30-015-26872

Form 3160-3
(November 1983)
(formerly 9-331C)

SUBMIT IN T. ICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM-029388 - D

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

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

RECEIVED
NOV - 6 1991
O. C. D.
ARTESIA, OFFICE

7. UNIT AGREEMENT NAME: Voluntary

8. FARM OR LEASE NAME: Johnson "B" Federal A/C #1

2. NAME OF OPERATOR: Marathon Oil Company

9. WELL NO.: 11

3. ADDRESS OF OPERATOR: P. O. Box 552, Midland, TX 79702

10. FIELD AND POOL, OR WILDCAT: ~~N.~~ Shugart - Yates, 7-Rivers Queen, Grayburg

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2310' FSL & ~~1650' FWL~~ 2060/W
At proposed prod. zone: 2310' FSL & ~~1650' FWL~~ 2060/W
Wt. K

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 11, T-18-S, R-31-E

12. COUNTY OR PARISH: EDDY — 13. STATE: NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10 miles S.E. of Loco Hills, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	660'	16. NO. OF ACRES IN LEASE: 280	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.	* 709'	19. PROPOSED DEPTH: 4600'	20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): ~~3734' GL~~ 3738

22. APPROX. DATE WORK WILL START*: October 15, 1991

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	14"	54	40'	Circulate w/ redi-mix
12-1/4"	8-5/8"	24	750'	410 sx - circulate
7-7/8"	5-1/2"	15.5	4600'	715 sx - SEE STIPS.

Propose to drill to a TD of 4600'.
All casing will be run and cemented in accordance with regulations and by approved methods.
Blowout prevention equipment will be applied as outlined in Additional Information.
See attached Multipoint Surface Use Plan and Additional Information for specific drilling operations.
This well is a proposed Yates, 7-Rivers, Queen, Grayburg producer.
* Distance to proposed Johnson "B" Federal A/C 1 #12.

Post ID-1
11-8-91
New Loc + API

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 [signature] TITLE Drilling Superintendent DATE 9/9/91

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE 11-5-91

CONDITIONS OF APPROVAL, IF ANY:

***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

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

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

State of New Mexico
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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
MARATHON OIL CO.	JOHNSON B FED.	11

Unit Letter	Section	Township	Range	County
K	11	18 SOUTH	31 EAST NMPM	EDDY

Actual Footage Location of Well:
2310 feet from the SOUTH line and 2060 feet from the WEST line

Ground level Elev.	Producing Formation	Pool	Dedicated Acreage:
3738.0	7-Rivers, Queen, Grayburg	North Shugart	40 Acres

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

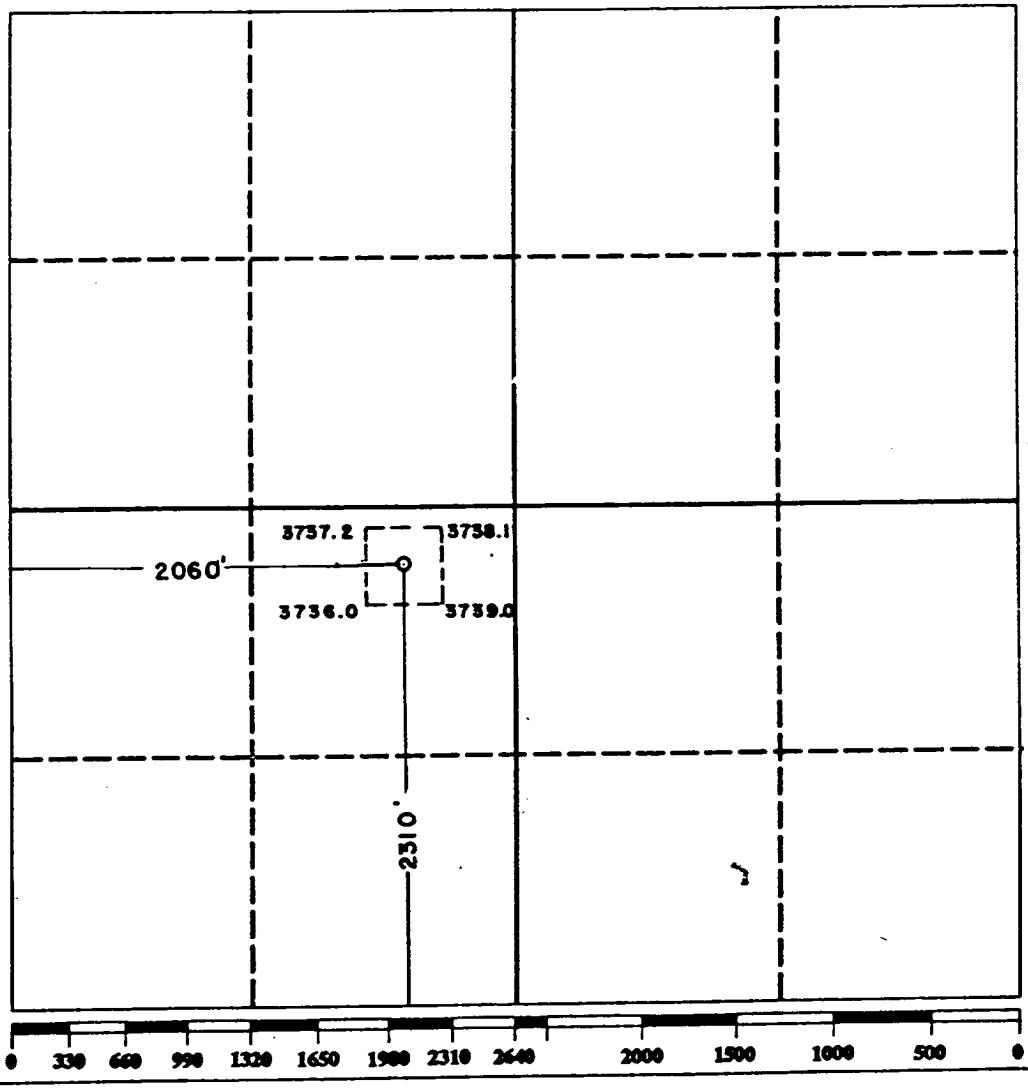
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if neccessary. _____

