

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY30-039-21469  
5. LEASE DESIGNATION AND SERIAL NO.

NM 14916

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Valencia Canyon Unit

8. FARM OR LEASE NAME

9. WELL NO.

13

10. FIELD AND POOL, OR WILDCAT

Choza Mesa Pictured Cliffs

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

SW/4 SE/4 Section 22

T-28-N, R-4-W

12. COUNTY OR PARISH 13. STATE

Rio Arriba

New Mexico

## 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

AMOCO PRODUCTION COMPANY

3. ADDRESS OF OPERATOR

501 AIRPORT DRIVE, FARMINGTON, NEW MEXICO 87401

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

At surface

790 FSL &amp; 1850 FEL, Section 22, T-28-N, R-4-W

At proposed prod. zone

Same

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

8 miles SE of Gobernador

15. DISTANCE FROM PROPOSED\*

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

790'

16. NO. OF ACRES IN LEASE

640

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION\*

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

2150'

19. PROPOSED DEPTH

4425'

20. ROTARY OR CABLE TOOLS

Rotary

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

7316 GL

22. APPROX. DATE WORK WILL START\*

As soon as permitted

23.

## PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|----------------|-----------------|---------------|--------------------|
| 12-1/4"      | 8-5/8"         | 24#             | 300'          | 225 sx             |
| 6-1/4"       | 4-1/2"         | 9.5#            | 4425'         | 1040 sx            |

The above well is being drilled to further develop the Choza Mesa Pictured Cliffs Field. The well will be drilled with a low solids non-dispersed mud system. Completion design will be based on open hole logs. This acreage is not dedicated. Attached is a Development Plan required by NTL-6.

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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

TITLE

Area Engineer

DATE

July 15, 1977

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

## **Instructions**

**General:** This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

**Item 1:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

**Items 15 and 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

**Item 22:** Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

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

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

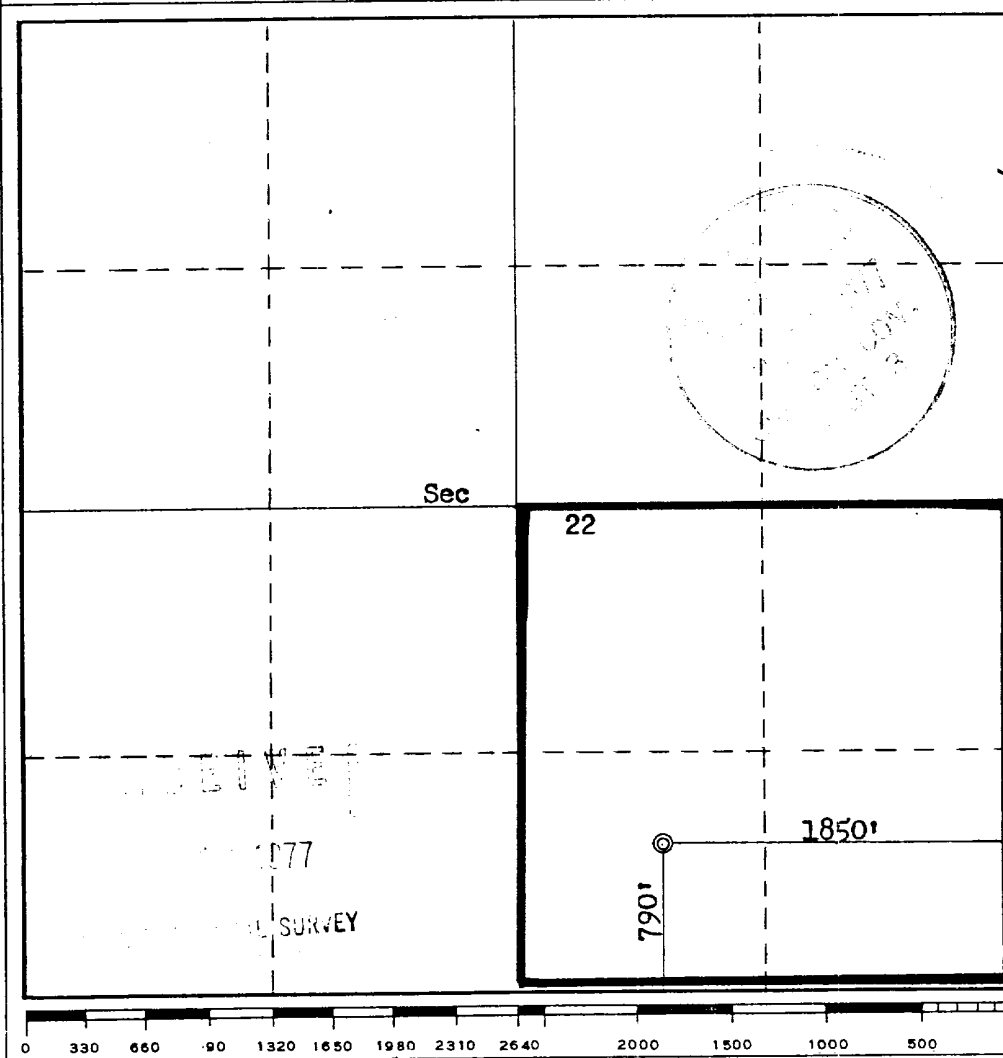
|   |   |                        |   |                             |  |
|---|---|------------------------|---|-----------------------------|--|
| Operator<br><b>Amoco Production Company</b>   |   |                        | Lease<br><b>Valencia Canyon Unit</b>      |                             | Well No.<br><b>13</b>                  |
| Unit Letter<br><b>0</b>   | Section<br><b>22</b>                          | Township<br><b>28N</b> | Range<br><b>1W</b>                        | County<br><b>Rio Arriba</b> |  |
| Actual Footage Location of Well:<br><b>790</b> feet from the <b>South</b> line and <b>1850</b> feet from the <b>East</b> line |   |                        |   |                             |  |
| Ground Level Elev.<br><b>7316</b>   | Producing Formation<br><b>Pictured Cliffs</b> |                        | Pool<br><b>Choza Mesa Pictured Cliffs</b> |                             | Dedicated Acreage:<br><b>160</b> Acres |

