

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

1057

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. (RICHARD WRIGHT 915-685-8140)

3. ADDRESS AND TELEPHONE NO.

P.O. BOX 10340 MIDLAND, TEXAS 79702-7340 (915-685-8100)

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

At surface
330' rd. show call K.W. (B) 10-18-01

300' FNL & 150' FWL SEC. 27 T23S-R37E LEA CO. NM

At proposed prod. zone SAME

D

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

Approximately 15 miles Southeast of Eunice New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.

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

150'

16. NO. OF ACRES IN LEASE

1520

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.

180'

19. PROPOSED DEPTH

9800'

20. ROTARY OR CABLE TOOLS

ROTARY

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

3289' GR.

22. APPROX. DATE WORK WILL START*

WHEN APPROVED

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor	NA	40'	Cement to surface with Redi-mix
17 1/2"	H-40 13 3/8"	48	1100'	1200 Sx. circulate to surface.
12 1/4"	J-55 9 5/8"	40.5	3100'	1200 Sx. " " "
* 8 1/2"	N-80 7"	26	7950'	1000 Sx.
7 7/8"	N-80 5 1/2"	17 & 20	9800'	1250 Sx. Estimate top 3000'.
** 6 1/8"	N-80 5"	18	9800'	300 Sx. Top of liner @ 7000'

* Drill hole to 7950' if lost circulation is encountered in the Devonian set 7" N-80 26# through the lost circulation zone. If no lost circulation is encountered reduce hole to 7 7/8" and drill to TD.

** If 7" casing is set due to lost circulation problems cement 7" casing and drill 6 1/8" hole to 9800'. Run a 5" 18# N-80 liner from 9800' back to 7000'. Cement with 300 Sx. of Class "H" low water loss cement to the top of liner.

Carbon Controlled Water Basin

SEE ATTACHED PAGE FOR DETAILS

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

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

TITLE Agent

DATE 07/25/01

(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
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

/s/ NOE GONZALEZ

TITLE

FIELD MANAGER

DATE

OCT 19 2001

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

RECEIVED

2001 JUL 26 AM 8:51

BUREAU OF LAND MGMT
ROSWELL OFFICE

ARCH PETROLEUM, INC.
LAMUNYON # 81
UNIT "D" SECTION 27
T23S-R37E LEA CO. NM

1. Drill 25" hole to 40'. Set 40' of 20" conductor and cement to surface with Redi-mix.
2. Drill 17½" hole to 1100'. Run and set 1100' of 13 3/8" 48# H-40 ST&C casing. Cement with 1200 Sx. of Class "C" cement + 2% CaCl + ¼# Flocele/Sx. circulate cement to surface.
3. Drill 12¼" hole to 3100'. Run and set 3100' of 9 5/8" 40.5# J-55 ST&C casing. Cement with 1200 Sx. of Class "C" cement + additives, circulate cement to surface.
4. Drill 8½" hole to 7950'. If no lost circulation is encountered reduce hole size to 7 7/8" and drill to TD of 9800'. Run and set 9800' of 5½" 20 & 17 # N-80 LT&C casing. Cement casing in 3 stages with DV tools at 7000' & 4500'. Cement 1st stage with 475 Sx. of Class "H" Low water loss cement + additives, cement 2nd stage with 550 Sx. of Class "H" cement + additives, cement 3rd stage with 350 Sx. of Class "C" cement + additives. Estimate top of cement 3000'.
5. If the 7" casing is set at 7950' and a 6 1/8" hole is drilled from 7950' to TD of 9800', run a 5' 18# N-80 liner from TD to 7000'. Cement with 300 Sx. of Class "H" low water loss cement+ additives, cement to top of liner.

State of New Mexico

Energy, Minerals and Natural Resources Department

DISTRICT I

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

DISTRICT II

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

DISTRICT III

1000 Rio Brazos Rd., Artesia, NM 87410

DISTRICT IV

P.O. Box 2088, Santa Fe, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-35932	Pool Code 58900	Pool Name TEAGUE - SIMPSON
Property Code 14908 14898	Property Name C.E. LAMUNYON	Well Number 81
OGRID No. -692 962	Operator Name ARCH PETROLEUM, INC.	Elevation 3289'

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	27	23-S	37-E		330	NORTH	150	WEST	LEA

Bottom Hole Location If Different From Surface:

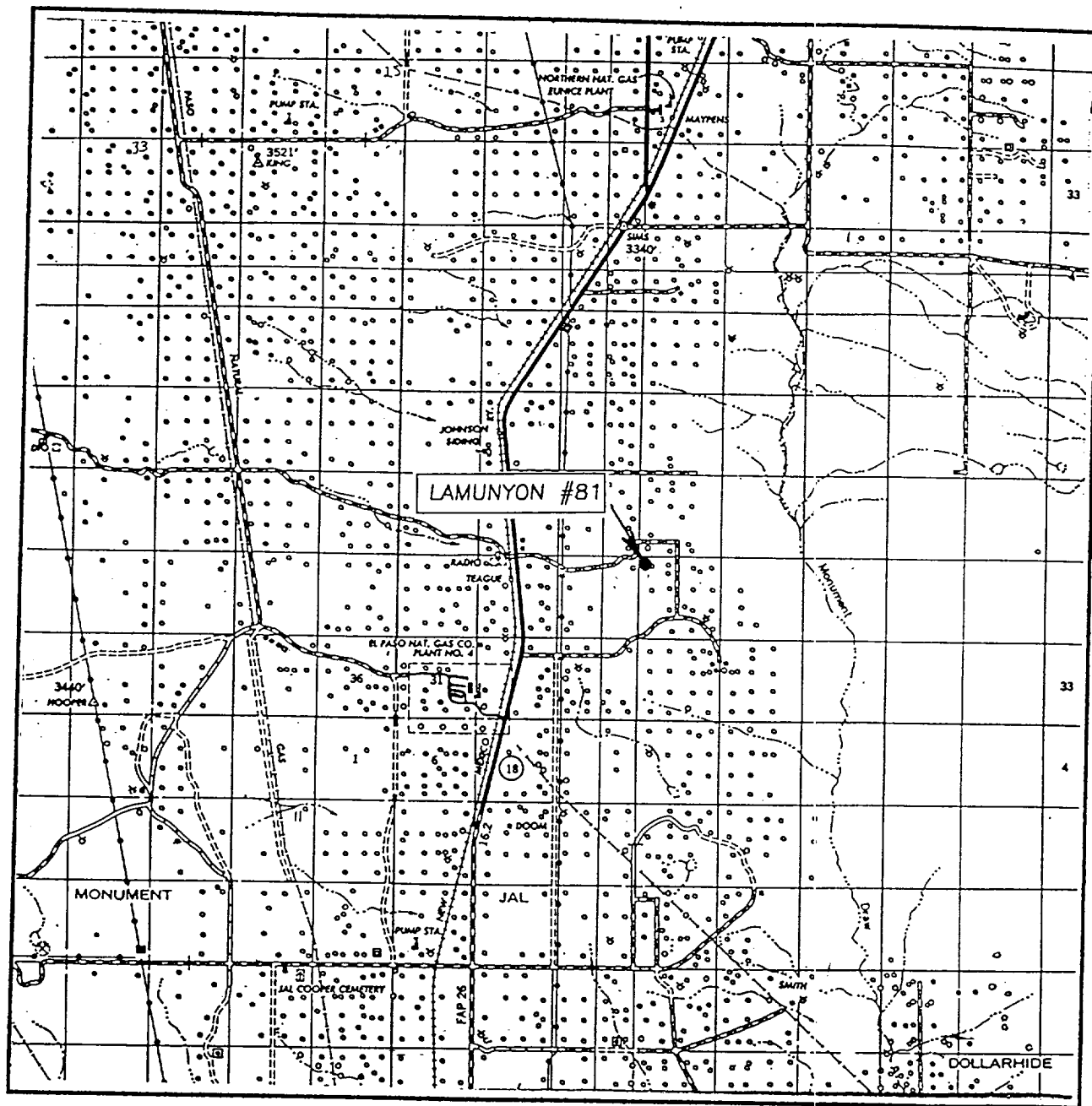
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No. NSL-4735
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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

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Joe T. Janica</i> Signature Joe T. Janica Printed Name Agent Title 07/25/01 Date</p>			
	<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>JUNE 21, 2001</p> <p>Date Surveyed Signature & Seal of Professional Surveyor <i>RONALD E. SIMPSON</i> RONALD E. SIMPSON GARY SIMPSON Certificate No. 3239 12641</p>			
	<p>AWB</p>			
	<p>07/22/01</p>			

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 27 TWP. 23-S. RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 330' FNL & 150' FWL

ELEVATION 3289'

OPERATOR ARCH PETROLEUM, INC.

LEASE C.E. LAMUNYON

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

APPLICATION TO DRILL

ARCH PETROLEUM, INC.