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



OPERATOR CERTIFICATION

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

Signature

Printed Name
S. L. Atnipp

Position
Drilling Superintendent

Company
Marathon Oil Company

Date
11-1-91

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
10-16-91

Signature & Seal of Professional Surveyor

REGISTERED LAND SURVEYOR
JOHN W. WEST
RONALD J. EIDSON
NEW MEXICO
RONALD J. EIDSON

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239

128030

MULTIPOINT SURFACE USE AND OPERATIONS PLAN

Marathon Oil Company

JOHNSON "B" FEDERAL A/C 1 #11
2310' FSL & 1650' FWL
Section 11, T-18-S, R-31-E
Eddy County, New Mexico
Lease: NM-029388

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedure to be followed in rehabilitating the surface after the completion of all operations so that a complete appraisal can be made of the environmental effects associated with the proposed operations.

1. Existing Roads

Exhibit "A" is a portion of a topographic map showing the location of the proposed well as staked. At the intersection of NM 82 and Eddy County 222, go south 4 miles, southeast on the Westall Road 1.4 miles, 1.6 miles northeast. Turn right and go .3 mi., then north into location. All existing roads used to access the proposed location shall be maintained in the same or better condition than presently found.

2. Planned Access Roads

A. Length and Width

The proposed access road will be approximately 200 feet in length and 16 feet in width. The proposed access road will enter the location from the southeast from the existing Johnson "B" Federal #4 pad.

B. Surfacing Material

6" caliche rolled and packed.

C. Maximum Grade

Three Percent (3%)

D. Turnouts

None Required

E. Drainage Design

Natural drainage.

F. Culverts

Not required.

G. Cuts and Fills

None required.

H. Gates, Cattlegaurds and Fences

Not required.

3. Location of Existing Wells

Exhibit "B" is a map showing the location of all the wells within a one mile radius of the proposed well.

4. Location of Existing and Proposed Facilities

A. Exhibit "C" is a map of the existing roads with the proposed well location.

B. In the event of a producible oil well, oil will be stored at the battery location on the Johnson "B" Federal A/C 1 #11 pad with production metered at the location. The gas will be piped to existing flow lines in a manner to be determined at a later date.

5. Location and Type of Water Supply

Water will be furnished and trucked by a Contractor.

6. Source of Construction Materials

Caliche for surfacing the drilling pad will be obtained from a pit in the NW/4 of the NW/4 section of Section 15, T-18-S, R-31-E.

7. Methods of Handling Waste Disposal

A. Drill cuttings will be disposed of in the drilling pits.

B. Drilling fluids will be vacuumed from the reserve pit and hauled to an approved disposal well. Reserve pit contents will be allowed to dry and pitwalls backfilled. All areas of the pad and reserve pit not necessary to production will be re-contoured. Top soil will be redistributed and reseeded with the recommended seed mixture.

C. Water produced during tests will be disposed of in the drilling pits and hauled to an approved salt water disposal well.

D. Current laws and regulations pertaining to the disposal of human waste will be complied with.

E. Trash, waste paper, garbage, and junk will be stored in a trailer on location and hauled to an approved disposal site.

F. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and completion operations.

8. Ancillary Facilities

None required.

9. Wellsite Layout

Exhibit "D" shows the relative location of the rig components and reserve pits.

10. Plans for Restoration of Surface

A. After finishing drilling and completion operations all equipment and other materials not necessary for operations will be removed. Pits will be filled and leveled and the location cleaned of all trash and junk to leave the wellsite in an aesthetically pleasing condition as is possible.

B. Any unguarded pits containing fluids or trash will be fenced until they are filled or leveled.

C. After abandonment of well, equipment will be removed, the location will be cleaned, and the pad and access road will be ripped and returned to as near the original appearance as is possible.

D. In the event of a producer, the land not necessary for production operations will be re-contoured and seeded with the recommended mixture submitted by the BLM.

11. Other Information:

A. Topography

The location is situated on a duned landform.

B. Soil

Typic Torripsamment subgroup.

C. Flora and Fauna

The vegetation cover consists of native range grasses with yucca plants, cactus and mesquite. Wild life in the area includes rabbits, dove, quail, and other inhabitants typical of semi-arid climate.

