

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

(Other instructions on reverse)

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

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Conoco Inc.

a. ADDRESS AND TELEPHONE NO

10 Desta Dr. Ste 649W, Midland, Tx. 79705-4500

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements \*)

At surface

1980' FSL & 660' FEL

At proposed prod. zone

1980' FSL & 660' FEL

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

5. LEASE DESIGNATION AND SERIAL NO

LC 031696 A

6 IF INDIAN, ALLOTTEE OR TRIBE NAME

7 UNIT AGREEMENT NAME

SEMU

8. FARM OR LEASE NAME WELL NO

#147

9. API WELL NO

30-025-34978

10. FIELD AND POOL, OR WILDCAT

North Hardy Tubbs Drinkard

11. SEC. T., R., M., OR BLK.

AND SURVEY OR AREA  
Sec. 26, T20S, R37E

12 COUNTY OR PARISH

Lea

13. STATE

NM

5. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if Any)

16 NO OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

8. DISTANCE FROM PROPOSED LOCATION\*

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

19. PROPOSED DEPTH

7300'

20. ROTARY OR CABLE TOOLS

Rotary

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

3510' GR

22. APPROX. DATE WORK WILL START\*

3/15/00

23

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	M-50, 8-5/8"	23#	1500'	723 sxs, circ.
7-7/8"	J-55, 5-1/2"	17#	7000'	1008 sxs, circ.

It is proposed to drill a vertical wellbore as a Tubbs producer. NOS was filed 2/10/00. The well will be drilled and equipped according to the plan submitted in the following attachments:

1. Well Location and Acreage Dedication Plat (C-102) along with other associated maps and plats.
2. Proposed Well Plan Outline
3. Cementing Plan
4. Surface Use Plan
5. Trailer Mounted Rig Layout Drawing
6. BOP & Choke Manifold Specifications
7. H2S Drilling Operations Plan
8. Surface owner communications

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

This application includes ROW's for the well pad, powerline, flowline and access road. The undersigned accepts all applicable terms, conditions, stipulations and restrictions or portion thereof, as described above and as covered by BLM Bond File No. ES-0085.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen give data on present production

deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Jo Ann Johnson

TITLE

Jo Ann Johnson  
Sr. Property Analyst

DATE

2/29/00

(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

TITLE

DATE

\*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.

RECEIVED  
MAR 02 2000  
BLM  
ROSWELL, NM

DISTRICT I  
1825 N. French Dr., Hobbs, NM 88240  
DISTRICT II  
811 South First, Artesia, NM 88210

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

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

OIL CONSERVATION DIVISION

DISTRICT III  
1000 Rio Brazos Ed., Artesia, NM 87410  
DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

2040 South Pacheco

Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>3D-025-34978</b>	Pool Code <b>96356</b>	Pool Name <b>North Hardy Tubb Drinkard</b>
Property Code <b>13492</b>	Property Name <b>SEMU</b>	Well Number <b>147</b>
OGRID No. <b>005073</b>	Operator Name <b>CONOCO INC.</b>	Elevation <b>3510'</b>

Surface Location

UL or lot No. <b>1</b>	Section <b>26</b>	Township <b>20 S</b>	Range <b>37 E</b>	Lot Idn	Feet from the <b>1980</b>	North/South line <b>SOUTH</b>	Feet from the <b>660</b>	East/West line <b>EAST</b>	County <b>LEA</b>
---------------------------	----------------------	-------------------------	----------------------	---------	------------------------------	----------------------------------	-----------------------------	-------------------------------	----------------------

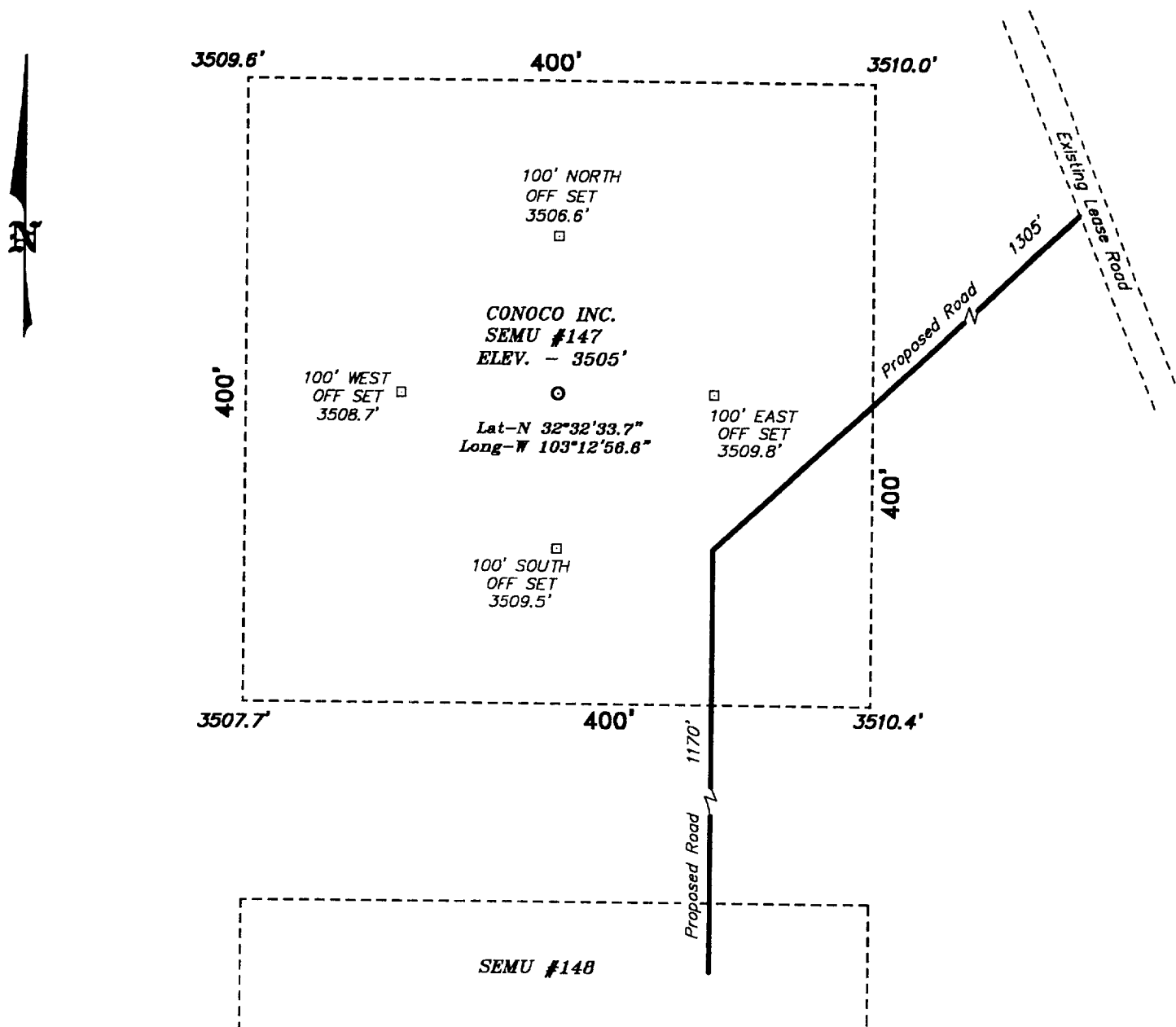
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres <b>40</b>	Joint or Infill	Consolidation Code	Order No.						

