

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

(Other Instructions
refer

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

2. TYPE OF WELL
 OIL WELL GAS WELL OTHER

3. NAME OF OPERATOR
 McKay Oil Corporation

4. ADDRESS OF OPERATOR
 P.O. Box 2014, Roswell, New Mexico 88202

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
 At surface: 660'FNL & 460'FEL
 At proposed prod. zone

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE
 28 Miles Northwest of Roswell, N.M.

7. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest dirg. unit line, if any)
 460'

8. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
 None

9. FIXATIONS (Show whether DF, RT, GR, etc.)
 4267 GL

5. LEASE DESIGNATION AND SERIAL NO.
 NM-32311

6. IF INDIAN, ALLOTTED OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
 West Fork Federal Unit

9. WELL NO.
 5

10. FIELD AND POOL, OR WILDCAT
 W. Pecos Slope Abo

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec. 25-5S-21E

12. COUNTY OR PARISH
 Chaves

13. STATE
 N.M.

14. NO. OF ACRES IN LEASE
 1598.64

15. NO. OF ACRES ASSIGNED TO THIS WELL
 160.0

16. PROPOSED DEPTH
 3,400'

17. ROTARY OR CABLE TOOLS
 Rotary

18. APPROX. DATE WORK WILL START
 ASAP

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" | 24.0 J-55 | 900± | 850 cf cement circulated |
| 7 7/8" | 4 1/2" | 9.5 J-55 | TD | 1200 cf cement including 480 cf to tie in 4 1/2" to 8 5/8" from 1500' to 800'. |

See attached slips

We propose to drill and test the Abo formation. Approximately 900' of surface casing will be set and cemented to surface. If commercial, 4 1/2" production casing will be run and cemented with adequate cover, perforated and stimulated as needed for production.

MUD PROGRAM: See Supplemental Drilling Data Which is Attached.

BOP PROGRAM: BOP will be installed on 8 5/8" casing and tested daily.

Gas is not dedicated.



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 blow-out preventer program, if any.

SIGNED Jane Schuster TITLE V.P. Land & Legal DATE 11/10/89

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY [Signature] TITLE Acting Area Manager DATE Feb. 1, 1990

APPROVAL OF THIS APPLICATION DOES NOT WARRANT OR CERTIFY THAT THE APPLICANT HOLDS LEGAL OR EQUITABLE TITLE TO THOSE RIGHTS IN THE SUBJECT LEASE WHICH WOULD ENTITLE AN APPLICANT TO CONDUCT OPERATIONS THEREON. PLEASE BE ADVISED THAT THERE WILL BE NO EXCAVATION OF FEDERALLY OWNED MINERAL MATERIAL FOR CONSTRUCTION OF THE ACCESS ROAD OR PAD WITHOUT PAYMENT. IN ADVANCE.

The undersigned hereby certifies that he is duly qualified 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.

All distances must be from the outer boundaries of the Section.

