

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-015-23482

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

Petroleum Development Corporation

3. ADDRESS OF OPERATOR

9720-B Candelaria, N. E., Albuquerque, N. M. ARTESIA OFFICE

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface 3214' FNL, 1835' FEL, Sec. 5, T16S, R30E

At proposed prod. zone

Set 10 Unit J

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

9 miles north of Loco Hills

15. DISTANCE FROM PROPOSED*

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

515'

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.

None

19. PROPOSED DEPTH

2,850'

20. ROTARY OR CABLE TOOLS

Rotary

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

3,796.7 GR

22. APPROX. DATE WORK WILL START*

Sept. 27, 1980

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8-5/8"	24#	450'	300 sx
7-7/8"	4-1/2"	9.5#	2850'	200 sx

1. Drill 11" hole to 450'; set 8-5/8" casing and circulate cement. Test casing to 600 PSI.
2. Drill 7-7/8" hole to TD, to test Premier Formation with fresh water.
3. Run 4-1/2" casing or P & A as directed by USGS.

RECEIVED

SEP 10 1980

U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

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

[Signature]

TITLE

President

DATE Sept. 9, 1980

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

SEP 11 1980 GEORGE H. STEWART

ARTESIA DISTRICT ENGINEER

SEP 17 1980

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

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

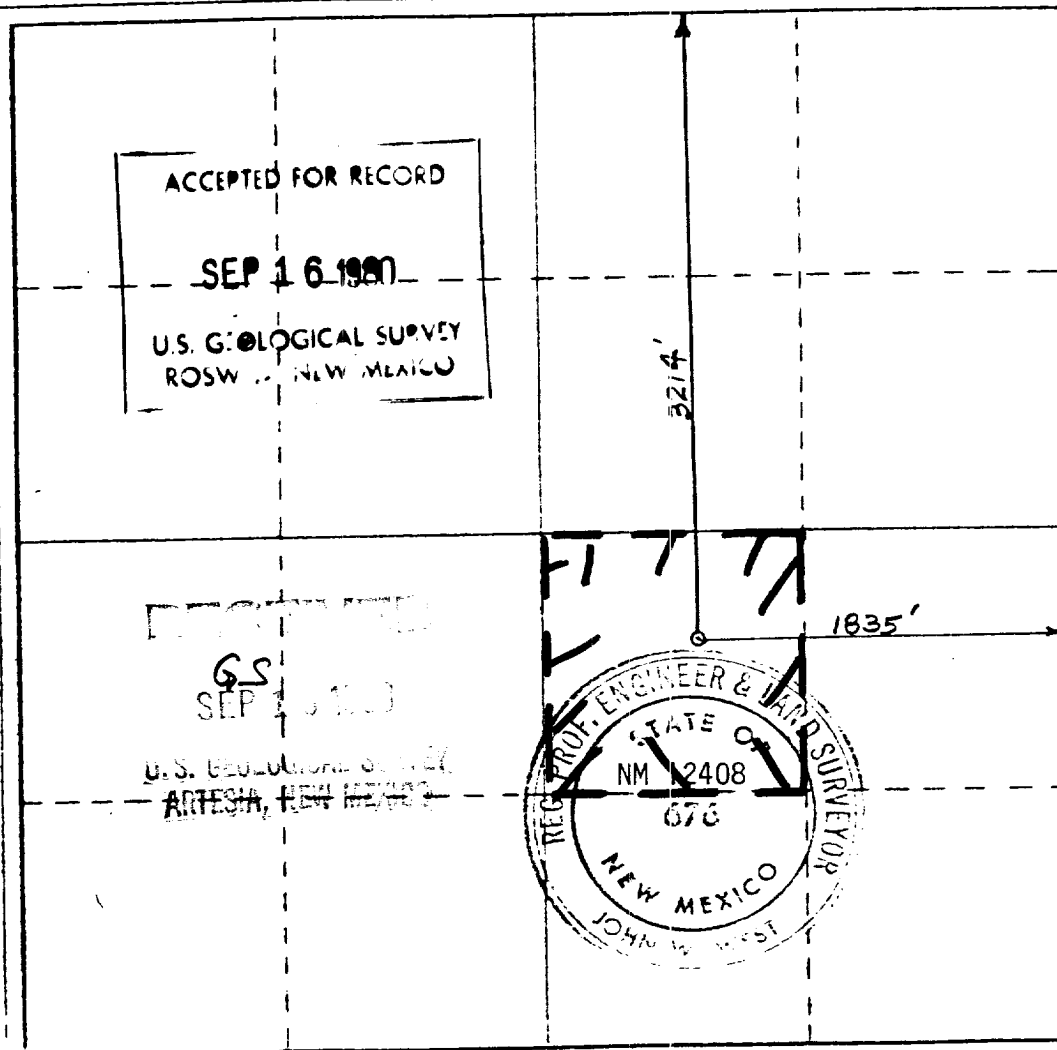
PETROLEUM DEVELOPMENT CORP.			MANZANO FEDERAL		1
Section 5	Township 16 SOUTH	Range 30 EAST	County EDDY		
Actual Portage Location of Well: <div style="display: flex; justify-content: space-between;"> 3214 feet from the NORTH line and 1835 feet from the EAST line </div>					
Ground Level Elev. 3796.7 GR	Producing Formation Premier	Pool Henshaw Grayburg, West	Dedicated Acreage 40		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation same ownership

