(July 1992)

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be

SIA UBMIT IN TRIPLICATE\*

FORM APPROVED

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

	WC11, 411 -	DAPIGE. 10	ordary Ed., 1975				
DEPA	obtained prior to pit cons	sti action.	reverse sid	ructions on le)	5. LEASE DESIGNATION A	AND SERIAL NO.	
	L. O OF LAND MANAGE				NM 14124		
					6. IF INDIAN, ALLOTTES O	R TRIBE NAME	
	PPLICATION FOR PERMIT T	O DRILL O	R DEEPEN				
1a. TYPE OF WORK  1b. TYPE OF WELL	DRILL X	DEEPEN			7. UNIT AGREEMENT NAI	ME	
OIL	GAS X	SINGLE	MULTIPLE				
WELL 2. NAME OF OPERATOR	WELL OTHE	R ZONE	ZONE		8. FARM OR LEASE NAM	E, WELL NO.	
	Management Co. 162	Marquardt 1 Penr	n Federal No.3				
3. ADDRESS AND TELEPH	HONE NO.		30-015-	1700			
P.O. Box 140907	7 Irving TX 75014 972-401-311	1			10. FIELD AND POOL, OF	T 80	
4. LOCATION OF WELL	(Report location clearly and in accordance wit	h any State requirer	ments.*) RECEIV	<u>(ED</u>	White City; Penn	- (	
			APR 18	ວກຄະ	11. SEC. T.,R.,M., BLOCK		
					OR AREA		
1780' FSL & 73	35' FWL		OCD-ART	ESIV	Sec. 1	T25S R26E	
14. DISTANCE IN MILES AND I	DIRECTION FROM NEAREST TOWN OR POST OFFIC	E•			12. COUNTY OR PARISH	13. STATE	
					Eddy	NM	
15. DISTANCE FROM PROPOSED*  LOCATION TO NEAREST  16. NO. OF ACRES IN LEASE				TO THIS W	F ACRES ASSIGNED /ELL		
PROPERTY OR LEA (Also to nearest drig, uni		1280			640		
18. DISTANCE FROM PRO			19. PROPOSED DEPTH	20.	ROTARY OR CABLE TOOL	S	
OR APPLIED FOR, O	, DRILLING COMPLETED, N THIS LEASE, FT.						
	2912'		12200'		Rotary		
21. ELEVATIONS (Show what 3313' GF					22. APPROX. DATE WOR 03-01-06	K WILL START	
23	PROPOSED CA	SING AND CE	MENTING PROGRAM	1	·····		
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIG	SHT PER FOOT	SET	TING DEPTH	QUANTITY OF CEMENT	
17-1/2"	H-40 13-3/8"	48#	•	215'	CHINESS	225 sx circulate	
12-1/4"	N-80 9-5/8"	40#		2750'		1000 sx circulate	
7-7/8"	P-110 5-1/2"	17#		12200'		1920 sx TOC 2200'	
From the base of the	e surface pipe through the running	g of production	Carlon casing, the well v			# psi BOP	
system. We are req	uesting a variance for the 13-3/8'	' surface casin	ng and BOP testing	from On	shore Order No. 2,	which states	
all casing strings be	low the conductor shall be pressu	re tested to 0	.22# psi per foot or	1500#, v	vhichever is greater	, but not to	
exceed 70% of the r	manufacturer's stated maximum is	nternal yield.	During the running	g of the s	urface pipe and the	drilling of	

Fr Sy a] the intermediate hole we do not anticipate any pressures greater than 1000# psi 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.