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

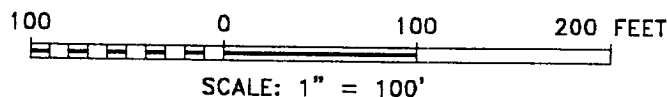
<div>LAT - N 32°32'33.7" LONG - W 103°12'58.4"</div> <div><div>3509.6'</div><div>3510.0'</div><div>3507.7'</div><div>3510.4'</div><div>660'</div><div>1980'</div></div>				<b>OPERATOR CERTIFICATION</b> <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i> <div><b>Jo Ann Johnson</b> Signature <b>Jo Ann Johnson</b> Printed Name <b>Sr. Property Analyst</b> Title <b>February 29, 2000</b> Date</div>	
				<b>SURVEYOR CERTIFICATION</b> <i>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.</i> <div><b>January 08, 2000</b> Date Surveyed <div><b>GARY L. JONES</b> Signature &amp; Seal of Professional Surveyor NEW MEXICO 7977 C.O. No. 00631 Certification No. Gary L. Jones 7977 BASIS SURVEYS</div></div>	

SECTION 26, TOWNSHIP 20 SOUTH, RANGE 37 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



DIRECTIONS TO WELL LOCATION:

FROM THE JUNCTION OF US HWY 62/180 AND STATE HWY 8, GO SOUTH ON HWY 8 APPROX. 11 MILES TO CO. RD. C-49; THENCE EAST AND SOUTH EAST ON C-49 APPROX. 2 MILES TO A LEASE ROAD; THENCE NORTHEAST AND EAST ON LEASE ROAD APPROX. 1.5 MILE TO A LEASE ROAD; THENCE NORTHWEST ON LEASE ROAD APPROX. 1.5 MILE TO A PROPOSED ROAD WHICH LIES 1305 FEET FROM THE SOUTHEAST CORNER OF THE PROPOSED WELL LOCATION.



**BASIN SURVEYS** P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 0063 Drawn By: **K. GOAD**

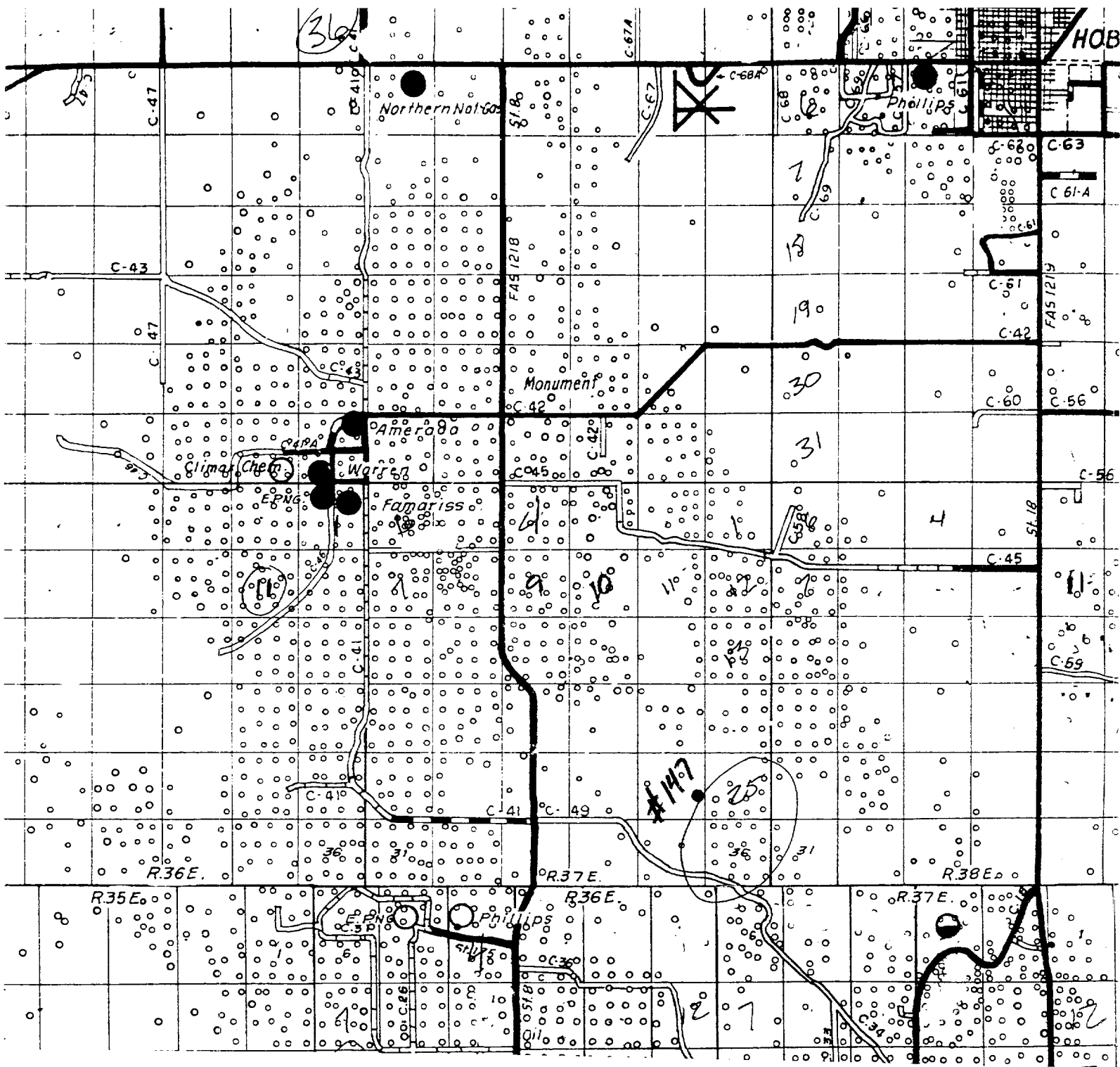
Date: 02-09-2000 Disk: KJG #122 - 0062A.DWG

**Conoco Inc.**

REF: SEMU No. 147 / Well Pad Topo

THE SEMU No. 147 LOCATED 1980' FROM THE SOUTH LINE AND 660' FROM THE EAST LINE OF SECTION 26, TOWNSHIP 20 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

Survey Date: 02-08-2000 Sheet 1 of 1 Sheets



CONOCO INC.  
 SEMU #147  
 1980' FSL & 660' FEL  
 Sec. 26, T-20-S, R-37-E,  
 Lea County, New Mexico.