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 interests, has been approved by the Commission.



CERTIFICATION

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

[Signature]
Name **J. C. Johnson**
President

Location
PETROLEUM DEVELOPMENT CORP.

Company
9/9/80

Date

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.

Date Surveyed
AUGUST 18, 1980

Registered Professional Engineer and/or Land Surveyor

[Signature]
Certificate No. **JOHN W. WEST 676**
PATRICK A. ROMERO 686
Ronald J. Eldon 323

330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600 6930 7260 7590 7920 8250 8580 8910 9240 9570 9900



United States Department of the Interior

GEOLOGICAL SURVEY

SPECIAL APPROVAL STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN:

P&T DEV CORP MANZANUELO No. 1	
OPERATOR 5-168-308	WELL DESIGNATION 5DDY
S-T-R NM 12408	COUNTY
LEASE NO.	

THE SPECIAL STIPULATIONS CHECK MARKED BELOW ARE APPLICABLE TO THE ABOVE-DESCRIBED WELL AND APPROVAL OF THIS APPLICATION TO DRILL IS CONDITIONED UPON COMPLIANCE WITH SUCH STIPULATIONS. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE SPECIAL STIPULATIONS PURSUANT TO TITLE 30 CFR 290.

- ☒ A. 8 5/8" surface casing should be set in the Rustler Anhydrite formation and cement circulated to the surface. If surface casing is set at a lesser depth, the _____ casing must be cemented from the casing shoe to the surface or cemented to the surface through a stage tool set at least 50 feet below the top of the Rustler after cementing around the shoe with sufficient cement to fill to the base of the salt section.
- ☐ B. Before drilling below the 8 5/8" casing, the blowout preventer assembly will consist of a minimum of ~~one annular type and~~ two ram type preventers.
- ☐ C. Casing protectors will be run on drill pipe while drilling through the _____ casing. Protectors will be of sufficient number and of sufficient outside diameter to protect the casing.
- ☐ D. Minimum required fill of cement behind the _____ casing is to _____
- ☒ E. After setting the 8 5/8" casing string and before drilling into the Quartzite formation, the blowout preventers and related control equipment shall be pressure tested to rated working pressures ~~by an independent service company~~. Any equipment failing to test satisfactorily shall be repaired or replaced. ~~This office should be notified in sufficient time for a representative to witness the tests and shall be furnished a copy of the pressure test report.~~
- ☐ F. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before drilling into the _____ formation and used until production casing is run and cemented. Monitoring equipment shall consist of the following:
- (1) A recording pit level indicator to determine pit volume gains and losses.
 - (2) A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.
 - (3) A flow sensor on the flow-line to warn of any abnormal mud returns from the well.
- ☒ G. All pits containing toxic liquids will be fenced and covered with a fine mesh netting, if necessary for the protection of livestock or wildlife.
- ☒ H. Above ground permanent structures and equipment shall be painted in accordance with the Painting Guidelines. The paint color is to simulate:

☒ Sandstone Brown, Fed. Std. 595-20318 or 30318

OR ☒ Sagebrush Gray, Fed. Std. 595-26357 or 36357

☐



I. A kelly cock will be installed and maintained in operable condition.



J. The ARTESIA Sub-District Office is to be notified in sufficient time for a representative to witness:

(a) Spudding

(b) Cementing casing

_____ inch

_____ inch

_____ inch

(c) ~~BOP tests~~



K. A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the U. S. Geological Survey, P. O. Box 26124, Albuquerque, New Mexico 87125. The effective date of the agreement must be prior to any sales.



