

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

5. LEASE DESIGNATION AND SERIAL NO.

NM 15295

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

C K Federal 3

9. API WELL NO.

30-015-

10. FIELD AND POOL, OR WILDCAT

White City; Penn (Gas)

11. SEC. T., R., M., BLOCK AND SURVEY

OR AREA

Sec. 8 T24S R26E

12. COUNTY OR PARISH

Eddy

13. STATE

NM

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

1b. TYPE OF WELL

OIL ☐

GAS ☒

SINGLE ☐

MULTIPLE ☐

WELL

WELL

OTHER

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.)

SUBJECT TO LIKE  
APPROVAL BY STATE

SHL 1225' FNL & 1400' FEL BHL 1650' FNL & 1450' FWL

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

16 miles South of Carlsbad

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, T.O

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

1225'

16. NO. OF ACRES IN LEASE

1833.3

17. NO. OF ACRES ASSIGNED

TO THIS WELL

640

18. DISTANCE FROM PROPOSED LOCATION\*

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

2304'

19. PROPOSED DEPTH

13000'

20. ROTARY OR CABLE TOOLS

Rotary

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

3483' GR

22. APPROX. DATE WORK WILL START\*

08-01-03

23. 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 #	300'	490 sx circulate
12 1/4" WITNESS	S-55 9 5/8"	40 #	1930' WITNESS	1200 sx circulate
7 7/8"	N-80/S-95 5 1/2"	17 #	13000'	1620 sx TOC 2700'

The proposed well will be directionally drilled to a depth of 13000' and completed as a White City Penn; 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. We are requesting a variance for the 13 3/8" surface casing 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. Per onshore order 2 the 13 3/8" 48 # H-40 casing should be tested at 70% of its maximum internal yield of 1730 # or 1211 #. During the running of the surface pipe we do not anticipate any pressures greater than 500 #, and are requesting a variance to test the 13 3/8" casing to 500 #

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 Zero Farris TITLE Mgr. Ops. Admin DATE 06-27-03

(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

ACTING

TITLE

FIELD MANAGER

DATE

12 AUG 2003

\*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.  
APPROVAL FOR 1 YEAR  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED  
CARLSBAD CONTROLLED WATER BASIN

## Application to Drill

Gruy Petroleum Management Co.  
C & K Federal No. 3  
Unit Letter B Section 8  
T24S - 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: SHL 1225' FNL & 1400' FEL Sec. 8- 24S 26E  
BHL 1650' FNL & 1450' FWL Sec. 8-24S-26E
- 2 Elevation above sea level: GR 3483'
- 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"	0-425'	13 3/8"	48	8-R	ST&C	H-40
12 1/4"	0-3200'	9 5/8"	36	8-R	ST&C	J-55
7 7/8"	0-13000'	5 1/2"	17	8-R	ST&C	N-80 / S-95

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### 9 Cementing & Setting Depth:

13 3/8"	Surface	Set 300' of 13 3/8" H-40 48# ST&C casing. Cement with 490 Sx. Of Class "C" cement + additives, circulate cement to surface.
9 5/8"	Intermediate	Set 1930' of 9 5/8" J-55 36# ST&C casing., to top of Delaware. Cement in two stages, first stage cement with 1000 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 13000' of 5 1/2" NP-80 / S-95 17# ST&C casing. Cement in two stages, first stage cement with 1020 Sx. of Class POZ/C Cement + additives. Second stage cement with 600 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 nipped 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 - 300'	9.2 - 9.6	30 - 32	ay lose circ.	Fresh water spud mud add paper to control seepage and high viscosity sweeps to clean hole.
300' - 1930'	9.7 - 10.0	28 - 29	ay 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.
1930' - 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.

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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 3000 PSI, estimated BHT 1000 .

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

The road and location construction has been previously completed for the C K Federal 2. Anticipated spud date for C K Federal 3 is 8-1-03. 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 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 H<sub>2</sub>S safety instructor to the following:
  - A. Characteristics of H<sub>2</sub>S
  - B. Physical effects and hazards
  - C. Proper use of safety equipment and life support systems.
  - D. Principle and operation of H<sub>2</sub>S detectors, warning system and briefing
  - E. Evacuation procedure, routes and first aid.
  - F. Proper use of 30 minute pressure demand air pack.
- 2 H<sub>2</sub>S Detection and Alarm Systems
  - A. H<sub>2</sub>S 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, H<sub>2</sub>S 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
  - 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.