D. Ponds and Streams

Local drainage in this area is internal.

E. Residence and Structures

None nearby.

F. Archaeological, Historical and Cultural Sites

None observed in the area. The Archaeological Inspection Report is being forwarded by Archaeological Consultants, Inc.

G. Land Use

Grazing with hunting in season.

H. Surface Ownership

The proposed wellsite is on land owned by the Federal Government.

12. Operators Representative

Stanley L. Atnipp
P. O. Box 552
Midland, TX 79702
(915) 682-1626

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist, that the statements made in this place are, to the best of my knowledge true and correct; and, that the work associated with the operations proposed herein will be performed by Marathon Oil Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

S. L. Atnipp
Drilling Superintendent

9/9/91
Date

MARATHON OIL COMPANY

JOHNSON "B" FEDERAL A/C 1 #11
ADDITIONAL INFORMATION
Comply with Order 1

In conjunction with Form 9-331C, Application to drill subject well, Marathon Oil Company submits the following items of information in accordance with BLM requirements:

1. Geological Name of Surface Formation

   Quaternary Alluvium

2. Estimated Tops of Important Geological Markers

Rustler	400'	Delaware Sand	4616'
Base of Salt	1850'		
7-Rivers Dolomite	3160'		
Queen Sand & Dolomite	3360'		
Grayburg Dolomite	3875'		
San Andres Dolomite	4320'		

3. Estimated Depths of Anticipated Water, Oil or Gas Bearing Formations

7-Rivers (water & oil)	3160'
Queen (water & oil)	3360'
Grayburg (water & oil)	3875'
San Andres (water & oil)	4320'
Delaware (water & oil)	4616'

4. Casing and Cementing Program

14" Conductor to 40':	Cement to surface with redi-mix
8-5/8" Surface to 750':	Cement to surface with 200 sxs Modified Lite followed by 210 sxs Class "C" with 2% $CaCl_2$
5-1/2" Production to 4,600':	Cement to surface with 385 sx Class "C" lite PozMix; tail in with 330 sx Class "C" w/ 3% KCl.

5. Pressure Control Equipment (Exhibit E)

14" Conductor	Diverter or rotating head - function test
8-5/8" Surface:	11" 3000 psi working pressure annular preventer tested to 2000 psi
	11" 3000 psi working pressure pipe and blind rams tested to 3000 psi

6. Proposed Mud Program

0 - 750'	Native; Mud Wt:	8.7 - 9.2, Viscosity 35-45 Sec
750' - 3,800'	Brine Water; Mud Wt:	10.0 - 10.2, Viscosity 26-28 Sec
3,800' - 4,600'	Brine Water; Mud Wt:	10.0 - 10.4, Viscosity 33-36 Sec

7. Auxiliary Equipment

A safety valve and subs to fit all strings will be kept on the floor at all times. An upper kelly cock valve will be utilized with the handle available on the rig floor.
Surface Hole: Stroke Counter
Intermediate Hole: PVT, Gas Separator, H2S Monitor

8. Testing, Logging, and Coring Programs

A. Coring Program:

None anticipated.

B. Testing Program:

None anticipated.

C. Logging Program:

TD-Surface - GR/LDT/CNL, Sonic/DLL/RXO

D. Mud Logging Services:

Two-man unit w/ full service to begin @ 3700'.

9. Abnormal Pressures, Temperatures or Potential Hazards

Possible H2S in Queen and San Andres. Hydrogen Sulfide safety and monitoring equipment shall be rigged up at the 8-5/8" casing point.