SIGNED	ZemoFany	TITLE Mgr. Ops. Admin	DATE	02-08-06	
(This space for Federal PERMIT No.	······································	APPROVAL DATE			
	APPROVAL, IF ANY:	title to those rights in the subject lease which would entitle the applical		APR 1 7 2006	; j

\*See Instructions On Reverse Side APPROVAL FOR APPROPAIS SUBSECTION makes it a crime for any person knowingly and willfully to make to any department or agency of the GENERALITE STATES OF THE SOURCE STATES OF THE SOURCE STATES OF THE STATE

SPECIAL STIPULATIONS ATTACHED

4 North 18. 1.

DISTRICT I 1625 N. French Dr., Hobbs, NM 88240

DISTRICT II

DISTRICT IV

State of New Mexico

Form C-102 Revised March 17, 1999

Energy, Minerals and Natural Resources Department

Revised March 17, 1999

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

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

2040 South Pacheco, Santa Fe, NM 87505

811 South First, Artesia, NM 88210

# OIL CONSERVATION DIVISION

2040 South Pacheco

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code Pool Name		
	187280	White City; Penn (Gas)	
Property Code	e Property Name		
	MARQUARDT "1	3	
OGRID No.	Oper	ator Name	Elevation
162683	CIMAREX EN	ERGY COMPANY	3313'

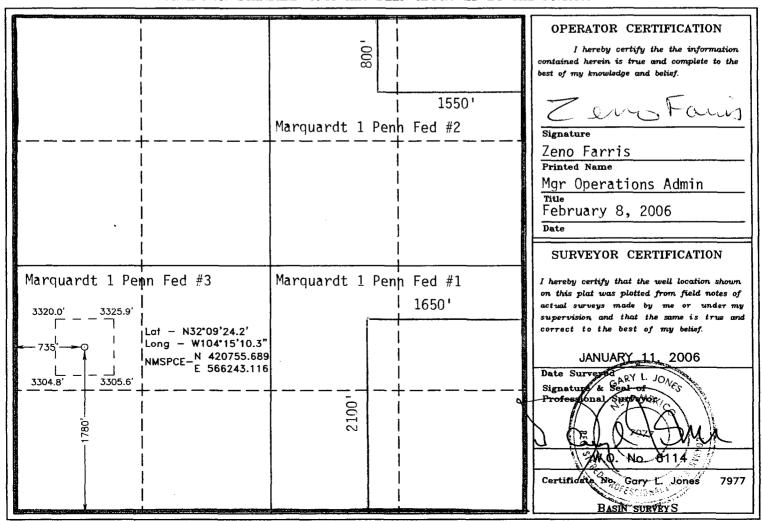
#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	1	25 S	26 E		1780	SOUTH	735	WEST	EDDY

#### Bottom Hole Location If Different From Surface

										•
UL or lot No.	Section	Townsh	ip	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acre	Joint of	r Infill	Cor	solidation (	Code (	rder No.				
640	Υ									

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



# Gruy Petroleum Management Co.

5215 North O'Connor Blvd. • Suite 1500 • Irving, TX 75039 • (972) 401-3111 • Fax (972) 443-6487 Mailing Address: P.O. Box 140907 • Irving, TX 75014-0907 A wholly-owned subsidiary of Cimarex Energy Co., a NYSE Listed Company, "XEC"



## STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Bureau of Land Management 620 E. Greene St. Carlsbad, New Mexico 88220 Attn: Ms. Linda Denniston

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-14124; All Sec 1-T5S-R26E;

County:

Eddy County, New Mexico

Formation (S):

Morrow

Bond Coverage:

Statewide BLM Bond

BLM Bond File No.: NM 2575

Authorized Signature:

Representing Gruy Petroleum Management Co.

Name: Zeno Farris

Title: Manager, Operations Administration

Date: February 7, 2006

# **Application to Drill**

Gruy Petroleum Management Co. Marquardt 1 Penn Federal No. 3 Unit Letter L Section 1 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: 1780' FSL & 735' FWL

۵

2 Elevation above sea level: GR 3313'

3 Geologic name of surface formation: Quaternery Alluvium Deposits

4 <u>Drilling tools and associated equipment:</u> Conventional rotary drilling rig using fluid as a circulating

medium for solids removal.