DISTRICT I  
P.O. Box 1030, Hobbs, NM 88241-1030

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 90, Artesia, NM 88211-0710

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
		White City; Penn
Property Code	Property Name	Well Number
	C K FEDERAL	3
OGRID No.	Operator Name	Elevation
162683	GRUY PETROLEUM MANAGEMENT CO.	3483'

Surface Location

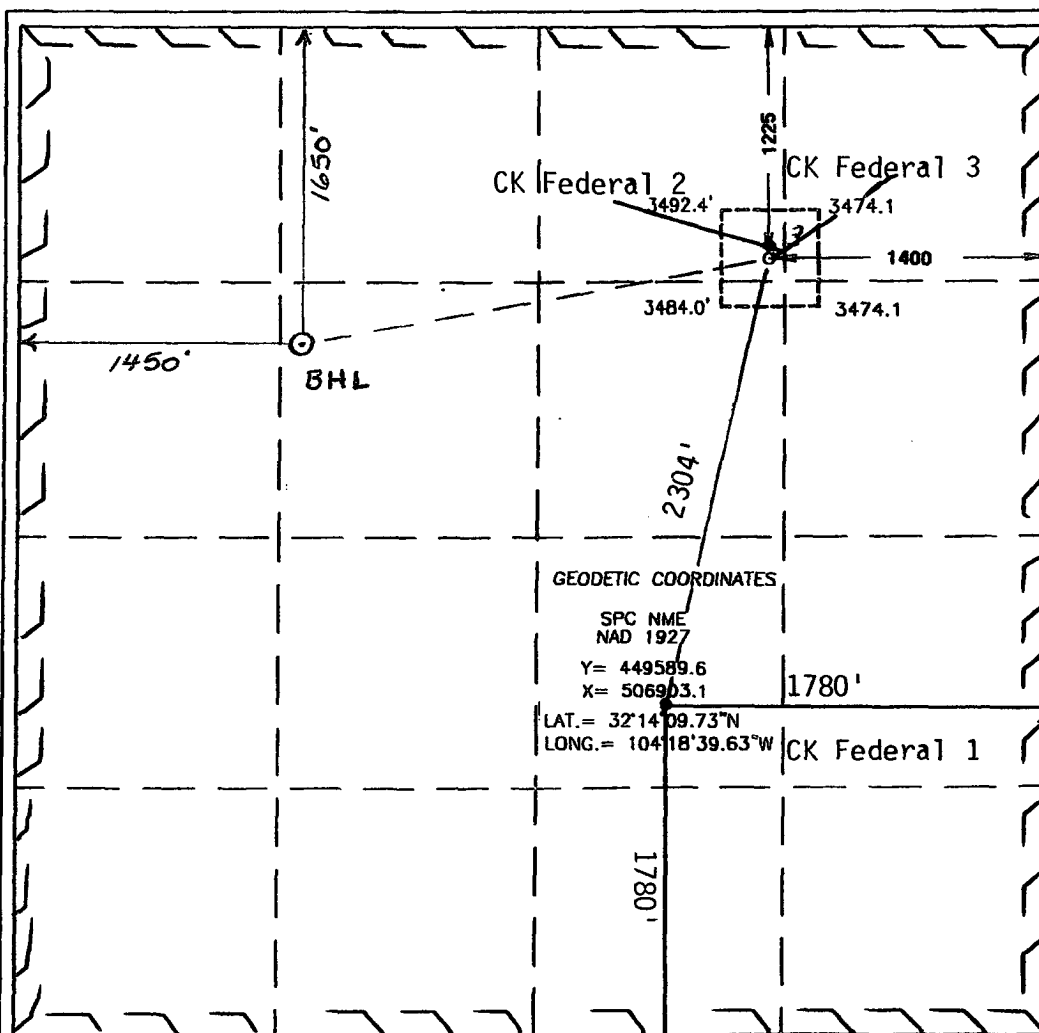
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	8	24-S	26-E		1225	NORTH	1400	EAST	EDDY

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
F	8	24-S	26-E		1650'	North	1450'	West	Eddy

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640	Y	C	

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



OPERATOR CERTIFICATION

I hereby certify that 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

June 27, 2003

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.

