

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

Exxon Corporation

3. ADDRESS OF OPERATOR

P.O. Box 1600; Midland, TX 79702

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

At surface

1980' FNL & 1980' FWL of Section

At proposed prod. zone

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

6 miles southwest from Jal

15. DISTANCE FROM PROPOSED*

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

660'

16. NO. OF ACRES IN LEASE

360

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.

19. PROPOSED DEPTH

3600

20. ROTARY OR CABLE TOOLS

Rotary

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

Gr. 2985.6'

22. APPROX. DATE WORK WILL START*

May 26, 1978

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	900	600 SX
7-7/8"	4-1/2"	10.5#	3,600	450 SX

8-15-78

CONDITIONS OF APPROVAL

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

Melba Knippling

TITLE

Proration Specialist

DATE

April 24, 1978

(This space for Federal or State office use)

PERMIT NO.

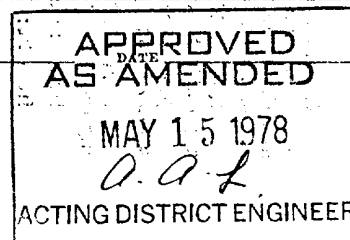
APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side



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

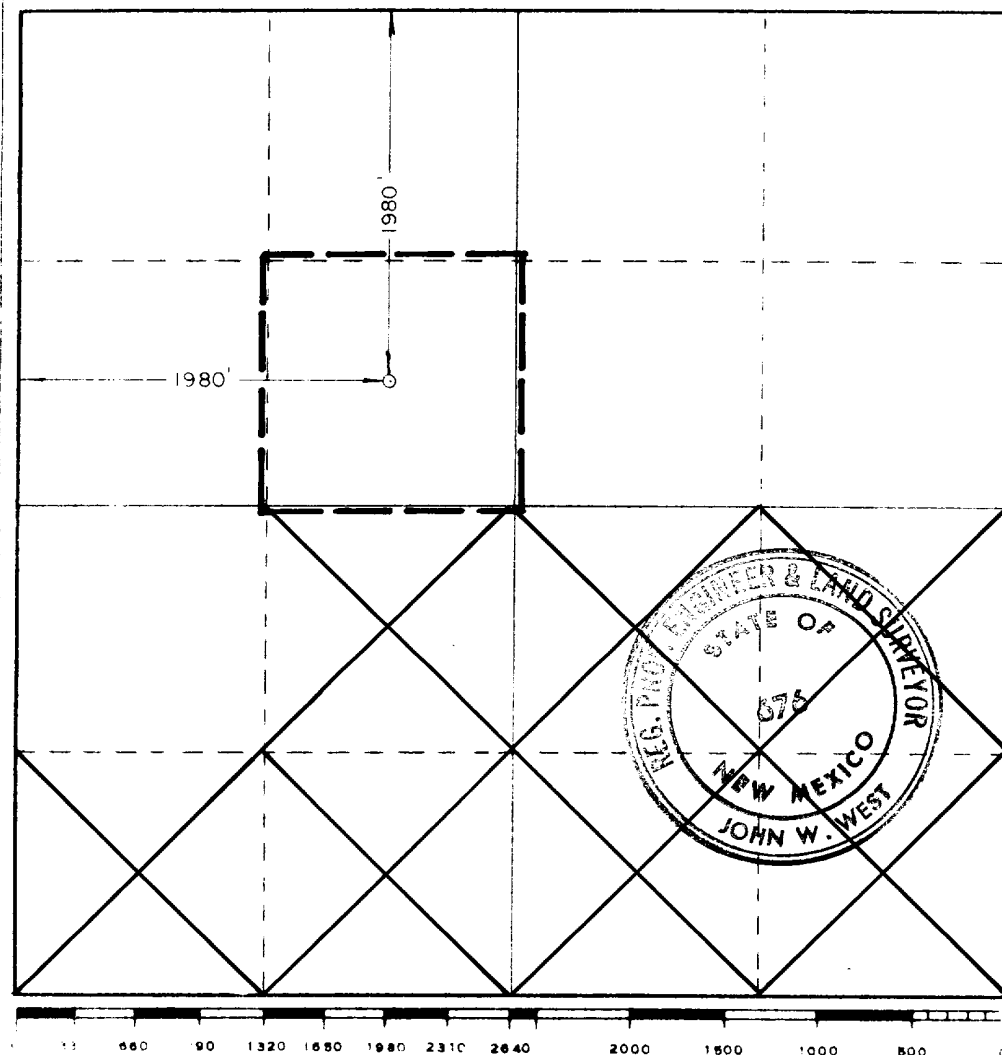
Operator Exxon Corporation		Lease Bussell Federal		Well No. 1
Section F	Section 5	Township 26 South	Range 36 East	County Lea
Actual Portage Location of Well:				
1980 feet from the North line and		1980 feet from the West line		
Ground Level Elev. 2985.6	Producing Formation Tensill YATES	Pool Wildcat	Dedicated Acreage 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.

