

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
**RECEIVED**  
JUN 18 1980(Other instructions  
reverse side)

30-015-23381

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

## 1a. TYPE OF WORK

DRILL ☒PLUG BACK ☐

## b. TYPE OF WELL

OIL  
WELL ☐GAS  
WELL ☒OTHER ☐SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

Amoco Production Company ✓

## 3. ADDRESS OF OPERATOR

P. O. Box 68 Hobbs, NM 88240

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

At surface

1980' FSL &amp; 860' FWL, Sec. 26

JUN 25 1980

At proposed prod. zone

(Unit L, NW/4, SW/4)

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

10 miles southwest of Maljamar, NM

O. C. D.

ARTESIA, OFFICE

15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(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.

## 16. NO. OF ACRES IN LEASE

## 19. PROPOSED DEPTH

14500'

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

320

## 20. ROTARY OR CABLE TOOLS

Rotary

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

3651.8 GL

## 22. APPROX. DATE WORK WILL START\*

6-27-80

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
20"	16"	65#	800'	Circ to surf
14-3/4"	10-3/4"	45.5#	4800'	Circ to surf
9-1/2"	7-5/8"	26.4#	12000'	Tie back to 10-3/4"
6-1/2"	4-1/2"	9.5#	11500'-14500'	Tie back to 7-5/8"

Propose to drill and equip well in the Ellenburger formation. After reaching TD logs will be run and evaluated; perforate and/or stimulate as necessary in attempting commercial production.

MUD PROGRAM: 0'- 800' Native mud and fresh water  
800'-4800' Native mud and brine water  
4800'-10500' Commercial mud and brine with minimum properties  
for safe hole conditions  
10500'-TD Commercial mud and brine. Raise viscosity and reduce  
water loss prior to Morrow penetration.

BOP Program Attached  
Archaeological Survey Attached  
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 blowout preventer program, if any.

## 24.

SIGNED

Bob Davis

TITLE

Admin. Analyst

DATE

6-12-80

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

0+5-USGS, A

1-Hou

1-Susp

1-BD

\*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION, LAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

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

Operator <b>Amoco Production Co.</b>			Lease <b>Greenwood Pregrayburg East, Unit</b>		Well No. <b>15</b>
Unit Letter <b>L</b>	Section <b>26</b>	Township <b>18 South</b>	Range <b>31 East</b>	County <b>Eddy</b>	
Actual Footage Location of Well: <b>1980</b> feet from the <b>South</b> line and <b>860</b> feet from the <b>West</b> line					
Ground Level Elev. <b>3651.8</b>	Producing Formation <b>Ellenburger</b>	Pool <b>Wildcat Ellenburger</b>	Dedicated Acreage: <b>320</b> Acres		