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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.



**CERTIFICATION**

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

Name  
**J. L. KRUPKA**

Position  
**AREA ENGINEER**

Company  
**AMOCO PRODUCTION COMPANY**

Date  
**JULY 15, 1977**

*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  
**June 17, 1977**

Registered Professional Engineer and/or Land Surveyor

**Fred B. Kerr Jr.**

Certificate No.

**3950**

VALENCIA CANYON UNIT NO. 13  
790 FSL & 1850 FEL, SECTION 22, T-28-N, R-4-W  
RIO ARriba COUNTY, NEW MEXICO

CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Amoco Production Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

*P. O. Spencer Jr.*  
*JS*

JULY 12, 1977

Date

AREA SUPT.

Name and Title

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U.S. GEOLOGICAL SURVEY

DEVELOPMENT PLAN  
VALENCIA CANYON UNIT NO. 13  
790 FSL & 1850 FEL, SECTION 22, T-28-N, R-4-W  
RIO ARRIBA COUNTY, NEW MEXICO

The proposed location has big sagebrush and various grasses with occasional pinon trees. The geological name of the surface formation is the Paleozoic San Jose. A new road 500' will be required. No construction materials will be used for building the location; dirt will be leveled at the well site. Verbal approval of the drill site has been obtained from Mr. Dick C. Cooke, U. S. Forest Service; Mr. Jerry Long, USGS; and Ms. Dabney Ford, Archaeologist.

Arrangements are being made to haul water from Carrizo Wash or from the El Paso water hole on existing roads, approximately ten miles. Drilling fluid to TD will be a low solids non-dispersed mud system. Upon completion the location will be cleaned up and leveled. Drilling mud and water will be hauled away and the reserve pit backfilled. Attached is the seeding plan to be followed for this well.

There are neither airstrips nor camps in the vicinity.

The estimated tops of important geological formations bearing hydrocarbons are:

| <u>FORMATION</u> | <u>DEPTH</u> | <u>ELEVATION</u> |
|------------------|--------------|------------------|
| Pictured Cliffs  | 4130'        | +3185'           |
| Lewis Shale      | 4330'        | +2985'           |

Estimated KB elevation: 7316'

| <u>Est. Depth</u> | <u>Csg. Size</u> | <u>Weight</u> | <u>Hole Size</u> | <u>Sacks Cement</u>                        | <u>Type</u> |
|-------------------|------------------|---------------|------------------|--|-------------|
| 300'              | 8-5/8"           | 24#           | 12-1/2"          | 175 sx - Class "B", 2% CaCl <sub>2</sub> . |             |
| 4425'             | 4-1/2"           | 9.5#          | 7-7/8"           | 990 sx - Class "B", 6% Gel,                |             |
|                   |                  |               |                  | 2# Med. Tuf Plug/sx.                       |             |
|                   |                  |               |                  | 50 sx - Class "B" Neat.                    |             |

Amoco's standard blowout prevention will be employed, see attached drawing for blowout preventer design.

Amoco plans to run the following logs: from 300' to TD, Induction-Electric; from 2470' to TD, Density-Gamma Ray. No cores or Drill Stem Tests will be taken.

