M.

EDDY COUNTY

DESCRIPTION 1620' FNL & 1400' FEL

**ELEVATION**\_ 3240'

GRUY PETROLEUM OPERATOR MANAGEMENT COMPANY

LEASE FEDERAL 13 COM

U.S.G.S. TOPOGRAPHIC MAP

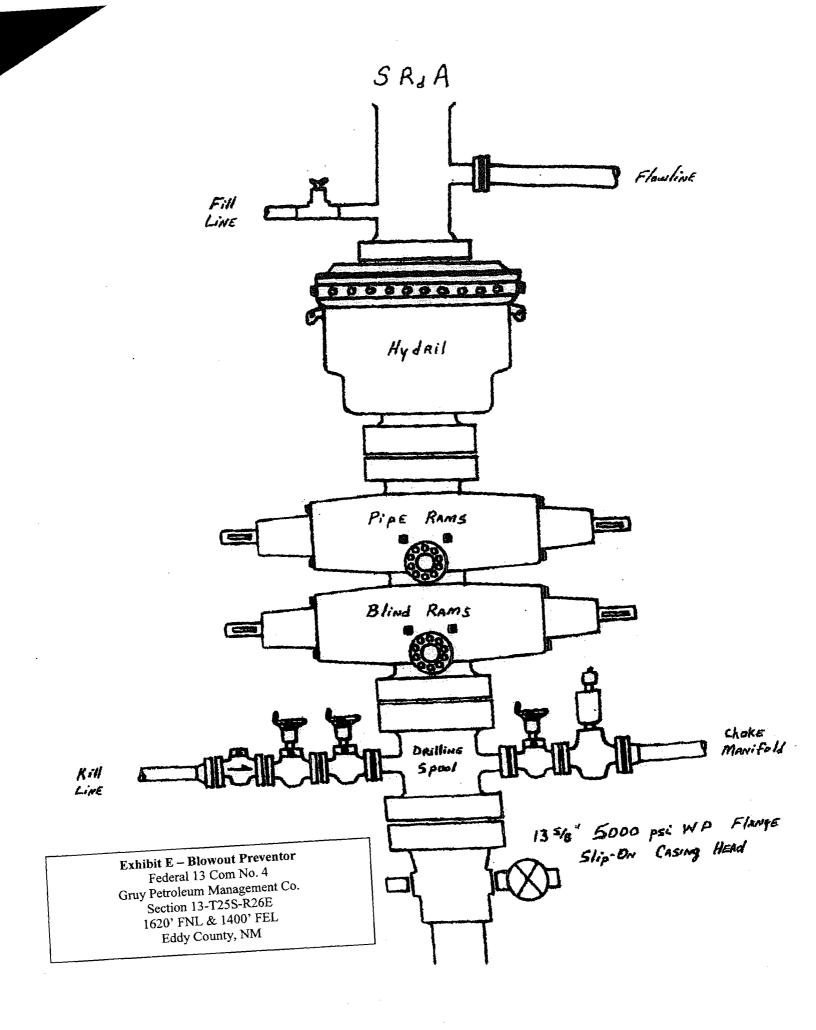
BOND DRAW, N.M.

Exhibit (

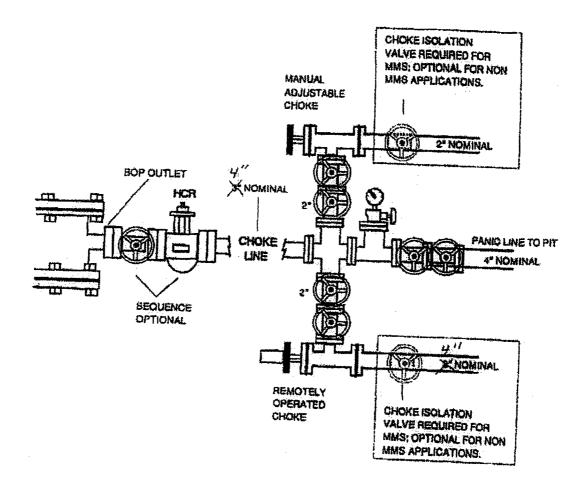
CONTOUR INTERVAL: BOND DRAW, N.M. - 10' BLACK RIVER VILLAGE, N.M. - 20' 1



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



## DRILLING OPERATIONS CHOKE MANIFOLD 5M SERVICE



#### Exhibit E1 - Choke Manifold Diagram

Federal 13 Com No. 4
Gruy Petroleum Management Co.
Section 13-T25S-R26E
1620' FNL & 1400' FEL
Eddy County, NM