

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
ZONE ☐

2. NAME OF OPERATOR

Mobil Oil Corporation

3. ADDRESS OF OPERATOR

3 Greenway Plaza-East, Suite 800, Houston, Texas 77046

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

At surface

800'FSL & 1840' FEL Sec. 4, T26N, R18W

At proposed prod. zone

Same as Surface

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

15. DISTANCE FROM PROPOSED*

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

800'

16. NO. OF ACRES IN LEASE

1440

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION*

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

2500'+

19. PROPOSED DEPTH

6450

20. ROTARY OR CABLE TOOLS

Rotary

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

Ground - 5734'

22. APPROX. DATE WORK WILL START*

As soon as possible

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# H-40	0-100'	1) Circulate to Surface
12-1/4"	8-5/8"	24# K-55	0-1600'	2) Circulate to Surface
8-3/4"	7"	20# K-55	0-4500'	3) Circulate to Surface
		23# K-55	4500'-6450'	

1) Class H Neat with 2% CaCl₂2) Class H with 8% gel & 2% CaCl₂ Tail in with 100 sx. Class H Neat w/2% CaCl₂

3) Class H with 7% salt sx.

Blowout Preventer & Mud Programs 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

A.D. Bond

TITLE

Regulatory
Engineering Coordinator

DATE

11-21-77

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED

NOV 25 1977

*See Instructions On Reverse Side

U.S. Geological Survey,
Farmingington, N.M.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

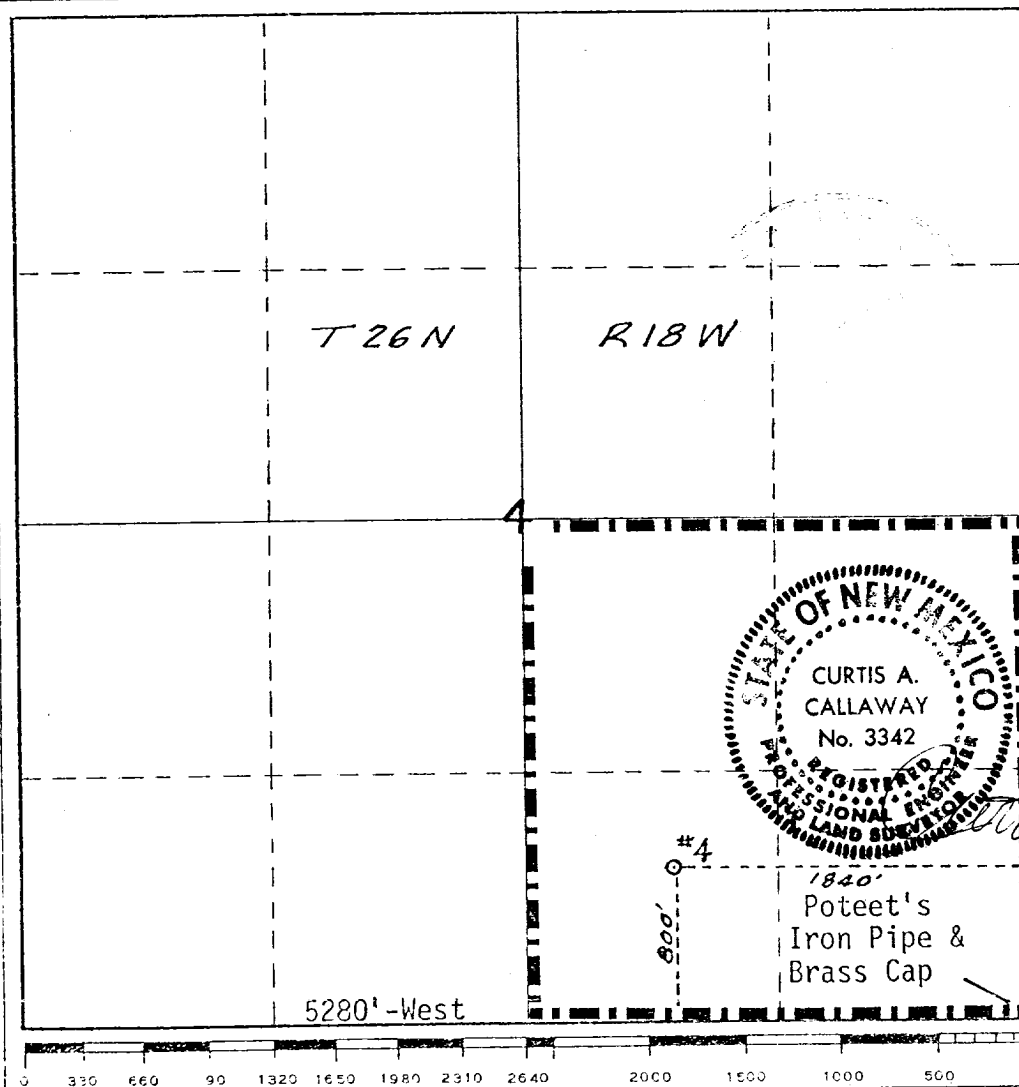
Operator Mobil Oil Corporation			Lessee Navajo		Well No. 4
Unit Letter 0	Section 4	Township 26N	Range 18W	County San Juan	
Actual Footage Location of Well: 800' feet from the South line and 1840' feet from the East line					
Ground Level Elev. 5734'	Producing Formation Pennsylvanian D		Pool Tecito Dome Undesignated	Dedicated Acreage: 160 ✓ 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 interests 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 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 interests, has been approved by the Commission.