10. Anticipated Starting Date

As soon as possible

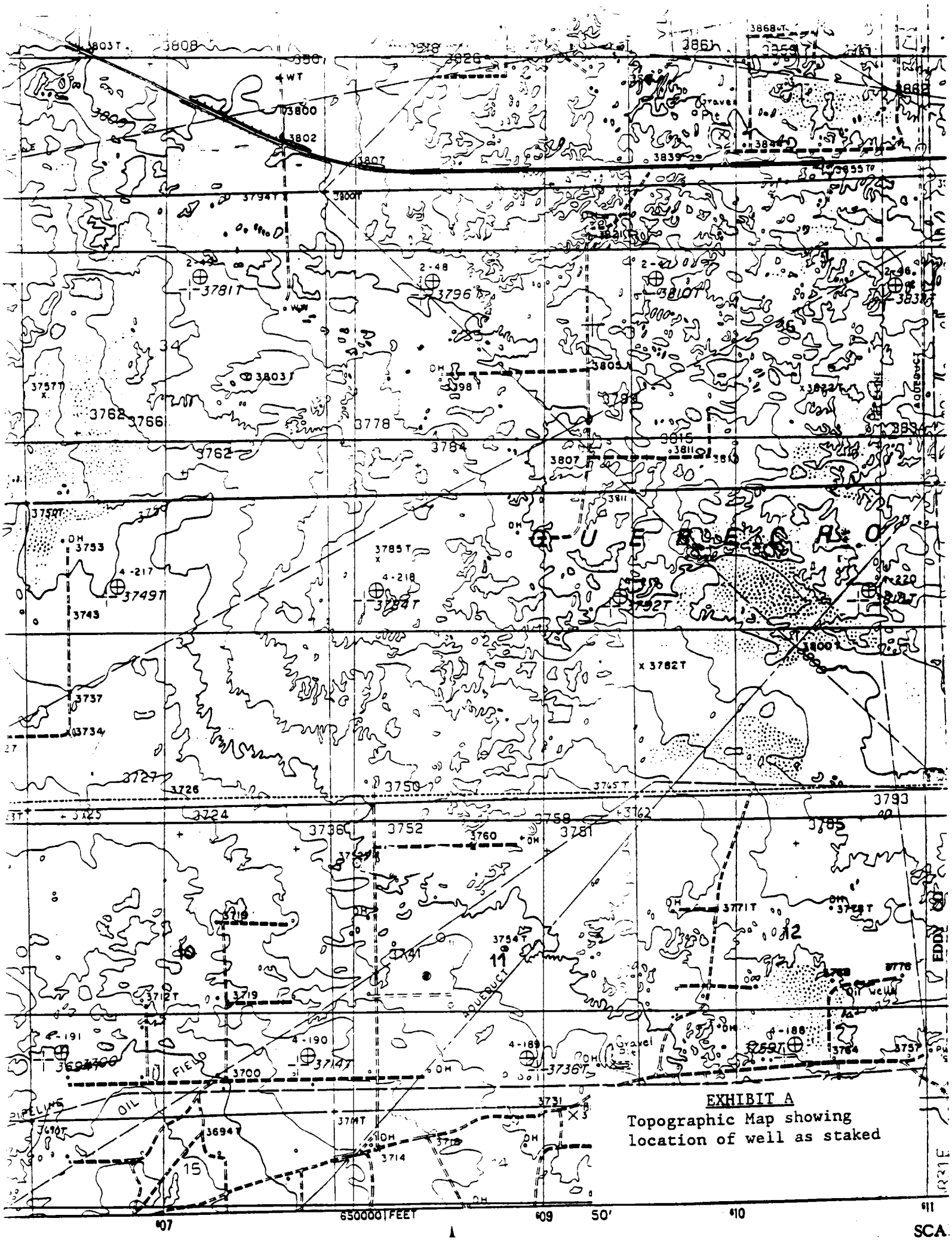


EXHIBIT A

Topographic Map showing location of well as staked