SCALE: 1"=2 MILES

**BASIN SURVEYS**

P.O. BOX 1786-HOBBS, NEW MEXICO

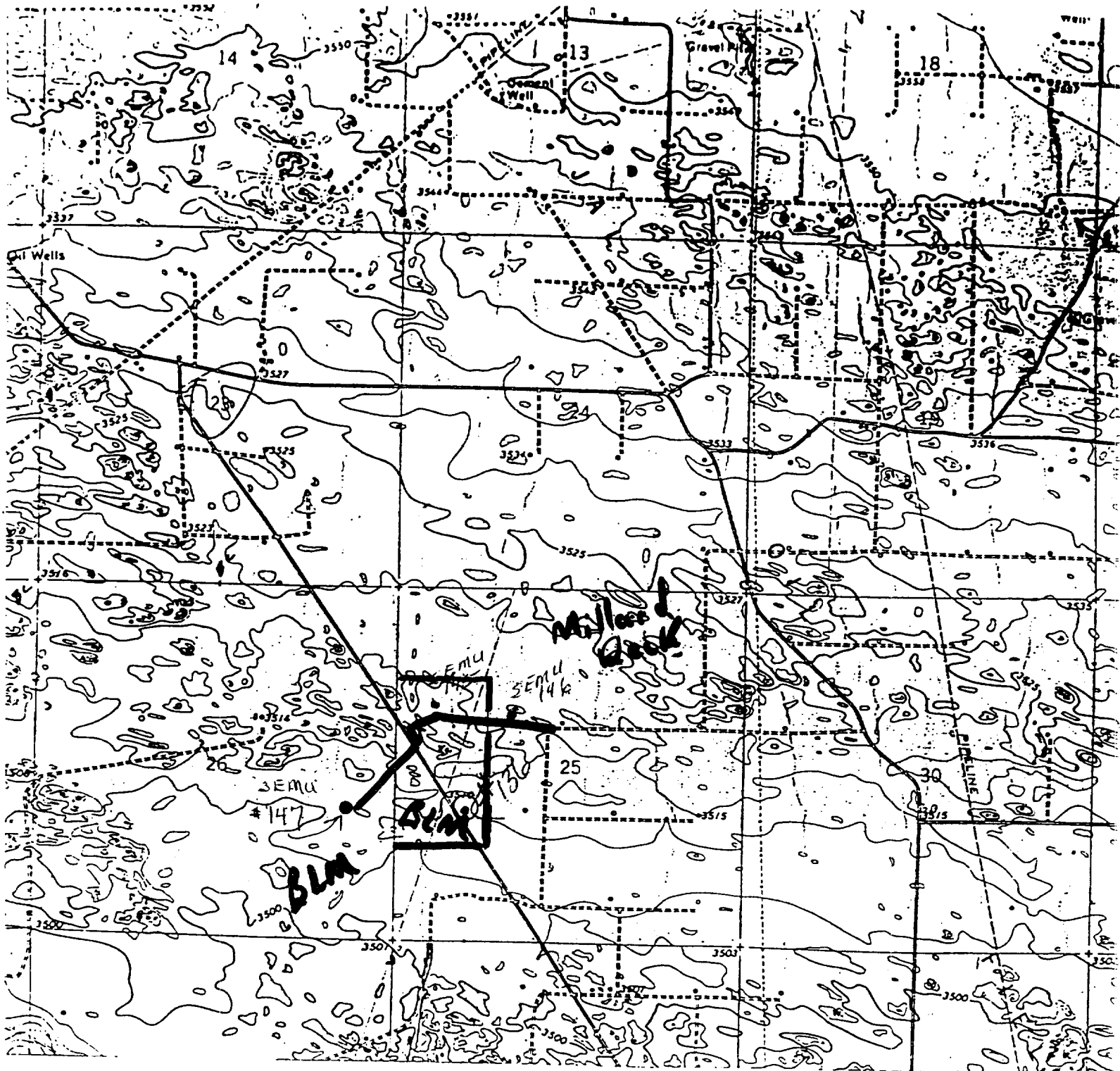
2 MILES 0 2 MILES 4 MILES

W.O. Number: 0063 Drawn By: K. GOAD Survey Date: 02-08-2000 Sheet 1 of 1 Sheets

# SEMU #147 Proposed Flowline

4050'

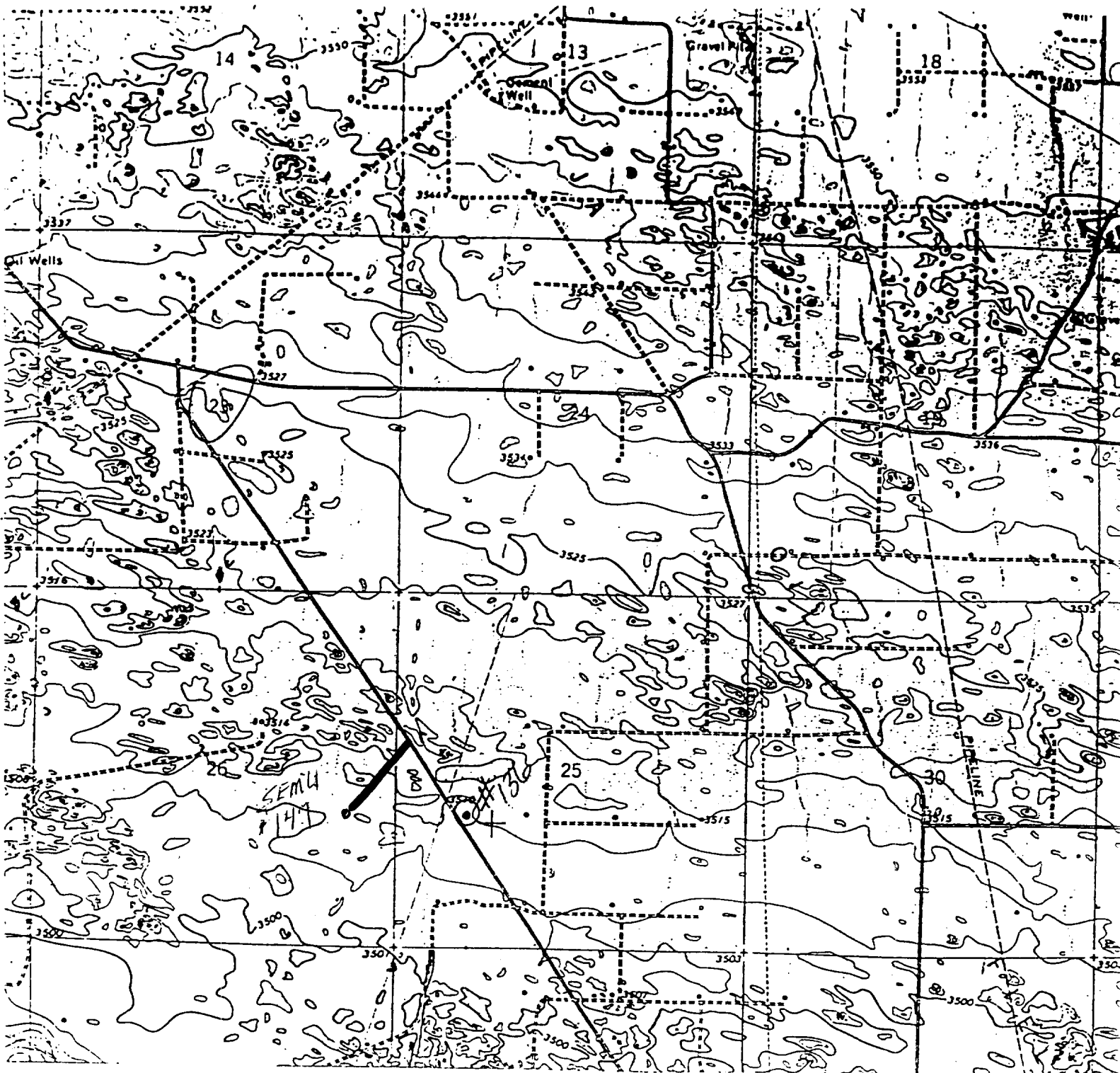
1980' FSL - 660' FEL, Sec 26, T20S, R37E



SEMU # 147  
Proposed Access

1305'