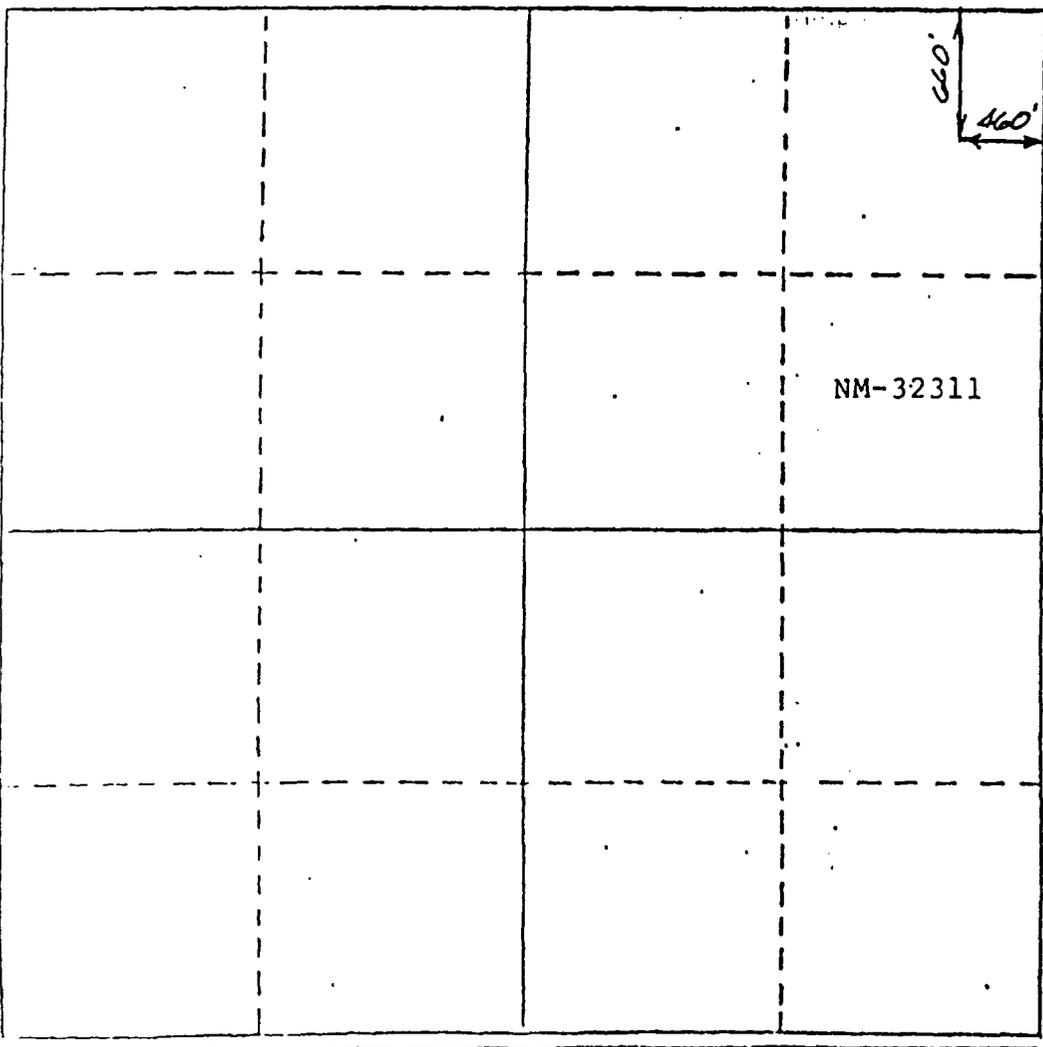
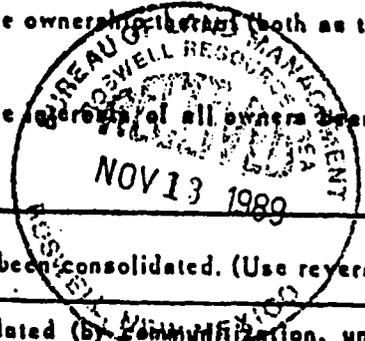
| | | | | | |
|--|----------------------------|---------------------------------|----------------------------|-----------------------------|----------------|
| Operator McKay Oil Corporation | | Lease West Fork Federal Unit | | | Well No. 15 |
| Unit Letter A | Section 25 | Township 5 South | Range 21 East | County Chaves | |
| Actual Postage Location of Well: 460 feet East line and 660 feet feet from the North line | | | | | |
| Ground Level Elev. 4267 | Producing Formation ABO | | Pool W. Pecos Slope ABO | Dedicated Acres/feet 160 | |

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 (both as to well 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 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 Div



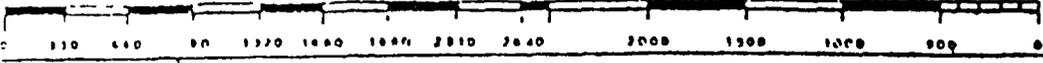
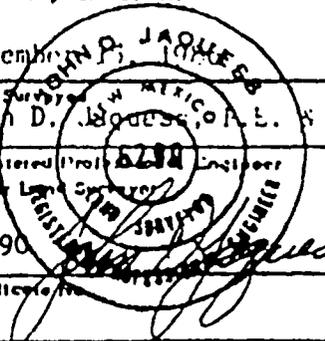
CERTIFICATION

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

Name: Sam L. Shackelfor
 Position: Agent
 Company: McKay Oil Corp.
 Date: 12-15-86

I hereby certify that the well location shown on this plat was plotted from notes of actual surveys made by me under my supervision, and that the same is true and correct to the best of my knowledge and belief.

December 15, 1986
 Date Surveyed: _____
 John D. [Signature]
 Registered Professional Engineer and/or Land Surveyor
 #6290
 Certificate No. _____



STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 10208
Order No. R-9425

APPLICATION OF MCKAY OIL CORPORATION
FOR A HORIZONTAL DIRECTIONAL DRILLING
PROJECT AND SPECIAL OPERATING RULES
THEREFOR, CHAVES COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on January 10, 1991, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 25th day of January, 1991, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) Division Case Nos. 10190, 10205, 10206, 10207 and 10208 were consolidated at the time of the hearing for the purpose of testimony.

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(3) The applicant, McKay Oil Corporation, seeks authority to initiate a horizontal directional drilling project in the NE/4 of Section 25, Township 5 South, Range 21 East, NMPM, Chaves County, New Mexico, being a standard 160-acre gas spacing and proration unit in the Undesignated West Pecos Slope-Abo Gas Pool. The applicant proposes to drill its West Fork Federal Unit Well No. 5 located at an unorthodox surface location 660 feet from the North line and 460 feet from the East line (Unit A) of said Section 25 in the following manner:

Drill vertically to a depth of approximately 3400 feet through the Abo formation, log well, plug back and set production casing, kick off from vertical at a depth of approximately 2817 feet and commence a short radius curve in an undetermined direction building angle to approximately 90 degrees, commence drilling horizontally at a depth of approximately 2877 feet a distance of approximately 500 feet.