In the past, drilling in this area has shown that no abnormal pressure, temperatures or hydrocarbon gas will be encountered.

We will start operation as soon as well is permitted, and a two-week operation is anticipated.

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1-10-77

LOCAL SURVEY

## SEEDING PLAN

### 1. TIME:

All seeding will take place between July 1, and September 15, 1978, or as required by the U. S. Forest Service.

### 2. EQUIPMENT:

Seeding will be done with a disc-type drill with two boxes for various seed sizes. The drill rows will be eight to ten inches apart. The seed will be planted not less than one-half inch deep or more than one inch deep. The seeder will be followed with a drag, packer, or roller to insure uniform coverage of the seed, and adequate compaction. Drilling will be done on the contour where possible, no up and down the slope. Where slopes are too steep for contour drilling, a "cyclone" hand seeder or similar broadcast seeder will be used. Seed will then be covered to the depth described above by whatever means is practical.

### 3. SPECIES TO BE PLANTED IN POUNDS PURE-LIVE-SEED PER ACRE:

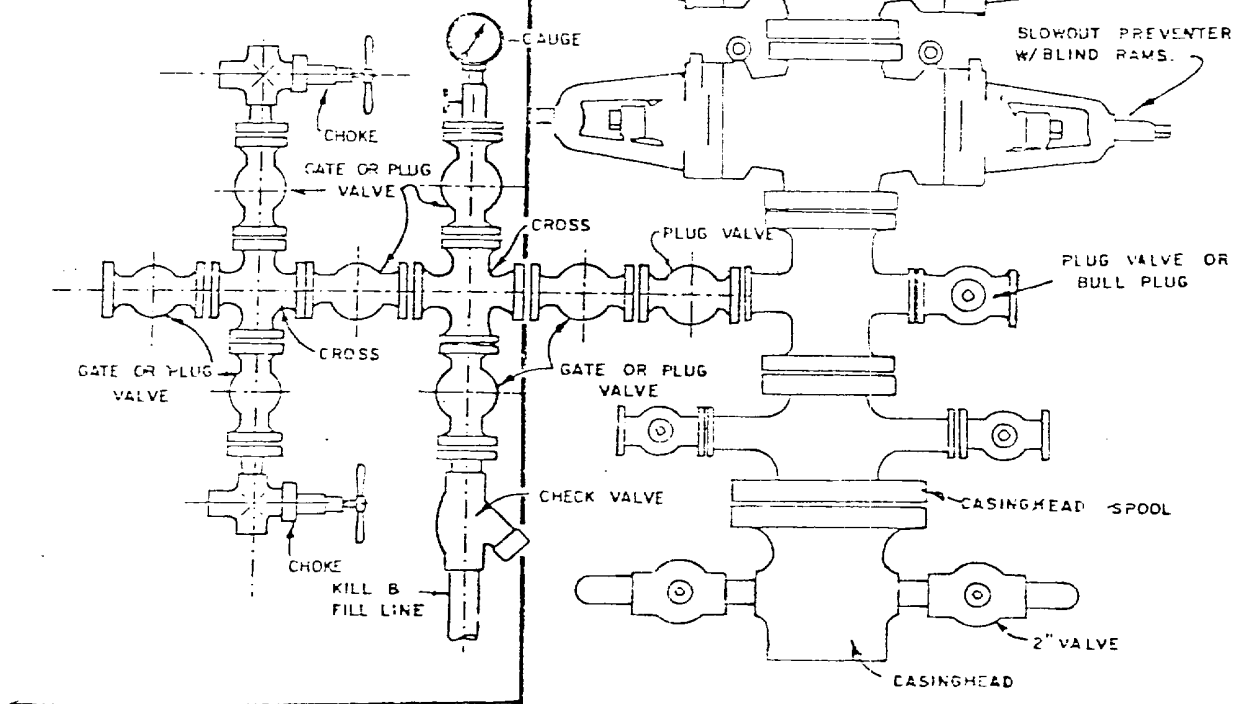
|                      |           |
|----------------------|-----------|
| Crested Wheatgrass   | 0.71 lbs. |
| Russian Wild Rye     | 0.86 lbs. |
| Perennial Rye Grass  | 0.57 lbs. |
| Western Wheatgrass   | 1.43 lbs. |
| Smooth Brome         | 1.14 lbs. |
| Intermediate Wheat   | 0.91 lbs. |
| Pubescent Wheatgrass | 1.09 lbs. |
| Orchard Grass        | .298 lbs. |

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THIS PORTION, OR ANY PART THEREOF, MAY BE PLACED OUTSIDE OF SUB-STRUCTURE IF DESIRED. USE LONG RADIUS BENDS. PIPE USED FOR EXTENSION SHOULD BE SHOP MADE WITH NO SCREWED CONNECTIONS AND PRESSURE TESTED INITIALLY TO SAME TEST PRESSURE AS THE CHOKE MANIFOLD.