Melba Knippling
Proration Specialist

Exxon Corporation
Box 1600 Midland, TX

April 25, 1978

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.

Date Surveyed
4/18/78

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. **John W. West 676**
Ronald J. Eidson 3239

EXXON CORPORATION #1 BUSSELL FEDERAL

1. Geologic name of the surface formation.

Quaternary Alluvium

2. Estimated tops of important geologic markers.

Rustler	1,000'
Salado	1,600'
Tansill	3,150'
Yates	3,350'

3. Estimated depths at which anticipated water, oil, or other mineral-bearing formations are expected to be encountered.

Water - Ground water anticipated 200 - 300'
Oil - 3,250'

4. Proposed Casing Program:

<u>String</u>	<u>Size, Weight, Grade</u>	<u>Minimum Condition</u>	<u>Depth Interval</u>
Surface	8-5/8" /24/H-40	Class II	0-900'
Production	4½"/9.5/H-40	Class II	0-3600'

Casing strings run will be at least as strong as string shown.
Actual pipe run may be different depending on casing available.

5. Minimum specifications for pressure control equipment:

a) Casinghead Equipment

Casinghead: 8-5/8" STC x 4-1/2" 2000 psi WP screwed
Tubinghead: 4-1/2" x 2-3/8" 2000 psi screwed
Tree: 2-3/8" 2000 psi WP screwed

b) Blowout Preventers

Refer to attached drawing. The BOP will be installed after the 8-5/8 surface casing is set and will be no smaller than 10" API nor less than 2000 psi WP.

c) BOP Control Unit

Remotely located, hydraulically operated.

d) Testing

When installed on the 8-5/8" casing, the BOP will be tested to a low pressure (200-300 psi) and to at least 1500 psi. Thereafter, it will

be tested approximately weekly to 1500 psi. An operational test of the BOP will be performed each round trip but no more than once a day. The pipe ram will be closed around the drill pipe, and the blind rams will be closed while the pipe is out of the hole.

6. Type and anticipated characteristics of drilling fluid:

Surface hole will be drilled with a minimum weight fresh water spud mud compatible with operating conditions.

Production hole will be drilled with brine water. Depending on hole conditions and DST and core requirements, the system may be mudded up as follows:

Type: Saturated Brine
Weight: 9-10 ppg
Funnel Viscosity: 28-35 sec.
Water Loss: 10-30 cc.
Solids: Minimum
pH: 10.5+

Not less than 75 barrels of fluid will be in the pits.