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 \_\_\_\_\_

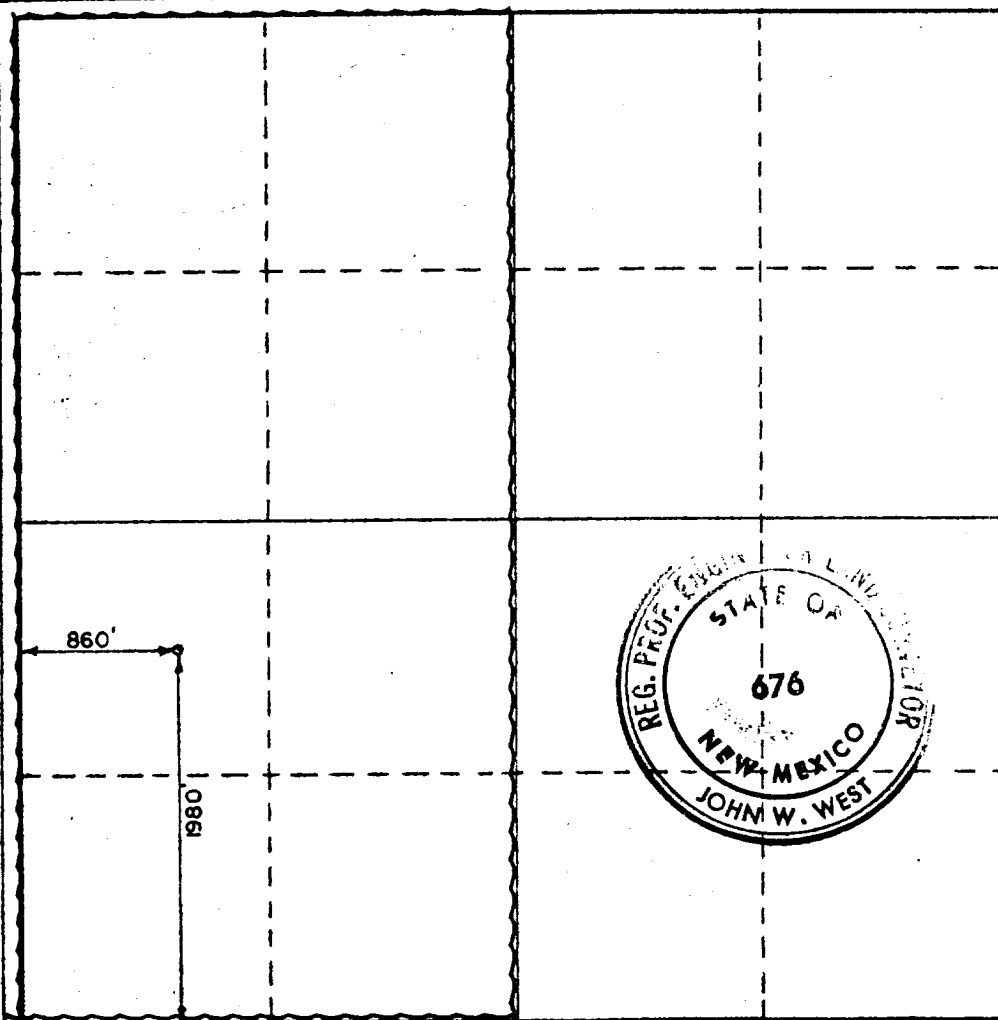
If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

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.

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**JUN 15 1980**

**U.S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO**



**CERTIFICATION**

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

Name Bob Davis  
Position Admin. Analyst  
Company Amoco Production Company  
Date 6-11-80

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 4-9-1980  
Registered Professional Engineer and/or Land Surveyor Patrick A. Romero  
Certificate No. JOHN W. WEST 676  
PATRICK A. ROMERO 6063  
Ronald J. Eldson 3239



# United States Department of the Interior

RECEIVED

GEOLOGICAL SURVEY

JUN 25 1980

P. O. Drawer U  
Artesia, New Mexico 88210

O. C. D.  
ARTESIA, OFFICE

June 19, 1980

Amoco Production Company  
Post Office Box 68  
Hobbs, New Mexico 88240

AMOCO PRODUCTION COMPANY  
15-Greenwood PreGrayburg Unit  
1980 FSL 860 FWL Sec. 26, T. 18S, R. 31E.  
Eddy County Lease No. LC-029392-B

Gentlemen:

Above Data Required on Well Sign

Your APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 14,500 feet to test the Ellenburger is hereby approved subject to compliance with the OIL AND GAS OPERATING REGULATIONS (30 CFR 221) and the following conditions:

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Oil and Gas Operations on Federal Leases, dated July 1, 1978.
2. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the Surface Use Plan and these Conditions of Approval including the attached General Requirements.
3. All access roads will be limited to a 12 foot wide driving surface, excluding turnarounds. Surface disturbance associated with road construction will be limited to 20 feet in width.
4. Submit a Daily Report of Operations from spud date until the well is completed and the Well Completion Report (form 9-330) is filed. The report should not be less than 8" x 5" in size and each page should identify the well.
5. All permanent above-ground structures and equipment shall be painted in accordance with the attached Painting Guidelines. The color used should simulate Sandstone Brown (Federal Standard No. 595A, color 20318 or 30318) or Amoco's standard gray color.
6. Before drilling below the 10-3/4" casing, the blowout preventer assembly will consist of a minimum of one annular type and two ram type preventers.
7. A kelly cock will be installed and maintained in operable condition.

8. After setting the 10-3/4" casing string and before drilling into the Wolfcamp 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.
9. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before drilling into the Wolfcamp 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.
10. Notify the Survey by telephone 24 hours prior to spudding well.
11. Cement behind the 16" casing must be circulated.
12. Please have anyone contacting the Survey in regard to this well to identify the well with all of the information required above for the well sign.