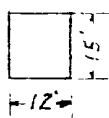
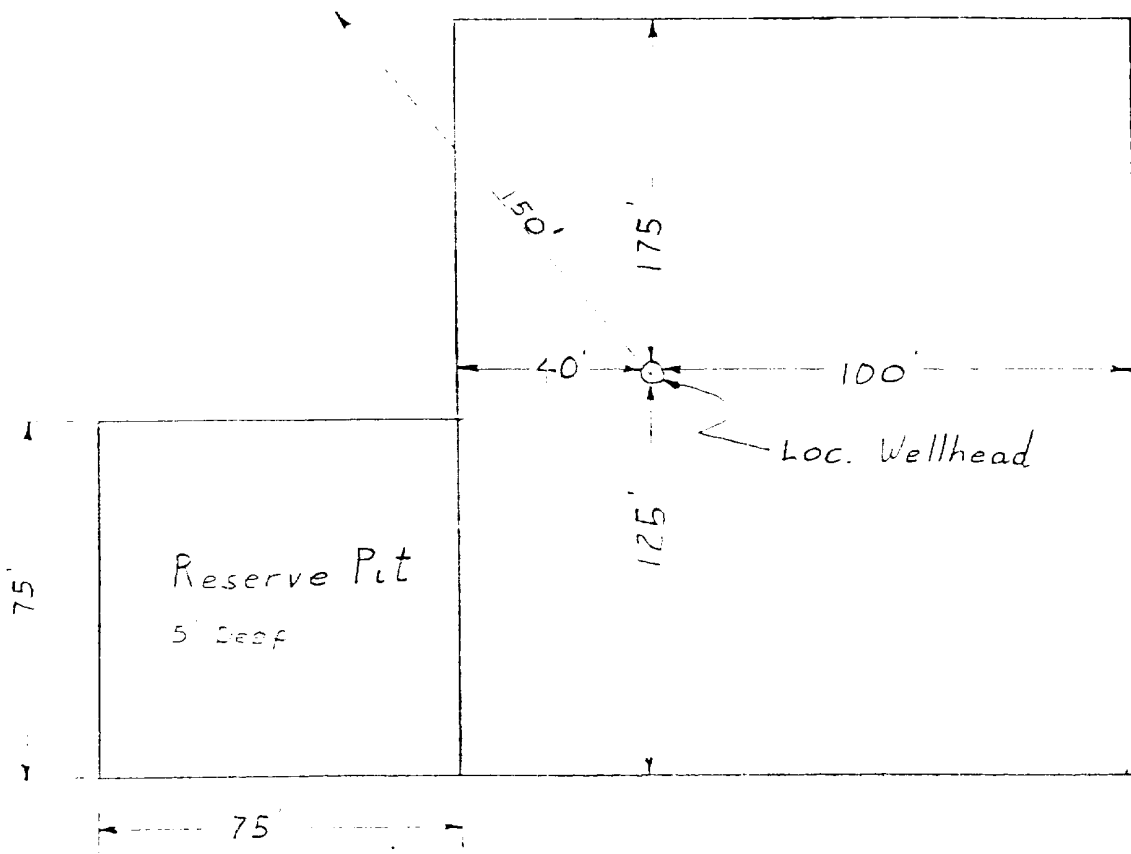
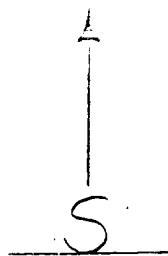
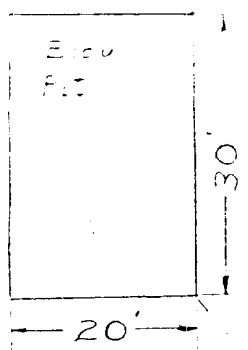
BLOWOUT PREVENTER HOOKUP

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EXHIBIT D-4  
OCTOBER 16, 1965



Trash Pit

APPROXIMATELY 1.2 Acres

DRIVE

77

SURVEY

Amoco Production Company

SCALE: NONE

DRILLING LOCATION SPECS  
VALENCIA CANYON UNIT NO. 13

DRG  
NO.





Vicinity Map for  
AMOCO PRODUCTION CO. #13 Valencia Canyon Unit  
790 FSL 1850' FEL Sec. 22-T28N-RLW N.M.P.M.  
Rio Arriba County, New Mexico