

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONTACT R... VING
OFFICE FOR...
OF COPIES REQUIRED
(Other instructions on
reverse side)

BLM Roswell District
Modified Form No.
NM060-3160-2

5. LEASE DESIGNATION AND SERIAL NO.
NM-59045

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
FEDERAL (USA) 'J'

9. WELL NO.
4

10. FIELD AND POOL, OR WILDCAT
LUSK DELAWARE, WEST

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA
SEC. 30, T-19-S, R-32-E

12. COUNTY OR PARISH
LEA

13. STATE
NM

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
TEXACO EXPLORATION AND PRODUCTION INC.

3a. AREA CODE & PHONE NO.
(915) 688-4620

3. ADDRESS OF OPERATOR
P. O. Box 3109, Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface
1980' FSL & 1980' FEL, UNIT LETTER: J
At proposed prod. zone
SAME

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
15 MILES SOUTH OF MALJAMAR, NEW MEXICO

15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)
660'

16. MO. OF ACRES IN LEASE
160

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.
1650'

19. PROPOSED DEPTH
7200'

20. ROTARY OR CABLE TOOLS
ROTARY

21. ELEVATIONS (Show Whether DF, RT, GR, ETC.)
GR-3538'

Capitan Controlled Water Basin

22. APPROX. DATE WORK WILL START *
MARCH 1, 1994

23. PROPOSED CASING AND CEMENTING PROGRAM

HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2	16	65#	H-40	PE	40'	REDIMIX
14 3/4	11 3/4	42#	WC-40	ST&C	850'	470 SACKS
11	8 5/8	32#	WC-50	LT&C	4100'	1650 SACKS
7 7/8	5 1/2	15.5#	WC50,J55,LS65	LT&C	7200'	1115 SACKS

CEMENTING PROGRAM: CONDUCTOR - REDIMIX.

SURFACE CASING - 300 SACKS CLASS C w/ 4% GEL, 2% CaCl₂ (13.5ppg, 1.74f3/s, 9.1gw/s). F/B 170 SACKS

CLASS C w/ 2% CaCl₂ (14.8ppg, 1.34f3/s, 6.3gw/s).

INTERMEDIATE CASING - 450 SACKS 35/65 POZ CLASS H w/ 6% GEL, 5% SALT & 1/4# FLOCELE (12.8ppg, 1.94f3/s, 10.1gw/s). F/B 200 SACKS CLASS H w/ 1% CaCl₂ (15.6ppg, 1.18f3/s, 5.2gw/s).

DV TOOL @ 2800' - 2nd STAGE: 900 SACKS 35/65 POZ CLASS H w/ 6% GEL, 5% SALT, 1/4# FLOCELE (12.8ppg, 1.94f3/s, 10.1gw/s). F/B 100 SACKS CLASS H w/ 2% CaCl₂ (15.6ppg, 1.19f3/s, 5.2gw/s).

PRODUCTION CASING - 950 SACKS 35/65 POZ CLASS H w/ 6% GEL, 5% SALT & 1/4# FLOCELE (12.8ppg, 1.94f3/s, 10.1gw/s). F/B 165 SACKS 50/50 POZ CLASS H w/ 2% GEL, 5% SALT, 1/4# FLOCELE (14.2ppg, 1.35f3/s, 6.3gw/s).

OPER. OGRID NO. 022351

PROPERTY NO. 010936

THERE ARE NO OTHER OPERATORS IN THIS QUARTER SECTION.

APPROVED SUBJECT TO POOL CODE 41540

Comments and

SPRINGS DATE 3-8-94

APINO. 32-025-32448

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 C.P. Basham/cwa TITLE DRILLING OPERATIONS MANAGER DATE 01-06-94

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY Winneby P. Albright TITLE AREA MANAGER DATE MAR 9 1994

