Form 3160-3
(December 1990)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

NM OIL CONS. COMMISSION
DRAWER DD
ARTESIA, NM 88210

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-18038

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N\A

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

7. UNIT AGREEMENT NAME: N\A

b. TYPE OF WELL: OIL WELL [xxxx] GAS WELL [ ] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

8. FARM OR LEASE NAME, WELL NO.: LENTINI FEDERAL #4

2. NAME OF OPERATOR: CHEVRON U.S.A. INC.

9. API WELL NO.: 30-015-27594

3. ADDRESS AND TELEPHONE NO.: P.O. BOX 1150, MIDALND, TX 79702 ATTN: RORY MATTHEWS (915) 687-7812

10. FIELD AND POOL, OR WILDCAT: HERRADURA BEND EAST

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 330' FNL & 2310' FEL
At proposed prod. zone:

RECEIVED
JUL 27 1993
O. C. D.

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC. 1, T23S, R28E B

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 8 MILES NORTHEAST OF LOVING

12. COUNTY OR PARRISH: EDDY

13. STATE: NEW MEXICO

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 330'

16. NO. OF ACRES IN LEASE: 800

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: N\A

19. PROPOSED DEPTH: 7,000'

20. ROTARY OR CABLE TOOLS: ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): GLE: 3110.5'

22. APPROX. DATE WORK WILL START*: 08/18/93

23. Secretary's Potash

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 #	450'	CIRCULATED
7 7/8"	K-55, 5 1/2"	15.5 #	7000'	CIRCULATED

MUD PROGRAM: 0'-450' FRESH WATER SPUD MUD.
450'-7000' BRINE WATER STARCH 10#.

BOPE EQUIPMENT: 2000 PSI WORKING PRESSURE, SEE ATTACHED CHEVRON CLASS II BOP DRAWING.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new production 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 Rory Matthews TITLE TECHNICAL ASSISTANT DATE 4/5/93

(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/ Kathy Eaton TITLE Acting State Director DATE 7-16-93

*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.

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

State of New Mexic
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
CHEVRON USA INC.	LENTINI 1 FEDERAL	4

Unit Letter	Section	Township	Range	County
B	1	23 SOUTH	28 EAST NMPM	EDDY

Actual Footage Location of Well:
330 feet from the NORTH line and 2310 feet from the EAST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3110.5'	DELAWARE	HERRADURA BEND EAST	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