(4) The applicant further seeks special rules and provisions within the project area including the designation of a prescribed area limiting the horizontal displacement of the wellbore such that the well can be no closer than 330 feet to the outer boundary of its assigned spacing and proration unit.

(5) The evidence and testimony presented indicates that the proposed horizontal wellbore, which is experimental in nature, should encounter a greater amount of natural fractures within the Abo formation than would a conventional wellbore, which should ultimately result in the recovery of a greater amount of gas from the proposed proration unit, thereby preventing waste.

(6) Evidence and testimony further indicate that the proposed unorthodox surface location is necessitated by topographic conditions within the NE/4 of said Section 25.

(7) The normal setback requirement for a West Pecos Slope-Abo Gas Pool well, pursuant to Rule 104 (C)(II) of the Division Rules and Regulations, is 660 feet from the outer boundary of the proration unit.

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(8) The proposed non-standard bottomhole location is necessitated by the unorthodox surface location described above.

(9) According to evidence presented, the subject well is located within the applicant's West Fork Unit Area which contains therein all affected offset acreage surrounding the NE/4 of said Section 25.

(10) There are no other operators who offset the proposed horizontal directional drilling project.

(11) According to further evidence the proposed surface location is such that there is a possibility, depending on the kick off direction, that the horizontal portion of the wellbore may encroach upon the 330 foot setback as proposed by the applicant.

(12) Should the horizontal portion of the wellbore encroach upon the 330 foot setback requirement and commercial gas production is established within the well, the applicant should be required to reopen this case and appear and present evidence and testimony in order to demonstrate that correlative rights will still be protected.

(13) No party appeared at the hearing in opposition to the application.

(14) Approval of the proposed horizontal directional drilling project should result in the recovery of an additional amount of gas from the proposed proration unit which may not otherwise be recovered, thereby preventing waste, and will not violate correlative rights provided that the proposed horizontal drainhole is in compliance with the setback requirements described in Finding No. (4) above.

(15) The applicant should be required to conduct a directional survey on the vertical portion of the wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore during or subsequent to completion of directional drilling operations in order that the direction, extent and terminus of said horizontal drainhole may be determined to be in compliance with the terms of this order.

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(16) The applicant should further be required to submit copies of said directional surveys to the Santa Fe and Artesia offices of the Division.

(17) The applicant should notify the supervisor of the Artesia district office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

IT IS THEREFORE ORDERED THAT:

(1) The application of McKay Oil Corporation for a horizontal directional drilling project in the NE/4 of Section 25, Township 5 South, Range 21 East, NMPM, Undesignated West Pecos Slope-Abo Gas Pool, Chaves County, New Mexico, is hereby approved.

(2) The applicant is further authorized to drill its West Fork Federal Unit Well No. 5 located at an unorthodox surface location 660 feet from the North line and 460 feet from the East line (Unit A) of said Section 25 in the following manner:

Drill vertically to a depth of approximately 3400 feet through the Abo formation, log well, plug back and set production casing, kick off from vertical at a depth of approximately 2817 feet and commence a short radius curve in an undetermined direction building angle to approximately 90 degrees, commence drilling horizontally at a depth of approximately 2877 feet a distance of approximately 500 feet.

(3) The NE/4 of said Section 25 shall be dedicated to the above-described well forming a standard 160-acre gas spacing and proration unit for the West Pecos Slope-Abo Gas Pool.

(4) No part of the horizontal wellbore shall be located closer than 330 feet from the outer boundary of the proration unit.

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(5) Should the horizontal portion of the wellbore encroach upon the 330 foot setback requirement and commercial gas production is established within the well, the applicant shall be required to reopen this case and appear and present evidence and testimony in order to demonstrate that correlative rights will still be protected.

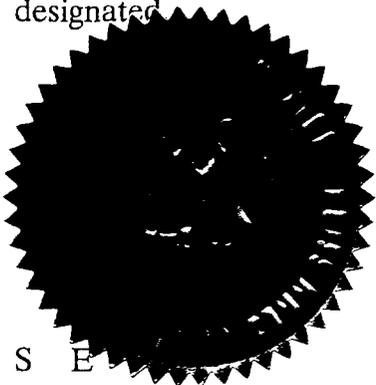
(6) The applicant shall be required to conduct a directional survey on the vertical portion of the wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore during or subsequent to completion of directional drilling operations in order that the direction, extent and terminus of said horizontal drainhole may be determined to be in compliance with the terms of this order.

(7) The applicant shall further be required to submit copies of said directional surveys to the Santa Fe and Artesia offices of the Division.

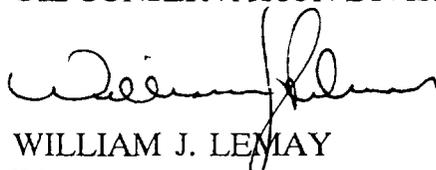
(8) The applicant shall notify the supervisor of the Artesia district office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

(9) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director