

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

## b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐OTHER ☐SINGLE  
ZONE ☒MULTIPLE ☐

## 2. NAME OF OPERATOR

Marathon Oil Company

## 3. ADDRESS OF OPERATOR

P O Box 552, Midland, TX 79702

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

At surface

990' FNL &amp; 660' FEL

At proposed prod. zone

990' FNL &amp; 660' FEL

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

10 miles ESE 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'

## 18. DISTANCE FROM PROPOSED LOCATION\*

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

\* 1043'

## 16. NO. OF ACRES IN LEASE

320

## 19. PROPOSED DEPTH

9000'

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

## 20. ROTARY OR CABLE TOOLS

Rotary

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

3733' GR 3731.1

## 22. APPROX. DATE WORK WILL START\*

November 25, 1990

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48	750'	835 sx - circulate
11"	8-5/8"	24 & 32	2450'	1350 sx - circulate
7-7/8"	5-1/2"	15.5 & 17	9000'	1500 sx

Propose to drill to a TD of  $\pm$  9000'.

All casing will be run and cemented in accordance with regulations and by approved methods.

Blowout prevention equipment will be applied as outlined in Addiitonal Information. See attached Multipoint Surface Use Plan and Addiitonal Information for specific drilling operations.

\* Distance to proposed well #7

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

(This space for Federal or State office use)

TITLE Drilling Superintendent

DATE

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

SUBJECT TO  
GENERAL REQUIREMENTS AND  
STIPULATIONS

\*See Instructions On Reverse Side

## OIL CONSERVATION DIVISION

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

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

**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 <b>MARATHON OIL CO.</b>			Lease <b>Stetco 10 Federal</b>		Well No. <b>5</b>
Unit Letter <b>A</b>	Section <b>10</b>	Township <b>18 South</b>	Range <b>31 East</b>		County <b>Eddy</b>
Actual Footage Location of Well: <b>990</b> feet from the <b>North</b> line and <b>660</b> feet from the <b>East</b> line					
Ground level Elev. <b>3731.1</b>	Producing Formation <b>Bone Spring Carbonate</b>		Pool <b>Tamano (Bone Spring)</b>		Dedicated Acreage: <b>40</b> Acres
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.</p> <p>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).</p> <p>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.? <input type="checkbox"/> Yes <input type="checkbox"/> 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 necessary. _____ 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.</p>					
			<b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature _____ Printed Name <b>S. L. Atnipp</b> Position <b>Drilling Superintendent</b> Company <b>Marathon Oil Company</b> Date <b>10-9-90</b>		
			<b>SURVEYOR CERTIFICATION</b> I hereby certify that the information shown on this plat is true and complete to the best of my knowledge and belief. Date Surveyed <b>NEW MEXICO</b> Signature & Seal of Professional Surveyor <b>JOHN W. WEST</b> <b>RONALD J. EIDSON</b>		

# MULTIPOINT SURFACE USE AND OPERATIONS PLAN

Marathon Oil Company

STETCO "10" #5  
990' FNL & 660' FEL  
Section 10, T-18-S, R-31-E  
Eddy County, New Mexico  
Lease: LC-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. Proceed west from Hobbs, NM, on U.S. Highway 180. Turn west on NM Highway 529. After 31 miles, turn west on U.S. Highway 82 for 1/2 mile to Highway 222. Turn south on Highway 222 for 2 miles to caliche road, NM 249. Go east 1.3 miles. Turn N.E. on dirt road for 1.3 miles; turn west on dirt road for .5 mi., then north .8 mile, then west 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

An access road of approximately 1000' in length and 14' in width will be constructed.

### B. Surfacing Material

6" of caliche compacted and rolled

### C. Maximum Grade

Three Percent (3%)

### D. Turnouts

None Required

### E. Drainage Design

Natural drainage.

F. Culverts

None required.

G. Cuts and Fills

None required.

H. Gates, Cattlegaurds and Fences

None 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 Stetco "10" #5 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 and access road will be obtained from a pit in the NW/4, SW/4 and NE/4 of the NW quarter section of Section 15, T-18-S, R-31-E. This area has been cleared for construction by the following archaeological clearance numbers, #85-195, #85-345.

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.

## Multipoint Surface Use and Operations Plan

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- 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

10-9-90  
Date

MARATHON OIL COMPANY

STETCO "10" #5  
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	810'	Delaware	4820'
Base of Salt	2015'	Bone Spring	5535'
Yates	2110'	1st Sand	7560'
Seven Rivers	2640'	2nd Carb	7795'
Queen	3320'	Main Pay	7995'
Grayburg	3835'	2nd Sand	8090'
San Andres	4270'		

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

Yates (water)	2110'	Bone Spring	5535'
Seven Rivers (water)	2640'	1st Sand (water & oil)	7560'
Queen (water & oil)	3320'	2nd Carb (water & oil)	7795'
Grayburg (water & oil)	3835'	Main Pay (water & oil)	7995'
San Andres (water & oil)	4270'	2nd Sand (water & oil)	8090'
Delaware (water & oil)	4820'		