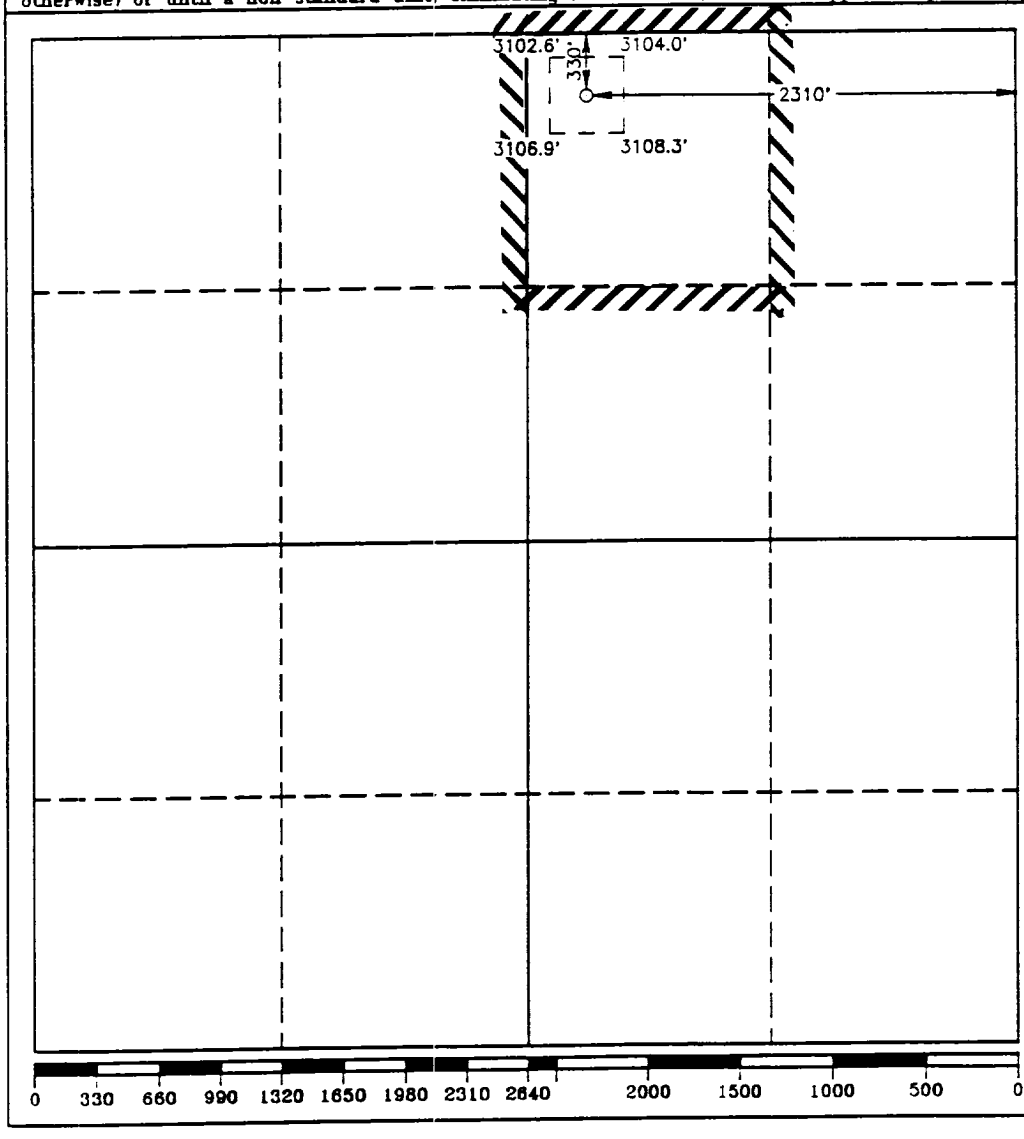
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation _____

If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary. _____

No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature: P.R. Matthews
Printed Name: P.R. MATTHEWS
Position: TECHNICAL ASSISTANT
Company: CHEVRON U.S.A. INC.
Date: 4-7-93

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 supervison, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: MARCH 26, 1993
Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239
GARY L. JONES 7977

93-11-0530

April 12, 1993

Application for Permit to Drill
Proposed Lentini Federal 1
Well # 4
Eddy County, New Mexico

Bureau of Land Management
P. O. Box 1778
Carlsbad, NM 88220

Gentlemen:

We are submitting the information requested in NTL-6 which should accompany application for permit to drill.

Well: Lentini Federal 1Well # 4

1. **Location:** 330' FNL & 2310' FEL Section 1, T-23-S, R-28-E
Eddy County, New Mexico

2. **Elevation of unprepared ground:** 3110.5'

3. **Geologic Name of Surface Formation:** Quaternary-Alluvium

4. **Type Drilling Tools:** Rotary

5. **Proposed Drilling Depth:** 7,000'

6. **Estimated Top of Geologic Markers:**

Top of Salt	320'	
Base of Salt	2,520'	
Delaware	2,740'	Delaware Pay 5,900'
Bone Springs	6,280'	

7. **Estimated Depths at which target Formations Expected:**

Delaware	5,900'

8. **Casing Program and Setting Depths:**

	Size	Weight	Grade	Setting Depth
Surface	8 5/8"	23#	M-50	450'
Production	5½"	15.50#	K-55	7,000'

9. **Casing Setting Depths and Cementing Program:**

A. Surface casing will be cemented to surface using Class "C" cement. Exact volumes and additives will be based on severity of lost returns historically experienced in this area. Top jobs will be performed as necessary to bring cement to surface.