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

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

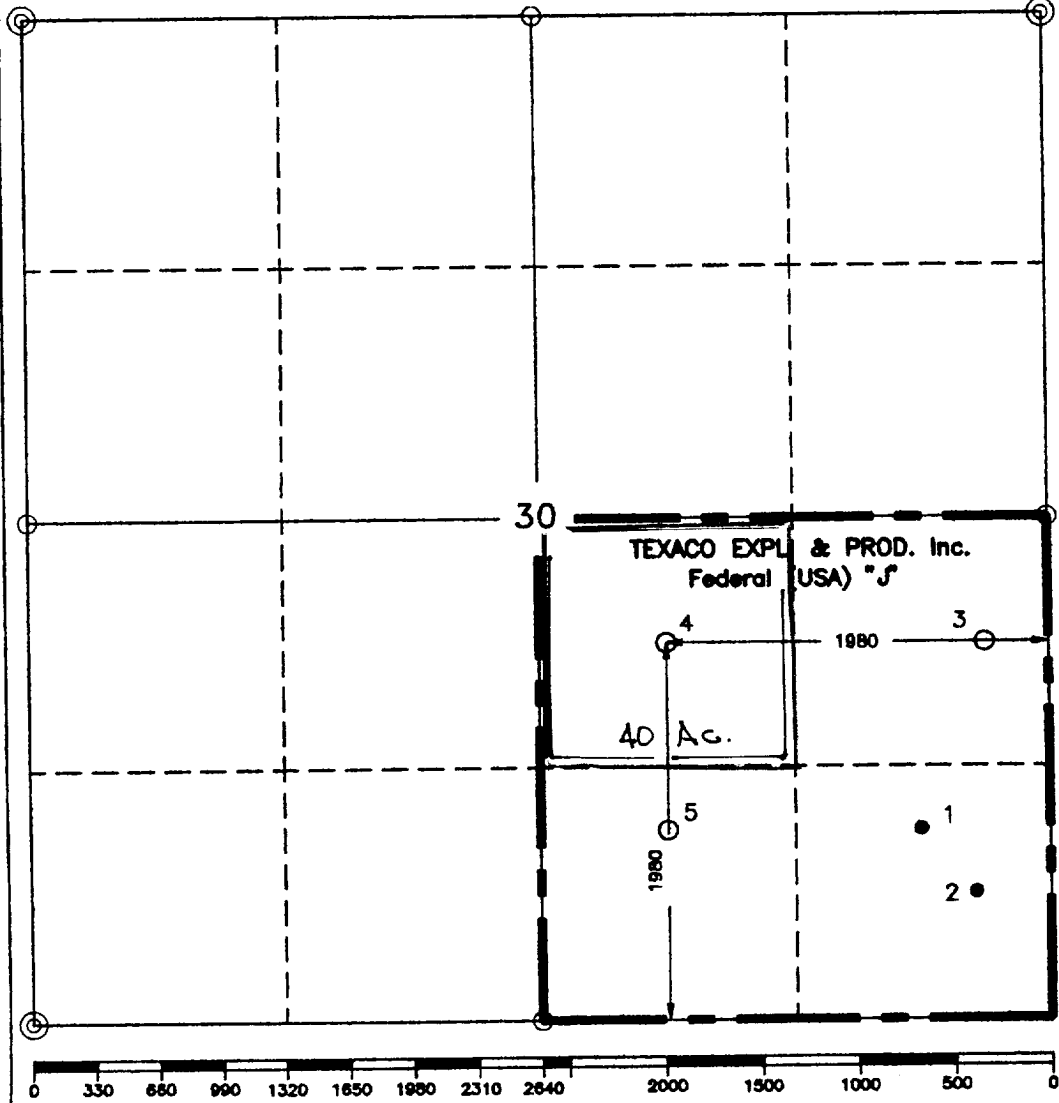
DISTRICT II
P. O. Drawer DD, Artesia, NM 88210

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

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 TEXACO EXPLORATION AND PRODUCTION Inc.		Lease Federal (USA) "J"		Well No. 4
Unit Letter J	Section 30	Township 19-South	Range 32-East	County Lea
Actual Footage Location of Well:				
1980 feet from the South line and		1980 feet from the East line		
Ground level Elev. 3538	Producing Formation Delaware; Brushy Canyon	Pool Lusk Delaware, West	Dedicated Acreage: 40 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>				
				OPERATOR CERTIFICATION <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature: <i>Royce D. Mariott</i> Printed Name: Royce D. Mariott Position: Division Surveyor Company: Texaco Exp. & Prod. Date: December 17, 1993</p>
				SURVEYOR CERTIFICATION <p>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.</p> <p>Date Surveyed: December 15, 1993 Signature & Seal of Professional Surveyor: <i>John S. Piper</i> Certificate No.: 7254 John S. Piper Lea Co. FB. 10, Page 2 Sheet 8 of 8</p>

⊙ = Fd 2 or 3" Iron Pipe with GLO Brass Cap ○ = Fd 1" Iron Pipe with GLO Brass Cap ○ = Staked Location

DRILLING PROGRAM

FEDERAL (USA) "J" WELL NO. 4

SURFACE DESCRIPTION:

This well is in an area known as the Querecho Plains. The Querecho Plains occurs in a region which is typified by undulating landforms which possesses both stabilized and unstabilized sand dunes, mesquite anchored-hummocks and hills. Vegetation consists mainly of shin oak, mesquite, sand sage, broom-snake weed, and range grasses.

FORMATION TOPS: Estimated KB Elevation: 3550'

<u>Formation</u>	<u>Depth</u>	<u>Lithology</u>	<u>Fluid Content</u>
Rustler	825'	Anhydrite, Salt	----
Tansill	2505'	Dolomite	----
Yates	2570'	Sand, Dolomite	Oil/Gas
Capitan Reef	2840'	Limestone, Dolo	----
Delaware (Cherry Canyon)	4385'	Sandstone, Shale	Oil/Gas
Brushy Canyon- Pay	6615'	Sandstone, Shale	Oil/Gas
Bone Spring	7115'	Limestone	----

The base of the salt section is found around 2505'. No abnormal pressures or temperatures are anticipated to be encountered in this well. H₂S is possible in this well. H₂S RADIUS OF EXPOSURE: 100ppm = 19 feet, 500ppm = 9 feet, based on 400ppm and 180 mcf. (See attached H₂S Drilling Operations Plan. H₂S equipment to be operational prior to drilling out Surface Casing Shoe.)