5 Proposed drilling depth: 12200'

6 Estimated tops of geological markers:

Base Salt	1,708	Cisco-Canyon	9,881
Delaware	1,917	Strawn	10,077
Bone Spring	5,415	Atoka	10,248
1st Bone Spring S	6,346	Morrow	10,838
2nd Bone Spring 5	6,995	Middle Morrov	11,236
3rd Bone Spring S	8,130	Lower Morrow	11,539
Wolfcamp	8,469	TD	11,900

## 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"	0-215'	13-3/8"	48	8-R	ST&C	H-40	_
12-1/4"	0-2750'	9-5/8"	40	8-R	LT&C	N-80	
7-7/8"	0-12200'	5-1/2"	17	8-R	LT&C	P-110	

#### **Application to Drill**

Gruy Petroleum Management Co. Marquardt 1 Penn Federal No. 3 Unit Letter L Section 1 T25S - R26E Eddy County, NM

### 9 Cementing & Setting Depth:

 13 3/8"	Surface	Set 215' of 13-3/8" H-40 48# ST&C casing. Cement with 225 Sx. Of Class "C" cement + additives, circulate cement to surface.
9 5/8"	Intermediate	Set 2750' of 9-5/8" N-80 40# LT&C casing or casing sufficient to reach the base of the reef complex. Cement lead with 775 Sx. Of Class POZ/C Cement + additives, tail with 225 Sx. Of Class "C" + additives, circulate cement to surface.
5 1/2"	Production	Set 12200' of 5-1/2" P-110 17# LT&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 2200'.

#### 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 - 215'	8.4 - 8.6	30 - 32	May lose circ.	Fresh water spud mud add paper to control seepage and high viscosity sweeps to clean
215' - 2750'	9.7 - 10.0	28 - 29	May lose circ	hole. Brine water. Add paper as needed to control seepage and add lime to control pH (9-10). Use high viscosity sweeps to clean hole.
2750' - 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' - 12200'	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 DSTs, 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. Marquardt 1 Penn Federal No. 3 Unit Letter L Section 1 T25S - R26E Eddy County, NM

## 12 Testing, Logging and Coring Program:

- A. Mud logging program: One-man unit from 2750' to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DSTs 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 <u>Strawn / Morrow / Atoka pay will</u> be perforated and stimulated. 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 foremen's trailers or living quarters.
- 7 Drillstem Testing Not Anticipated

# **Hydrogen Sulfide Drilling Operations Plan**

- 8 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

Gruy Petroleum Management Co. Marquardt 1 Penn Federal No. 3 Unit Letter L Section 1 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 JUNCTION OF CO RD #742 AND CO RD #720, GO SOUTH ON #742 FOR 3.7 MILES TO LEASE ROAD. THENCE GO WEST ON LEASE ROAD FOR 2.2 MILES. THENCE GO SOUTH FOR 0.8 MILES TO LEASE ROAD. THEN GO WEST FOR 0.2 MILES TO PROPOSED LOCATION.
- 2 PLANNED ACCESS ROADS: No new 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"

Gruy Petroleum Management Co. Marquardt 1 Penn Federal No. 3 Unit Letter L Section 1 T25S - R26E 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 seperated by a series of solids removal equipment and hauled to the cuttings drying area and then disposed of in the cuttings burial cell.
- 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 holding tanks and be cleaned out periodically. 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. Drilling fluids will be contained in steel pits in a closed circulating system. Fluids will be cleaned and reused. Water produced during testing will be contained in the steel pits and disposed of at a state approved disposal facility. 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.

