

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## 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, NH 07401

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

At surface

D 1050' FNL x 1130' FWL, Section 15, T-28-N, R-4-W

At proposed prod. zone

Same

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

7 miles SE of Gobernador

## 15. DISTANCE FROM PROPOSED\*

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

1050'

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

2300'

## 16. NO. OF ACRES IN LEASE

640

## 19. PROPOSED DEPTH

4400'

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

160

## 20. ROTARY OR CABLE TOOLS

Rotary

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

7273' est. CL

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

As soon as well 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'	250 sk
7-7/8"	4-1/2"	10.5#	4400'	1240 sk

The above well is being drilled to further develop the Chosa 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. Additional information required by NTL-6 for the application to drill and a Multi-Point Surface Use Plan are attached.



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 12/19/77

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED

DEC 21 1977

\*See Instructions On Reverse Side

U. S. GEOLOGICAL SURVEY  
DURANGO, COLO.

## 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.

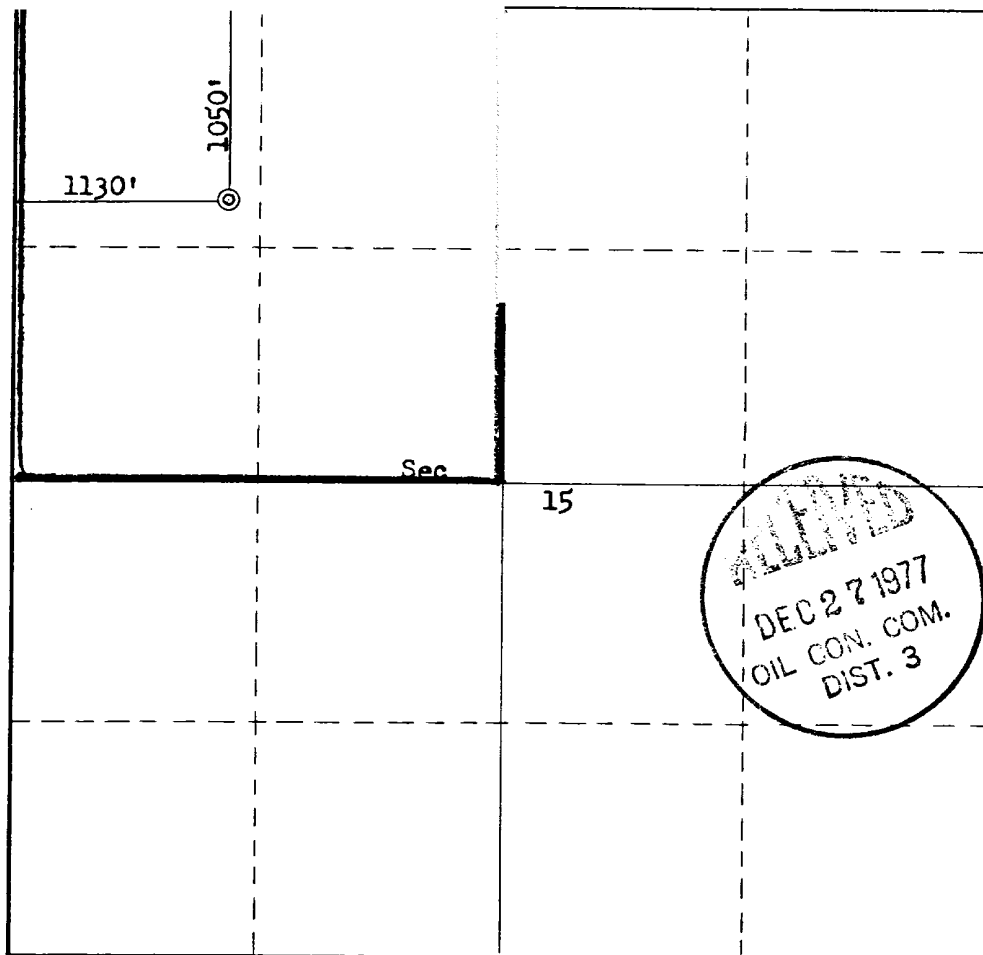
Operator <b>Amoco Production Company</b>			Lease <b>Valencia Canyon Unit</b>		Well No. <b>24</b>
Unit Letter <b>D</b>	Section <b>15</b>	Township <b>28N</b>	Range <b>4W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well: <b>1050</b> feet from the <b>North</b> line and <b>1130</b> feet from the <b>West</b> line					
Ground Level Elev. <b>7273</b>	Producing Formation <b>Pictured Cliffs</b>		Pool <b>Choza Mesa Pictured Cliffs</b>	Dedicated Acreage: <b>160</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.