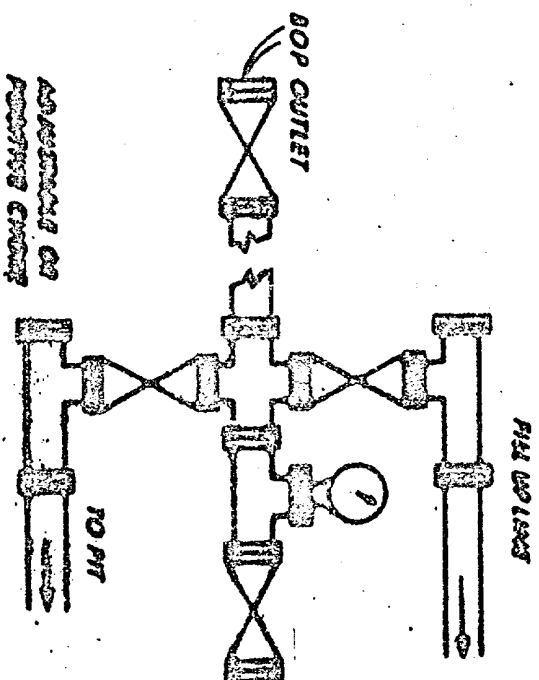
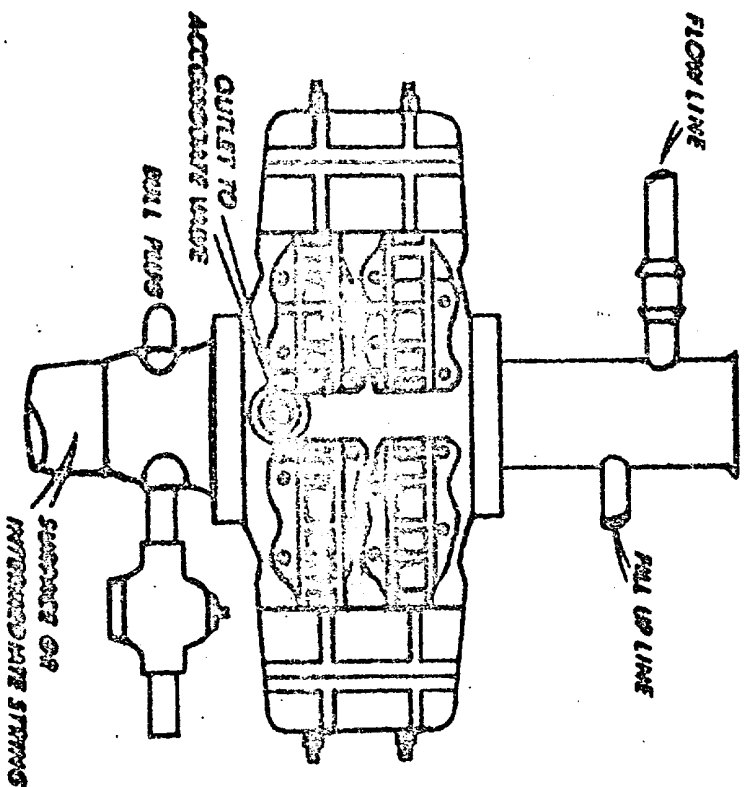
7. Auxiliary Control Equipment:

- a) Lower Kelly Cock
- b) Full opening ball type safety valve to fit each size of drill pipe on the rig floor on trips.

8. Testing, logging, and coring program to be followed:

0 - T.D.: Gamma Ray, Sonic, FDC-CNL, and DLL or DIL
3250-3350: Possible 2DST's depending on shows
3250-3300: Approximate 50' core in pay zone

- 9. No abnormal temperatures or pressures are anticipated. The pressure can be controlled by the hydrostatic head of drilling fluid in the hole. Hydrogen sulfide gas is expected to be minimal.
- 10. It is anticipated that the drilling operations will begin May 26 and be completed on June 5, 1978.



1. BOP VALVES AND ALL WORKING FITTINGS SHOULD BE IN GOOD WORKING CONDITION.
2. ALL ECITS TO BE INSTALLED AND TIGHT.
3. ALL VALVES TO BE 3000 P.S.I. OR BETTER.
4. AFTER NIPPLING UP TEST RAMS AND PRESURE UP TO 1500 P.S.I. FOR 15 MINUTES AND CHECK FOR POSSIBLE LEAKS.
5. ALL CREW MEMBERS TO BE FAMILIAR WITH BOP AND ACCUMULATORS.
6. KEEP HOLE FULL ON TRIPS.
7. USE ONLY FLANGE TYPE FITTINGS.
8. RECHECK BOLTS FOR TIGHTNESS BEFORE 5000 FT. OR ENTERING PRODUCTION ZONES.
9. WHEN DRILLING USE:
TOP PREVENTER - DRILL PIPE RAMS
BOTTOM PREVENTER - DRILL RAMS
10. WHEN RUNNING CASING USE:
TOP PREVENTER - CASING RAMS
BOTTOM PREVENTER - BLIND RAMS

SURFACE USE PLAN

Exxon Corporation - Exploratory Wells

No. 1 Tishman Federal - Lease No. N.M. 6727-660' FSL & 1,980' FWL of Section 5
No. 1 Bussell Federal - Lease No. N.M. 6726, 1,980' FNL & 1,980' FWL of Section 5
T26S, R36E, Lea County, New Mexico

1. EXISTING ROADS - Detailed map showing drillsite location in relation to a town or known point and all existing roads within three miles of the drillsite are shown on Exhibit "A".

From Jal, go southwesterly on paved road 3 miles to Bennett; continue on improved road approximately 1-1/2 miles to a graded road going westerly. Proceed westerly on graded road 4 miles to drillsite.