Gruy Petroleum Management Co. Marquardt 1 Penn Federal No. 3 Unit Letter L Section 1 T25S - R26E Eddy County, NM

## 9 WELL SITE LAYOUT

- A. Exhibit "D" shows location and rig layout.
- B. This exhibit indicates proposed location of the 100' X 70' cuttings drying area.
- C. Mud pits in the closed circulating system will be steel pits and the cuttings drying area will be lined with a 2' clay barrier and surrounded by a 2' X 2' ring levee and a 2' earthen berm. A 12 mil liner will cover the cuttings drying area and extend a minimum of 2' over the earthen berm where it will be anchored down. A pump off system will pump any accumulated fluids in the ring levee to the rig holding tanks to be cleaned and reused.
- D. After drying cuttings will be disposed of in a 50' X 50' cuttings burial cell. The bottom will be lined with a 2' clay barrier. Drill cuttings will be hauled from the cuttings drying area and encapsulated in a 12 mil liner. The 12 mil liner will be folded over the cuttings and capped with a 20 mil membrane cap. An additional 2' clay barrier will be added to prevent seepage and the cell will be filled with 3' to 4' of top soil and leveled and contoured to conform to the original surrounding area.
- E. If the well is a producer, the cuttings burial area 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 cuttings burial cell 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 drill cuttings will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The cuttings burial 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 recountoured 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.

Gruy Petroleum Management Co. Marquardt 1 Penn Federal No. 3 Unit Letter L Section 1 T25S - R26E Eddy County, NM

## 11 OTHER INFORMATION:

- A. Topography consists of a sloping plane with loose tan sands. Vegetation is mainly yucca, mesquite and shin oak.
- B. The wellsite is on surface owned by The United States Department of the Interior, Bureau of Land Management. The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.
- C. An Archaeological survey will be conducted on the location and proposed roads, and 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 miles of this location.

#### 12 OPERATORS REPRESENTATIVE:

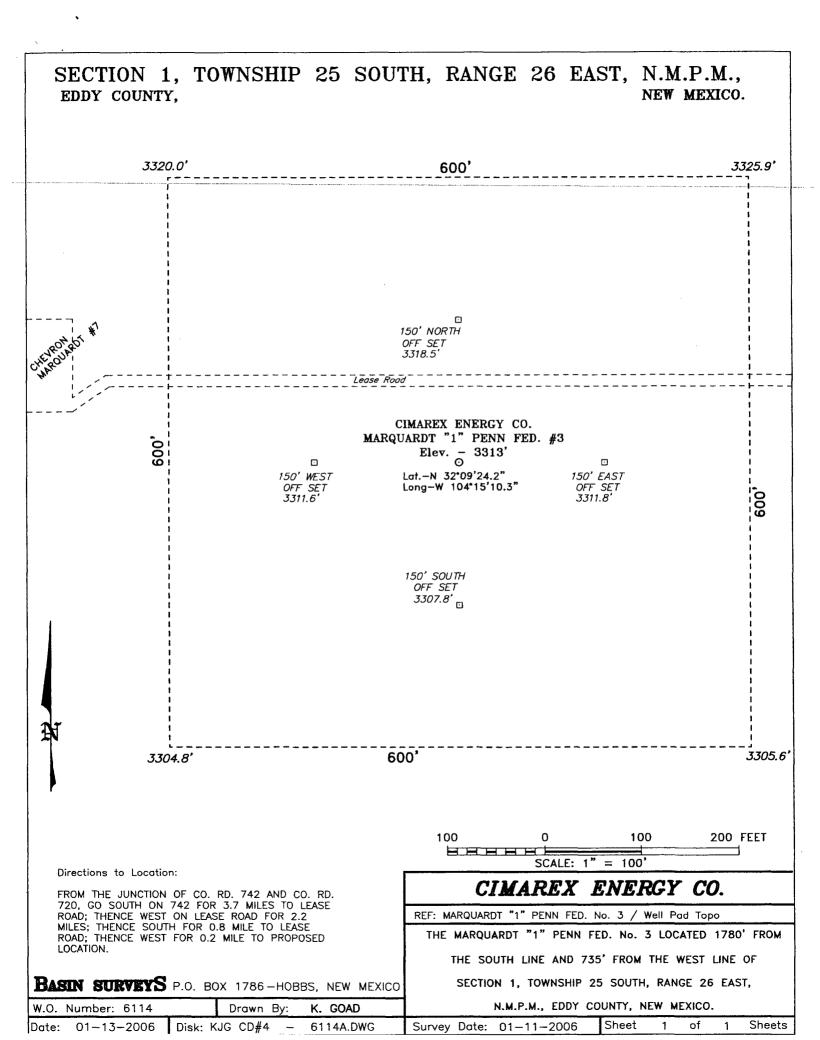
Gruy Petroleum Management Company P.O. Box 140907 Irving, TX 75014