CERTIFICATION

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

*J. L. Krupka*

Name  
**J. L. KRUPKA**

Position  
**AREA ENGINEER**

Company  
**AMOCO PRODUCTION COMPANY**

Date  
**DECEMBER 9, 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  
**December 2, 1977**

Registered Professional Engineer and/or Land Surveyor

*Fred B. Kerr Jr.*  
**Fred B. Kerr Jr.**

Certificate No.  
**3950**

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

SUPPLEMENTAL INFORMATION TO FORM 9-331C  
 REQUIRED BY NTL-6  
 VALENCIA CANYON UNIT NO. 24  
 1050' FNL & 1130' FWL, SECTION 15, T-28-N, R-4-W  
 RIO ARriba COUNTY, NEW MEXICO

The geologic name of the surface formation is the Paleozoic San Juan.

The estimated tops of important geological formations bearing hydrocarbons are:

<u>FORMATION</u>	<u>DEPTH</u>	<u>ELEVATION</u>
Pictured Cliffs	4103'	+3180'
Lewis Shale	4303'	+2980'
TD	4400'	

Estimated KB Elevation: 7283'

<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#	12-1/4"	250	sx - Class "B", 2% CaCl <sub>2</sub> .
<u>4400'</u>	4-1/2"	10.5#	7-7/8"	<u>1140</u>	sx - Class "B", 6% Gel, 2# Med. Tuf Plug/sx.
				<u>100</u>	sx - Class "B" Neat.

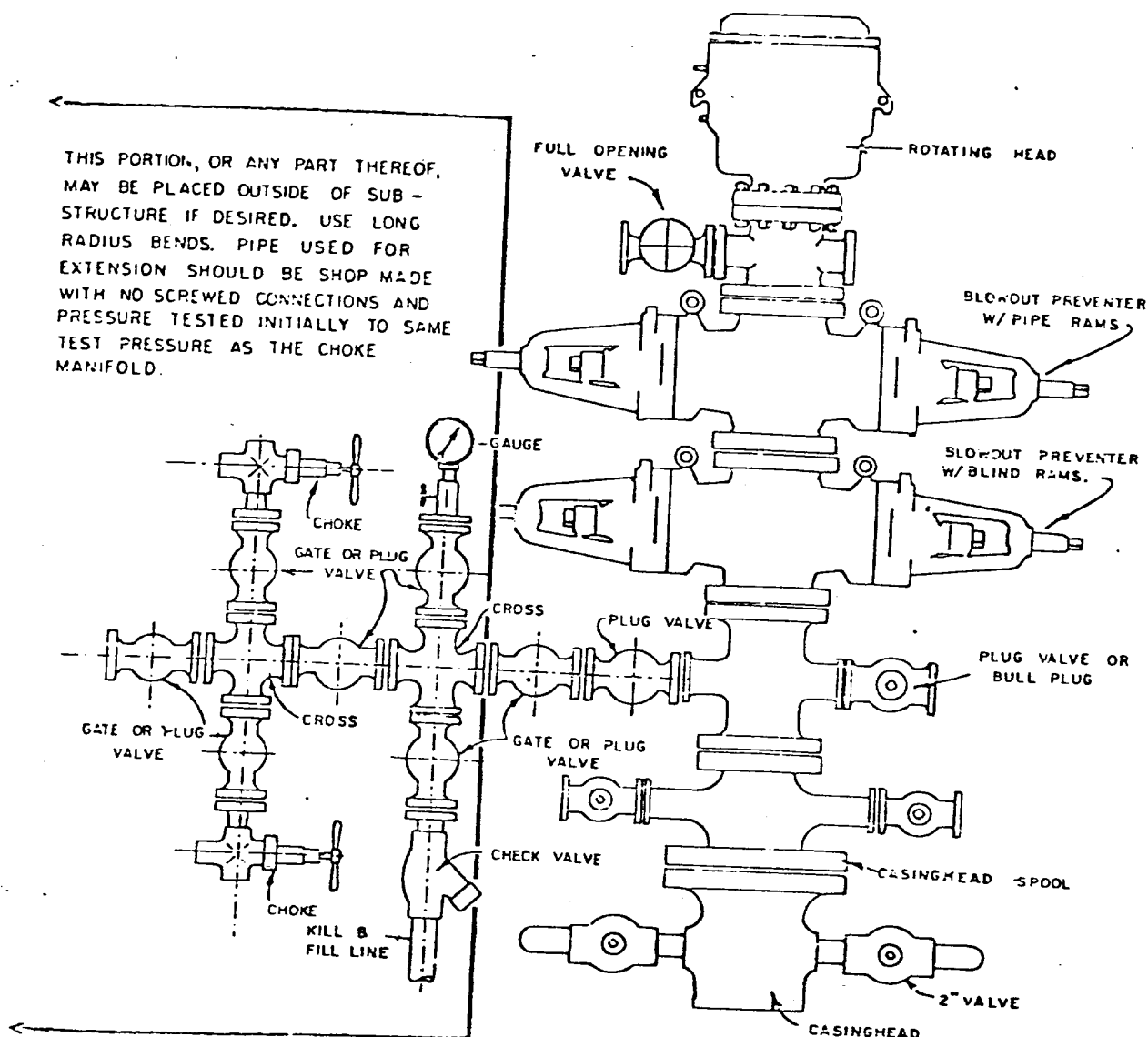
Amoco's standard blowout prevention will be employed; see attached drawing of our blowout preventer design.