CERTIFICATION

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

A.D. Bond

Name

A.D. Bond

Position

Regulatory Engr. Coord.

Company

Mobil Oil Corporation

Date

November 21, 1977

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 knowledge and belief.

C.A. Callaway

Date Surveyed

November 10, 1977

Registered Professional Engineer and/or Land Surveyor

C.A. Callaway

Certificate No.

3342

MOBIL OIL CORPORATION's
 NAVAJO, WELL #4
 UNDESIGNATED POOL
 SAN JUAN COUNTY, NEW MEXICO

MUD PROGRAM

<u>Depth, Ft.</u> <u>From</u>	<u>To</u>	<u>Type Mud</u>	<u>Weight</u>	<u>Viscosity</u>	<u>pH</u>	<u>Water Loss</u>
.0	1600'	Spud Mud	No Control		-	-
1600'	6000'	Fresh wtr. w/gel & L.C.M. as necessary	No Control		-	-
6000'	T.D.	Fresh wtr. low solids gel	8.8-9.2	33-40	9	20 cc

CORING PROGRAM

<u>Approx. Depth</u>	<u>Formation</u>	<u>Type</u>	<u>Size</u>	<u>Footage</u>
NONE				

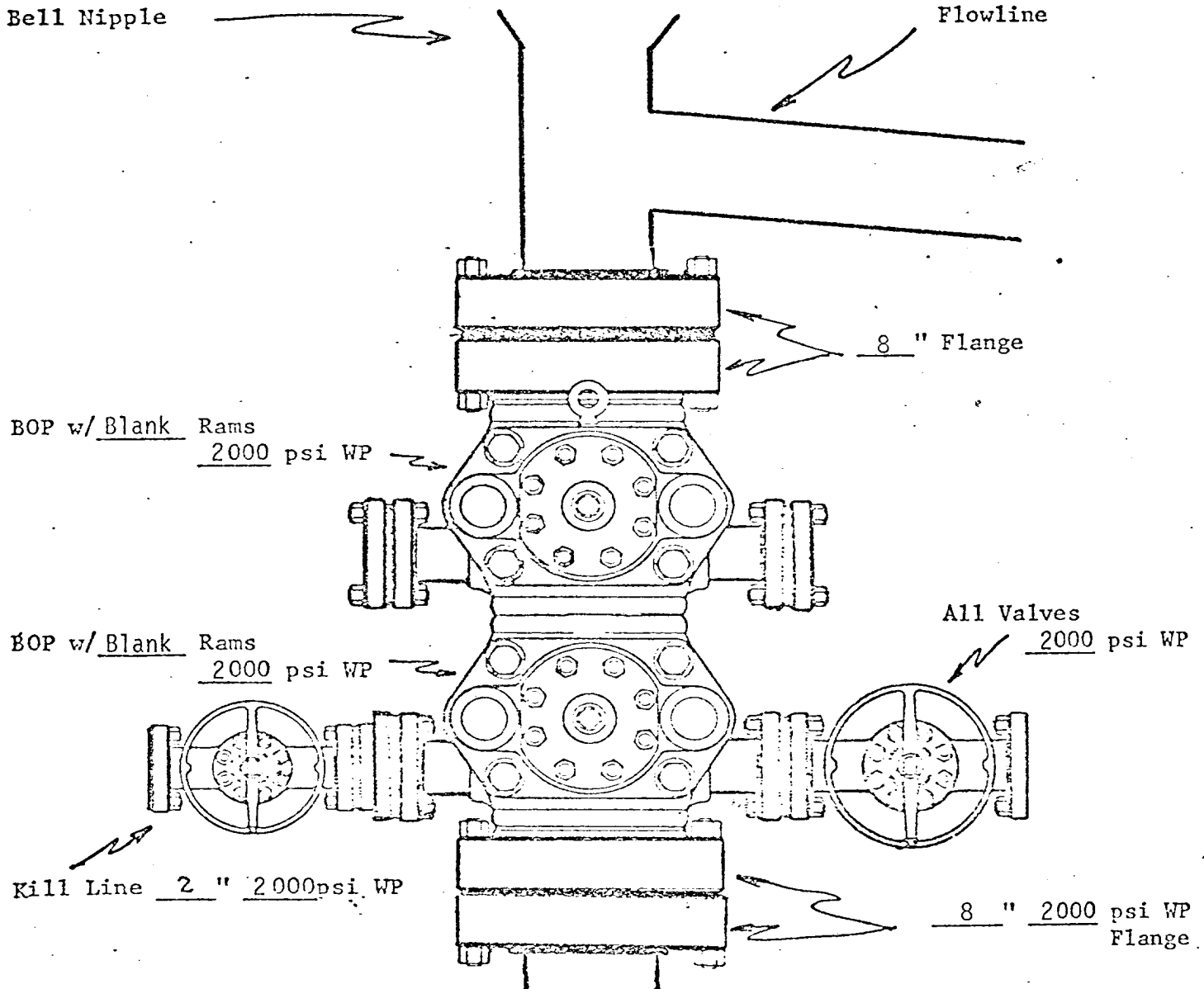
LOGGING PROGRAM

<u>Type or Kind</u>	<u>Depth (From - To)</u>
Induction - Sp	Surface to T.D.
SNP - Density - Gr	Surface to T.D.

FLUID PRODUCTION TEST PROGRAM

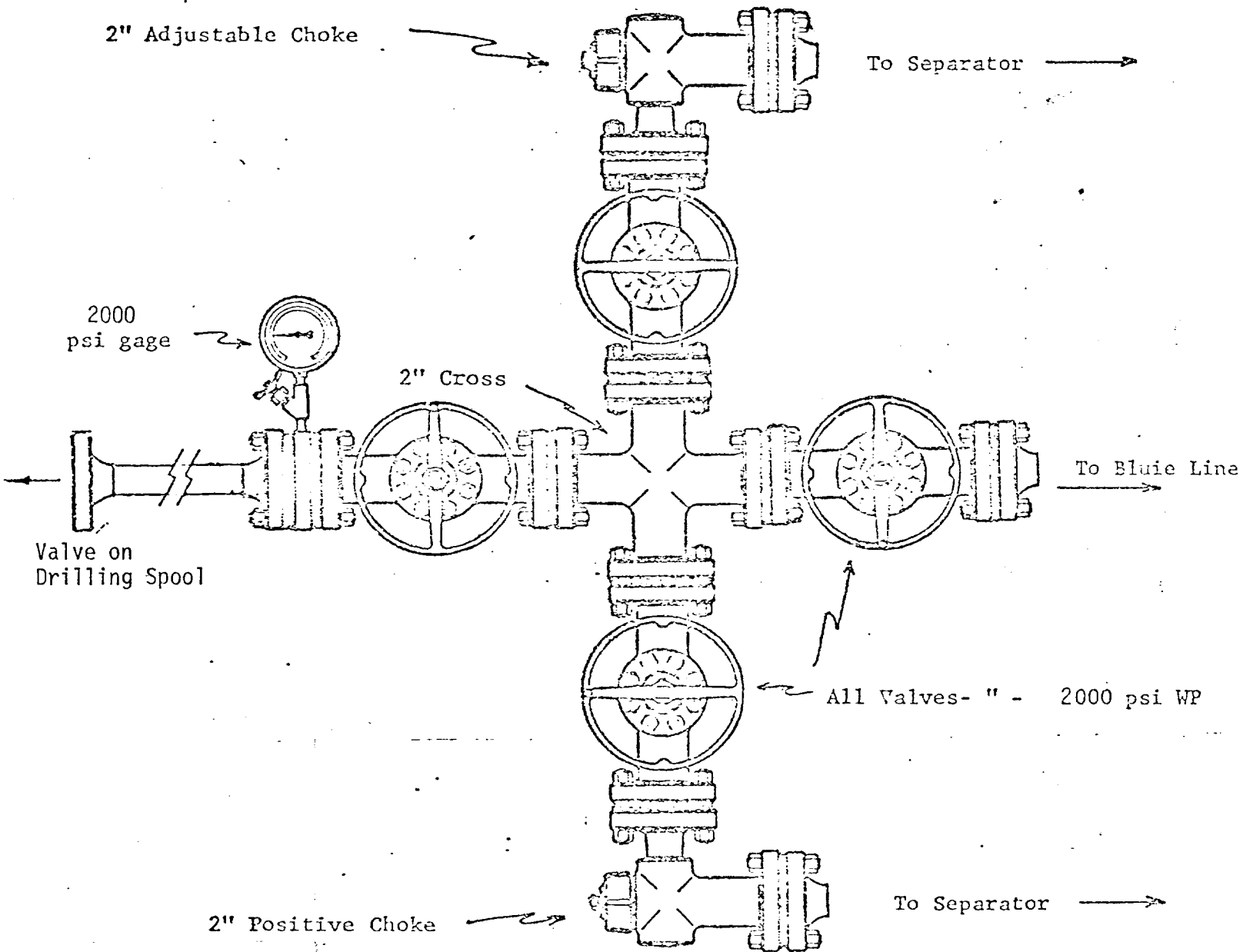
<u>Type & Formation</u>	<u>Expected Depth</u>
None	

