

N.M. OIL CONS. COMMISSION
P.O. BOX 1980
TUCUMCARI, 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

☒

DEEPEN

☐

b. TYPE OF WELL

OIL
WELL

☒

GAS
WELL

☐

OTHER

SINGLE
ZONE

☒

MULTIPLE
ZONE

☐

2. NAME OF OPERATOR

ARCH PETROLEUM, INC.

3. ADDRESS AND TELEPHONE NO.

10 Desta Drive, Suite 420E, Midland, TX 79705 (915) 685-1961

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

At surface Unit D, 1300' FNL and 660' FWL

At proposed prod. zone

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

10 MILES SOUTH OF EUNICE, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.

1300'

(Also to nearest drlg. unit line, if any)

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

640'

16. NO. OF ACRES IN LEASE

1520

17. NO. OF ACRES ASSIGNED

TO THIS WELL

40

19. PROPOSED DEPTH

6000'

20. ROTARY OR CABLE TOOLS

ROTARY

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

3292' GR

22. APPROX. DATE WORK WILL START*

ASAP

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	K-55, 8-5/8"	24#	1075'	600 sx. Cl. 'C' circ.
7-7/8"	J-55, 5-1/2"	15.5#	6000'	1650 sx. Cl. 'C' circ. (TIE BACK)

Mud Program:

0' -- 1075' FW/Spud Mud 8.8--9.0 #/gal., 32 visc., 10 pH

1075' -- 5000' BW 10 #/gal., 28 visc., 10 pH

5000' -- 6000' BW/Starch 10 #/gal., 30 visc., 10 pH

See attached BOP drawing for 3000 psi system

OPER. OGRID NO. 962

PROPERTY NO. 14898

POOL CODE 59312

EFF. DATE 1/19/96

API NO. 32-625-33252

DEC 1 11 00 AM '95

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new production 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.

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SIGNED Bennie Brooker TITLE PRODUCTION ANALYST

DATE 11/30/95

(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:

APPROVED BY ASL

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.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

DISTRICT I

P.O. Box 1880, Hobbs, NM 88241-1880

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

DISTRICT II

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

DISTRICT III

1000 Elv Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

DISTRICT IV

P.O. Box 2088, Santa Fe, NM 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 3D-025-33252	Pool Code 58300	Pool Name Teague Blinebry
Property Code 14899	Property Name C. E. LAMUNYON	Well Number 54
OGRID No. 962	Operator Name ARCH PETROLEUM INC.	Elevation 3292

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	22	23 S	37 E		1300	NORTH	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 40	Joint or Infill	Consolidation Code	Order No.
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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. Signature <u>Bobbie Brooks</u> Printed Name <u>Bobbie Brooks</u> Title <u>Production Analyst</u> Date <u>8/15/95</u>		
	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. Date <u>AUGUST 5, 1995</u>		
	Date Surveyed <u>8/5/95</u> JLP Signature and Seal <u>Ronald S. Eidson</u> Professional Surveyor State of New Mexico P.O. Num <u>95-1206</u> Certificate No. <u>3289</u> JOHN W. WEST, 676 RONALD S. EIDSON, 3239 G. EIDSON, 12641		
	State of New Mexico Professional Surveyor P.O. Num <u>95-1206</u> Certificate No. <u>3289</u>		

DRILLING PROGRAM

C. E. LAMUNYON #54, 55, 56
Arch Petroleum Inc.
Sections 22 and 28, T23S, R37E
Lea Co., New Mexico

1. Geologic Name of Surface Formation: Quaternary

2. Estimated Tops of Geologic Markers:

Rustler 1,030'	7 Rivers 2,780'	Paddock 4,950'
Top Salt 1,130'	Penrose 3,375'	T/Blinebry 5,290'
Base Salt 2,365'	Grayburg 3,555'	B/Blinebry 5,850'
Yates 2,535'	San Andres 3,800'	Tubb 5,950'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Fresh Water 300'-500'
Penrose 3,375'-3,550'
Paddock 4,950'-5,290'
Blinebry 5,290'-5,950'

4. Casing Program:

<u>Casing</u>	<u>Hole Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Setting Depth</u>
Surface	8 5/8"	24#	K-55	1,075'
Production	5 1/2"	15.5#	J-55	6,000'

Cement Program:

- (a) Surface casing will be 8-5/8" set at 1075' and cemented with 400 sacks of Class 'C' lead cement and 200 sacks of Class 'C' tail cement.
- (b) Production casing will be 5-1/2" set at approximately 6,000' and cemented in one stage with approximately 1150 sacks of Class 'C' lead cement and 500 sacks of tail cement. Exact volumes to circulate to surface to be determined by caliper log.

5. Pressure Control Equipment:

The minimum specifications for pressure control equipment can be seen on the attached Exhibit 1 for a blowout preventer hook-up for 3,000 psi working pressure.

6. Proposed Mud System:

0-1075' fresh water spud mud
1075'-5000' saturated salt water
5000'-6000' salt water polymer with the following properties: Viscosity 30 sec., water loss 10 cc or less, weight 10 ppg with 5% KCl. Heavier weight mud will be used if required by well condition. 10 ppg brine is only used to minimize salt washout and formation damage and not for well control. No significant well control problems are anticipated.

7. Logging, Testing, and Coring Program:

- (a) Formation testing may be done at any depth where samples, drilling rate, or log information indicates a possible show of oil or gas.
- (b) Open hole logs will be run at total depth
- (c) Plans are to possibly core one of these wells in the Blinbry.

8. Abnormal Conditions, Pressures, Temperatures, and Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated Bottom Hole Temperature (BHT) at TD is 115°F and estimated maximum Bottom Hole Pressure (BHP) is 3000 psig. Hydrogen sulfide is not considered to be a significant safety hazard since well control should not be a problem. In anticipation of encountering H₂S gas, Exhibit 2 is the Plan of Operation for H₂S Drilling. No major loss circulation zones have been reported in offsetting wells.

9. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. Anticipated spud date should be January 1, 1996. Once commenced, the drilling operation should be finished in approximately 10 days per well. The time required to complete and test the well will be about 30 days per well.

10. Other Facets of the Proposed Operation: None.

EXHIBIT 1

BOP SCHEMATIC

3M (3,000 psi) Working Pressure