4. Casing and Cementing Program

13-3/8" Surface to 750':	Cement to surface with 835 sxs Class "C" with 2% $\text{CaCl}_2$
8-5/8" Intermediate to 2450':	Cement to surface with 1100 sxs Modified Lite followed by 250 sxs Class "C" with 2% $\text{CaCl}_2$
5-1/2" Production to 9000':	Cement to 2200' with 1500 sxs Class "H" PozMix. Stage tool @ $\pm$ 7400'

5. Pressure Control Equipment (Exhibit E)

13-3/8" Surface:	13-5/8" 3000 psi working pressure annular preventer tested to 2000 psi
	13-5/8" 3000 psi working pressure pipe and blind rams tested to 3000 psi

Additional Information

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8-5/8" Intermediate:

11" 3000 psi working pressure  
annular preventer tested to 2000 psi

11" 3000 psi working pressure pipe  
rams and blind rams tested to 3000 psi  
Choke manifold tested to 3000 psi

6. Proposed Mud Program

0 - 750	Native; Mud Wt: 8.3 - 9.2, Viscosity 28-34 Sec
750 - 2,700	Brine Water; Mud Wt: 9.0 - 10.0, Viscosity 28-32 Sec
2,700 - 7,000	Fresh Water; Mud Wt: 8.6 - 8.8, Viscosity 28-32 Sec
7,000 - 9,000	Fresh Water; Mud Wt: 8.8 - 9.2, Viscosity 32-44 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.

8. Testing, Logging, and Coring Programs

A. Coring Program:

None anticipated.

B. Testing Program:

None anticipated.

C. Logging Program:

TD-Surface - GR-DIL, GR-LDT-CNL, TD-TOP of Bone Spring, GR-LSS,  
NGT, DLL-MSFL.

