Form 3160-3
(December 1990)

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

Form approved
Budget Bureau No. 1004-0136
Expires: December 31, 1991

# UNITED STATES
# DEPARTMENT OF THE INTERIOR
## BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ]

b. TYPE OF WELL
OIL WELL [XXX] GAS WELL [ ] OTHER SINGLE ZONE [XXX] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
CHEVRON U.S.A. INC. ATTN: J. K. Ripley

3. ADDRESS AND TELEPHONE NO.
P. O. BOX 1150, MIDLAND, TX 79702 915-687-7826

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface 1980' FSL & 660' FWL
At proposed prod. zone Unit L

5. LEASE DESIGNATION AND SERIAL NO.
NM-26690 E

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

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME, WELL NO.
PATTERSON FEDERAL 33 #1

9. API WELL NO.

10. FIELD AND POOL, OR WILDCAT
~~LUSK~~ SAN ANDRES Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
SEC. 33, T18S, R32E

12. COUNTY OR PARRISH: LEA
13. STATE: NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
15 miles South of Maljamar, NM

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

16. NO. OF ACRES IN LEASE: 280

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.: 1320'

19. PROPOSED DEPTH: 6000'

20. ROTARY OR CABLE TOOLS: ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, ect.): 3684' GR

22. APPROX. DATE WORK WILL START*: 03/30/96

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" | 23 | 800' | SURFACE |
| 7-7/8" | 5-1/2" | 15.5 | 6000' | CIRCULATED |

CHEVRON USA PROPOSES TO DRILL TO APPROXIMATELY 6000'. IF WELL IS DEEMED TO BE NON-COMMERCIAL, THE WELLBORE WILL BE PLUGGED AND ABANDONED AS PER FEDERAL REGULATIONS. PROGRAMS TO ADHERE TO ONSHORE OIL AND GAS REGULATIONS ARE OUTLINED IN THE ATTACHMENTS.

Approval Subject to General Requirements and Special Stipulations Attached

OPER. OGRID NO. 4323
PROPERTY NO. 18894
POOL CODE
EFF. DATE 5/3/96
API NO. 30-025-33411

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give deepen directionally, give pertinent data on subsurface locations and measured and true ... is to drill or

24
SIGNED J. K. Ripley TITLE TECHNICAL ASSISTANT DATE 03/18/96

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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 ORIG. SGD.) DAVID R. GLASS TITLE AREA MANAGER DATE APR 29 1996

*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.

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

# OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | Pool Code | Pool Name |
|---|---|---|
| | | Wildcat ~~LUSK~~ SAN ANDRES |

| Property Code | Property Name | Well Number |
|---|---|---|
| | PATERSON FEDERAL 33 | 1 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 4323 | CHEVRON U.S.A. INC. | 3684 |

### Surface Location

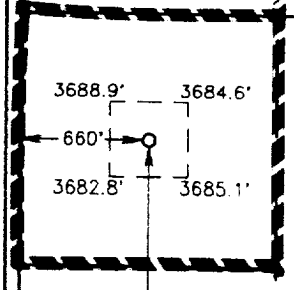
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| K L | 33 | 18 S | 32 E | | 1980 | SOUTH | 660 | WEST | LEA |

### 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 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|---|---|---|---|
| 40 | | | |

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




### OPERATOR CERTIFICATION

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

J.K. Ripley
Signature

J. K. Ripley
Printed Name

T.A.
Title

3/18/96
Date

### 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 belief.*

JANUARY 17, 1996
Date Surveyed

SJA

Signature & Seal of Professional Surveyor

NEW MEXICO
3239
1-31-96

W.O. Num. 96-11-0071

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239
GARY L. EIDSON 12641

# DRILLING PROGRAM

Attached to Form 3160-3
Chevron U.S.A. Inc.
Patterson Federal 33 #1
1980' FSL & 660' FWL
Section 33, T18S, R32E
Lea County, New Mexico

1. Geological Name of Surface Formation:

   Aeolian

2. Estimated Tops Of Important Geological Markers:

| | |
|---|---|
| Rustler | 1220' |
| Top of Salt | 1348 |
| Base of Salt | 3086' |
| Yates | 3201' |
| Seven Rivers | 3329' |
| Queen | 3883' |
| Penrose | 4129' |
| Grayburg | 4373' |
| San Andres | 4923' |
| Delaware | 5285' |
| TD | 6000' |

3. Protection of Zones:

   The fresh water sands will be protected by setting 8 5/8" casing at 800' and circulating cement to surface. The oil and gas zones will be protected with 5 1/2" casing to total depth and circulating cement to surface.