C.E. LAMUNYON # 81

UNIT "D" SECTION 30

T23S-R37E LEA CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

1. Location: 330' FNL & 150' FWL SEC. 27 T23S-R37E LEA CO. NM
2. Elevation above Sea Level: 3289' GR.
3. Geologic name of surface formation: Quaternary Aeolian Deposits.
4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
5. Proposed drilling depth: 9800'
6. Estimated tops of geological markers:

Rustler Ahhydrite	1122'	Blinebry	5290'
Queen	3248'	Drinkard	6245'
San Andres	3765'	Devonian	7330'
Glorieta	4925'	Simpson	8990'
7. Possible mineral bearing formations:

Yates 7 Rivers	Oil	Blinebry	Oil
Queen-Grayburg	Oil	Drinkard	Oil
San Andres	Oil	Simpson-McKee	Oil
8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Collar	Grade
25"	0-40	20"	NA	NA	NA	Conductor
17½"	0-1100	13 3/8"	48	8-R	ST&C	H-40
12¼"	0-3100'	9 5/8"	40.5	8-R	ST&C	J-55
* 8½"	0-7950'	7"	26	8-R	LT&C	N-80
** 7 7/8"	0-9800'	5½"	17 & 20	8-R	LT&C	N-80
* 6 1/8"	7750-9800'	5"	18	8-R	ST&C	N-80

* Run this string of casing if lost circulation becomes a problem in the Devonian.

** If lost circulation is not a problem in the Devonian reduce the hole size to 7 7/8" and drill to a total depth of 9800' and run 5½" casing to TD.

ARCH PETROLEUM, INC.

C.E. LAMUNYON # 81

UNIT "D" SECTION 30

T23S-R37E LEA CO. NM

9. CASING, CEMENTING & SETTING DEPTH:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 1100' of 13 3/8" 48# H-40 ST&C casing. Cement with 1200 Sx. of Class "C" cement + additives circulate.
9 5/8"	Intermediate	Set 3100' of 9 5/8" 40.5# J-55 ST&C casing. Cement with 1200 Sx. of Class "C" cement + additives, circulate.
7"	2nd Intermediate	If lost circulation is encountered in the Devonian run 7950' of 7" 26# LT&C N-80 casing. Cement in 2 stages packer & stage tool set at 7500' & 4500'. Cement first stage with 700 Sx. of Class "H" cement. 2nd stage cement with 300 Sx. Class "H" cement top of cement 3000'.
5"	Liner	Run 2050' of 5" 18# N-80 ST&C liner and cement with 300 Sx. of Class "H" low water loss cement. cement to top of liner hanger.
5 1/2"	Production	If lost circulation is not a problem reduce hole size when through problem zones to 7 7/8" and drill to 9800'. Run and set 9800' of 5 1/2" 17 & 20 # N-80 LT&C casing. Cement in 3 stages DV Tools at 7000' & 4500'±. Cement 1st stage with 475 Sx. of Class "H" Low water loss cement, cement 2nd stage with 550 Sx. of Class "H" cement + additives, cement 3rd stage with 350 Sx. of Class "C" cement. Estimate top of cement 3000'.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams and bottom pipe rams. The B.O.P. will be nipped up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2" 3000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-1100'	8.4-8.6	29-32	NC	Fresh water spud mud use paper to control seepage
1100-3100'	10.2-10.3	29-38	NC	Brine water use paper to control seepage and high viscosity sweeps to clean hole.
3100-9800'	8.4-8.6	29-40	NC	Fresh water Polymer system in case water loss becomes important, use high viscosity sweeps to clean hole.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing viscosity and/or water loss may have to be adjusted to meet these needs.

APPLICATION TO DRILL

ARCH PETROLEUM, INC.

C.E. LAMUNYON # 81

UNIT "D" SECTION 30

T23S-R37E LEA CO. NM

12. TESTING, LOGGING, & COREING PROGRAM:

- A. Open hole logs: Dual Induction, CNL, LDT Gamma Ray, Caliper from TD back to 3100'.
- B. Run Gamma Ray, Neutron from 3100' to surface.
- C. Place mud logger on hole at 3100' and keep on hole to TD.
- D. No cores or DST's are planned at this time.