B. Production casing will be cemented to surface with Class "C" cement. If cement is not circulated a temperature survey will be run to determine cement top.

10. **Prior to drilling below surface and intermediate casing, a BOP hook-up for 2,000 psi will be installed.**

11. **Circulating Media:**

0 - 450'	FW Spud Mud
450'- 7,000'	10ppg BW

12. **Testing, Logging, and Coring Program**

A. Open hole logs will be run at total depth.
B. No coring is planned.

13. **Abnormal Pressure or Temperature and Hydrogen Sulfide Gas:**

A. No abnormal pressure or temperature is anticipated; however, BOP's, as specified in item 10 above will be installed.

14. **Anticipated Starting Date:**

Drilling operations should begin approximately June 17, 1993.

Chevron U.S.A. Production Company
P.O. Box 1150, Midland, TX 79702

April 12, 1993

Bureau of Land Management
P. O. Box 1778
Carlsbad, NM 88220

Gentlemen:

The following is Chevron U.S.A. Inc.'s plan for surface use restoration associated with the drilling of our Lentini Federal 1 Well # 4, to be located 300' FNL & 2310' FEL line of Section 1, T-23-S, R-28-E, Eddy County, New Mexico.

After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in as aesthetically pleasing condition as possible. Any unguarded pits containing fluids will be fenced until they are filled.

After abandonment of the well, surface restoration will be in accordance with the agreement with the surface owner. Pits will be filled and the location will be cleaned. The pit area, well pad, and all unneeded access road will be ripped to promote revegetation. Rehabilitation should be accomplished within ninety (90) days after abandonment.

Yours very truly,

P.R. Matthews

P.R. Matthews
Drilling Technical Assistant

PRM/prm

-520.1/pdmApril 12, 1993

MULTI-POINT SURFACE USE LENTINI FEDERAL 1-4

1. **Existing Road**

To reach proposed location start at Loving & go East on highway 31 approximately 7 miles turn north on county road 605 go 1.5 miles turn north on lease road go 1/4 mile to new location.

Exhibit A

2. **Planned Access Roads**

See attached Sundry notice.

3. **Location of Existing Wells**

Exhibit B shows existing wells within a one mile radius of proposed well.

4. **Location of Production Facilities**

Surface Facility for all wells have been filed on seperate Sundry notice dated 4-16-93.

To protect livestock and wildlife, the reserve pit will be fenced.

Upon completion of drilling, the location and surrounding area will be cleared of all debris. All trash will be disposed of in the trash bin.

5. **Water Supply**

Water for drilling and completion operations will be purchased from a supplier and transported to the well site by truck.

6. **Source of Construction Materials**

All caliche required for construction the drill pad and the proposed new access road will be obtained from a BLM - approved caliche pit. All roads and pads will be constructed of 6" of rolled and compacted caliche.

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 as soon as the rig moves out. The reserve pit will be allowed to dry. Reserve pit contents will be pushed into adjacent caliche pit and covered with location top soil.

Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.

B. All garbage and trash will be placed in a trash container to be hauled off location.

C. Chemical toilets will be provided and maintained during drilling operations. See Exhibit C for location.

8. **Ancillary Facilities**

No ancillary facilities are planned.

9. **Well Site Layout**

Location of drilling equipment, rig orientation, and access road is shown on Exhibit C.

The reserve pit will be lined with plastic to prevent liquids from soaking into the surrounding soil.

10. **Plans for Restoration of Surface**

When well is abandoned, the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with the appropriate seed mixture.

If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted the color designated by the Bureau of Land Management.

11. **Surface Ownership**

Surface ownership is Federal Lands.

12. **Other Information**

Refer to the attached archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical, and cultural sites.

