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

OIL CONS. COMMISSION
P.O. BOX 1980
HOBBS, NEW MEXICO 88240

SUBMIT IN TRIPLICATE* (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-77061

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

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

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

8. FARM OR LEASE NAME: Freida "AFR" Federal #2

2. NAME OF OPERATOR: Yates Petroleum Corporation

9. WELL NO.: 30-025-32193

3. ADDRESS OF OPERATOR: 105 South Fourth Street, Artesia, New Mexico 88210

10. FIELD AND POOL, OR WILDCAT: Diamondtail Delaware

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FNL and 1980' FEL
At proposed prod. zone: Same

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 3-T23S-R32E

Unit G

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 41 miles Northwest of Jal, New Mexico

12. COUNTY OR PARISH: Lea | 13. STATE: NM

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

16. NO. OF ACRES IN LEASE

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: 9200'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3706' GR

22. APPROX. DATE WORK WILL START*: ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM

CARLSBAD CONTROLLED WATER BASIN

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.50# J-55	1200'	950 sacks circulated
11"	8 5/8"	32# J-55 & HC-80	4630'	1450 sacks (tie back)
7 7/8"	5 1/2"	15.5# J-55 & 17# J-55	TD	700 sacks (tie back)

Yates Petroleum Corporation proposes to drill and test the Delaware and intermediate formations. Approximately 1200' of surface casing will be set and cement circulated. Approximately 4630' of intermediate casing will be set and cement circulated. If commercial, production casing will be run and cemented with adequate cover, perforated and stimulated as needed for production.

MUD PROGRAM: FW/GEL to 1200'; Brine to 4630', cut Brine to TD.

BOPE PROGRAM: BOPE will be installed on the 13 3/8" casing and tested daily for operational.

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 Clifton R. May TITLE Permit Agent DATE 6/2/93

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY (ORIG. SGD.) RICHARD L. MANUS TITLE AREA MANAGER DATE AUG 19 1993

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 United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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.
YATES PETROLEUM CORPORATION			FREIDA AFR FEDERAL		2
Unit Letter	**Section**	**Township**	**Range**		**County**
G	3	23 SOUTH	32 EAST	NMPM	LEA

Actual Footage Location of Well:
1980 feet from the NORTH line and 1980 feet from the EAST line

Ground level Elev.	Producing Formation	Pool	Dedicated Acreage:
3706.	DELAWARE	DIAMONDTAIL DELAWARE	40 Acres

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

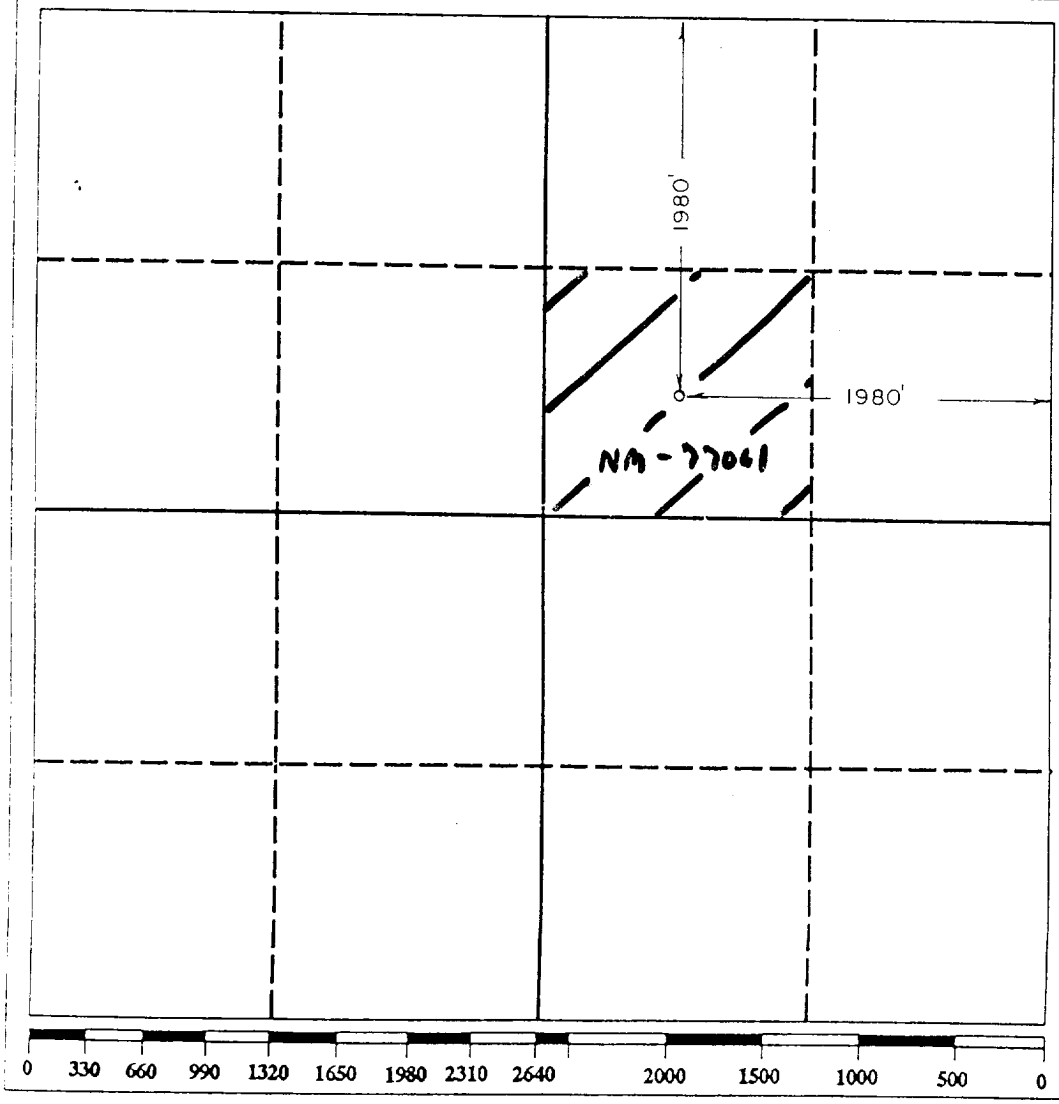
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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: Clifton R. May