13. POTENTIAL HAZARDS:

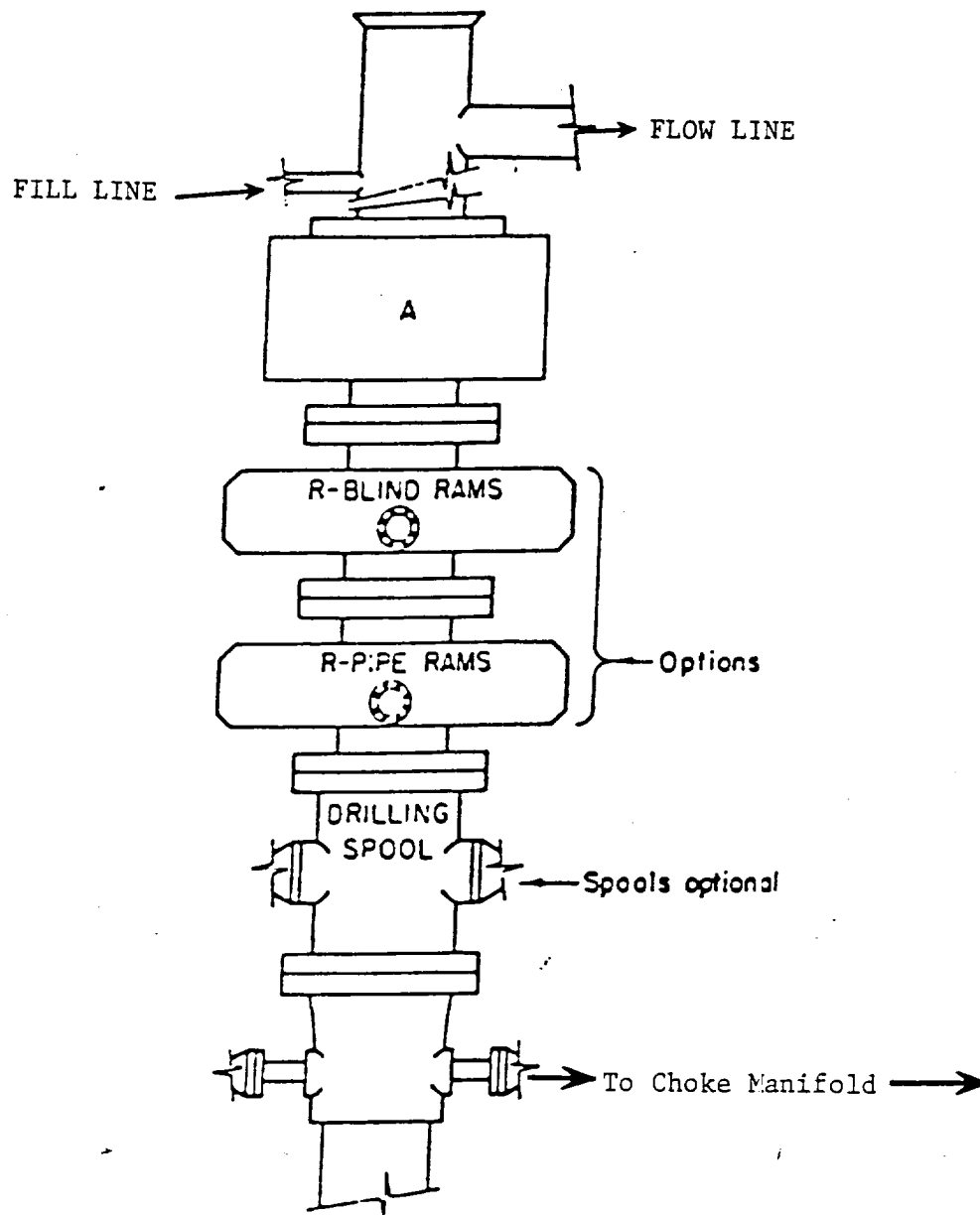
No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H₂S detectors will be in place to detect any presence of unsafe levels of H₂S. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operations of all equipment that will be used. Estimated BHP 4500 PSI & estimated BHT 165°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Roads and location construction will begin after the BLM approves the APD. Anticipated spud date will be as soon as pad & road construction has been completed. Drilling time for the well is estimated to take 30 days. If production casing is run an additional 30 days will be required to complete well and construct surface facilities.

15. OTHER FACETS OF OPERATION:

After running production casing, cased hole Gamma-Neutron & Collar logs will be run over all possible pay intervals. If commercial production from the McKee-Simpson pay is indicated it will be perforated and stimulated. Then if necessary the pay will be swab tested and completed as an Oil well.



ARRANGEMENT SRRA

900 Series
3000 PSI WP

EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

ARCH PETROLEUM, INC.
C.E. LAMUNYON # 81
UNIT "D" SECTION 27
T23S-R37E LEA CO. NM