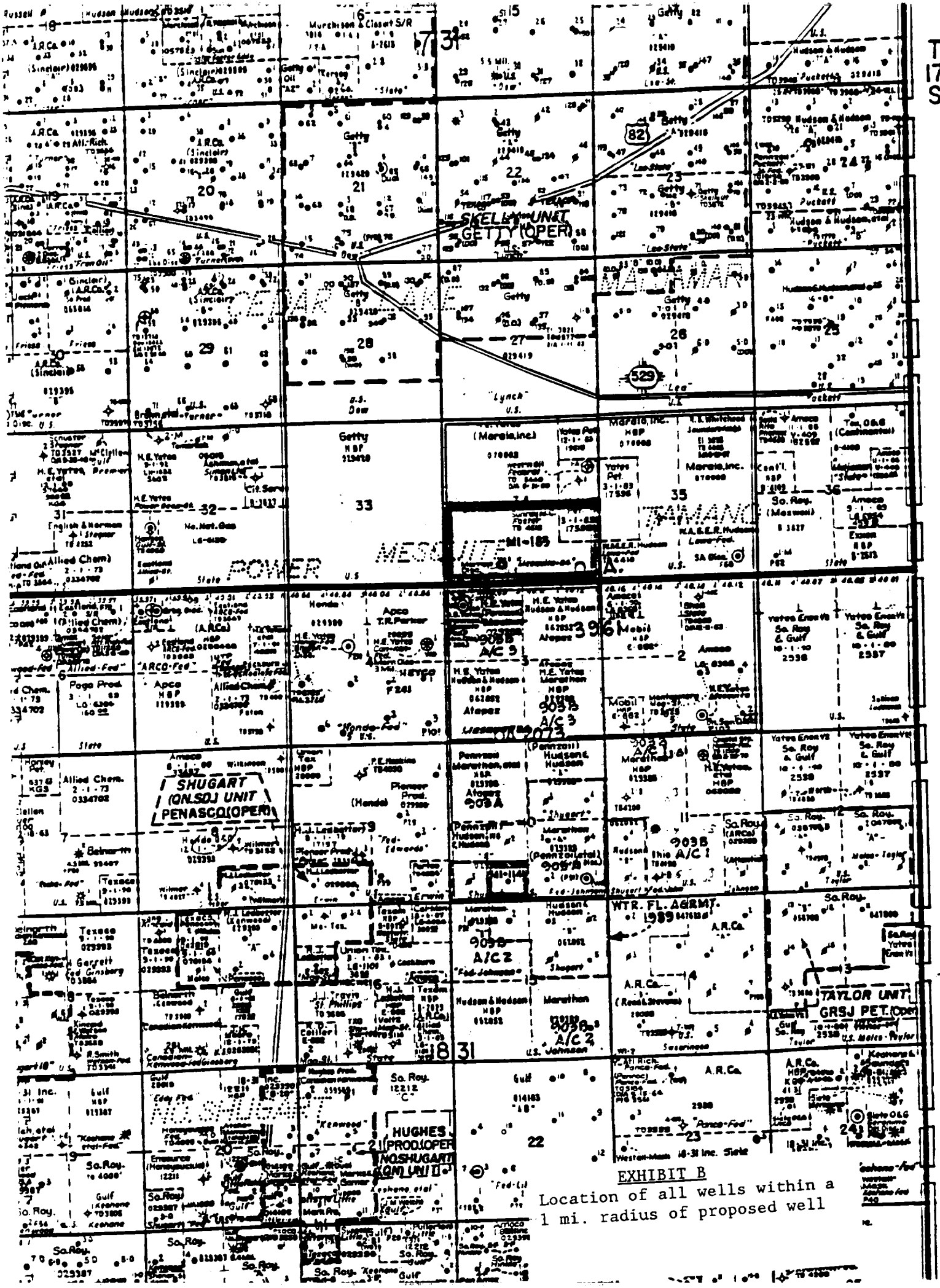


EXHIBIT B

Location of all wells within a 1 mi. radius of proposed well

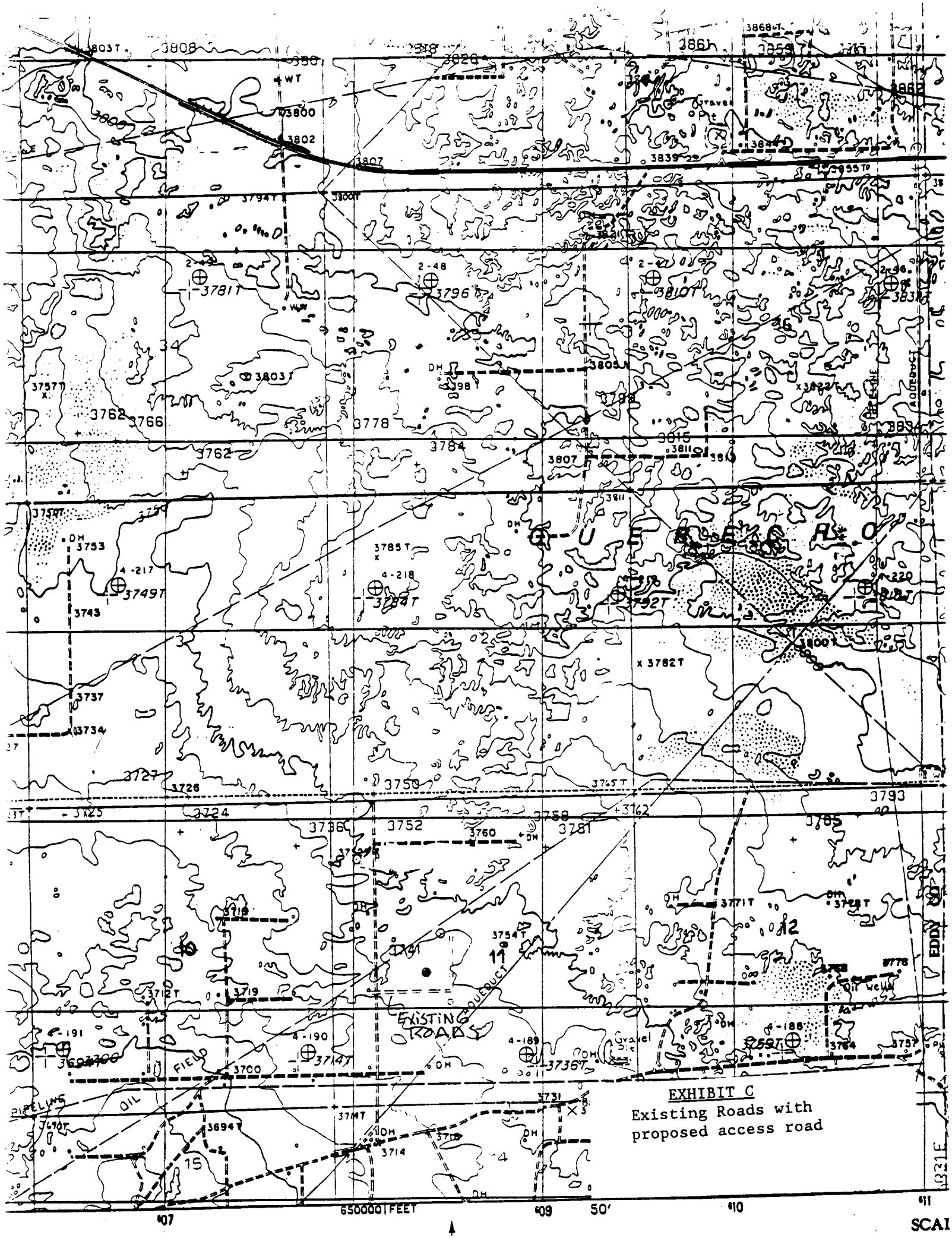


EXHIBIT C

Existing Roads with proposed access road