2. PLANNED ROADS - It is planned to construct approximately 3,300' of new road as shown on Exhibit "A" of which 600' will serve Tishman Federal #1 and 2,700' will serve Bussell Federal #1. The existing access road will be improved by grading, widening and adding caliche where necessary. Caliche will be hauled from a pit near the Anthony ranch house located on private lands.

- 1) Width of the new road to be constructed will be approximately 16 feet.
- 2) No grade change will be made in any part of the existing access road or the new road to be constructed in excess of 5 percent.
- 3) No turnouts will be necessary.
- 4) No special drainage features will be necessary.
- 5) No culverts will be required.
- 6) Caliche will be used only on a portion of the road.
- 7) No cattleguards will be required.
- 8) The proposed new road is center-line flagged.

3. LOCATION OF EXISTING WELLS WITHIN TWO MILE RADIUS -

- 1) Water wells - There is a windmill located approximately one mile northeast of the drillsite and a water well at the Anthony ranch house approximately 2 miles southeast of the drillsite.
- 2) Abandoned wells - Several dry holes are shown on Exhibit "A" within 2 miles of drillsite.

- 3) Temporarily abandoned wells - None
- 4) Disposal wells - None
- 5) Drilling wells - None
- 6) Producing wells - None
- 7) Shut-In wells - None
- 8) Injection wells - None
- 9) Monitoring or observation wells for other resources - None

4. TANK BATTERIES, PRODUCTION FACILITIES AND LEASE PIPELINES -

- A. There are no tank batteries, production facilities or pipelines within one mile of the location controlled by lessee.
- B. In the event of production, new facilities are shown on Exhibit "B".
 - 1) Proposed location and attendant lines by flagging if off of well pad shown on Exhibit "B".
 - 2) Dimensions of facilities are shown on Exhibit "B".
 - 3) Production facilities will be constructed on drillsite pad using caliche surface.
 - 4) Equipment and pit will be fenced and flagged to protect livestock and wildlife, if necessary.
- C. Rehabilitation will be done on any disturbed areas no longer needed for operations after completion of the production facilities. This will consist of reshaping the existing surface and seeding as specified.

5. LOCATION AND TYPE OF WATER SUPPLY -

- A. Water will be pumped or hauled from an existing water well located approximately 2 miles southeast of drillsite at the Anthony Ranch. In the event brine water is used, it will be hauled by truck from a source outside the area. In the event water is pumped, the pipeline will be laid on the surface of the ground along the access road to the drillsite.
- B. The pipeline is shown on Exhibit "A" from the water source to the drillsite.
- C. No water well will be drilled.

6. SOURCE OF CONSTRUCTION MATERIALS -

- A. Caliche will be obtained from a privately owned pit northeast of the Anthony ranch house as shown on Exhibit "A".

- B. No construction materials will be used from Federal or Indian lands.
- C. Caliche secured from private sources will be used where needed on the road and drillsite.
- D. All access roads are shown on Exhibit "A".

7. WASTE DISPOSAL -

- A. Drill cuttings will be disposed of in the reserve pit.
- B. Drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry.
- C. Trash, waste paper, garbage and junk will be burned or buried with a minimum of 24" cover. Waste material will be contained to prevent scattering by wind prior to ultimate disposal.
- D. Any produced water will be contained in tanks and be disposed of in an approved manner. Oil produced will be stored in tanks until sold, at which time it will be hauled from location.
- E. Current laws and regulations pertaining to disposal of human waste will be complied with.
- F. If productive, maintenance waste will be placed in special containers and buried or hauled away periodically.

8. ANCILIARY FACILITIES - No camps, airstrips, et cetera, will be constructed.

9. WELL SITE LAYOUT -

- A. Refer to Exhibit "B" for well site layout.
- B. Dimensions may vary slightly depending on size of drilling rig available.
- C. Terrain at the well site is very flat as shown on Exhibit "B".
- D. The pad will be topped with material obtained from the reserve pit or material hauled in from private property traversed by the access road.
- E. The reserve pit will be approximately 125' x 150' top width.

10. RESTORATION OF SURFACE -

- 1) At the time of completion and abandonment of the well, the pits will be backfilled and the entire disturbed area will be sloped to coincide with the adjacent undisturbed area. The top soil will be distributed over the entire disturbed area. Prior to leaving the drillsite upon rig move out and before reshaping any pit that is to remain open for drying will be fenced until backfilling and reshaping can be done.
- 2) When well is abandoned the new road will be rehabilitated as per BLM recommendations.