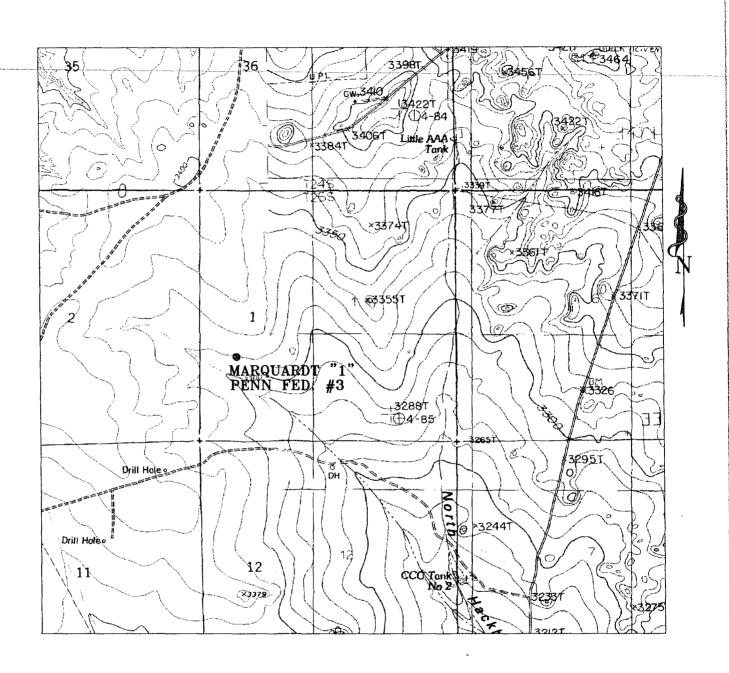
Office Phone: (972) 443-6489

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 exit; 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 and/or its contractors/subcontractors and is in 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:	ZenoFans
DATE:	2/8/2006
TITLE:	Manager, Operations Administration





# MARQUARDT "1" PENN FED. #3

Located at 1780' FSL AND 735' FWL Section 1, Township 25 South, Range 26 East, N.M.P.M., Eddy County, New Mexico. Exhibit B



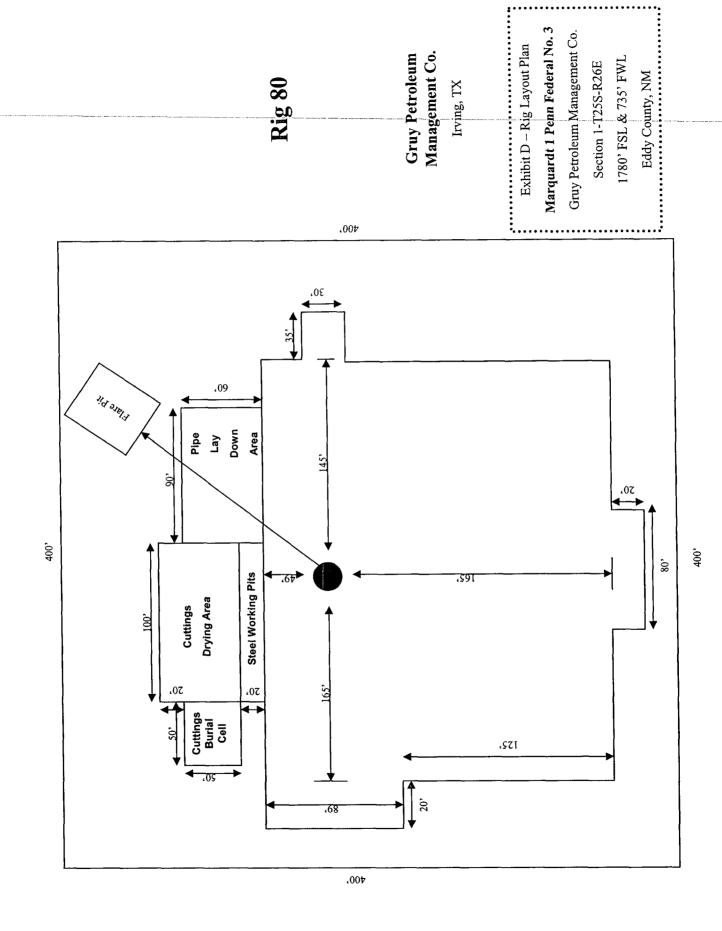
P.O. Box 1785 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 — Office (505) 392-3074 — Fax basinsurveys.com W.O. Number: 6114AA - KJG CD#4