Sincerely yours,

(Orig. Sgd.) GEORGE H. STEWART

George H. Stewart  
Acting District Engineer

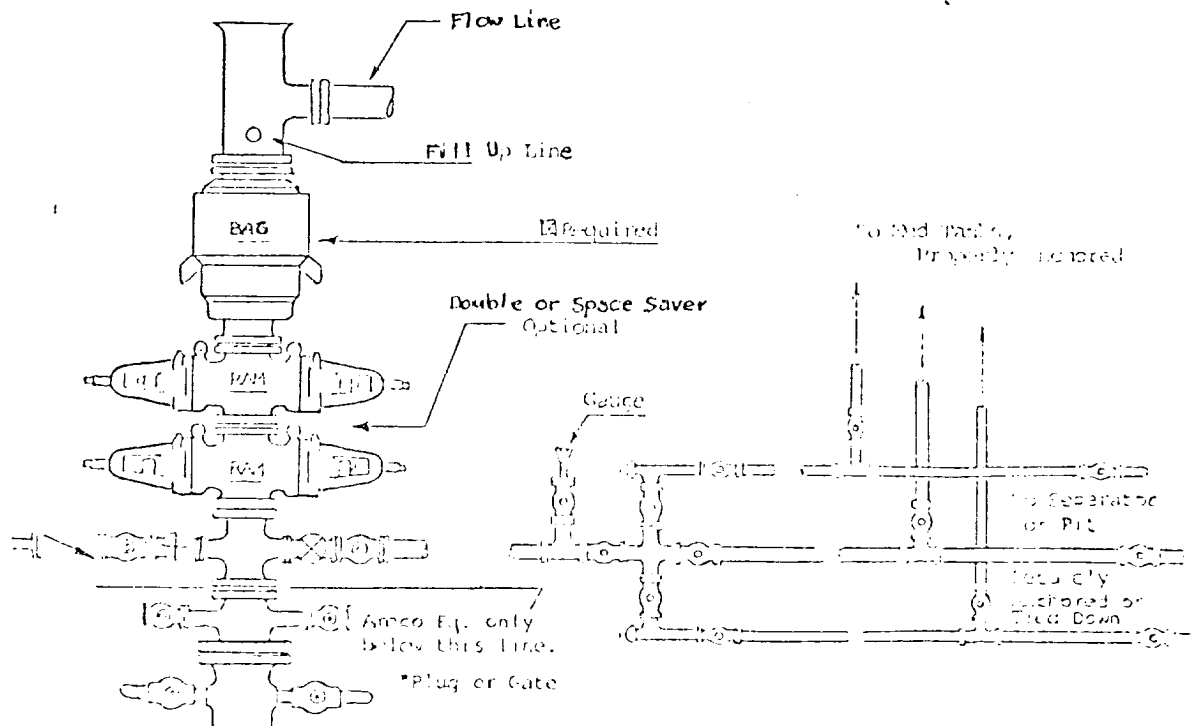
1. BOP'S TO BE FLUID OPERATED.
2. BOP'S AND ALL FITTINGS MUST BE IN GOOD CONDITION AND RATED AT 3000 PSI W.P. MINIMUM.
3. EQUIPMENT THROUGH WHICH BIT MUST PASS SHALL BE AT LEAST AS LARGE AS CASING SIZE BEING DRILLED THROUGH.
4. NIPPLE ABOVE BOP'S SHALL BE SAME SIZE AS LAST CASING SET.
5. UPPER KELLY COCK IS REQUIRED AND SHALL BE 3000# W.P. MINIMUM.
6. T. I. W. OR COMPARABLE SAFETY VALVE SHALL BE AVAILABLE ON RIG FLOOR WITH CONNECTION OR SUBS TO FIT ANY TOOL JOINT IN THE STRING. VALVE TO BE FULL BORE 5000# MIN.
7. VALVE NEXT TO SPOOL SHALL BE 4". OTHER EQUIPMENT MAY BE 3" OR 4". ALL CHOKE MANIFOLD EQUIPMENT SHALL BE FLANGED. FLOW LINE FROM MANIFOLD TO BE MINIMUM OF 3" AND STRAIGHT AS POSSIBLE WITH MINIMUM BENDS.
8. FLUID LINES FROM ACCUMULATOR TO BOP'S AND ALL REMOTE CONTROL FLUID LINES SHALL BE STEEL, AND RATED AT OR ABOVE MAXIMUM ACCUMULATOR PRESSURE. LINES SHALL BE ROUTED IN BUNDLES AND ADEQUATELY PROTECTED FROM DAMAGE.
9. USE RAMS IN FOLLOWING POSITIONS:\*