13. **Lessee's or Operators Representative**

P.R. Matthews
P. O. Box 1150
Midland, TX 79702

14. **Certification**

I hereby certify that I, or a Chevron representative, have inspected the proposed drillsite and access route; 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 Chevron U.S.A. Inc., and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

P.R. Matthews

P.R. Matthews
Drilling Technical Assistant

PRM/prm

Attachments

H_2S DRILLING OPERATIONS PLAN

I. HYDROGEN SULFIDE TRAINING

All contractors and subcontractors employed by Chevron U.S.A. Inc. 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 (H_2S)
2. Safety precautions
3. Operations of safety equipment and life support systems

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

1. The effect of H_2S on metal components in the system. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-down 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. H_2S EQUIPMENT AND SYSTEMS

1. Safety Equipment

The following safety equipment will be on location.

A. Wind direction indicators as seen in attached diagram.
B. Automatic H_2S detection alarm equipment (both audio and visual).
C. Clearly visible warning signs as seen on the attached diagram. Signs will use the words "POISON GAS" and "CAUTION" with a strong color contrast.
D. Protective breathing equipment will be located in the dog house and at briefing areas as seen in the attached diagram.

2. Well Control Systems

A. Blowout Prevention Equipment

Equipment includes but is not limited to:

a. pipe rams to accommodate all pipe sizes
b. blind rams
c. choke manifold
d. closing unit

Auxiliary equipment added as appropriate includes:

a.	annular preventor	✓
b.	rotating head	N/A
c.	mud-gas separator	N/A
d.	flare line and means of ignition	N/A
e.	remote operated choke	N/A

B. Communication

The rig contractor will be required to have two-way communication capability. Chevron U.S.A. Inc. will have either land-line or mobile telephone capabilities.

C. Mud Program

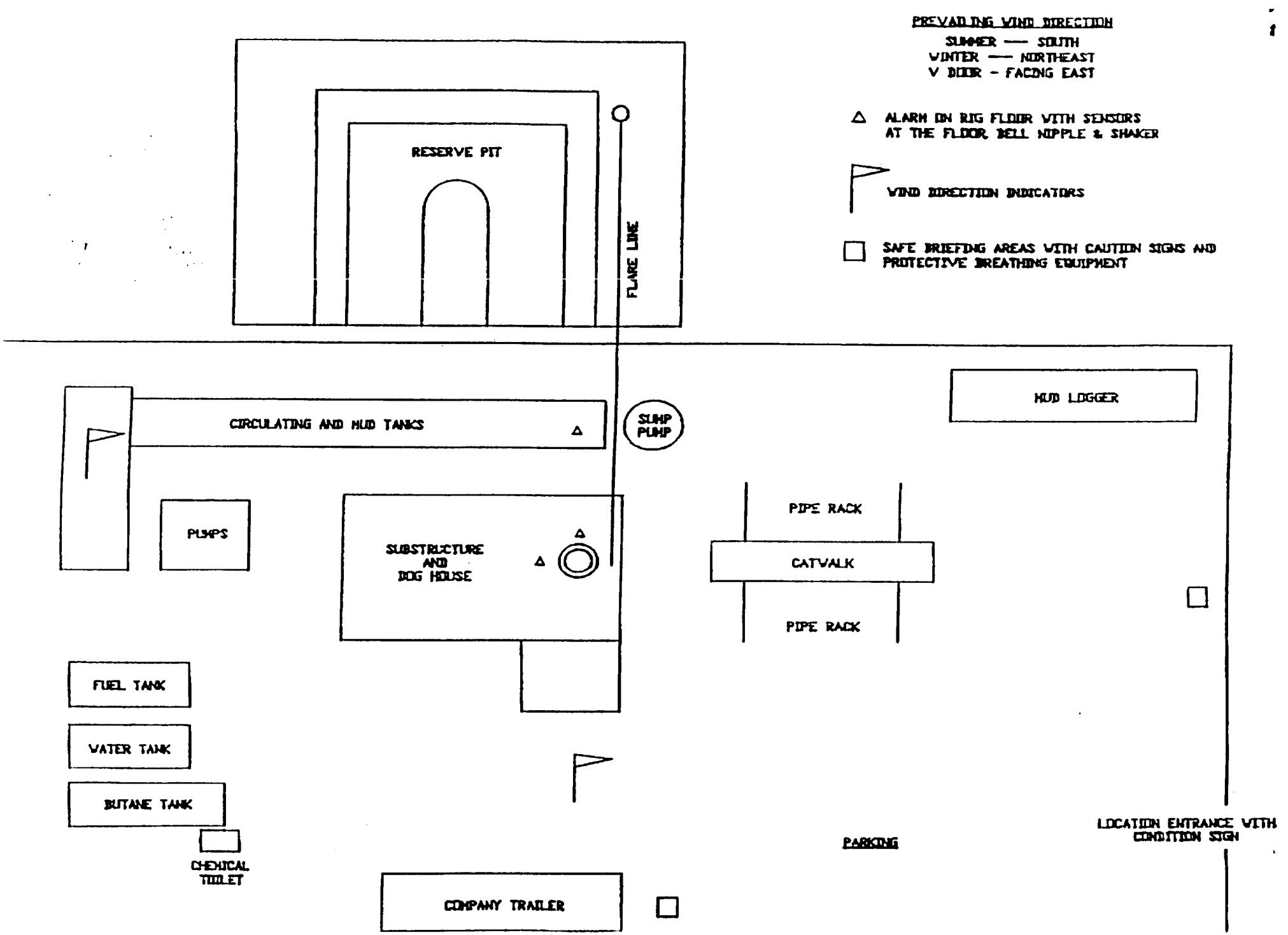
The mud program has been designed to minimize the volume of H_2S circulated to surface. Proper mud weight, safe drilling practices, and the use of H_2S scavengers when appropriate will minimize hazards when penetrating H_2S bearing zones.