Printed Name: Clifton R. May

Position: Permit Agent

Company: Yates Petroleum Corporation

Date: 6/2/93

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: 5/11/93

Signature & Seal of Professional Surveyor: HERSCHEL JONES

Certificate No. 3640

YATES PETROLEUM CORPORATION
FREIDA "AFR" FEDERAL #2
1980' FNL AND 1980' FEL
SECTION 3-T23S-R32E
LEA COUNTY, NEW MEXICO

1. The estimated tops of geologic markers are as follows:

Rustler	1150'	Bone Spring	8850'
Bottom of Salt	4610'	TD	9200'
Bell Canyon	4870'		
Cherry Canyon	5900'		
Brushy Canyon	7680'		

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: 250-750
Oil or Gas: 7680' and 8850'

3. Pressure Control Equipment: BOPE will be installed on the 13 3/8" casing and rated for 3M BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

Auxiliary Equipment:

A. Auxiliary Equipment: Kelly cock, pit level indicators, and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

4. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: (All New)

Hole Size	Casing Size	Wt./Ft	Grade	Thread	Coupling	Interval	Length
17 1/2"	13 3/8	54.50	J55	8R	ST&C	0-1200	1200
11"	8 5/8	32	J55	8R	ST&C	0-4200	4200'
11"	8 5/8	32	HC-80	8R	LT&C	4200-4630	430'
7 7/8"	5 1/2	17#	J55	8R	LT&C	0-1500	1500'
7 7/8"	5 1/2	15.50#	J55	8R	LT&C	1500-6700	5200'
7 7/8"	5 1/2	17#	J55	8R	LT&C	6700-9200	2500'

Minimum Casing Design Factors: Callapse 1.125, Burst 1.0, Tensile Strength 1.80

B. CEMENTING PROGRAM:

Surface casing: 700 sx. Pacesetter Lite "C" w/ 1/4# Cellocel & 3% CaClz (wt. 12.7 ppg. Yield 1-84 ft3) + 250 sx. Class "C" w/ 2% CaClz. (wt. 14.8 ppg., Yield 1.32 ft3) Cement calculated to circulate to surface.

Intermediate Casing: 1200 sx. Pacesetter Lite "C" w/ 1/4# Cellocel + 3% CaClz. (wt. 12.7 ppg. Yield 1-84 ft 3) + 250 sx. Class "C" w/2% CaClz. (wt. 14.8 ppg. Yield 1.32 ft3) Cement calculated to circulate to surface.

Production Casing: 1st Stage: 150 sx. "H" w/8# sack CSE, + 0.6% CF-14 +5# sack Gilsonite (wt. 13.6 ppg Yield 1.76 ft3) Cement calculated to 8000' DV tool set at approx. 8000 ft.

2nd Stage: 500 sacks "C" w/5# sack Gilsonite, 1/4# sack Cellocel, + 0.5% CF-14. (wt. 12.5 ppg Yield 2.04 ft3) + 200 sacks "H" w/0.5% Cf-14 (wt. 15.6 ppg Yield 1.18 ft3). Cement calculated to tie back to intermediate csng. 100'.