4. Casing Program:

| Hole Size | Interval | Csg OD | Weight, Grade, Type |
|---|---|---|---|
| 12 1/4" | 0-800' | 8 5/8" | 23#, WC-50, ST&C |
| 7 7/8" | 0-6000' | 5 1/2" | 15.5#, K-55, LT&C |

Cement Program:

| | |
|---|---|
| 8 5/8" Surface Casing:<br>(12 1/4" open hole) | Cemented to surface using Class "C" + 4% Gel + additives, followed by Class "C" neat. |
| 5 1/2" Production Casing<br>(7 7/8" open hole) | Cemented to surface using Class "C" + 16% Gel + Additives, followed by Class "C" neat. |

The above cement slurries will be designed using caliper logs to circulate cement to surface.

5. Minimum Specifications for Pressure Control:

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a (2M system) double ram type (2000 psi WP) preventor. The unit will be hydraulically operated and equipped with blind and pipe type rams. BOP's will will be installed on the 8 5/8" surface casing and will be utilized continuously until total depth is reach and production casing is in place and cemented. All BOP's and associated equipment will be tested before drilling out 8 5/8" casing shoe.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These function tests will be documented on the daily drillers log. A 2" kill line and 2" choke line will be incorporated in the drilling spool below the ram-type BOP. Other BOP equipment will include a kelly cock, floor safety valve, choke lines and choke manifold having 2000 psi WP rating.

6. Types and Characteristics of Proposed Mud System:

The well will be drilled to a total depth using fresh water, brine and polymer mud systems.

| DEPTH | TYPE | WEIGHT | VISCOSITY | WATER LOSS |
|---|---|---|---|---|
| 0'-800' | Fresh Water | 8.8 | 34-36 | No control |
| 800'-6000' | Brine Water | 10.0 | 28 | No Control |

7. A. A kelly cock will be in the drill string at all times.

B. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

C. No H2S will be encountered in this well.

8. Logging, Testing and Coring Program:

A. Drill stem test will be based on geological sample shows (none planned).

B. The open hole logging program will be:

Comp. Neutron / Lithodensity Log, Dual Lateral / MSFL, Digital Sonic, Sidewall Cores.

C. No coring is planned.

9. Abnormal Pressures, Temperature and Potential Hazards:

No abnormal pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is 100 degrees and maximum bottom hole pressure is 2300 psig. No hydrogen sulfide gas has been reported or is known to exist at these depths in this area. No major loss circulation intervals have been encountered in adjacent wells.

10. Anticipated Starting Date and Duration of Operations:

Road and location preparation will not be undertaken until approval has been received from the BLM. The anticipated spud date is approximately June 1, 1996. The drilling operations should require approximately 12 days. If the well is deemed productive, completion operations will require, at minimum, an additional 30 days of testing to ascertain whether permanent production facilities will be constructed.

## E. CLASS III BLOWOUT PREVENTER STACK:

The Class III preventer stack is designed for drilling or workover operations. It is composed of a single hydraulically operated annular preventer on top, then a blind ram preventer, a drilling spool, and a single pipe ram preventer on bottom. The choke and kill lines are installed onto the drilling spool and must have a minimum internal diameter of 2". All side outlets on the preventers or drilling spool must be flanged, studded, or clamped. An emergency kill line may be installed on the wellhead. A double ram preventer should only be used when space limitations make it necessary to remove the drilling spool. In these instances, the choke manifold should be connected to a flanged outlet between the preventer rams only. In this hookup, the pipe rams are considered master rams only, and cannot be used to routinely circulate out a kick. The Class III blowout preventer stack is shown to the right in Figure 11J.4.

**Figure 11J.4**
**Class III Blowout Preventer Stack**