	<u>DRILLING</u>	<u>RUNNING CASING</u>
UPPER RAM	DRILL PIPE	CASING
LOWER RAM	BLIND	BLIND

\*AMOCO AREA SUPT. MAY REVERSE LOCATION OF RAMS.

10. CHOKE MANIFOLD, BEYOND SECOND VALVE FROM CROSS MAY BE OPTIONALLY POSITIONED OUTSIDE OF SUBSTRUCTURE.
11. EXTENSIONS AND HAND WHEELS TO BE INSTALLED AND BRACED AT ALL TIMES.
12. TWO INCH (2") LINES AND VALVES ARE PERMITTED ON THE KILL LINE.

NOTE: ALL UNMARKED VALVES MAY BE PLUG OR GATE VALVE, METAL TO METAL SEAL.



3000# W.P.

Attachment to "Application for Permit to Drill", Form 9-331 C

Greenwood PreGrayburg Unit #15  
1980' FSL & 860' FWL, Sec. 26, T-18-S, R-31-E  
Eddy County, New Mexico

1. Location

See attached Form C-102

2. Elevation

See attached Form C-102

3. Geologic name of surface formation.

Quaternary

4. Type of drilling tools and associated equipment to be utilized.

See Form 9-331 C

5. Proposed drilling depth.

See Form 9-331 C

6. Estimated tops of important geologic markers.

Delaware	4680'	Morrow	10840'	Siluro-Devonian	12370'
Bone Springs	6340'	Mid Morrow	11070'	Ellenburger	13760'
Wolfcamp	9630'	Miss	11780'		
Atoka	10570'				

7. Estimated depths at which anticipated water, oil, gas or other mineral-bearing formations are expected to be encountered.

Morrow 10840'      Ellenburger 13760'      Siluro-Devonian 12370'

8. Proposed casing program, including size, grade, and weight of each string and whether it is new or used.

<u>Depth</u>	<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>New or Used</u>
800'	16 "	65 #	H-40	New
4800'	10 3/4"	45.5#	K-55	New
12000'	7 5/8"	26.4#	K-55	New
11500'-	4 1/2"	9.5#	K-55	New
14500'				

9. Proposed cementing program.

16 "- Circulate to Surface.  
10 3/4"- Circulate to Surface.  
7 5/8"- Tie back to 10 3/4".  
4 1/2"- Tie back to 7 5/8".

10. Blowout Preventer Program is attached.
11. Type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling, and the quantities and types of mud and weighting material to be maintained.
- 0- 800' Native mud and fresh water.
  - 800- 4800' Native mud and brine water.
  - 4800-10500' Commercial mud and brine with minimum properties for safe hole conditions.
  - 10500-TD Commercial mud and brine. Raise viscosity and reduce water loss prior to
12. Testing, logging and coring programs to be followed with provisions made for required flexibility. Morrow Penetration.

Compensated Neutron Formation Density; Dual Laterolog Micro SFL

13. Any anticipated abnormal pressure or temperatures expected to be encountered or potential hazards, such as hydrogen sulfide gas, along with plans for mitigating such hazards.

None anticipated

14. Anticipated starting date and duration of operation.

6-27-80      8-15-80

15. Other facets of the proposed operation operator wishes to point out for the Geological Survey's consideration of the application.

Request exemptions from the painting stipulations of Sec. 102 (a) (8) of the "Federal Land Policy and Management Act of 1976" to paint any tanks, separators, and treaters required for the production of this well, Amoco's standard gray color. If a pumping unit is required for the continued production of this well, it will be painted black with orange safety color coding which conforms with your current painting guidelines.



NEW MEXICO OIL CONSERVATION COMMISSION — ARTESIA, NEW MEXICO

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