- 3) Any rehabilitation of the drill pad will comply with BLM specifications.
- 4) Any oil on pits will be removed or otherwise disposed of to USGS and BLM approval.
- 5) Rehabilitation operations will be completed as soon as practical after abandonment of the well and no later than the Fall after abandonment.

11. OTHER INFORMATION -

- A. Terrain - Flat prairie.
- B. Soil - Sandy.
- C. Sparse vegetation - Mesquite and some native grasses.
- D. There are no buildings, ponds, water wells, archeological, historical or cultural sites in the immediate area.
- E. Surface use is grazing.
- F. Effect on Environment - Drillsite, which is in nearly flat semi-arid, desert country, is in a low environmental risk area. The total effect of drilling and producing in this area would be minimal. No known archeological, historical, or cultural sites exist in the drill or road areas.
- G. Surface ownership - the drillsite and new access road is located on private lands owned by Frank Anthony.
- H. Open Pits - All unattended pits containing mud or other liquids will be fenced.
- I. Well sign - Sign identifying and locating well will be maintained at drillsite commencing with the spudding of the well.

12. OPERATOR'S REPRESENTATIVE - Field representative who can be contacted concerning compliance of this Surface Use Plan is:

W.R. Wardroup
P.O. Box 1600
Midland, TX 79702
Office Phone: (915) 684-4411
Home Phone: (915) 694-5067

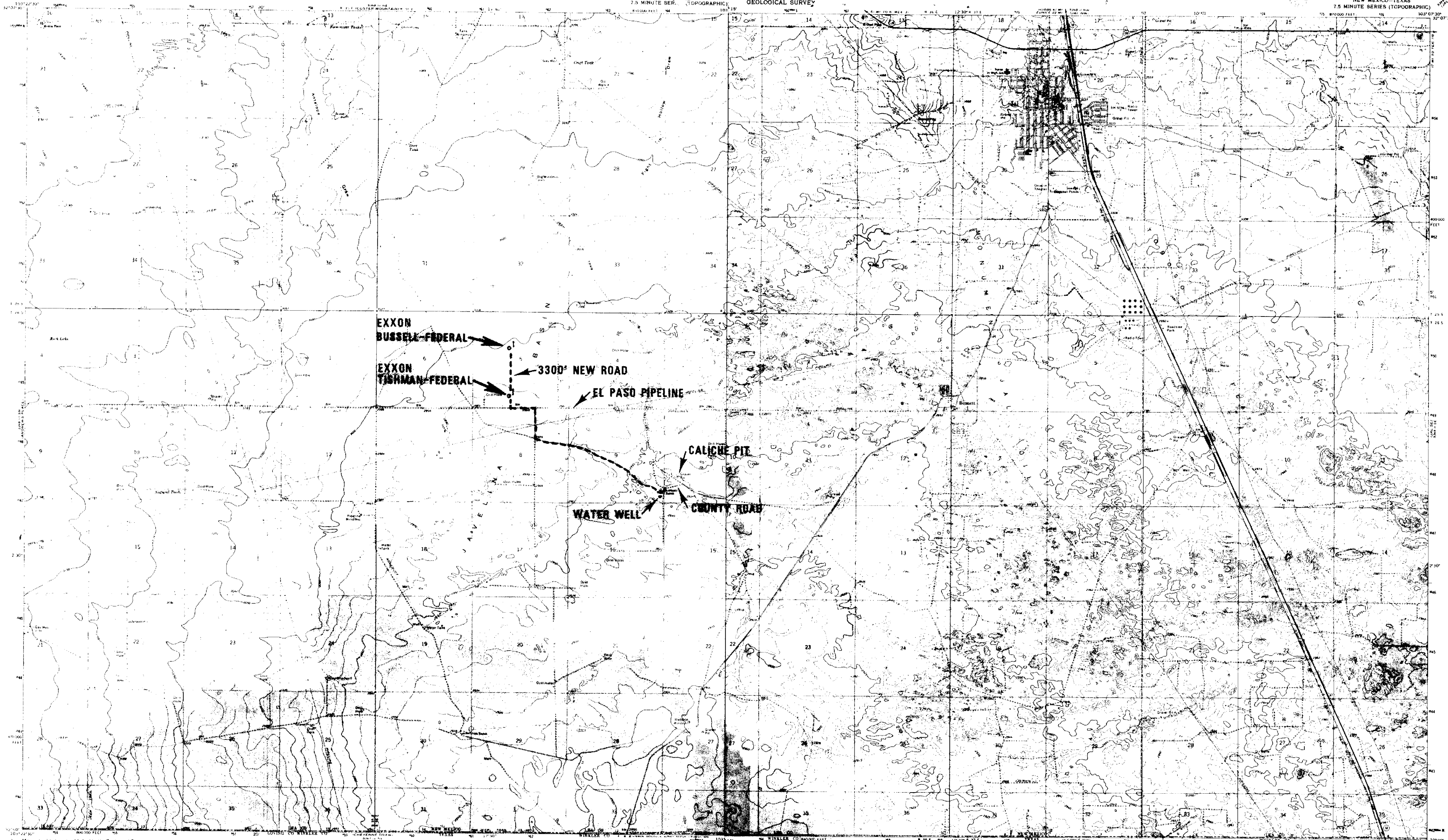
13. CERTIFICATION - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by