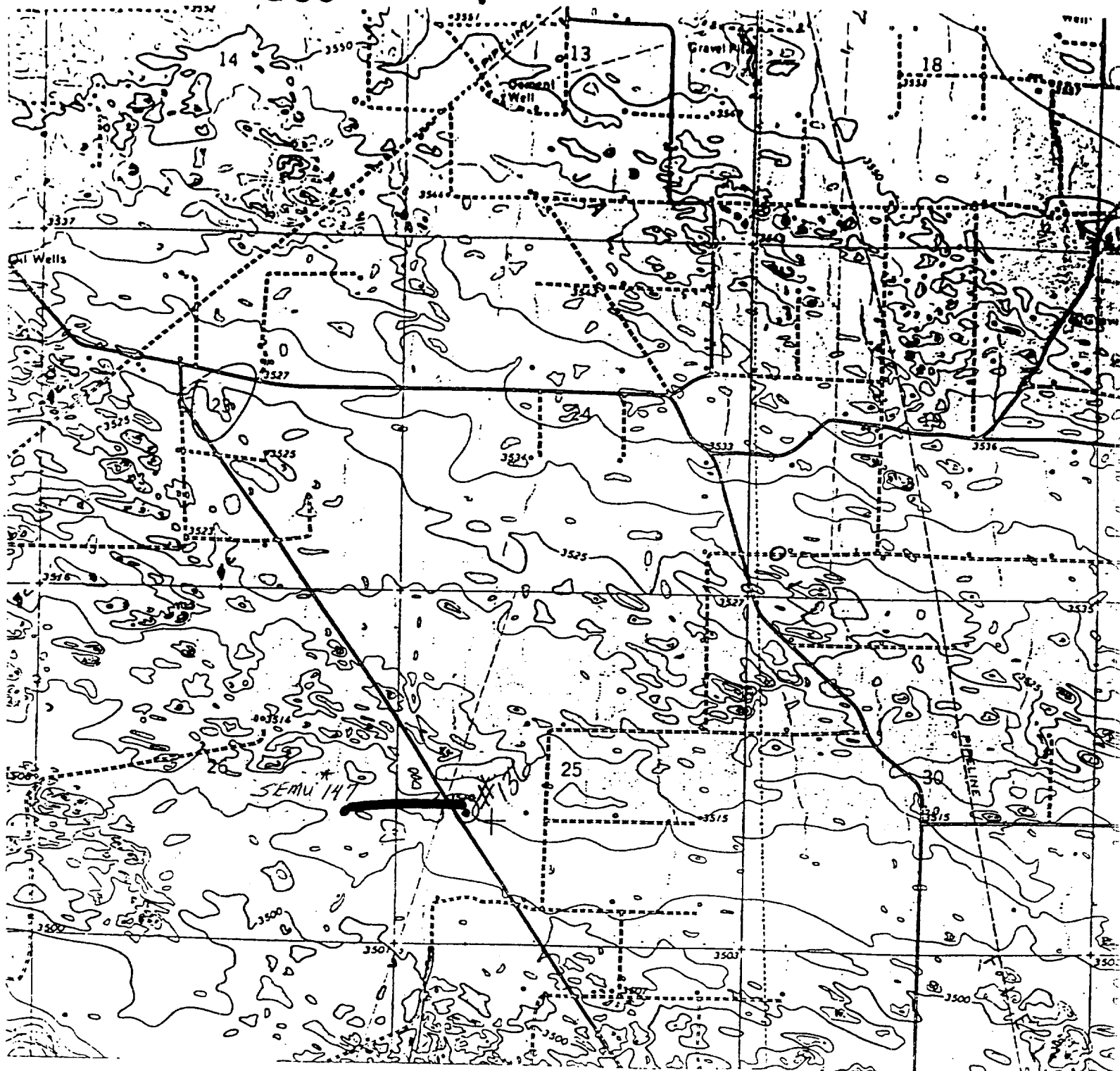
1980 FSL - 660' FEL, Sec. 26, T20S, R37E



# SEMU # 147 Powerline

1750'

1980' FSL, 660' FEL, Sec 26, T20S, R37E





# PROPOSED WELL PLAN OUTLINE

WELL NAME  
LOCATION

SEMU #147  
1980' FSL & 660' FEL Sec 26, T20S, R37E

Ground Level : ?  
Kelly Bushing: 11' AGL

Depth MD	FORMATION TOPS	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE	CASING PROGRAM	FRAC GRAD	FORM. PRES. GRAD.	Mud Weight & Type	Days
0		Possible Hole Enlargement & Sloughing		12-1/4"			Less than 8.3	8.4 - 9.5 Fresh	
1000									
	Top Salt @ 1,400'				8-5/8", 23#, M-50 ST&C @ 1,500'				3
		Washouts in Salt Section		7-7/8"	Circulate Cement			10 Brine	
2000							Less than 8.4		
	Base Salt @ 2,550'								
	Yates 2,670'		Mud Loggers F/ 2,650' to TD						
	7 Rivers 2,950'		H2S Monitor on at 2,650'						
3000		Possible gas or water flow							
	Queen 3,510'								
	Penrose 3,635'								
	Grayburg 3,770'								
4000	San Andres 4,000'	Lost Returns in San Andres							7
5000									
	Glorietta 5,275'	Possible differential sticking thru Glorietta & Paddock							
	Blaine Mkr 5,890'								
6000			First Log Run: GR-CAL-DLL-MLL-SGR FDC-CNL-PE : TD to 2650' Pull GR-CNL-Cal to Surf SGR interval to be chosen						
	Tubb 6,390'								
	Drinkard 6,700'		Second Log Run: 30 rotary sidewall cores						
	Abo 6,985'								
7000	TD @ 7,000'		Possible Third Run: FMI imaging log		5-1/2", 17.0#, J-55 LT&C f/0'-7,000' Circulate Cement			10 ppg Starch Gel	15

DATE

07-Feb-00

Joe Huck, Geophysical Advisor

APPROVED

Yong Cho, Drilling Engineer

Joe Miller, Reservoir Engineer



**Proposal No: 180253056A**

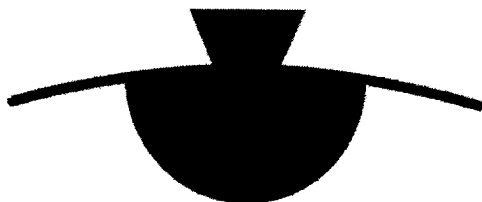
**Conoco  
SEMU #147**

Sec. 26-T20S-R37E  
Lea County, New Mexico  
February 2, 2000

**Well Recommendation**

**Prepared for:**  
Mr. Yong Cho  
Drilling Engineer

**Prepared by:**  
Rocky Chambers  
Region Engineer  
Bus Phone: 915/683-2781  
Mobile: 915/557-1239  
Pager: 915/498-1605



**POWERVISION™**

**Service Point:**

Hobbs  
Bus Phone: (505) 392-5556  
Fax: (505) 392-7307

**Service Representatives:**

Wayne Davis  
Account Manager  
Bus Phone: (915) 683-2781

Operator Name: Conoco  
Well Name: SEMU #147  
Job Description: 8 5/8" Surface  
Date: February 2, 2000



Proposal No: 180253056A

### JOB AT A GLANCE

Depth (TVD)	1,500 ft
Depth (MD)	1,500 ft
Hole Size	12.25 in
Casing Size/Weight :	8 5/8 in, 24 lbs/ft
Pump Via	Casing 8 5/8" O.D. (8.097" I.D) 24 #
Total Mix Water Required	6,555 gals
Pre-flush	
Mud Clean I	1,500 gals
Density	8.4 ppg
Lead Slurry	
LEAD SLURRY	528 sacks
Density	12.7 ppg
Yield	1.88 cf/sack
Tail Slurry	
TAIL SLURRY	195 sacks
Density	14.8 ppg
Yield	1.34 cf/sack
Displacement	
Water	93 bbls
Density	8.4 ppg

Operator Name: Conoco  
 Well Name: SEMU #147  
 Job Description: 8 5/8" Surface  
 Date: February 2, 2000



Proposal No: 180253056A

## WELL DATA

### ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
12.250 HOLE	1,500	1,500

### SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
8.625	8.097	24	1,500	1,500

Float Collar set @ 1,460 ft  
 Mud Density 8.40 ppg  
 Est. Static Temp. 89 ° F  
 Est. Circ. Temp. 85 ° F

### VOLUME CALCULATIONS

1,200 ft	x	0.4127 cf/ft	with	100 % excess	=	990.4 cf
300 ft	x	0.4127 cf/ft	with	100 % excess	=	247.9 cf
40 ft	x	0.3576 cf/ft	with	0 % excess	=	14.3 cf (inside pipe)
<b>TOTAL SLURRY VOLUME</b>					=	1252.6 cf
					=	223 bbls