PRESSURE CONTROL EQUIPMENT:

A 3000 psi Dual Ram type preventer with rotating head will be used. (See Exhibit C). We do not plan to have an annular preventer. We will be able to achieve full closure of the well with the double ram preventer. It will be installed after surface casing is set. BOP will be tested each time it is installed on a casing string and at least every 29 days, and operated at least once each 24-hour period during drilling.

BOP's on this well will not be tested by an independent service company since it will be drilled immediately following the Federal (USA) "J" Well No. 3. We will test the BOP and all components of the well control system with the rig pump.

A PVT system will not be installed. We will be drilling thru the reserve pit and will circulate the steel pits one hour each tour to check for gains and losses and will be noted on the driller's log, which is Texaco's policy.

We do not plan to run an automatic remote-controlled choke. We will have installed and tested two manual, H₂S trimmed, chokes.

CASING AND CEMENT PROGRAM:

The casing and cementing programs are detailed on Form 3160-3. All casing will be new.

Centralizer Program:

Surface Casing - Centralize the bottom 3 joints and every 4th to surface.

Intermediate Casing - Centralize the bottom 3 joints and above and below the DV tool.

Production Casing - Centralize bottom 600' every 3 joints.

MUD PROGRAM:

<u>Depth</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>
0'-850'	Fresh Water	8.4	28
850'-4100'	Brine Water	10.0	29
4100'-6900'	Fresh Water	8.4	28
6900'-7200'	FW/Starch	8.4-8.6	29-33

LOGGING, TESTING:

GR-CAL-DSN-SDL and GR-CAL-DLL-MSFL surveys will be run.

A two-man Mud Logging Unit will be used from 4100' to 7200'.

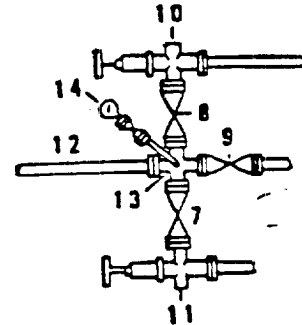
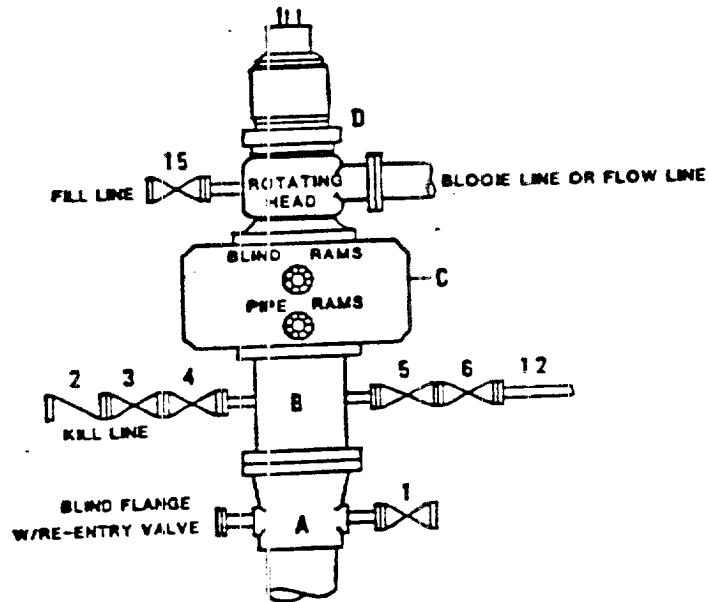
No drill stem tests will be conducted.

No cores will be taken.

**DRILLING CONTROL
CONDITION II-B 3000 WP
FOR AIR DRILLING OR
WHERE NITROGEN OR AIR BLOWS ARE EXPECTED**

H₂S TRIM REQUIRED

YES X NO



DRILLING CONTROL

MATERIAL LIST - CONDITION II - B

- A Texaco Wellhead
- B 3000# W.P. drilling spool with a 2" minimum flanged outlet for kill line and 3" minimum flanged outlet for choke line.
- C 3000# W.P. Dual ram type preventer, hydraulic operated with 1" steel, 3000# W.P. control lines (where sub-structure height is adequate, 2 - 3000# W.P. single ram type preventers may be utilized).
- D Rotating Head with fill up outlet and extended Blooe Line.
- 1,3,4, 7,8, 2" minimum 3000# W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve.
- 2 2" minimum 3000# W.P. back pressure valve.
- 5,6,9 3" minimum 3000# W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve.
- 12 3" minimum schedule 40, Grade "B", seamless line pipe.
- 13 2" minimum x 3" minimum 3000# W.P. flanged cross.
- 10,11 2" minimum 3000# W.P. adjustable choke bodies.
- 14 Cameron Mud Gauge or equivalent (location optional in choke line).
- 15 2" minimum 3000# W.P. flanged or threaded full opening steel gate valve, or Halliburton Lo Torc Plug valve.



TEXACO, INC.
MIDLAND DIVISION
MIDLAND, TEXAS



SCALE	DATE	EST NO	ORD NO
DRAWN BY			
CHECKED BY			
APPROVED BY			

EXHIBIT C