Form 3160-3
(July 1992)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NMSF-080382A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

1a. TYPE OF WORK: DRILL ☑ DEEPEN ☐

7. UNIT AGREEMENT NAME: N/A (13263)

b. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER — SINGLE ZONE ☑ MULTIPLE ZONE ☐

8. FARM OR LEASE NAME, WELL NO.: Schwerdtfeger 17 1 E

2. NAME OF OPERATOR: Marathon Oil Company (915) 687-8357 (14021)

9. API WELL NO.: 30-045-30399

3. ADDRESS AND TELEPHONE NO.: P. O. Box 552, Midland, Tx. 79702-0552

10. FIELD AND POOL, OR WILDCAT: Basin Dakota

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 790' FNL & 1700' FEL
At proposed prod. zone: Same

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: D 17-27n-11w NMPM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 11 air miles SSW of Bloomfield, NM

12. COUNTY OR PARISH: San Juan | 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
940'	2081.12	320 E/2
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
125'	6,860'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6,186' ungraded ground

22. APPROX. DATE WORK WILL START*: Feb. 15, 2001

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" (J-55)	24#	325'	≈270 cu ft & to surface
7-7/8"	4-1/2" (K-55)	11.6#	6,860'	≈2394 cu ft & to surface

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

APR 2001
RECEIVED
OIL CON. DIV.
DIST. 3

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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.

cc: BIA, BLM (+ OCD), Donaghey, Fletcher, NABI Tribe

24.

SIGNED: Brian Wood — TITLE: Consultant (505) 466-8120 — DATE: 10-14-00

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE: 4/19/01

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY: /s/ Joel Farrell — TITLE _____ DATE: APR 19

*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 NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-30399	71599	BASIN DAKOTA

[4] Property Code	[5] Property Name	[6] Well Number
13263	SCHWERDTFEGER	1E

[7] OGRID No.	[8] Operator Name	[9] Elevation
14021	MARATHON OIL COMPANY	6186

[10] Surface Location

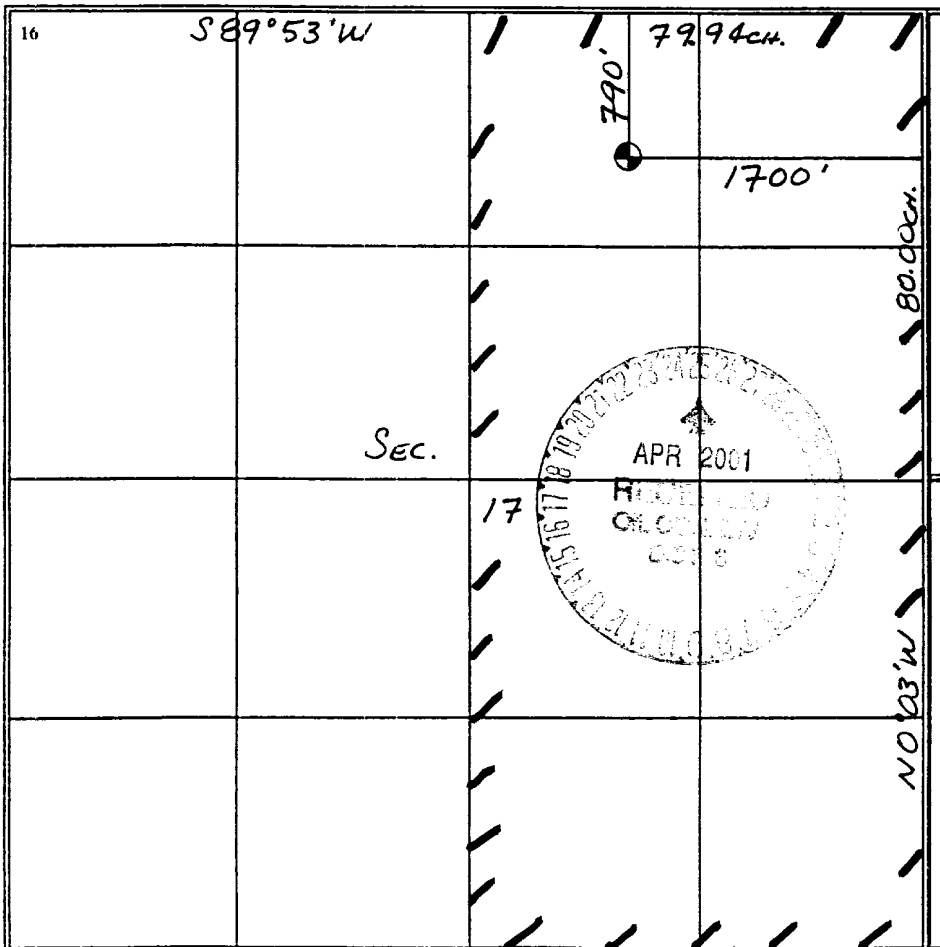
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	17	27 N	11 W		790	North	1700	East	San Juan