**Operator Name:** Conoco  
**Well Name:** SEMU #147  
**Job Description:** 8 5/8" Surface  
**Date:** February 2, 2000



**Proposal No:** 180253056A

## FLUID SPECIFICATIONS

Pre-flush				1,500.0 gals Mud Clean I @ 8.4 ppg
<u>FLUID</u>	<u>VOLUME CU-FT</u>	<u>VOLUME FACTOR</u>	<u>AMOUNT AND TYPE OF CEMENT</u>	
Lead Slurry	990	/ 1.88	= 528 sacks (35:65) Poz (Fly Ash):Class C Cement + 2% bwoc Calcium Chloride + 0.25% bwoc Cello Flake + 0.005 gps FP-6L + 6% bwoc Bentonite + 96.5% Fresh Water	
Tail Slurry	262	/ 1.34	= 195 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.005 gps FP-6L + 56.3% Fresh Water	
Displacement				93.0 bbls Water + 56.3% Fresh Water @ 8.4 ppg

## **CEMENT PROPERTIES**

	<b>SLURRY NO. 1</b>	<b>SLURRY NO. 2</b>
Slurry Weight (ppg)	12.70	14.80
Slurry Yield (cf/sack)	1.88	1.34
Amount of Mix Water (gps)	10.07	6.35
Amount of Mix Fluid (gps)	10.08	6.35
Estimated Pumping Time - 70 BC (HH:MM)	5:00	2:20

**Operator Name:** Conoco  
**Well Name:** SEMU #147  
**Job Description:** 5-1/2" Long String  
**Date:** February 2, 2000



**Proposal No:** 180253056A

## JOB AT A GLANCE

Depth (TVD)	7,000 ft
Depth (MD)	7,000 ft
Hole Size	7.875 in
Casing Size/Weight :	5 1/2 in, 17 lbs/ft
Pump Via	Casing 5 1/2" O.D. (4.892" I.D) 17 #
Total Mix Water Required	9,047 gals
Pre-flush	
Mud Clean I	1,500 gals
Density	8.4 ppg
Lead Slurry	
LEAD SLURRY	733 sacks
Density	12.7 ppg
Yield	1.85 cf/sack
Tail Slurry	
TAIL SLURRY	275 sacks
Density	14.8 ppg
Yield	1.34 cf/sack
Displacement	
Water	162 bbls
Density	8.4 ppg

**Operator Name:** Conoco  
**Well Name:** SEMU #147  
**Job Description:** 5-1/2" Long String  
**Date:** February 2, 2000



**Proposal No:** 180253056A

## WELL DATA

### ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
8.097 CASING	1,500	1,500
7.875 HOLE	7,000	7,000

### SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
5.500	4.892	17	7,000	7,000

Float Collar set @ 6,960 ft  
 Mud Density 8.40 ppg  
 Est. Static Temp. 122 ° F  
 Est. Circ. Temp. 115 ° F

### VOLUME CALCULATIONS

1,500 ft	x	0.1926 cf/ft	with	0 % excess	=	288.9 cf
4,100 ft	x	0.1733 cf/ft	with	50 % excess	=	1065.5 cf
1,400 ft	x	0.1733 cf/ft	with	50 % excess	=	363.8 cf
40 ft	x	0.1305 cf/ft	with	0 % excess	=	5.2 cf (inside pipe)
<b>TOTAL SLURRY VOLUME</b>					=	1723.5 cf
					=	307 bbls

**Operator Name:** Conoco  
**Well Name:** SEMU #147  
**Job Description:** 5-1/2" Long String  
**Date:** February 2, 2000



**Proposal No:** 180253056A

## FLUID SPECIFICATIONS

Pre-flush				1,500.0 gals Mud Clean I @ 8.4 ppg
<u>FLUID</u>	<u>VOLUME CU-FT</u>	<u>VOLUME FACTOR</u>	<u>AMOUNT AND TYPE OF CEMENT</u>	
Lead Slurry	1354	/ 1.85	= 733 sacks (35:65) Poz (Fly Ash):Class C Cement + 0.25% bwoc Cello Flake + 0.005 gps FP-6L + 6% bwoc Bentonite + 95.7% Fresh Water	
Tail Slurry	369	/ 1.34	= 275 sacks Class C Cement + 1% bwoc BA-58 + 0.8% bwoc FL-50 + 0.4% bwoc CD-32 + 0.005 gps FP-6L + 0.2% bwoc Sodium Metasilicate + 55.8% Fresh Water	
Displacement				161.8 bbls Water + 55.8% Fresh Water @ 8.4 ppg

## **CEMENT PROPERTIES**

	<b>SLURRY NO. 1</b>	<b>SLURRY NO. 2</b>
Slurry Weight (ppg)	12.70	14.80
Slurry Yield (cf/sack)	1.85	1.34
Amount of Mix Water (gps)	9.98	6.29
Amount of Mix Fluid (gps)	9.99	6.30
Estimated Pumping Time - 70 BC (HH:MM)	2:49	1:49
Free Water (mls) @ ° F @ 90 ° angle	0.9	

## **RHEOLOGIES**

<u>FLUID</u>	<u>TEMP</u>	<u>600</u>	<u>300</u>	<u>200</u>	<u>100</u>	<u>6</u>	<u>3</u>
Lead Slurry	@ ° F	153	141	136	130	50	38
Tail Slurry	@ 80 ° F	150	102	85	68	43	35



**SURFACE USE PLAN**  
**Conoco Inc.**

**Semu No. 147**

The following is required information concerning the possible effect which the drilling of this well may have on the environment, existing road sites, and surrounding acreage. A copy will be posted on the derrick floor so all contractors and sub-contractors will be aware of all items of this plan.

1. Existing Roads

A. The proposed well site is 1980' FSL & 660' FEL, Sec. 26, T20S, R37E, Lea County, New Mexico.

B. Directions to the location are as follows:

See attached Well Pad Topo

C. No improvement or maintenance is anticipated for the existing roads.

2. Planned Access Roads

A. 1305' +/- of new access road will be required.

B. Turnouts as required by surface managing agency.

C. Culverts as required by surface managing agency.

D. Gates, cattleguards, or fences as required by surface managing agency.

3. Topographic Map and Well Location

A 7.5" quadrangle topo map was filed with the NOS.

4. Additional Rights-of-Way

Electric line, access road and flowline as shown on attached plats.

5. Water Supply

Fresh and brine water will be obtained from commercial sources and will be trucked to location by the same directions for reaching the drilling site.

6. Source of Construction Materials

Construction materials will be obtained from commercial sources.

7. Methods of Handling Waste Disposal

- A. The drill cuttings, fluids and completion fluids will be placed in the reserve pit. The reserve pit will be fenced on three sides away from the pad during drilling and the fourth side fenced as soon as the rig moves out. The reserve pit will be allowed to dry, and materials remaining in the reserve pit buried. The reserve pit will be backfilled, leveled and contoured so as to prevent any materials being carried into the watershed. Upon completion, the pad will be leveled, contoured, and reseeded with the appropriate seed mixture as specified by the surface managing agency.
- B. All garbage and trash will be hauled away to designated landfill by Conoco.
- C. Chemical toilets will be provided and maintained during drilling operations.

8. Ancillary Facilities

No ancillary facilities are planned.

9. Wellsite Layout

See attached Wellsite Layout. The V-door faces East. The reserve pit will be lined with plastic and the pad and pits are staked. All unguarded pits containing liquids will be fenced and any unguarded pit containing liquids will be fenced.

10. Plans for Restoration of Surface

Reserve pits will be rehabilitated once drilling fluids have been allowed to evaporate to the point the pits are dry enough for backfilling and leveling. In the event drilling fluids will not evaporate in a reasonable time period, the fluids will be removed and transported by tank truck to a state approved disposal facility. Backfilling and leveling of the location will be completed within a time period of one year upon cessation of drilling operations.

11. Surface Ownership

The well site surface ownership is Bureau of Land Management.

12. Archeological Clearance

An archeological survey is being conducted and will be provided upon completion.