February 28, 2003

Date Surveyed

AWB

Signature & Seal of  
Professional Surveyor

Gary E. Eason 3/4/03  
02.11.0198

Certificate No. RONALD J. EIDSON 3239  
GARY EIDSON 12641

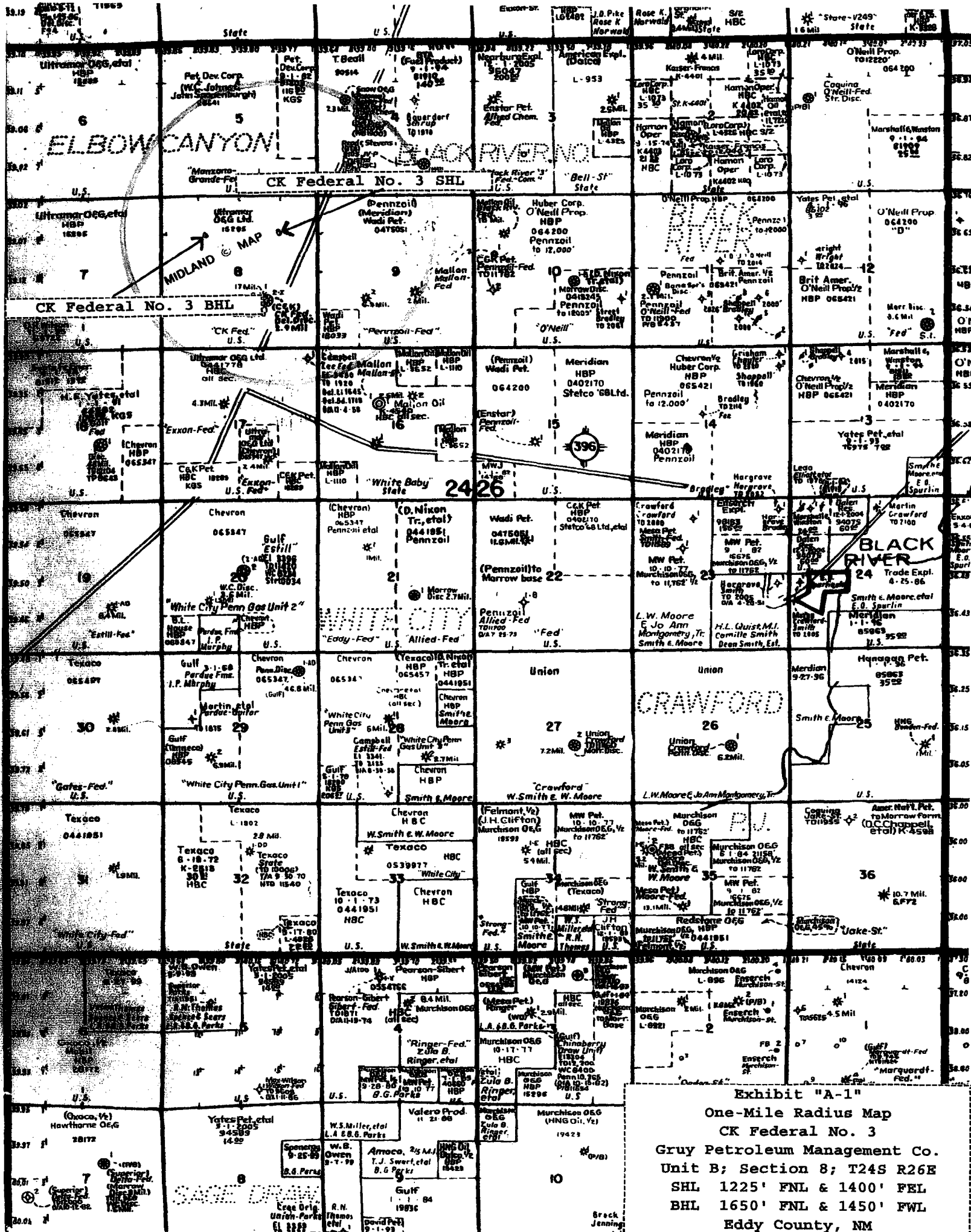
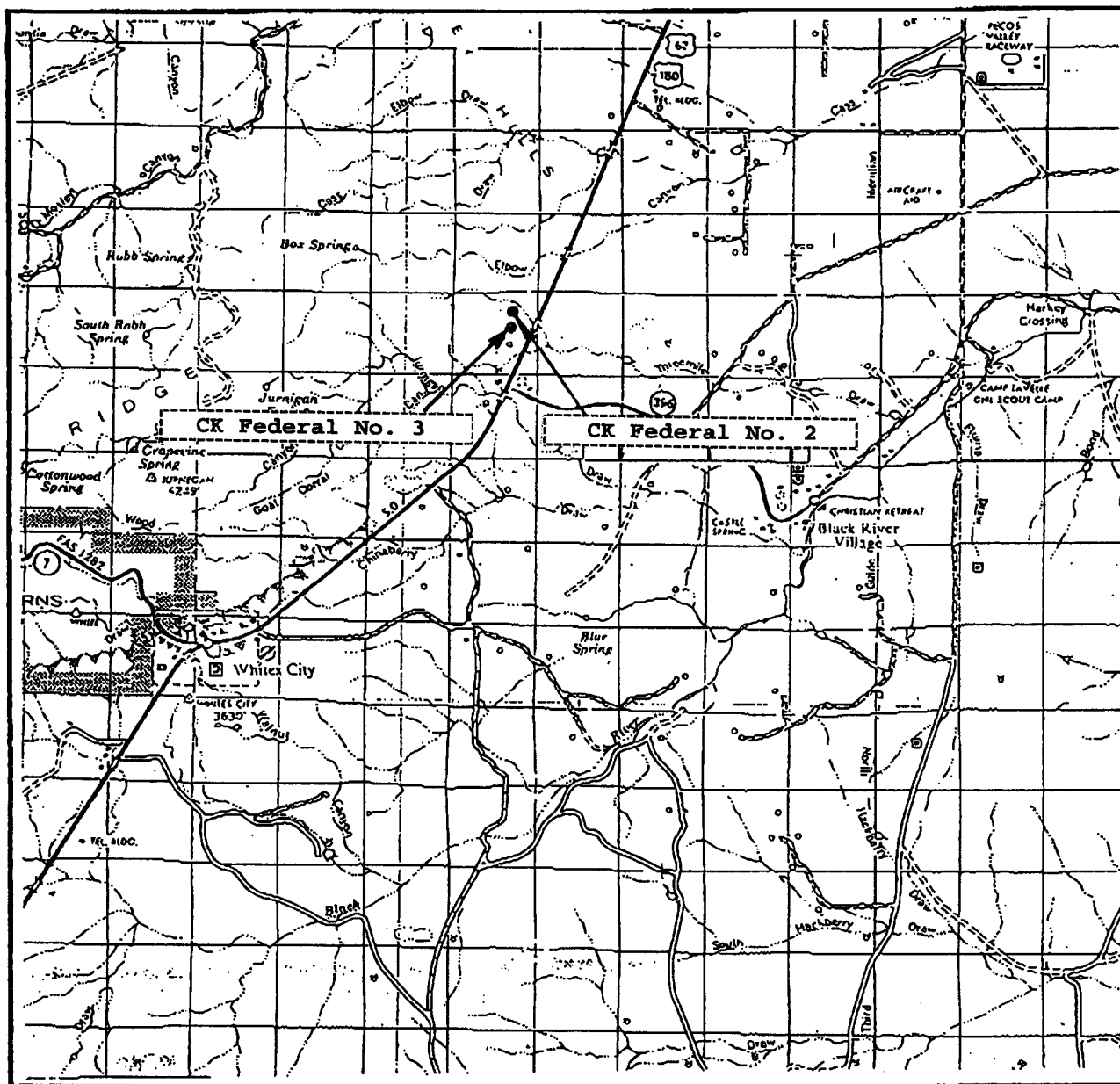