5. Mud Program and Auxiliary Equipment:

Interval	Type	Weight	Viscosity	Fluid Loss
0-1200	FWGEL	8-4 8-9	32-36	N/C
1200-4630	Brine	10-0	28	N/C
4630-9200	cut brine	8-9 9-3	28	<15cc

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

6. EVALUATION PROGRAM:

Samples: Every 10' from surface casing to TD
Logging: CNL - LTD from TD to casing with GR-CNL up to surface; DLL w/RXO from TD to casing
Coring: None anticipated
DST's: Any tests will be based on the recommendations of the well site geologist as warranted by drilling breaks and shows

7. Abnormal Conditions, Bottom hole pressure and potential hazards:
Anticipated BHP:

From: 0	TO: 1200	Anticipated Max. BHP: 450	PSI
From: 1200	TO: 4630	Anticipated Max. BHP: 1685	PSI
From: 4630	TO: TD	Anticipated Max. BHP: 3300	PSI

Abnormal Pressures Anticipated: None

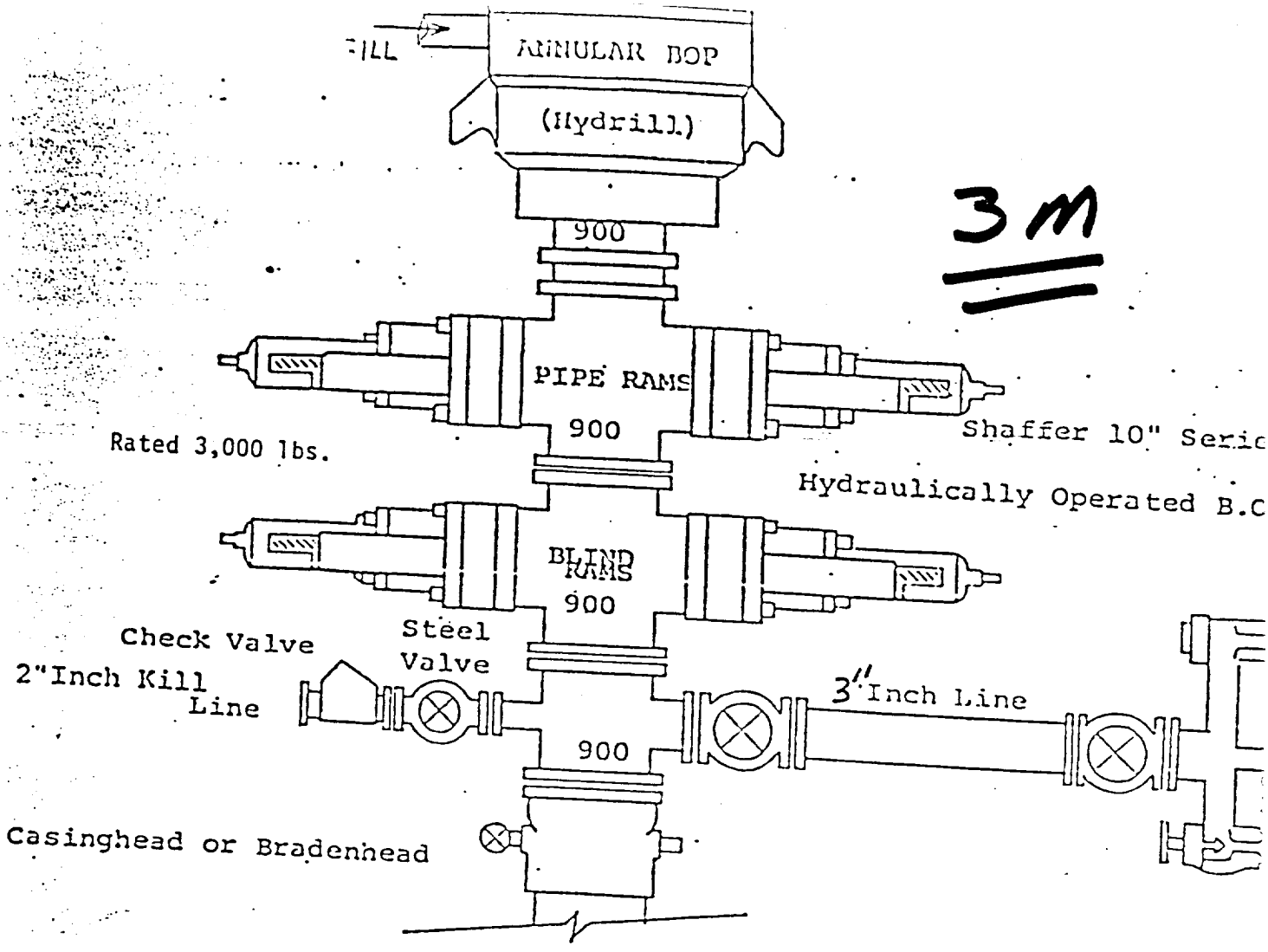
Lost Circulation zones anticipated: None

H2S Zones Anticipated: None

Maximum Bottom Hole Temperature: 140F

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 15 days to drill the well with completion taking another 20 days.



3M

THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

1. All preventers to be hydraulically operated with secondary manual c installed prior to drilling out from under casing.
2. Choke outlet to be a minimum of 3" diameter.
3. Kill line to be of all steel construction of 2" minimum diameter.
4. All connections from operating manifolds to preventers to be all st hole or tube a minimum of one inch in diameter.
5. The available closing pressure shall be at least 15% in excess of t required with sufficient volume to operate the B.O.P.'s.
6. All connections to and from preventer to have a pressure rating equ to that of the B.O.P.'s.
7. Inside blowout preventer to be available on rig floor.
8. Operating controls located a safe distance from the rig floor
9. Hole must be kept filled on trips below intermediate casing.

EXHIBIT
B