13. Operator's Representative and Certification

The person who can be contacted concerning compliance of this Surface Use Plan is:

**Mike L. Mankin**  
**10 Desta Drive, Suite 649W**  
**Midland, Texas 79705**  
**(915) 686-5794**

*I hereby certify that I, or persons under my direct supervision, have inspected the proposed drilling site; 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 operations proposed herein will be performed by Conoco Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.*

Mike L. Mankin  
28

Mike L. Mankin  
Sr. Right-of-Way Agent

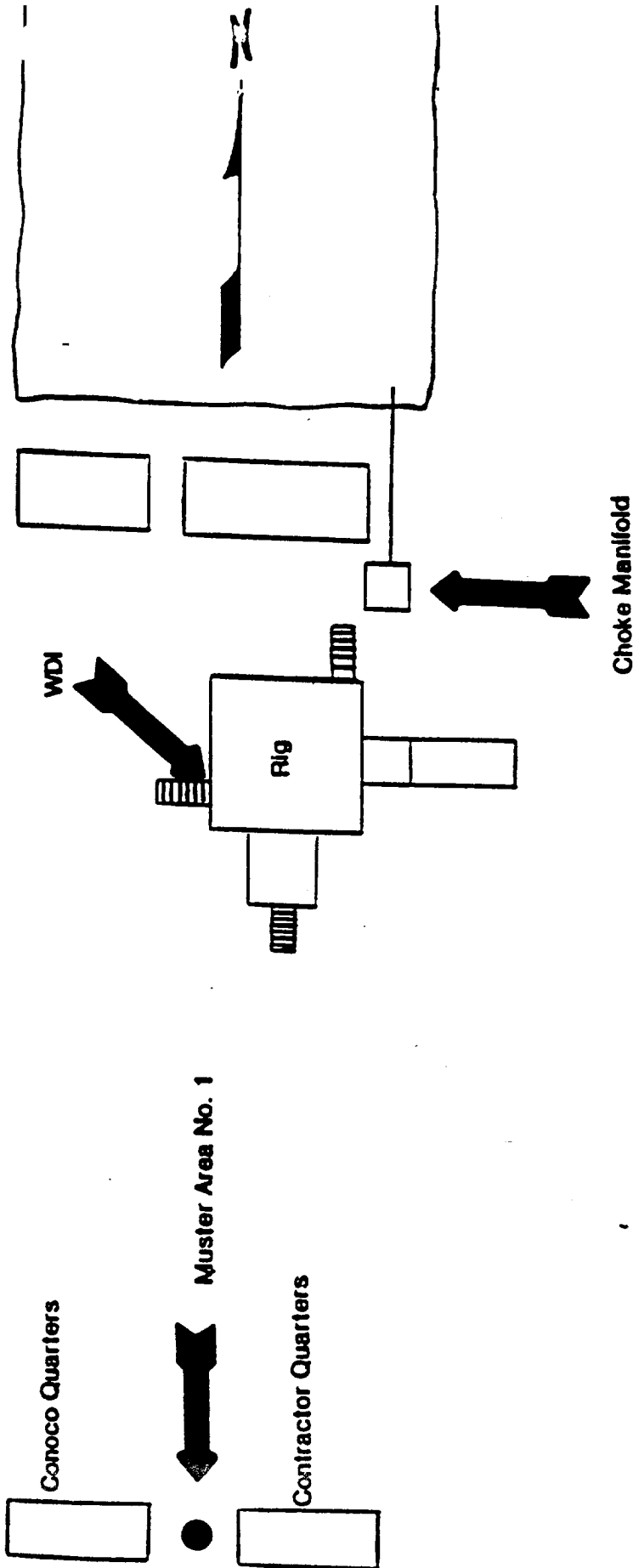
2-29-00

Date

WELLSITE LAYOUT



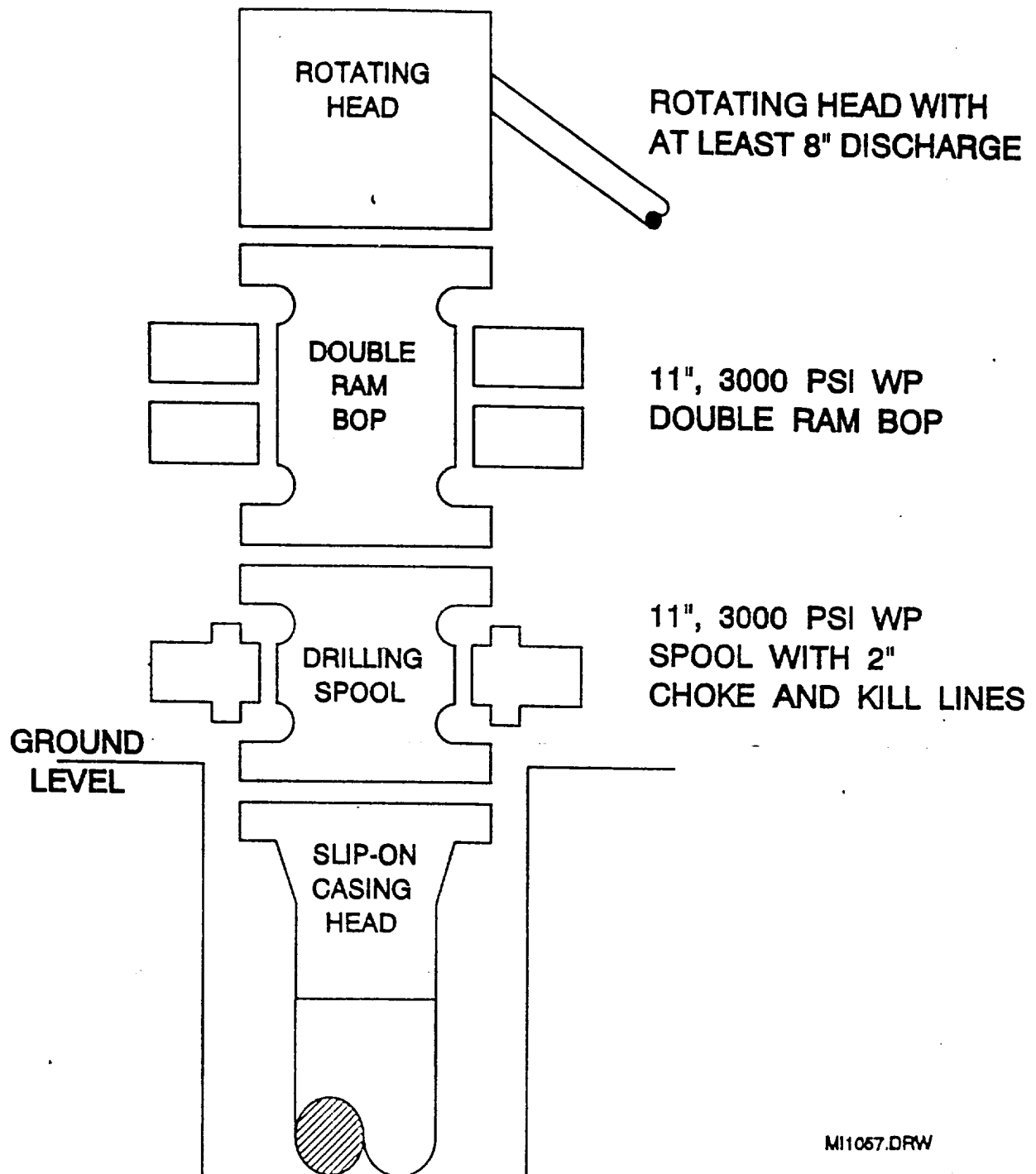
Terrain is flat, and covered with native grass.  
Two of the three WDI (wind direction indicator) locations will be utilized  
(Prevailing winds are SW to