Drilling fluid to TD will be a low solids non-dispersed mud system.

Amoco plans to run the following logs: from TD to 300', Induction-Electric; from TD to 2400', 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, nor hydrocarbon gas will be encountered.

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.



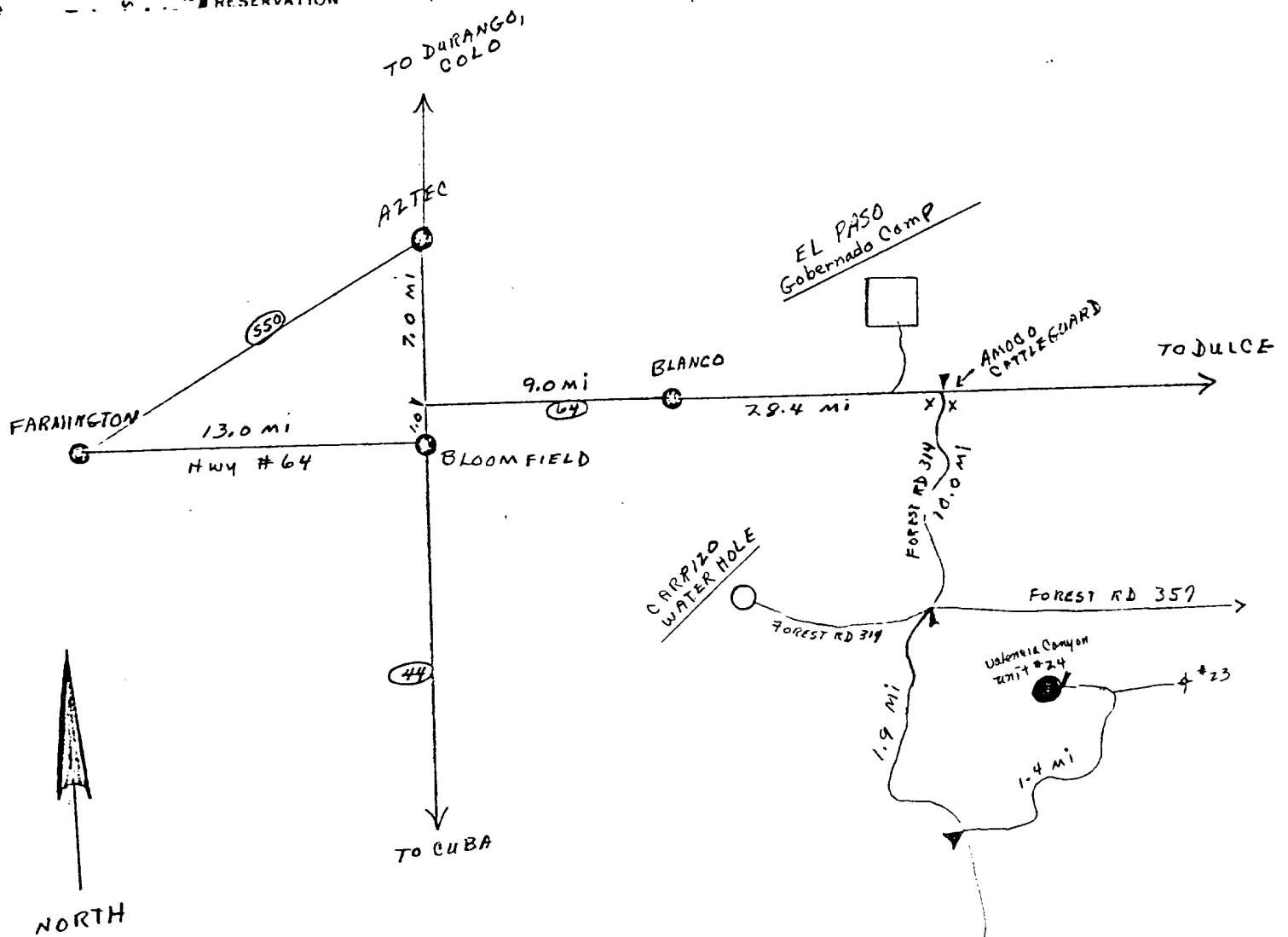
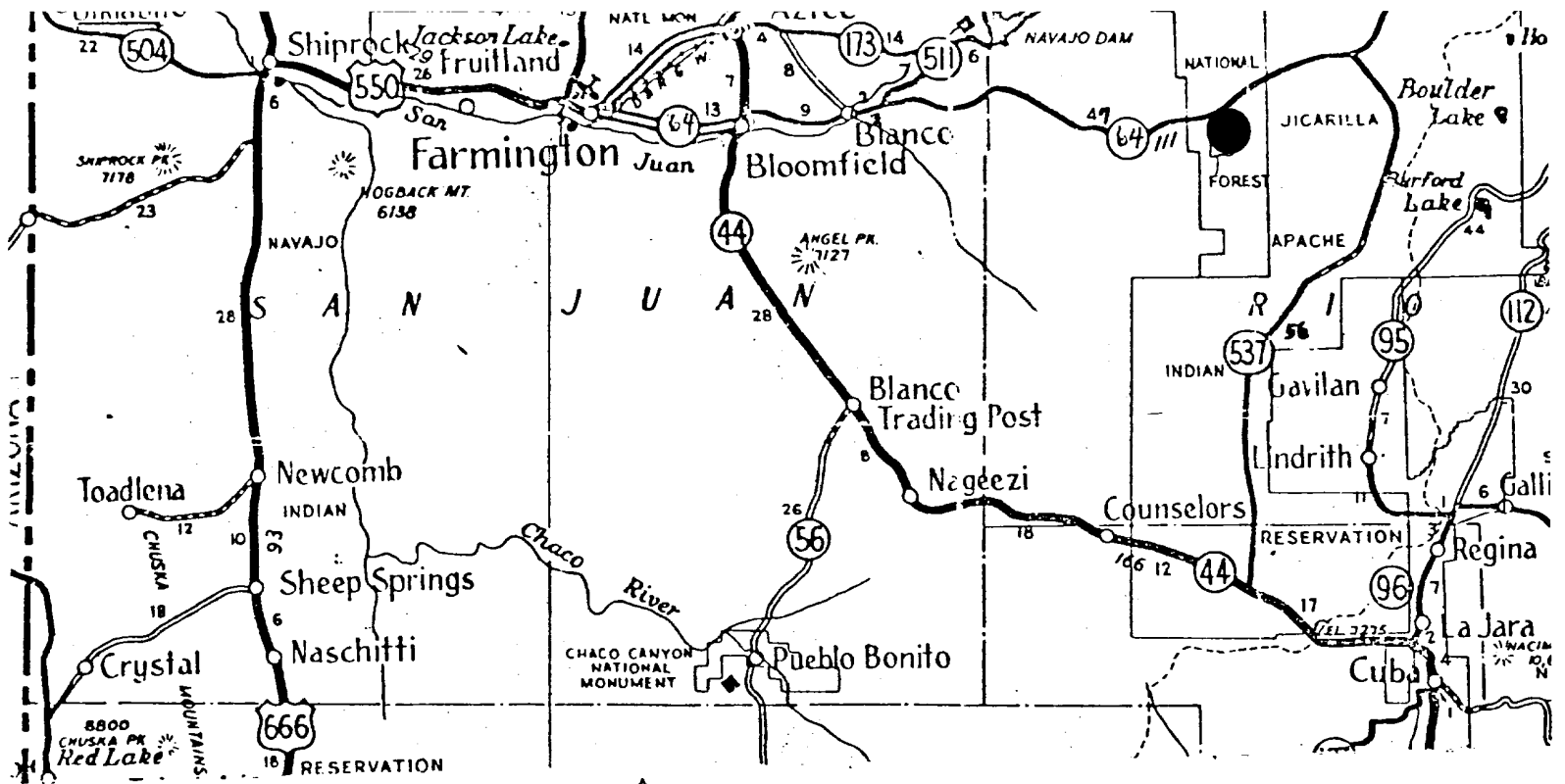
BLOWOUT PREVENTER HOOKUP

