

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*
(Other instructions on
reverse side)

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

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

ARCO Permian

3. ADDRESS AND TELEPHONE NO.

P.O. BOX 1610, MIDLAND, TX 79702

915 688-5672

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

990 FSL & 330 FEL (UNIT LETTER P)

At proposed prod. zone

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

4.5 MILES EAST FROM JAL

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

1650

16. NO. OF ACRES IN LEASE

5360

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.

1500

19. PROPOSED DEPTH

6250

20. ROTARY OR CABLE TOOLS

ROTARY

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

3055 GR

22. APPROX. DATE WORK WILL START*

MAY 95

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 | 24 | 1000 | 825 |
| 7 7/8 | 5 1/2 | 14 | 6250 | 3200 |
| | | | | CIRCULATE tieback |

PREVIOUSLY SUBMITTED:

1. ARCHAEOLOGICAL SURVEY
2. PRELIMINARY PROJECT REPORT
3. UNIT AGREEMENT
4. HYDROGEN SULFIDE CONTINGENCY PLAN

OPER. OGRID NO. 990

PROPERTY NO. 1496

POOL CODE 34222

EFF. DATE 4/24/95

API NO. 30-125-32936

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.

24.

SIGNED

Ken W. Gosnell

TITLE AGENT

DATE 03-03-95

(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:

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

APPROVED BY _____

TITLE Agent

DATE _____

*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
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 10, 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

| | | | |
|----------------------------|------------------------------------|--------------------|--|
| API Number 3D-025-32936 | | Pool Code 34220 | Pool Name Justis Blinebry-Tubb-Drinkard |
| Property Code 001496 | Property Name South Justis Unit | | Well Number 298 |
| OGRID No. 000990 | Operator Name ARCO Permian | | Elevation 3055' |

¹⁰ Surface Location

| | | | | | | | | | |
|--------------------|---------------|-----------------|--------------|---------|----------------------|---------------------------|----------------------|------------------------|---------------|
| UL or lot no. P | Section 25 | Township 25S | Range 37E | Lot Idn | Feet from the 990 | North/South line South | Feet from the 330 | East/West line East | County Lea |
|--------------------|---------------|-----------------|--------------|---------|----------------------|---------------------------|----------------------|------------------------|---------------|

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 40 | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ Order No. |
|-------------------------------------|-------------------------------|----------------------------------|-------------------------|

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

| | | | | | |
|----|--|--|--|---------------|---|
| 16 | | | | 25 | ¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Ken W. Gosnell Signature Ken W. Gosnell Printed Name Agent Title March 3, 1995 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. February 20, 1995 Date of Survey Signature and Seal of Professional Surveyer: Certificate Number 648 |
| | | | | | |
| | | | | 298 o 330' | |
| | | | | 990' | |

DRILLING PLAN

Attach to BLM Form 3160-3

ARCO Permian

Well: South Justis Unit #298

990' FSL & 330' FEL

Section 25-T25S-R37E

Lea County, New Mexico

1. Surface Geological Formation

Ogallala Formation of late Tertiary age.

2. Estimated Tops of Geological Markers

| <u>Formation</u> | <u>TVD</u> |
|------------------|------------|
| Salt | 1000' |
| Yates | 2275' |
| Queen | 2975' |
| Grayburg | 3100' |
| San Andres | 3550' |
| Glorietta | 4625' |
| Blinebry | 5000' |
| Tubb | 5675' |
| Drinkard | 5875' |

3. Estimated Tops of Possible Water, Oil, Gas or Minerals:

| | |
|-------------------|--------------|
| Sands above 1000' | Water* |
| Yates | Gas** |
| Blinebry | Oil or Gas** |
| Tubb | Oil or Gas** |
| Drinkard | Oil or Gas** |

*Groundwater will be protected by 8-5/8" surface casing cemented to surface.

**Productive horizons will be protected by 5-1/2" production casing cemented to surface.

4. Pressure Control Equipment

| <u>Interval, TVD</u> | <u>Pressure Control Equipment</u> |
|----------------------|-----------------------------------|
| 0' - 1000' | No pressure control required |

1000' - 6250' 11", 3M psi double ram preventer with 3M psi annular preventer.