Muster Area No. 2  
WDI



# BOP SPECIFICATIONS



M11057.DRW

# TRAILER - MOUNTED RIG LAYOUT

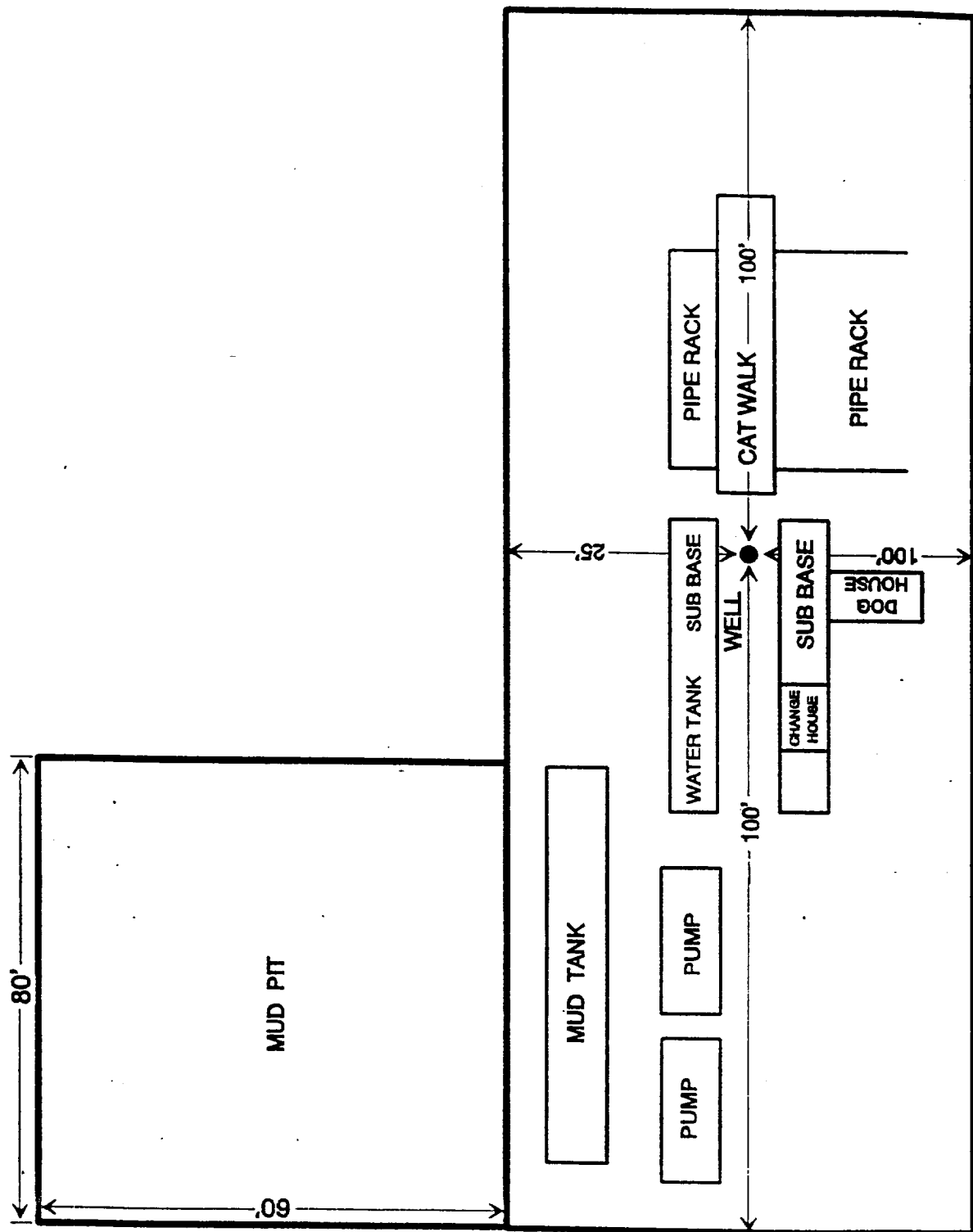
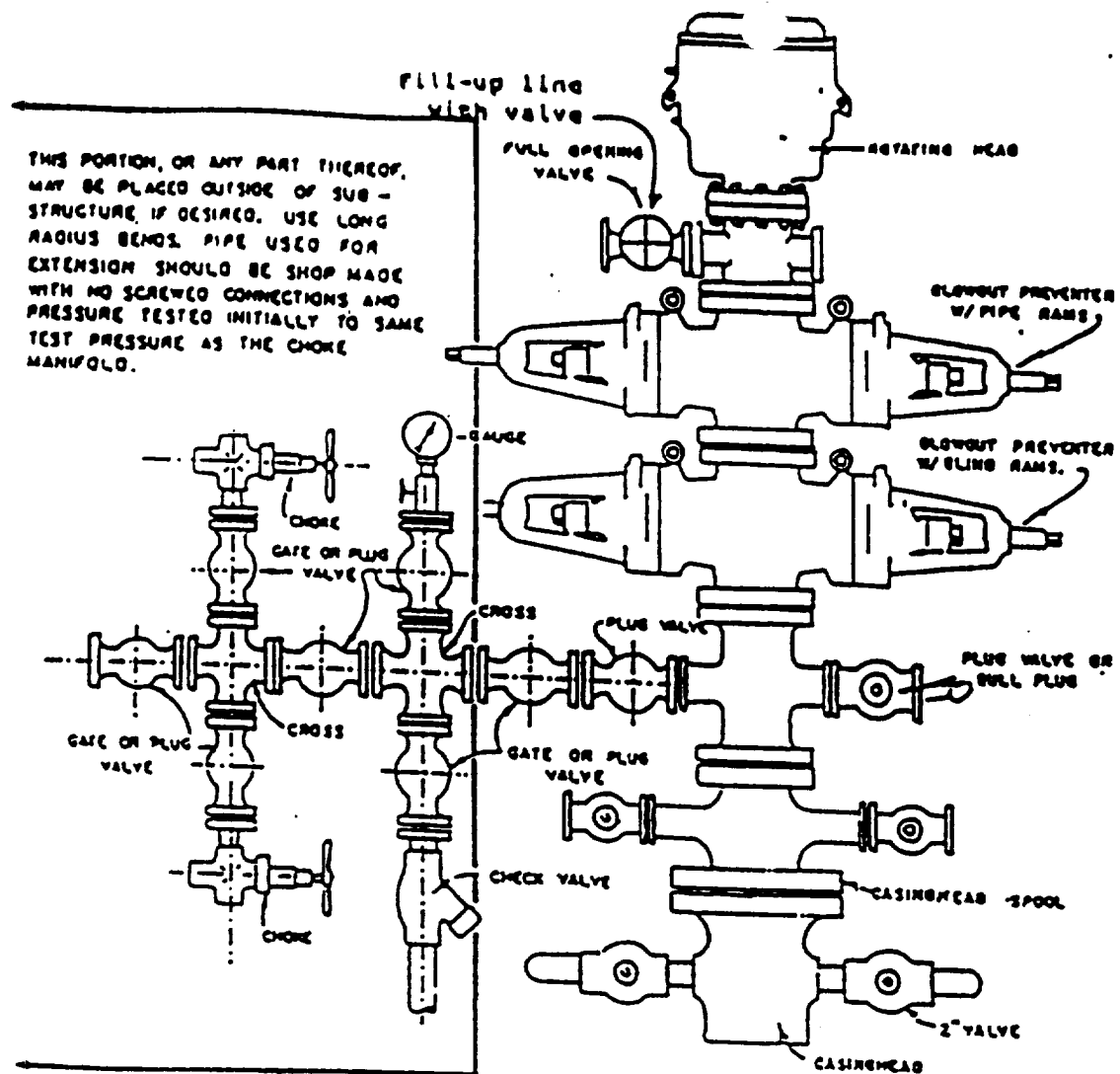