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320 E/2			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



[17] OPERATOR CERTIFICATION

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

Signature

BRIAN WOOD
Printed Name

CONSULTANT
Title

OCT. 14, 2000
Date

[18] 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 supervision, and that the same is true and correct to the best of my belief.

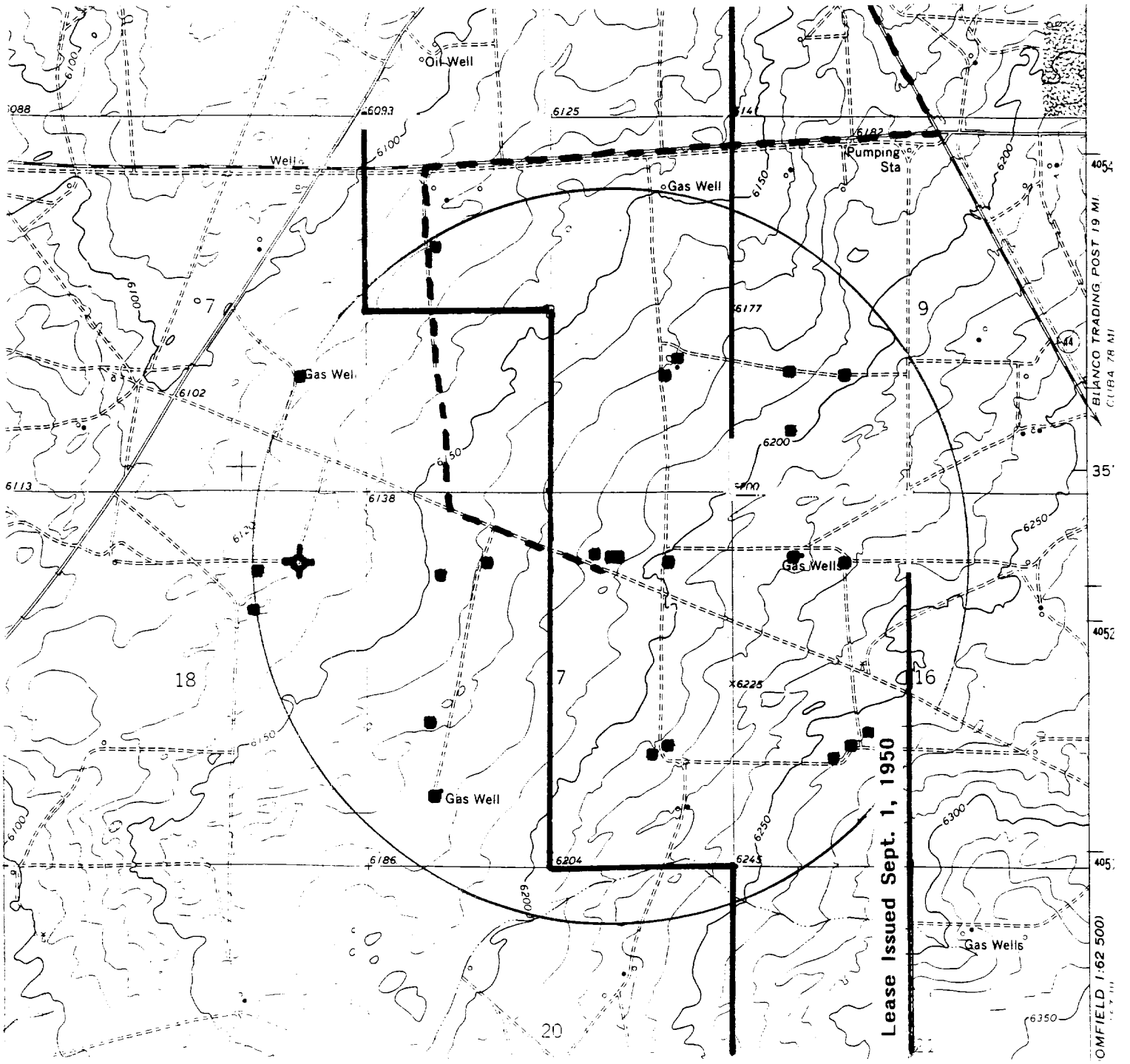
16 Sep. 2000
Date of Survey

Signature and Seal of Professional Surveyer:

William E. Mahnke II
Certificate Number 8466

New Mexico Oil Conservation Division

Marathon Oil Company
Schwerdtfeger 17 1 E
790' FNL & 1700' FEL
Sec. 17, T. 27 N., R. 11 W.
San Juan County, New Mexico



PROPOSED WELL: ■ LEASE BOUNDARY:
EXISTING WELL: ● EXISTING ROAD:
P&A WELL:

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) An 8-5/8" x 11" 2,000 pound double ram BOP system with a choke manifold and mud cross will be tested to 200 psi and then to 2000 psi. Upper and lower Kelly cocks with valve handle and subs to fit all drill string connections which are in use will be available on the rig floor.

Tests will be run when:

1) installed
2) anytime a pressure seal is broken (test only affected equipment)
3) at least every 30 days
4) blind & pipe rams will be activated each trip, but no more than daily

BOP systems will be consistent with API RP 53. Blowout preventers will be installed and tested before drilling surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated daily to ensure good mechanical working order and this inspection recorded on the daily drilling report. Preventers and casing will be pressure tested before drilling casing cement plugs. Maximum expected bottom hole pressure is ≈2,800 psi. BOP and mud system will control pressure.

4. CASING & CEMENT

Hole Size	O.D.	Weight (lb/ft)	Grade	Age	Connections	GL Setting Depth
12-1/4"	8-5/8"	24	J-55	New	8rd, ST&C	325'
7-7/8"	4-1/2"	11.6	K-55	New	8rd, LT&C	6,860'

Surface casing will be cemented to surface with ≈270 cu. ft. (≈230 sx) Class B Neat + 1/4 lb/sk cello-flake + 2% $CaCl_2$. Yield = 1.27 cu. ft./sk. Weight = 15.2 lb/gal.

Conventional centralizers will be set on the bottom two joints and every fourth joint to surface.

Production casing hole will be cemented to surface as follows. DV @ 4,000'.

First stage Lead will be cemented to 4,000' with 828 cu. ft. (600 sx) 50:50 Poz + 5 lb/sk gilsonite + 2% gel + 1/4 lb/sk cello-flake, dispersant, and FLA. Yield = 1.38 cu. ft./sk. Weight = 13.5 lb/gal. Excess = 25%.

Second stage Lead will be cemented to surface with 1440 cu. ft. (500 sx) Class B or H + 10 lb/sk gilsonite + 4% gel + 1/2 lb/sk cello-flake + 3% Econolite. Yield = 2.88 cu. ft./sk. Weight = 11.4 lb/gal. Excess = 50%

Second stage Tail will be cemented to 3,600' with 126 cu. ft. (100 sx) Class B or H Neat + 1/4 lb/sk cello-flake + 2% CaCl. Yield = 1.26 cu. ft./sk. Weight = 15.2 lb/gal. Excess = 10%.

Production casing may be cemented with an alternative foam cement.

First stage Lead will be cemented to 200' with 1320 cu. ft. (1,740 cu. ft. when foamed) or 1,000 sx 50:50 Poz + 2% gel + 2% Diacel LWL 0.094 gal/sk foaming agent. Yield = 1.32 cu. ft./sk (1.74 when foamed). Weight = 13.8 lb/gal (10.5 when foamed). Excess = 15%.

First stage Tail will be cemented to 6,000' with 146 cu. ft. (116 sx) Class B or H Neat + 1/4 lb/sk cello-flake + 2% CaCl. Yield = 1.26 cu. ft./sk. Weight = 15.2 lb/gal.

Cap will be cemented to surface with 75 cu. ft. (60 sx) Class B or H with 2% $CaCl_2$.

Conventional centralizers will be set on the bottom two joints, every second joint to 6,100' and every fourth joint from 2,000' to surface.