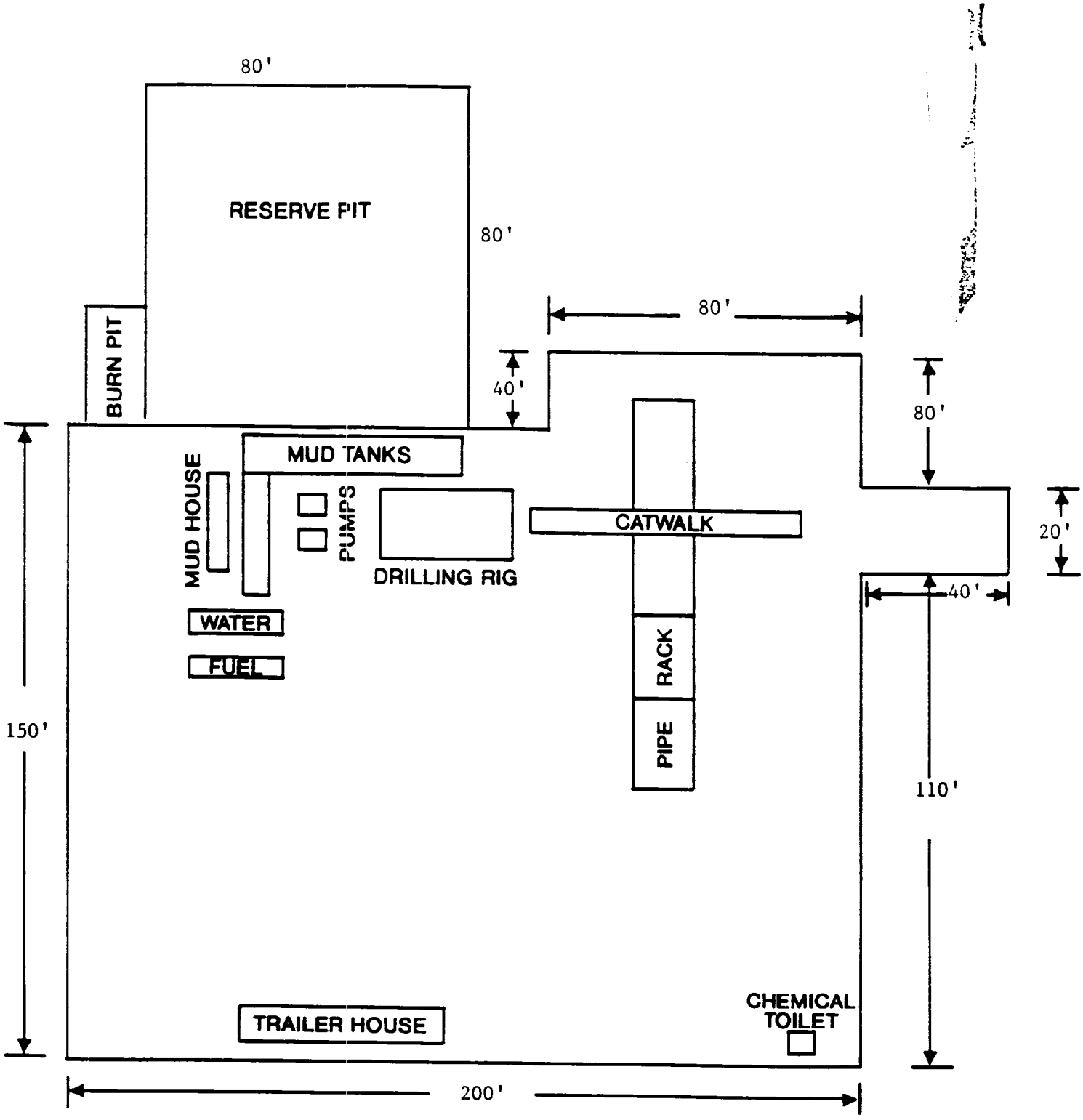
D. No Drill Stem Tests are planned.