PROPOSED BOP STACK
8-5/8" " CASING



MOBIL OIL CORPORATION
WELL Navajo #4
San Juan COUNTY,
New Mexico

PROPOSED CHOKE MANIFOLD
(MINIMUM REQUIREMENTS)
8-5/8" " CASING STRING



MOBIL OIL CORP.
WELL NAME & NO. Navajo, Well #4
San Juan COUNTY, N.M.

MOBIL OIL CORPORATION
SURFACE USE PLAN
NAVAJO WELL #4
800' FSL & 1840' FEL
SECTION 4, T-26-N, R-18-W
NEW MEXICO PRINCIPLE MERIDAN
SAN JUAN COUNTY, NEW MEXICO

1. EXISTING ROADS (See Attached Map "A")

An existing 18' wide graded road will be utilized to reach the location. This road leaves U. S. Highway No. 666 at a point about 21 miles south of Shiprock, New Mexico and about 3.5 miles from the proposed new access road. This road presently provides access to Mobil's Navajo Lease Wells #1, #2 & #3.

2. PLANNED ACCESS ROADS (See Attached Map "A")

The proposed access road to the location site will be 12' wide X 0.5 miles long with a 12" deep borrow ditch each side. Leaving the existing lease road at the Navajo #3 Wellsite, the road will slope gently (1.2%) over a sandstone ridge 0.5 miles. Native material will be graded, watered and compacted for the new roadway surface. The area crossed by the road is presently used for sparse sheep and cattle grazing.

3. LOCATION OF EXISTING WELLS

For Location of existing wells, see attached Map "A".

4. LOCATION OF TANK BATTERIES & PRODUCTION FACILITIES (See Attached Map "A").

Production from the proposed well will be transported to Mobil's Navajo Tank Battery by a 3" steel flow line to be constructed alongside the new access road on top of the ground.

5. WATER SUPPLY

Water for drilling purposes will be trucked from locations off-lease.

6. SOURCE OF CONSTRUCTION MATERIALS

No construction materials will be required for this project.

7. METHODS OF HANDLING WASTE DISPOSAL

All garbage and trash shall be burned when possible, and that portion that cannot be burned will be accumulated and buried with a minimum of 4' cover.

8. ANCILLARY FACILITIES

No ancillary facilities are planned at this time.

Mobil Oil Corporation
Surface Use Plan
Navajo Well #4

San Juan County, New Mexico

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9. WELL SITE LAYOUT

See Attached Plat "B"

10. PLANS FOR RESTORATION OF SURFACE

After well is completed and pits have sufficiently dried, they will be backfilled and shaped to original grade. All trash will be removed from the site or buried with a 4' minimum cover.

In the event well is abandoned, the location site and roads will be reshaped to original contour and re-seeded with seed mixture and soil additives as recommended by the Navajo Tribe. This restoration will begin within 90 days of date well is abandoned and will be completed within 30 days of that date.

11. OTHER INFORMATION

The location site located in a semi-desert area of gently rolling hills and ridges capped with sandstone. This site is located in a sandy area north of a sandstone ridge. The area is sandy with very sparse native grasses. The surface is owned by the Navajo Tribe and utilized for sparse grazing of goats, sheep and cattle. There are no occupied dwellings within one mile of the site, and no known archaeological, historical, or cultural sites are in the area.