EXHIBIT D

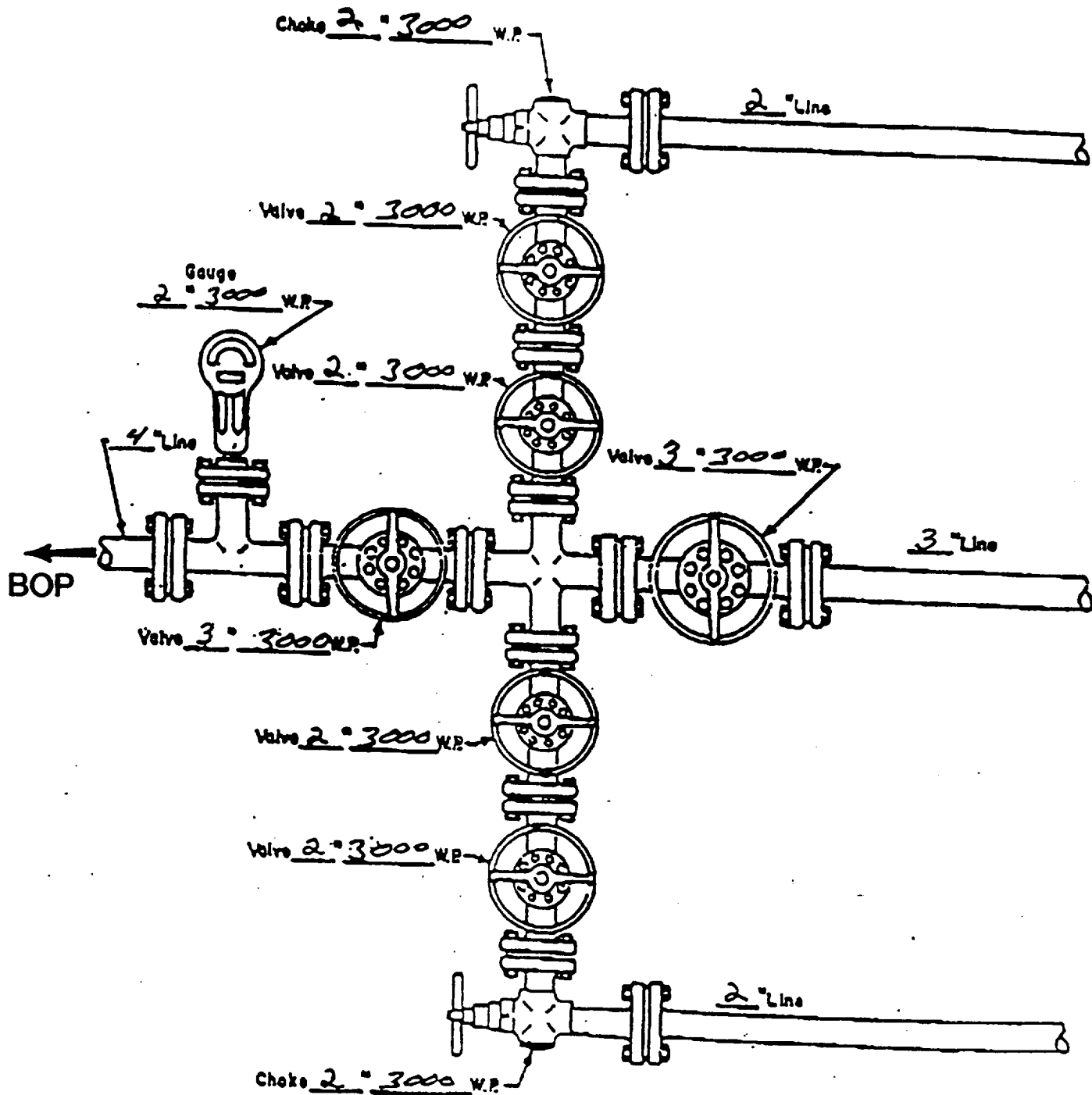


### BLOWOUT PREVENTER HOOKUP

Drilling contractors used in the San Juan Basing supply 3000 psi equipment, but cannot provide annular preventors because of sub-structure limitations. Maximum anticipated surface pressures for this well will not exceed the working pressure of the proposed BOP system. Please see the attached BOP diagram details 2000 psi equipment according to Onshore Order No. 2 even though the equipment will test to 3000 psi. The 2000 psi system allows the deletion of the annular preventor and fulfills your requirements (note diagram No. 1). In addition, the following equipment will comprise the 2000 psi system:

1. Two rams with one blind and one pipe ram.
2. Kill line (2 inch maximum).
3. One kill line valve.
4. One choke line valve.
5. Two chokes (reference diagram No. 1).
6. Upper kelly cock valve with handle.
7. Safety valve and subs to fit all drill strings in use.
8. Two-inch minimum choke line.
9. Pressure gauge on choke manifold.
10. Fill-up line above the upper most preventor.
11. Rotating head.

# CHOKE MANIFOLD DIAGRAM



MANIFOLD  
3000 # W.P.

- ☒ Manual
- ☐ Hydraulic



## H2S DRILLING OPERATIONS PLAN

Conoco, Inc. will comply with Onshore Order No. 2 for working in an H2S environment or a potential H2S environment.

### I. Hydrogen Sulfide Training

All contractors and subcontractors employed by Conoco will receive or have received training from a qualified instructor within the last twelve months in the following areas prior to commencing drilling operations on this well.

1. The hazards and characteristics of hydrogen sulfide (H2S)
2. Safety precautions.
3. Operations of safety equipment and life support systems.

In addition, contractor supervisory personnel will be trained or prepared in the following areas:

1. The effect of H2S on metal components in the system, especially where high tensile strength tubulars are to be used.
2. Corrective action and shutdown procedures when drilling or reworking a well, blowout prevention and well control procedures, if the nature of work performed involves these items.
3. The contents and requirements of the contingency plan when such plan is required.

All personnel will be required to carry documentation of the above training on their person.

### II. H2S EQUIPMENT AND SYSTEMS

#### 1. Safety Equipment

The following minimum safety equipment will be on location:

- A. Wind direction indicators placed near rig floor/mud return lines and at points along the perimeter of the location to allow visibility of at least one indicator from any point on location.
- B. Automatic H2S detection alarm equipment (both audio and visual).
- C. Clearly visible warning signs. Signs will use the words "POISON GAS" and "CAUTION" with a strong color contrast.
- D. Protective breathing equipment will be located in the doghouse and at briefing areas on location.

#### 2. Well Control Systems

##### A. Blowout Prevention Equipment

Equipment includes but is not limited to:

1. Pipe rams to accommodate all pipe sizes
2. Blind rams
3. Choke manifold
4. Closing Unit
5. Flare line and means of ignition

#### **B. Communication**

The rig contractor will be required to have two-way communication capability. Conoco will have either land-line, satellite phone, microwave phone, or mobile (cellular) telephone capabilities.

#### **C. Mud Program**

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. Proper mud weight, safe drilling practices, and the use of H<sub>2</sub>S scavengers when appropriate will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

#### **D. Drill Stem Tests**

Any planned drill stem test will be cancelled if H<sub>2</sub>S is detected prior to such test. In the event that H<sub>2</sub>S is detected during testing, the test will be terminated immediately.



Mike L. Mankin  
Sr. Right of Way Agent  
Right of Way and Claims

Conoco Inc.  
10 Desta Drive, Suite 649W  
Midland, Texas 79705-4500  
(915) 686-5794

February 21, 2000

Bureau of Land Management  
620 E. Greene  
Carlsbad, New Mexico 88220

Attn: Mr. Barry Hunt

Re: **Settlement Letter for Appurtenances**  
**SEMU #147**  
**Section 26, T20S, R37E**  
**Lea County, New Mexico**

Dear Mr. Hunt,

Conoco Inc. has made settlement with the surface owner for the construction of the above referenced location and appurtenances.

If you have any questions or concerns, please contact me at 915-686-5794.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike L. Mankin", written over a horizontal line.

Mike L. Mankin

Cc: File

ABOVE DATE DOES NOT  
INDICATE WHEN  
CONFIDENTIAL LOGS  
WILL BE RELEASED

2/5/82  
ELF