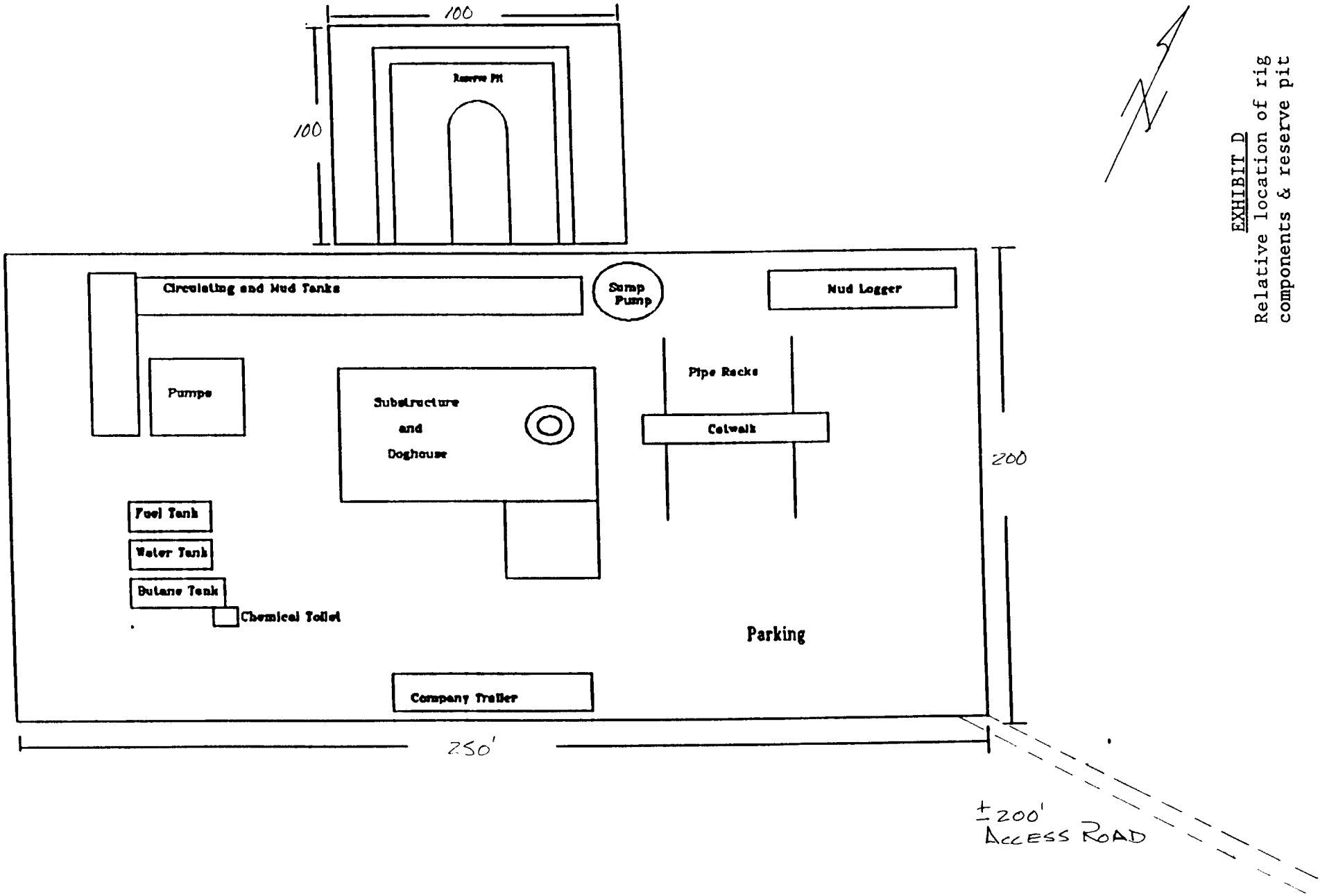
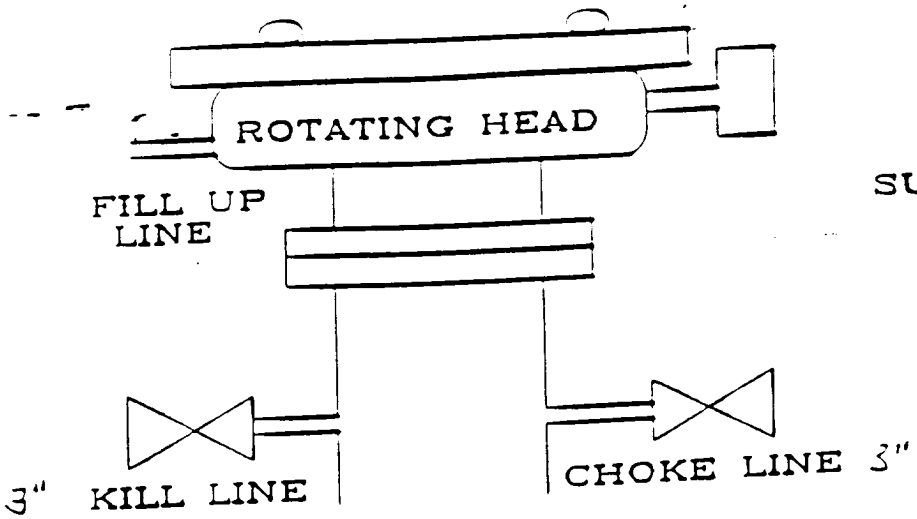
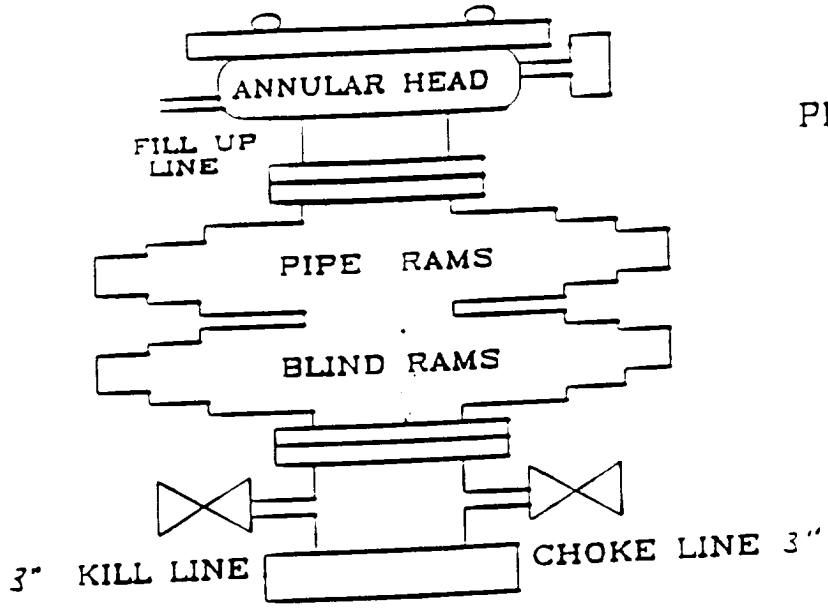
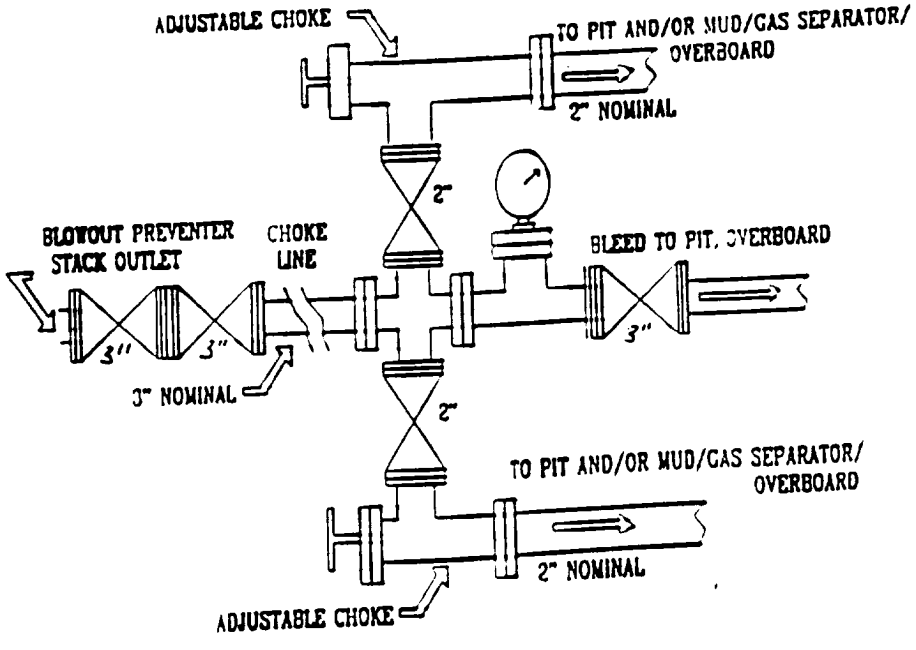