III. WELL SITE DIAGRAM

A complete well site diagram including the following information is attached.

1. Rig orientation
2. Briefing areas
3. Ingress and egress
4. Pits and flare lines
5. Caution and danger signs
6. Wind indicators and prevailing wind direction


PREVAILING WIND DIRECTION
SUMMER — SOUTH
WINTER — NORTHEAST
V DOOR - FACING EAST
ALARM ON RIG FLOOR WITH SENSORS AT THE FLOOR, BELL NIPPLE & SHAKER
WIND DIRECTION INDICATORS
SAFE BRIEFING AREAS WITH CAUTION SIGNS AND PROTECTIVE BREATHING EQUIPMENT
RESERVE PIT
FLARE LINE
CIRCULATING AND MUD TANKS
SUMP PUMP
MUD LOGGER
PUMPS
SUBSTRUCTURE AND DOG HOUSE
PIPE RACK
CATWALK
PIPE RACK
FUEL TANK
WATER TANK
BUTANE TANK
CHEMICAL TOILET
COMPANY TRAILER
PARKING
LOCATION ENTRANCE WITH CONDITION SIGN



Chevron

CHEVRON USA INC.

EXHIBIT "C"

Well Name & Number: LENTINI FEDERAL 1-4

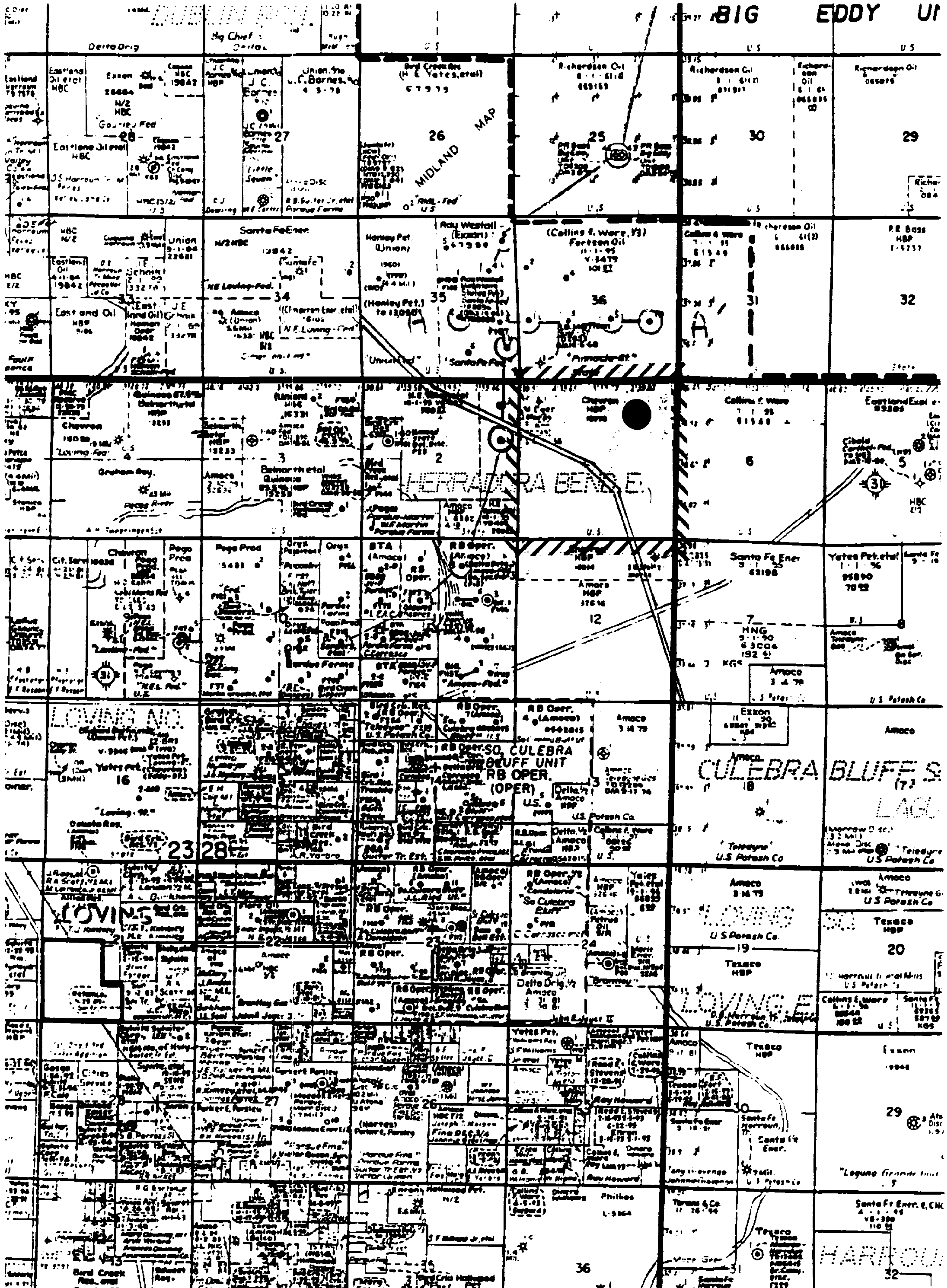
Location: 330 'F N L & 2310 'F E L

Section: 1 **Unit:** B

Township: 23S **Range:** 28E

EDDY **County, New Mexico**

PREPARED BY: P.R. MATTHEWS


BIG EDDY
MIDLAND MAP
HERRADURA BEND E.
SO. CULEBRA BLUFF UNIT
RB OPER.
(OPER)
CULEBRA BLUFF
LOVING
LOVING E
Richardson Oil
Santa Fe Ener
Collins & Ware
Chevron
Amoco
Texaco
Exxon
U.S. Potash Co.
Yates Pet. etal
Eastland Oil etal
Page Prod
"Loving - Fed"
"Laguna Grande Unit"

C. CLASS II CHOKE MANIFOLD

The Class II choke manifold is suitable for all Class II workovers and drilling operations. The Class II choke manifold is shown below in Figure 11J.7. Specific design features of the Class II choke manifold include:

1. The manifold is attached to the tubing/casing head when a Class II-A preventer stack is use. This hook-up is only recommended for Class II workover operations.

2. The manifold is attached to a drilling spool or top ram preventer side outlets when a Class II-B preventer stack is in use.

3. The minimun internal diameter is 2" (nominal) for outlets, flanges, valves and lines.

4. Includes two steel gate valves in the choke line at the wellhead/drilling spool outlet. The inside choke line valve may be remotely controlled (HCR).