9. Abnormal Pressures, Temperatures or Potential Hazards

None anticipated

10. Anticipated Starting Date

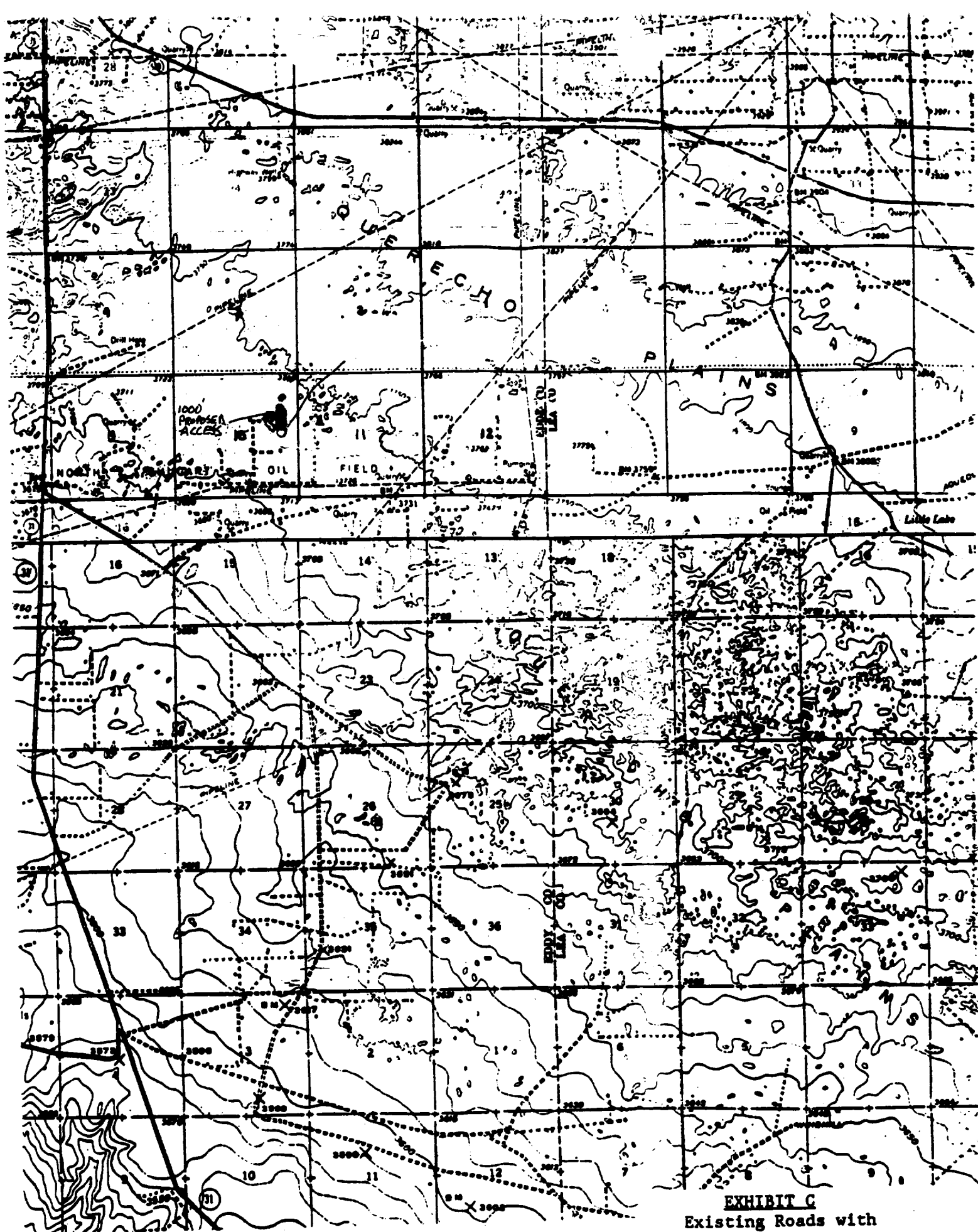
As soon as possible



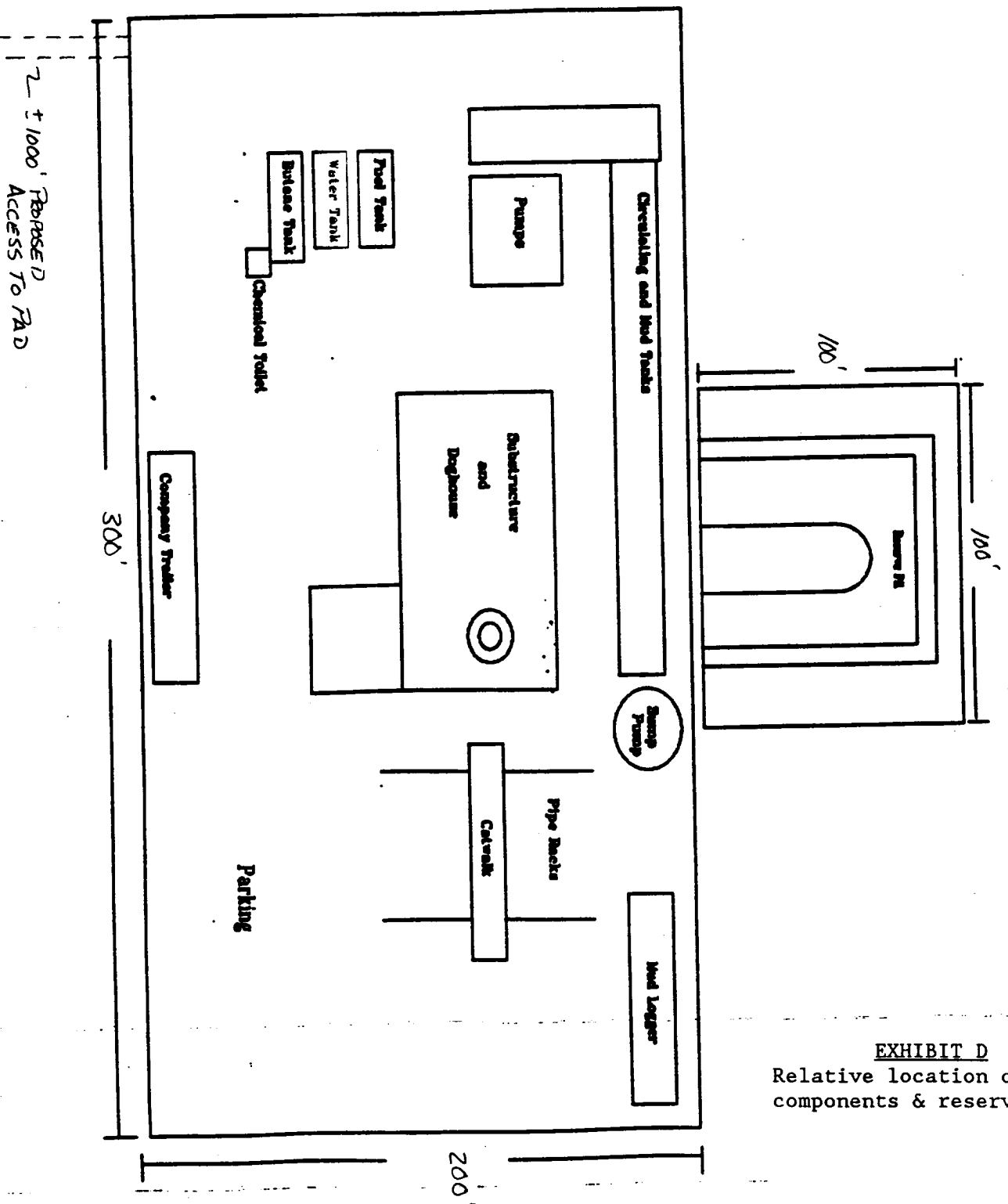
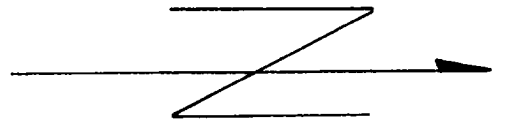


**EXHIBIT A**  
Topographic Map showing  
location of well as staked

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