EXHIBIT D-4  
OCTOBER 16, 1969

MULTI-POINT SURFACE USE PLAN

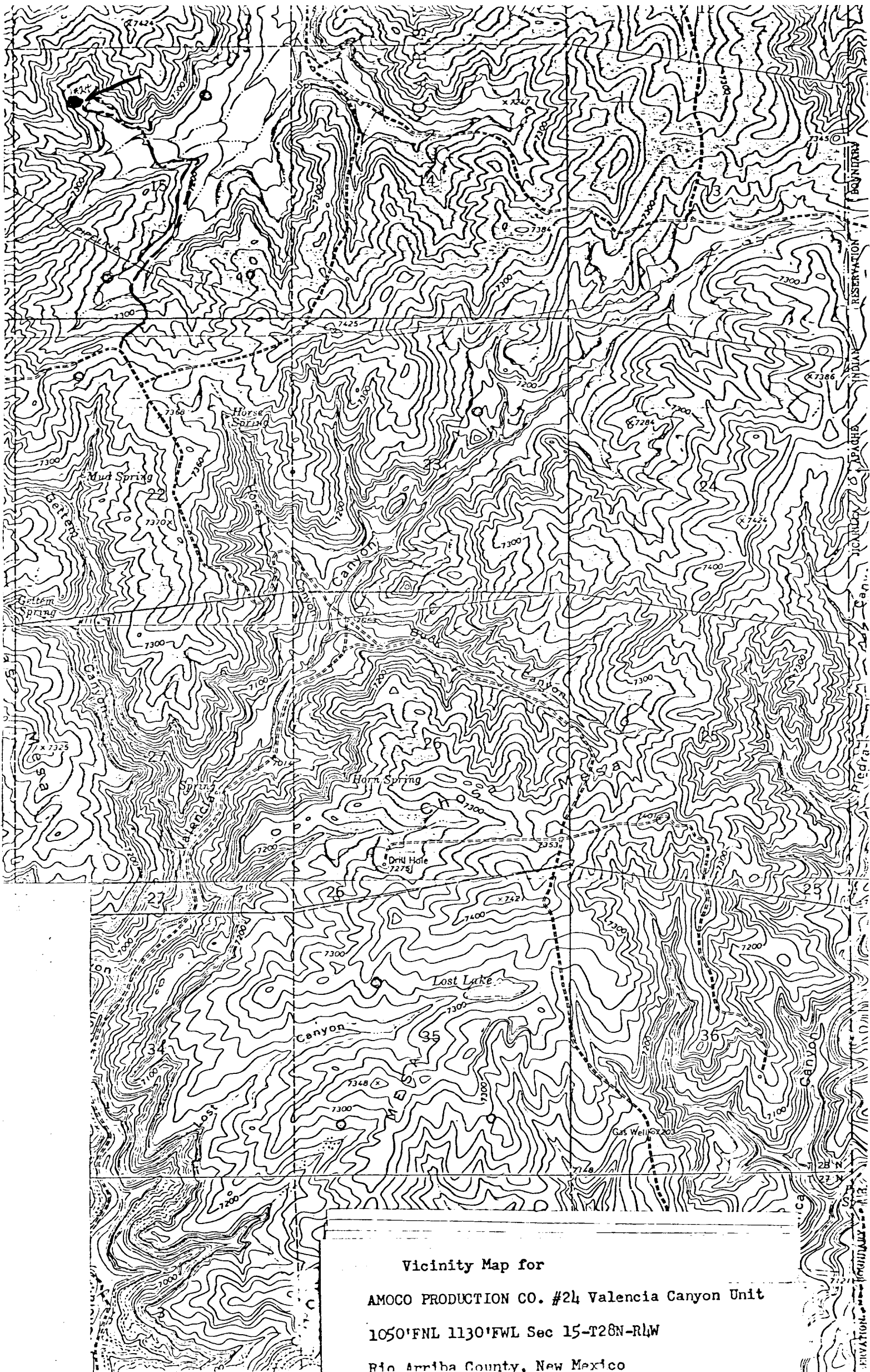
VALENCIA CANYON UNIT NO. 24  
1050' FNL & 1130' FWL, SECTION 15, T-28-N, R-4-W  
RIO ARriba COUNTY, NEW MEXICO