5. Includes one manually adjustable choke which is installed on the side of the manifold cross. Steel isolation gate valves are installed between the choke and the cross, and downstream of the choke.

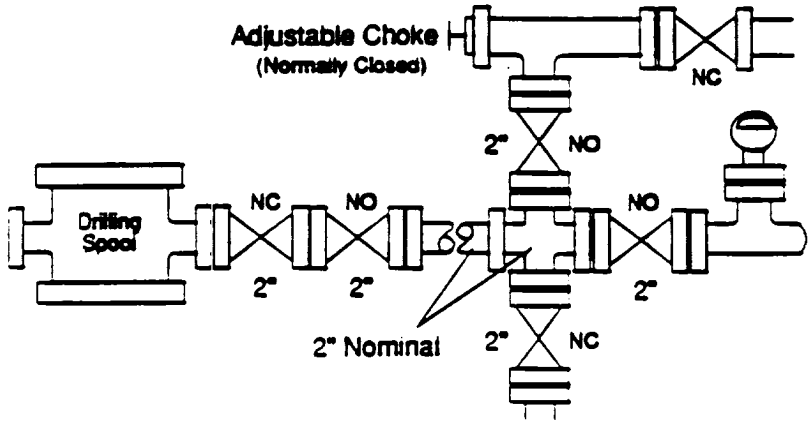
6. Includes one bleed line installed on the side of the manifold cross which is isolated by a steel gate valve.

7. Includes a pressure gauge suitable for drilling service which can display the casing pressure within view of the choke operator.

8. Screwed connections may be used in lieu of flanges or clamps.

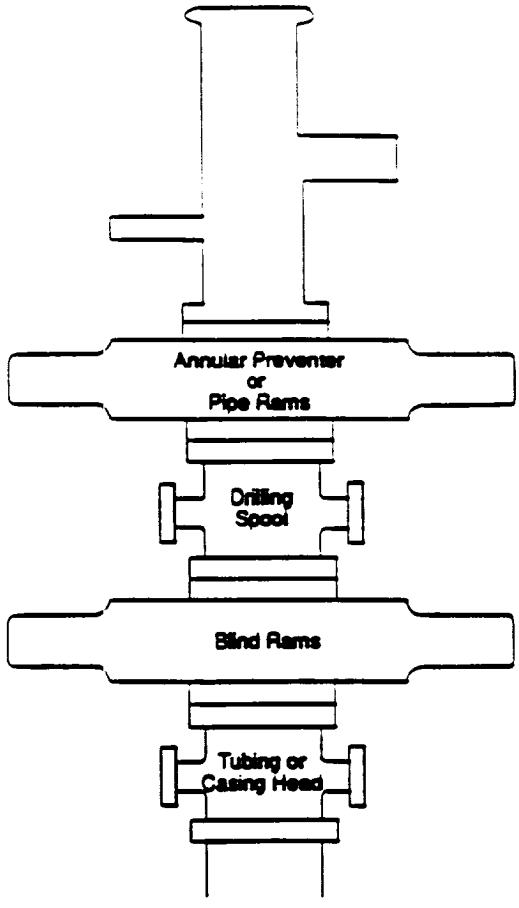
Figure 11J.7 - Class II Manifold

NC = Normally Closed
NO = Normally Open



D. CLASS II-B BLOWOUT PREVENTER STACK:

Figure 11J.3
Class II-B Blowout Preventer Stack



The Class II-B preventer stack is designed for drilling or workover operations. It is composed of a single hydraulically operated annular preventer on top, then a drilling spool, and a single blind ram preventer on bottom. In an alternate configuration, a single pipe ram preventer may be substituted for the annular preventer. The choke and kill lines are installed onto the drilling spool and must have a minimum internal diameter of 2". An emergency kill line may be installed on the wellhead. As the maximum anticipated surface pressure of this stack is less than 2000 psi, screwed connections may be used. All components must be of steel construction. The Class II-B blowout preventer stack is shown to the left in Figure 11J.3.