EXHIBIT D

Relative location of rig components & reserve pit


ROTATING HEAD
FILL UP LINE
SURFACE STACK
3" KILL LINE
CHOKE LINE 3"


ANNULAR HEAD
FILL UP LINE
PRODUCTION STACK
PIPE RAMS
BLIND RAMS
3" KILL LINE
CHOKE LINE 3"


ADJUSTABLE CHOKE
TO PIT AND/OR MUD/GAS SEPARATOR/ OVERBOARD
2" NOMINAL
2"
BLOWOUT PREVENTER STACK OUTLET
CHOKE LINE
BLEED TO PIT, OVERBOARD
3"
3"
3"
3" NOMINAL
2"
TO PIT AND/OR MUD/GAS SEPARATOR/ OVERBOARD
2" NOMINAL
ADJUSTABLE CHOKE

MARATHON OIL COMPANY

H2S DRILLING OPERATIONS PLAN

I. HYDROGEN SULFIDE TRAINING

All contractors and subcontractors employed by Marathon Oil Company 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. 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. H2S 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 H2S 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 accomodate all pipe sizes
b. blind rams
c. choke manifold
d. closing unit

Auxillary equipment added as appropriate includes:

a. annular preventor ✓
b. rotating head
c. mud- gas separator (✓) NO
d. flare line and means of ignition
e. remote operated choke (✓) NO

B. Communication

The rig contractor will be required to have two-way communication capability. Marathon Oil Company will have either land-line or mobile telephone capabilities.