1. The attached road map and sketch show the proposed route to the location and distances from towns.
2. A new two-thirds mile access road will be constructed for this well as shown on the attached vicinity map. A portion of the new road will also serve Well No. 23. An existing logging road will be improved.
3. Existing oil and gas wells within a one-mile radius of our proposed well have been spotted on the vicinity map.
4. There are no tank battery facilities located at wells within a one-mile radius of the proposed location
5. Water will be hauled from Carrizo Wash or from the El Paso water hole approximately 10 miles on existing roads.
6. No construction materials will be hauled in for this location.
7. Excess mud will be hauled out of the reserve pit and bladed into existing roads. The Forest Ranger will be notified before mud is bladed into roads.
8. There are neither airstrips nor camps in the vicinity.
9. The well site layout, reserve, burn and trash pits are shown on the attached Drill Site Specification Sheet. A 6-foot cut will be made on the north side.
10. Restoration of the surface will be accomplished by cleaning up and leveling upon completion of the well. Reseeding of the site will be carried out as detailed in the attached Seeding Plan.
11. The general topography and soil characteristics are a sandy-clay with vegetation of rabbit bush, blue gramma grass, sage brush with no trees on the location. The site is on the edge of a flat meadowy area.  
  
Representatives of the U. S. Geological Survey and U. S. Forest Service have inspected the site and found it suitable for drilling. No cultural resources were found when inspected by Ms. Suzanne DeHoff, Archaeologist.
12. A Certification Statement by Amoco's representative is included.