L. A Gamma Ray-Compensated Neutron log is required from the base of the salt section to the surface with cable speed not to exceed 30 feet per minute.



M. At least one working day prior to constructing the well pad, access roads and/or related facilities, the operator or dirt contractor shall notify the authorized officer (Bureau of Land Management, CARLSBAD area). He shall also notify the Authorized Officer within two working days after completion of earth-moving activities.



N. All access roads constructed in conjunction with the drilling permit (APD) will be limited to a 12 foot wide driving surface, excluding turn-arounds. Surface disturbance associated with construction and/or use of the road will be limited to 20 feet in width. If well is a producer, all roads will be adequately drained to control runoff and soil erosion. Drainage facilities may include ditches, water bars, culverts and/or any other measures deemed necessary by the authorized officer of the BLM. The following is a general guide for the spacing of water bars:

or Slope

less than 2% 200 ft.

2% to 4% 100 ft.

4% to 5% 75 ft.

more than 5% 50 ft.

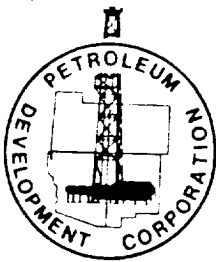


O. Other special stipulations

a. Any permanent pit containing waste oil must be fenced and covered with mesh wire.

b. ARCHAEOLOGIST to be NOTIFIED 30 days before construction.

c. Turnouts AS AGREED.



PETROLEUM DEVELOPMENT CORPORATION

9720-B CANDELARIA, NE
ALBUQUERQUE, NEW MEXICO 87112
TELEPHONE (505) 293-4044

MULTI-POINT DRILLING PLAN

Petroleum Development Corporation
Manzano Federal #1
3214' FNL, 1835' FEL, Sec. 5, T16S, R30E
Eddy County, New Mexico
Lease: NM 12408
(280 acres)

This supplemental plan is submitted with the Application to Drill the above-described well in compliance with NTL-6 of the United States Department of the Interior.

1. The surface is composed of fine-grained sand, quaternary in age.

2. Estimated top of primary geologic markers are:

Salado	315	(+3503)
Rustler	1045	(+2773)
Yates	1210	(+2608)
Queen	1995	(+1823)
Grayburg	2380	(+1438)
Premier	2707	(+1111)
San Andres	2738	(+1080)

GR Elevation: 3797'

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

2707 feet	Oil	Premier
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4. Proposed casing program: See Form 9-331C.
5. Pressure control equipment: See schematic, Exhibit "D".
6. Mud program: Drill to T.D. with fresh water. Mud up with Gel for logging.
7. Auxiliary equipment to be used: None

8. Testing, coring and logging program:
 - (1) All significant shows of oil or gas will be drill-stem tested. Testing procedure will involve use of dual packers, jars and safety joint. Duration of test, shut-in times, etc. will be determined by company engineer in charge.
 - (2) The following logs will be run:
 - a. Density log with gamma ray.
 - b. Dual laterolog.
9. No abnormal pressures are expected.
10. Anticipated spud date is September 27, 1980. Drilling operations will require approximately 5 days; completion operations will require an additional week.

PETROLEUM DEVELOPMENT CORPORATION

MANZANO - FEDERAL #1

3214' FNL, 1835' FEL, Sec. 5,
T16S, R30E, EDDY COUNTY, N.M.
Lease No. MN 12408

EXHIBIT "D"

B.O.P. & CHOKE MANIFOLD SCHEMATIC

SERIES 900

TO MEET SPECS. OF API BUL. D-13

Not to Scale