Exxon Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. A copy of this plan will be posted at the well site during the drilling of the well for reference by all contractors and subcontractors.

Date April 25, 1978

W.R. Wardroup
W.R. Wardroup
Division Drilling Manager

MK/jg



Maped, edited, and published by the Geological Survey
Contract to USGS and NOS/NOAA
Topography by photogrammetric methods from aerial
photographs taken 1971. Field checked 1975.
Projection and 10,000 foot grid ticks: New Mexico
coordinate system: 4841 feet (1.48 m) above mean sea level.
1000 meter interval. Transverse Mercator grid ticks,
date 1.1, shown in blue. 1927 North American datum.
Faint dashed lines indicate selected fence lines.

SCALE 1:24,000
CONTOUR INTERVAL: 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

TOPOGRAPHIC LAND SURVEYORS
908 WEST WALL
MIDLAND, TEXAS 79701
682-1653

Maped, edited, and published by the Geological Survey
Contract to USGS and NOS/NOAA
Topography by photogrammetric methods from aerial
photographs taken 1968. Field checked 1969.
Projection: projection, 1927 North American datum
10,000-foot grid based on New Mexico coordinate system
date 1.1, shown in blue.
1000-meter interval. Transverse Mercator grid ticks,
date 1.1, shown in blue. 1927 North American datum.
Faint dashed lines indicate selected fence lines.

SCALE 1:24,000
CONTOUR INTERVAL: 5 FEET
DATUM: 1929 MEAN SEA LEVEL

TOPOGRAPHIC LAND SURVEYORS
908 WEST WALL
MIDLAND, TEXAS 79701
682-1653
JAL, N. MEX.-TEX.
75000-W-10027.5-7.5
1969
AMB 5348 (100) SERIES 1961

EXHIBIT "A"

U. S. Geological Survey

HOBBS DISTRICT

Exxon Corporation
No. 1 Bussell Federal
SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 5-26S-36E
Lea County, NM

Above Data Required on Well Sign

CONDITIONS OF APPROVAL

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Drilling Operations on Federal Oil and Gas Leases, dated January 1, 1977.
2. Notify this office (telephone (505) 393-3612) when the well is to be spudded and in sufficient time for a representative to witness all cementing operations. Attached are names and telephone numbers of Geological Survey and Bureau of Land Management personnel who are available for consultation during construction, drilling, completion, and rehabilitation activities.
3. Immediate notice is required of all blowouts, fires, spills, and accidents involving life-threatening injuries or loss of life.
4. Secure prior approval of the District Engineer for variance from the approved drilling program and before commencing plugging operations, plug-back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely.
5. Blowout prevention equipment is to be installed, tested, and in working order before drilling below the surface casing and shall be maintained ready for use until drilling operations are completed.
6. Operations must be in compliance with the provisions of the landowner agreement concerning surface disturbance and surface restoration.
7. 8-5/8" surface casing should be set in the Rustler Anhydrite formation and cement circulated to the surface. If surface casing is set at a lesser depth, the 4 $\frac{1}{2}$ " casing must be cemented from the casing shoe to the surface or cemented to the surface through a stage tool set at least 50 feet below the top of the Rustler, after cementing around the shoe with sufficient cement to fill to the base of the salt section.