12. LESSEE'S OR OPERATOR'S REPRESENTATIVE

Glen W. Barb
Mobil Oil Corporation
P. O. Box 633
Midland, TX 79702 - Telephone 915-684-8211

13. CERTIFICATION


I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that the statements made in this plan are, to the best of my knowledge

Mobil Oil Corporation
Surface Use Plan
Navajo Well #4

San Juan County, New Mexico

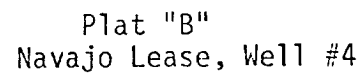
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true and correct; and that the work associated with the operations proposed herein will be performed by a reliable contractor in conformity with this plan and the terms and conditions under which it is approved.

A handwritten signature in cursive script, reading "Glen W. Barb", written over a horizontal line.

Glen W. Barb
Producing Operations Manager

LAMayhew/tb
November 17, 1977



NO. DATE BY			ALTERATION		
STANDARD LOCATION PLAN 5000'-7000' DEEP WELLS ON STABLE SOIL					
MOBIL OIL CORPORATION Houston, Texas					
DRAWN BY			CHK. NO.		

MOBIL OIL CORPORATION

LEASE: Navajo

WELL: 4

FIELD: Undesignated

COUNTY: San Juan

STATE: New Mexico

TEN POINT WELL CONTROL & RESOURCE PROTECTION DATA

1. The geologic name of the surface formation Gallup.
2. The estimated tops of important geologic markers.

<u>Formation Name</u>	<u>Depth (Top)</u>
<u>Dakota</u>	<u>700'</u>
<u>Morrison</u>	<u>1600'</u>
<u>Entrada</u>	<u>2070'</u>
<u>Dechelly</u>	<u>3695'</u>
<u>Hermosa</u>	<u>5450'</u>
<u>Pennsylvanian (D)</u>	<u>6300'</u>

3. The estimated depth at which anticipated water, oil, gas or other mineral-bearing formations are expected to be encountered.

<u>Formation Name</u>	<u>Depth (Top)</u>	<u>Type of Mineral</u>
<u>Dakota</u>	<u>700</u>	<u>Water</u>
<u>Pennsylvanian</u>	<u>6300</u>	<u>Oil & Gas</u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>

4. The proposed casing program, including the size, grade, and weight-per-foot of each string and whether new or used. (Shown on Form 9-331C)
5. The lessee's or operator's minimum specifications for pressure control equipment which is to be used, a schematic diagram thereof showing sizes, pressure ratings (or API series), and the testing procedures and testing frequency. (See attachment)
6. The type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling and the quantities and types of mud and weighting material to be maintained.

The proposed mud program is attached. A sufficient quantity of mud
and chemicals will be maintained at the well site to meet anticipated
conditions, recognizing the time required to replenish supplies from
local sources.

7. The auxiliary equipment to be used, such as (1) kelly cocks, (2) floats at the bit, (3) monitoring equipment on the mud system, (4) a sub on the floor with a full opening valve to be stabbed into drill pipe when the kelly is not in the string.

A Kelly cock and a sub with a full opening valve will be used.

8. The testing, logging, mud, and coring programs to be followed with provision made for required flexibility. (See attached sheet)
9. Any anticipated abnormal pressures or temperatures expected to be encountered or potential hazards such as hydrogen sulfide gas, along with plans for mitigating such hazards.

No abnormal pressures, temperatures or hazardous gases are expected to
be encountered; however, prudent drilling operations will be maintained to
guard against such hazards.

10. The anticipated starting date and duration of the operations.

Starting Date: December 1, 1977 Duration of Operations 25 Days.

Mobil Oil Corporation

THREE GREENWAY PLAZA EAST - SUITE 800
HOUSTON, TEXAS 77046

November 21, 1977

United States
Geological Survey (2)
Framington District
P. O. Box 959
Framington, New Mexico 87401

Attn: Mr. P. T. McGrath

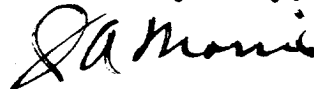
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DRILLING APPLICATION
MOBIL OIL CORPORATION'S
NAVAJO, WELL #4
UNDESIGNATED POOL
SAN JUAN COUNTY, NEW MEXICO

Gentlemen:

Mobil Oil Corporation respectfully requests authority to drill the subject well. In support of this request, six copies of the following items are submitted:

1. Form 9-331C - "Application to Drill" to which is attached the blowout preventer and mud programs.
2. Multi-point surface use plan which includes:
 - a. Plat A area map showing the road system.
 - b. Plat B well site layout.
3. Ten Point Well Control/Resource Protection Data Report.
4. NMOCC Form C-102 Well Location & Acreage Dedication Plat.

Yours very truly,



J. A. Morris
Regulatory Engineering Supervisor

ADBond/dah
Attachments