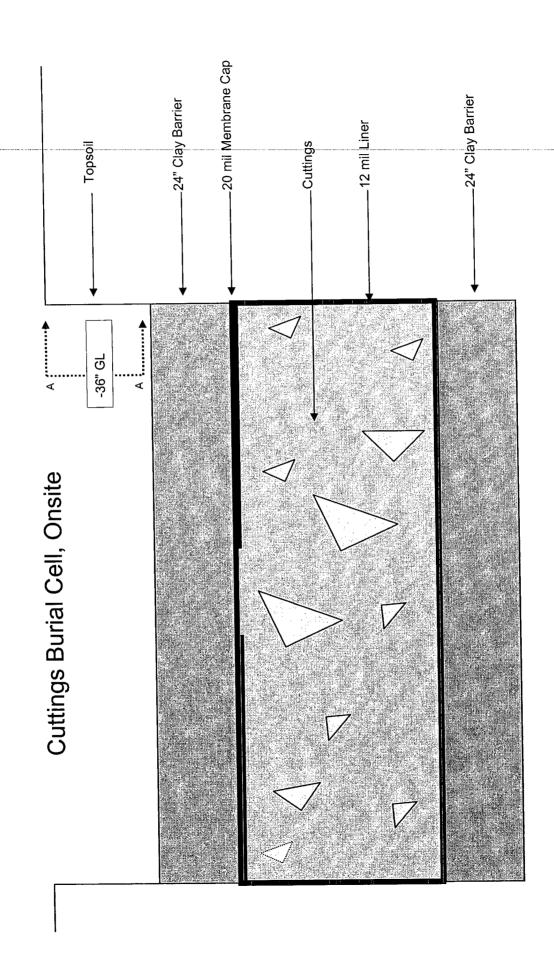
Survey Date: 01-11-2006

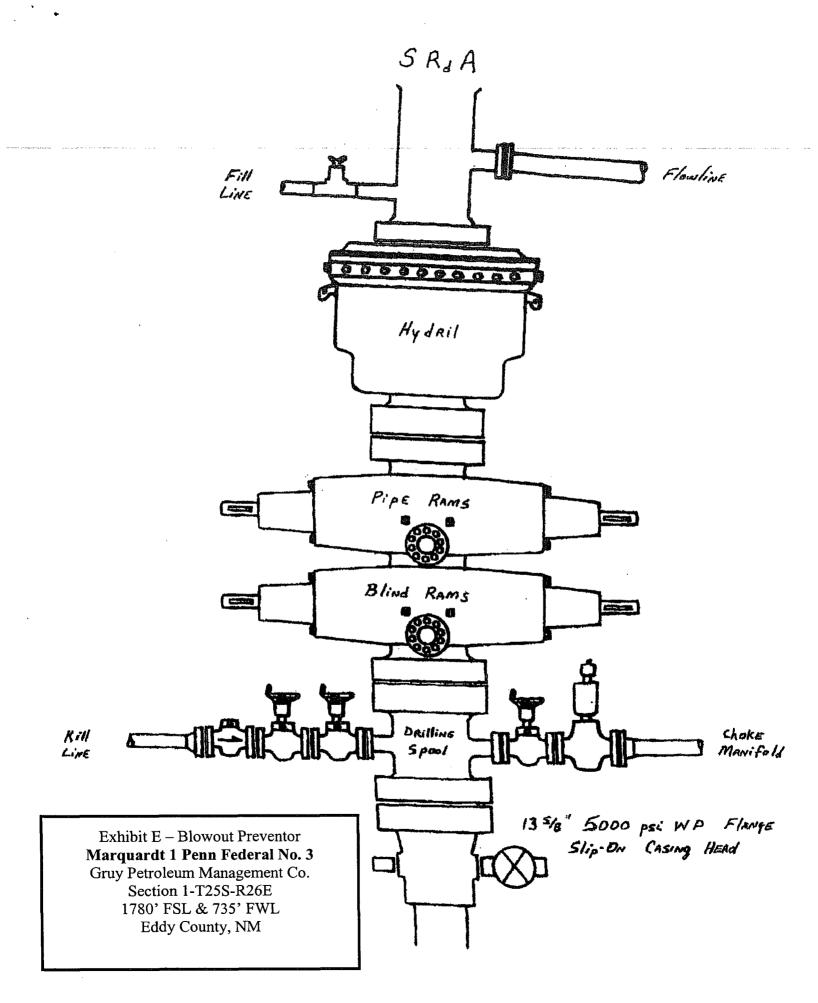
Scale: 1" = 2000'

Date: 01-13-2006

CIMAREX ENERGY COMPANY







# DRILLING OPERATIONS CHOKE MANIFOLD 5M SERVICE

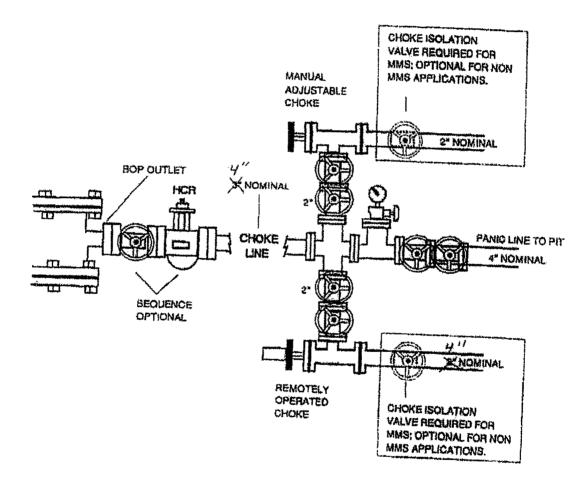


Exhibit E Cont'd – Choke Manifold

Marquardt 1 Penn Federal No. 3

Gruy Petroleum Management Co.

Section 1-T25S-R26E

1780' FSL & 735' FWL

Eddy County, NM

# Conditions of Approval Cave and Karst

# Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

## Berming:

Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 12 mil plastic liner.

# Closed Mud System with Cuttings Removed:

A closed mud system or steel tanks will be utilized to drill the well. All fluids and cuttings will be hauled off site for disposal.

# Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

## Rotary Drilling with Fresh Water:

Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. See geologist report for depth.

# Florescene Dye (Acid Yellow 73):

Sixteen ounces of Yellow Green (Acid Yellow 73) Florescene dye will be added to the drilling fluid during the drilling of the first 750 feet of the well.

## Casing:

All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

## Cementing:

All casing strings will be cemented to the surface.