Exhibit "A-1"  
One-Mile Radius Map  
CK Federal No. 3  
Gruy Petroleum Management Co.  
Unit B; Section 8; T24S R26E  
SHL 1225' FNL & 1400' FEL  
BHL 1650' FNL & 1450' FWL  
Eddy County, NM



# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 8 TWP. 24-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1225' FNL & 1400' FEL

ELEVATION 3483'

OPERATOR GRUY PETROLEUM MANAGEMENT CO.

LEASE C K FEDERAL

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

Exhibit "B"

S R<sub>d</sub> A

Fill  
Line

Flowline

Hydril

Pipe Rams

Blind Rams

Drilling  
Spool

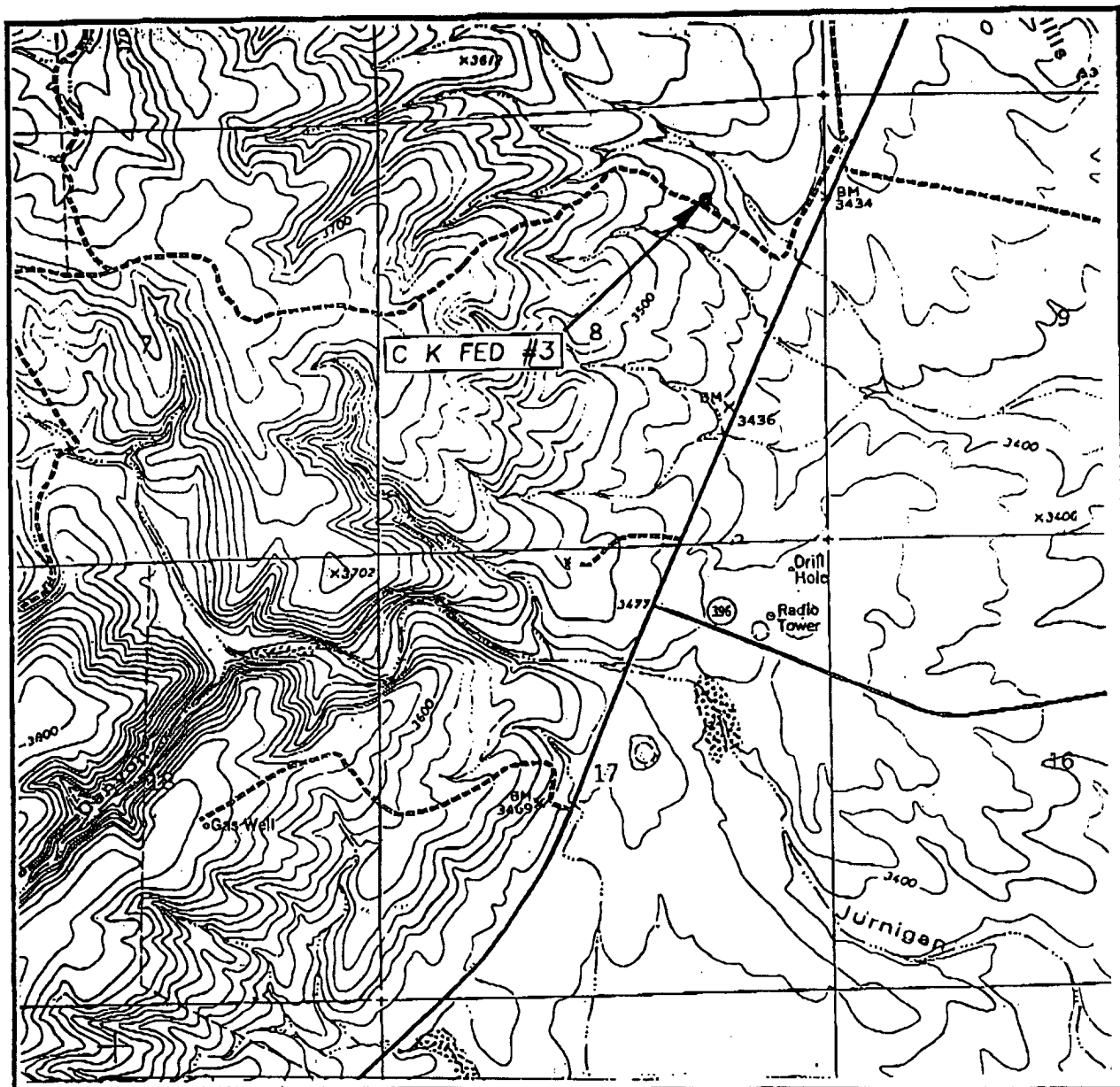
Choke  
Manifold

Kill  
Line

13 5/8" 5000 psi WP Flange  
Slip-On Casing Head

Exhibit "E"  
CK Federal No. 3  
Gruy Petroleum Management Co.  
Unit B; Section 8; T24S R26E  
SHL 1225' FNL & 1400' FEL  
BHL 1650' FNL & 1450' FWL  
Eddy County, NM

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 20'  
BLACK RIVER VILLAGE, N.M.SEC. 8 TWP. 24-S RGE. 26-ESURVEY N.M.P.M.COUNTY EDDYDESCRIPTION 1225' FNL & 1400' FELELEVATION 3480'OPERATOR GRUY PETROLEUM MANAGEMENT CO.LEASE C K FEDERALU.S.G.S. TOPOGRAPHIC MAP  
BLACK RIVER VILLAGE, N.M.JOHN WEST SURVEYING  
HOBBS, NEW MEXICO  
(505) 393-3117

Exhibit "B"