Exhibits 1, 2 and 3 show the BOP stack arrangement, the choke manifold arrangements and the BOP specifications, respectively. The BOPE will be hydraulically tested per BLM requirements outlined by Onshore Oil and Gas Order No. 2. Pipe rams and blind rams will be functioned on each trip out of the hole. The annular preventer will be functioned once a week. All BOPE checks and tests will be witnessed by ARCO's representative and will be noted on the IADC daily drilling report. Accessories to BOPE will include an upper kelly cock, lower kelly cock, and floor safety valve all with pressure rating equivalent to the BOP stack.

5. **H₂S Contingency Plan**

Exhibit "10" shows the H₂S Contingency Plan as a guideline for all company and contractor personnel in the field who may be exposed to H₂S. It explains the emergency procedure, the equipment requirement (i.e. H₂S detector, rescue equipment, etc.) and the proper evacuation procedure.

6. **Proposed Casing and Cementing Program**

| | <u>Hole Size</u> | <u>Interval, M.D.</u> | <u>Casing Size</u> | <u>Weight & Grade</u> |
|------------|----------------------|-----------------------|------------------------|-------------------------------|
| Conductor | 20" | 0-40' | 13-3/8" | 48.0# H-40 |
| Surface | 12-1/4" | 0-1000' | 8-5/8" | 24.0# J-55 |
| Production | 7-7/8" | 1000'-6200' | 5-1/2" | 14.0# J-55 |

Cement Program: (Actual volumes will be based on caliper log when available)

Conductor - Cement to surface with redimix.

Surface - Cemented to surface with total of ±825 cu ft as follows:

Lead Slurry - ±350 sks Pacesetter Lite 65/35/6 C/Poz/Gel + 2% CaCl₂ + 1/4 pps Cello-Seal

Tail Slurry - ±200 sks Class "C" + 2% CaCl₂ + 1/4 pps Cello-Seal

Production - Cement to surface with total of ±3200 cu ft as follows:

Lead Slurry - ±1175 sks Super C 44/20/20 C/Poz/CSE + 0.5% Thrifty Lite 1/4 pps Cello-Seal

Tail Slurry - ±300 sks Cl "C" + 12 pps CSE + 1 pps WL-1P + 0.3% CF-2 + 1/4 pps Cello-Seal + 3 pps Hi-Seal

7. **Mud Program**

| <u>Depth</u> | <u>Mud Type</u> | <u>Weight ppg</u> | <u>Funnel Viscosity</u> | <u>Water Loss</u> |
|--------------|-----------------|-----------------------|-----------------------------|-----------------------|
| 0-1000' | Spud Mud | 8.4-8.9 | 29-32 | NC |
| 1000'-6250' | SBW | +10.0 | 29-32 | NC |

8. **Auxiliary Equipment**

Upper Kelly Cock, Lower Kelly Cock, and Full Opening Stabbing Valve

9. **Testing, Coring and Logging Program**

A. Drill Stem Tests - None planned.

B. Coring - None planned.

C. Logging - No mud logging planned

D. Electric Logs

Temperature Survey (if cement not circulated on Production Csg)

10. **Anticipated Abnormal Temperature, Pressure, or Hazards**

Possible lost circulation at +975' in anhydrite section. Seepage and lost circulation is expected starting in the Queen Formation and continuing through the Glorietta (3000'-5000').

11. **Anticipated Starting Date and Duration of Operations**

Pending favorable weather and permit approval, construction work on this location is planned to begin in May, 1995. Construction work will require 4 days, move-in and rig up rotary tools, 1 day, drill and complete, 21 days. It is planned to spud the well in May, 1995.

EXHIBIT 1 BOP ARRANGEMENT ARCO OIL & GAS CO. SOUTH JUSTIS UNIT WELLS

- A. Bell Nipple
- B. 11" Annular Preventer, 3M psi
- C. 11" BOP Pipe Rams, 3M psi
- D. 11" BOP Blind Rams, 3M psi
- E. 11" 3M psi Drilling Spool
- F. Manual Gate Valve 2-1/16"
- G. Check Valve 2-1/16"
- H. Manual Gate Valve 3-1/16"
- I. HCR Valve 3-1/16"
- J. 11" 3M psi Spacer Spool
- K. 10-3/4" Screw on X 11" 3M psi adaptor flange
- L. Casing Head 8-5/8" SOW X 2M psi Larkin-Type
- M. 2" Screw in Bull Plug
- N. Manual Ball Valve 2-1/16" 2M

Hydraulic Closing Unit (Accumulator)

- Annular
- Pipe Ram
- Blind Ram
- HCR Valve