#### **Lost Circulation:**

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a bit drops of four feet or more and circulation losses greater then 75 percent occur simultaneously while drilling in any cavebearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

## **Delayed Blasting:**

Any blasting will be a phased and time delayed.

## **Abandonment Cementing:**

Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

#### **Pressure Tests:**

Annual pressure tests will be performed by the Operator on all casing annuli. If the test results indicated a casing failure, remedial actions approved by the BLM will be undertaken to correct the problem.

## **Differential Shut-off Systems:**

A leak detection system and differential shut off systems will be installed for pipelines and tanks used in production or drilling.

# Record Keeping:

The Operator will track customary drilling activities, including the rate of penetration, pump pressure, weight on bit, bit drops, percent of mud returns, and presence of absence of cuttings returning to the surface. As part of customary record keeping, each detectable void or sudden increase in the rate of penetration not attributable to a change in the formation type should be documented and evaluated as it is encountered.

#### **CONDITIONS OF APPROVAL - DRILLING**

Operator's Name:

**Gruy Petroleum Management Co.** 

Well Name & No.

Marquardt 1 Penn Federal #3

Location:

1780' FSL, 735' FWL, Section 1, T. 25 S., R. 26 E., Eddy County, New Mexico

Lease:

NM-14124

# I. DRILLING OPERATIONS REQUIREMENTS:

- 1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:
  - A. Well spud
  - B. Cementing casing: 13-3/8 inch 9-5/8 inch 5-1/2 inch
  - C. BOP tests
- 2. A Hydrogen Sulfide (H2S) Drilling Operation Contingency Plan shall be activated prior to drilling into the **Delaware** formation. A copy of the plan shall be posted at the drilling site.
- 3. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing ( size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.
- 5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

#### II. CASING:

- 1. The <u>13-3/8</u> inch surface casing shall be set at <u>approximately 215 feet and cement circulated to the <u>surface</u>. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.</u>
- 2. The minimum required fill of cement behind the <u>9-5/8</u> inch intermediate casing is <u>to be circulated to the surface</u>.
- 3. The minimum required fill of cement behind the <u>5-1/2</u> inch production casing is <u>to reach at least 500 feet</u> above the top of the uppermost hydrocarbon productive interval.

## **III. PRESSURE CONTROL:**

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as describe

NOTE: A waiver to test the 13-3/8" casing to 1000# with the rig pumps is granted.

- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be <u>5000</u> psi.
- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

## **IV. DRILLING MUD:**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

3/1/06 acs

# Gruy Petroleum Management Co.

5215 North O'Connor Blvd. ♦ Suite 1500 ♦ Irving, TX 75039 ♦ (972) 401-3111 ♦ Fax (972) 443-6486 Mailing Address: P.O. Box 140907 ♦ Irving, TX 75014-0907

A subsidiary of Cimarex Energy Co. • A NYSE Listed Company • "XEC"



February 7, 2006

Oil Conservation Division District II Office 1301 W. Grand Ave. Artesia, New Mexico 88210 Attn: Mr. Bryan Arrant

Re: Statewide Rule 118 Hydrogen Sulfide Gas Contingency Plan Proposed Marquardt 1 Penn Federal No. 3 Well RECEIVED
FEB 1 0 2006
OCU-ANTESIA

Dear Mr. Arrant:

In accordance with NMAC 19.15.3.118 C. (1) governing the determination of the hydrogen sulfide concentration in gaseous mixtures in each of its operations, Gruy Petroleum Management Co. does not anticipate that there will be enough H2S from the surface to the Morrow/Atoka formations to meet the OCD's minimum requirements for the submission of a contingency plan for the drilling and completion of the following test(s):

Marquardt 1 Penn Federal No. 3 Sec 1-T25S-R26E 1780' FSL & 735' FWL Eddy Co., NM

If anything further is needed regarding this issue, or if you have any questions, please feel free to contact the undersigned at 972-443-6489.

Yours truly,

Zeno Farris

Manager, Operations Administration

ZenoFami