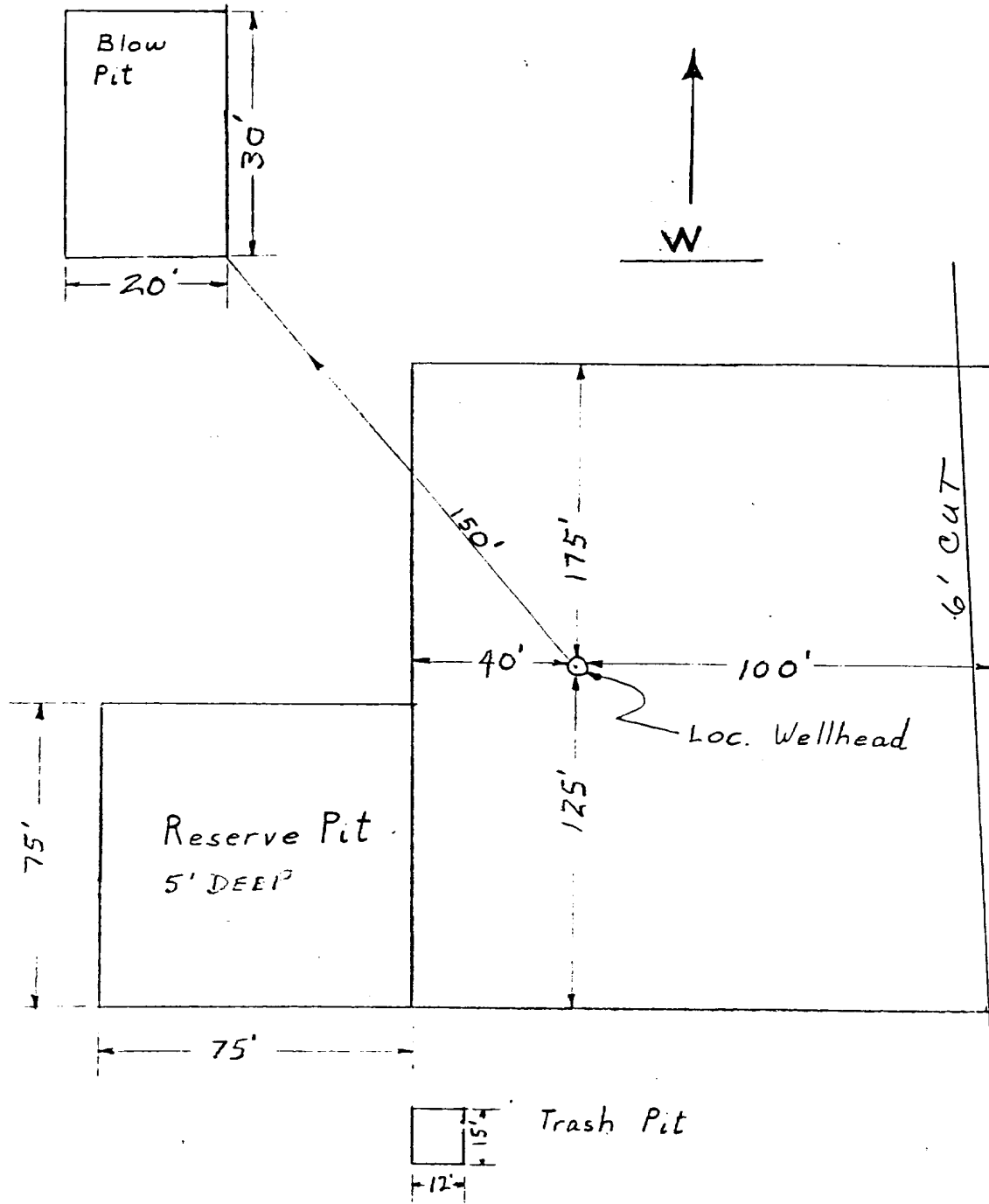
FARMINGTON AREA TRAFFIC SKETCH  
 DENVER DIVISION  
 VALENCIA CANYON UNIT NO. 24  
 RIO ARRIBA COUNTY, NEW MEXICO  
 AMOCO WI: 100%

Rail Point, Aztec - 57.7 miles  
 Mud Point, Aztec - 57.7 miles  
 Cement Point, Farmington - 64.7 miles



Vicinity Map for  
AMOCO PRODUCTION CO. #24 Valencia Canyon Unit  
1050'FNL 1130'FWL Sec 15-T28N-R4W  
Rio Arriba County, New Mexico





APPROXIMATELY 1.2 Acres

Amoco Production Company

SCALE: NONE

DRILLING LOCATION SPECS  
VALENCIA CANYON UNIT NO. 24

DRG.  
NO.

## 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.


VALENCIA CANYON UNIT NO. 24  
1050' FNL x 1130' FEL, SECTION 15, 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 be 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.

December 19, 1977

Date

 Area Supt.  
Name and Title

Amoco Production Company's Representative:

L. O. Speer, Jr.

Phone: Office: 505-325-8841; Home: 505-325-3247

Address: 501 Airport Drive

Farmington, NM 87401