C. Mud Program

The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers when appropriate will minimize hazards when penetrating H2S bearing zones.

D. Drill Stem Test intervals are as follows:

DST No. 1	N/A ft.	to N/A ft.
DST No. 2	_____ ft.	to _____ ft.
DST No. 3	_____ ft.	to _____ ft.

Drill Stem Testing Safety Rules are attached.

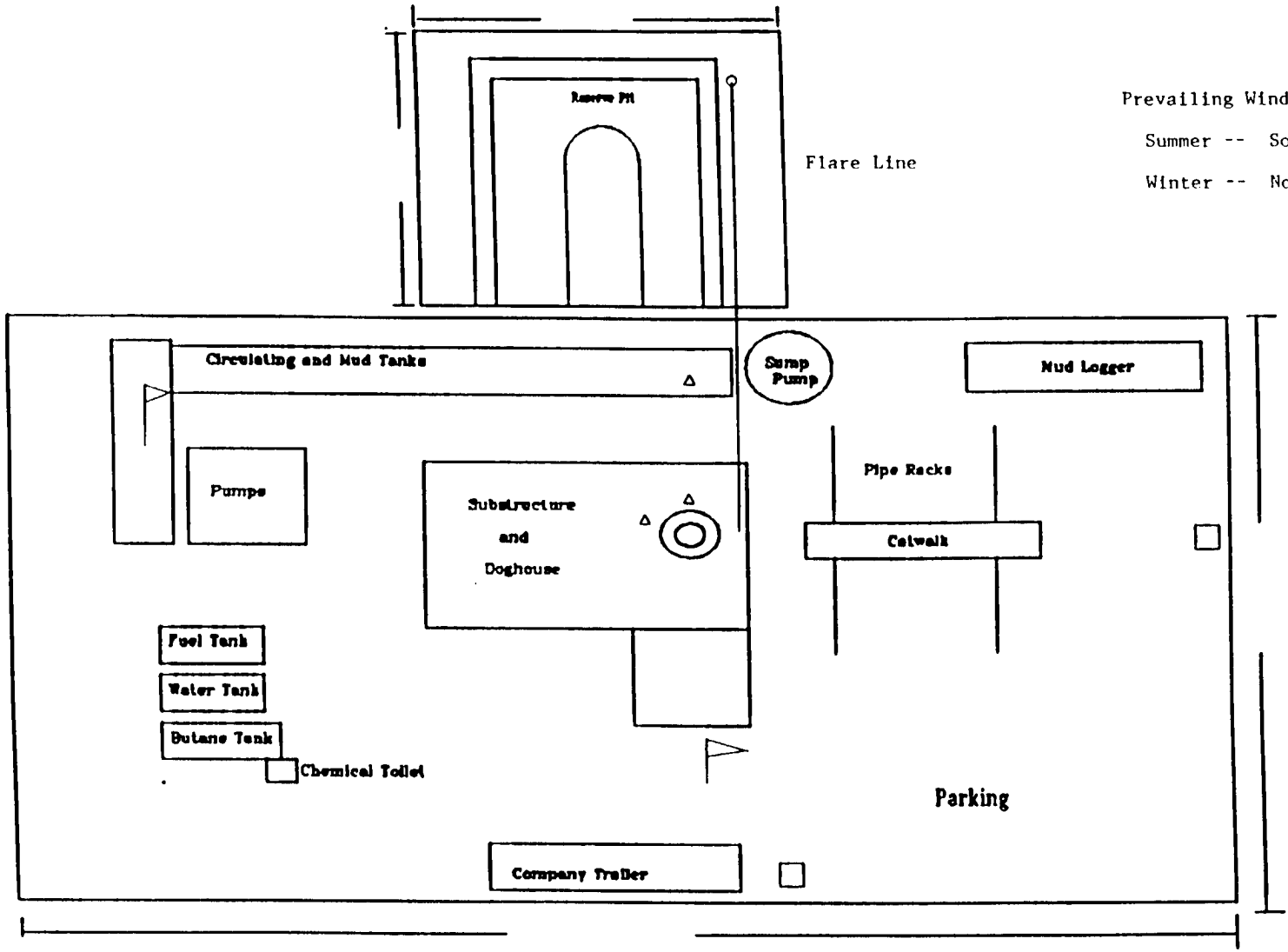
III. WELL SITE DIAGRAM

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

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

WELL TESTING IN AN H2S ENVIRONMENT

Drill stem testing shall be performed with a minimum number of personnel in the immediate area which are necessary to safely and adequately conduct the test operation and operate the test equipment. Except with prior approval by the authorized officer, the drill stem testing of H2S zones shall be conducted only during daylight hours and formation fluids shall not be flowed to the surface. All drill stem testing operations in an H2S environment will incorporate the closed chamber method of testing.



Prevailing Wind Direction:

Summer -- South

Winter -- Northeast

△ - Alarm On Rig floor with sensors at the floor, bell nipple and shaker

- Wind Direction Indicators

□ - Safe Briefing Areas with caution signs and protective breathing equipment