

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

12. TYPE OF WORK  
DRILL ☒ DEEPEN ☐ PLUG BACK ☐

13. 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, 87-01

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements\*)  
At surface  
1850' ENL x 790' FEL  
At proposed prod. zone

11. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
15 miles Northeast of Counselor, New Mexico

10. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest dng. unit line, if any) 790'

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT. 1853'

21. ELEVATIONS (Show whether DE, RT, CR, etc.) 425'

19. PROPOSED DEPTH 425'

20. ROTARY OR CABLE TOOLS Rotary

22. APPROX. DATE WORK WILL START\* As soon as permitted

PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT   |
|--------------|----------------|-----------------|---------------|--|
| 12-14 1/2"   | 8-5/8" (New)   | 24.0# K-55      | 300'          | 315 sx Class B x 2 1/2" CaCl <sub>2</sub> -Circ  |
| 7-7/8"       | 5-1/2" (New)   | 15.5# K-55      | 425'          | 1st Stage- 250 sx CI B 50:50 Poz   |
|              |                |                 |               | 2nd Stage; 475 sx (x 6% gel, 2# med tuf plug/sx, .8% FLA x 100 sx CI B Neat (Tail in) Circ |

Amoco proposes to drill the above well to further develop the Otero Chacra reserves. The well will be drilled to the surface casing point using native mud. The well will then be drilled to TD with a low solids nondispersed mud system. Completion design will be based on open hole logs. A copy of all logs will be filed upon completion. Additional information required by NTL-6 for the application to drill and a multi-point use plan are attached.

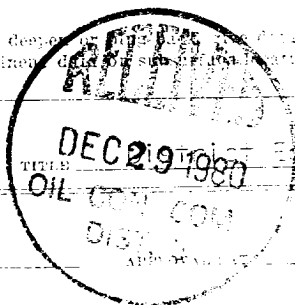
The gas from this well is dedicated to Northwest Pipeline Corp.

This action is subject to administrative appeal pursuant to 30 CFR 290.

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS"

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen existing well, give pertinent data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on sub-surface formations and measured and true vertical depths. Give blowout prevention program, if any.

24. ORIGINAL SIGNED BY  
W. L. Pollock  
SIGNED  
TITLE District Engineer  
DATE November 17, 1980  
APPROVED  
AS AMENDED  
DEC 23 1980  
for JAMES F. SIMS  
DISTRICT ENGINEER  
sh 3m



AMOCO

SUPPLEMENTAL INFORMATION TO FORM 9-331C

JICARILLA CONTRACT 148 NO. 26  
970' FSL & 1790' FEL, SECTION 13, T25N, R 5W  
RIO ARriba COUNTY, NEW MEXICO

The geologic name of the surface formation is the Tertiary San Jose.

Estimated tops of important geologic markers and potential water, oil, or gas bearing formations:

| <u>FORMATION</u>        | <u>DEPTH</u> | <u>ELEVATION</u> |
|-------------------------|--------------|------------------|
| Ojo Alamo               | 2629 '       | 4314 '           |
| Kirtland                | 2829 '       | 4114 '           |
| Fruitland               | 3024 '       | 3919 '           |
| Pictured Cliffs         | 3204 '       | 3739 '           |
| Chacra (if present)     | 4075 '       | 2869 '           |
| Mesaverde [ Cliff House | '            | '                |
| Point Lookout           | '            | '                |
| Gallup                  | '            | '                |
| Dakota                  | '            | '                |
| TD                      | 4257 '       | 2686 '           |

Estimated KB elevation: 6943 '

Drilling fluid to TD will be a fresh water, low solids non-dispersed mud system. Open hole logging program will include logs from TD to below surface casing:

IND-SP-GR  
FDC-CNL-GR

Completion design will be based on these logs. No cores or drill stem tests will be taken.

Operations will commence when permitted and last approximately 3 weeks.

Amoco's standard blowout prevention will be employed (see attached drawing).

In the past, drilling in this area has shown that no abnormal pressures, temperatures, nor hydrogen sulfide gas will be encountered.

## OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-107  
Revised 10-1-78

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

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

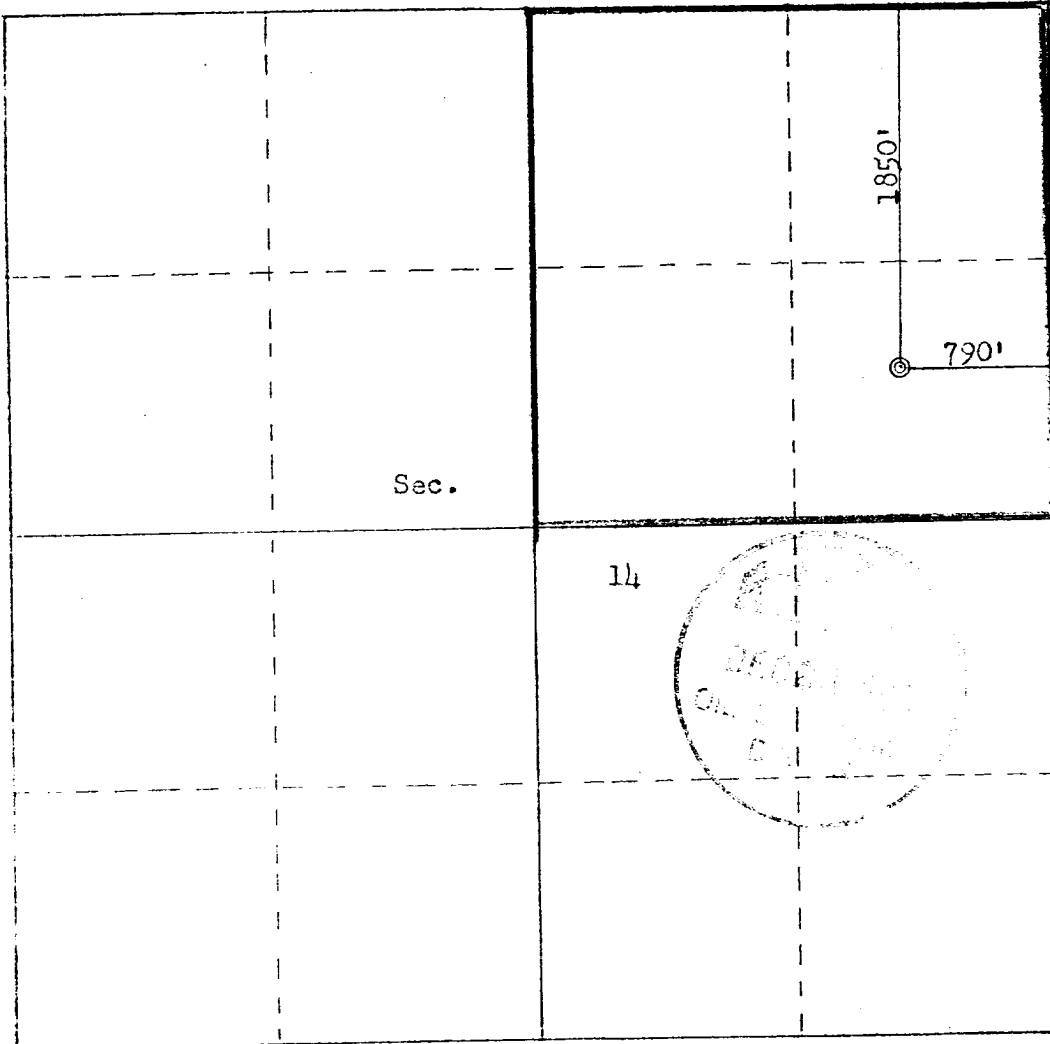
|   |  |   |  |                             |
|---|--|---|--|-----------------------------|
| Operator<br><b>AMOCO PRODUCTION COMPANY</b>     |  | Lease<br><b>JICARILLA CONTRACT 148</b>                      |  | Well No.<br><b>26</b>       |
| Unit Letter<br><b>H</b>                         | Section<br><b>14</b>                                 | Township<br><b>25N</b>                                      | Range<br><b>5W</b>                     | County<br><b>Rio Arriba</b> |
| Actual Footage Location of Well:                |  |   |  |                             |
| <b>1850</b> feet from the <b>North</b> line and |  | <b>790</b> feet from the <b>East</b> line                   |  |                             |
| Ground Level Elev:<br><b>6930</b>               | Producing Formation<br><b>Pictured Cliffs/Chacra</b> | Pool<br><b>So. Blanco Pictured Cliffs/<br/>Otero Chacra</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.



Scale: 1"=1000'

## CERTIFICATION

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

*R. A. Downey*  
Name  
R. A. DOWNEY

Position  
DISTRICT ENGINEER

Company  
AMOCO PRODUCTION COMPANY

Date  
SEPTEMBER 11, 1980

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.

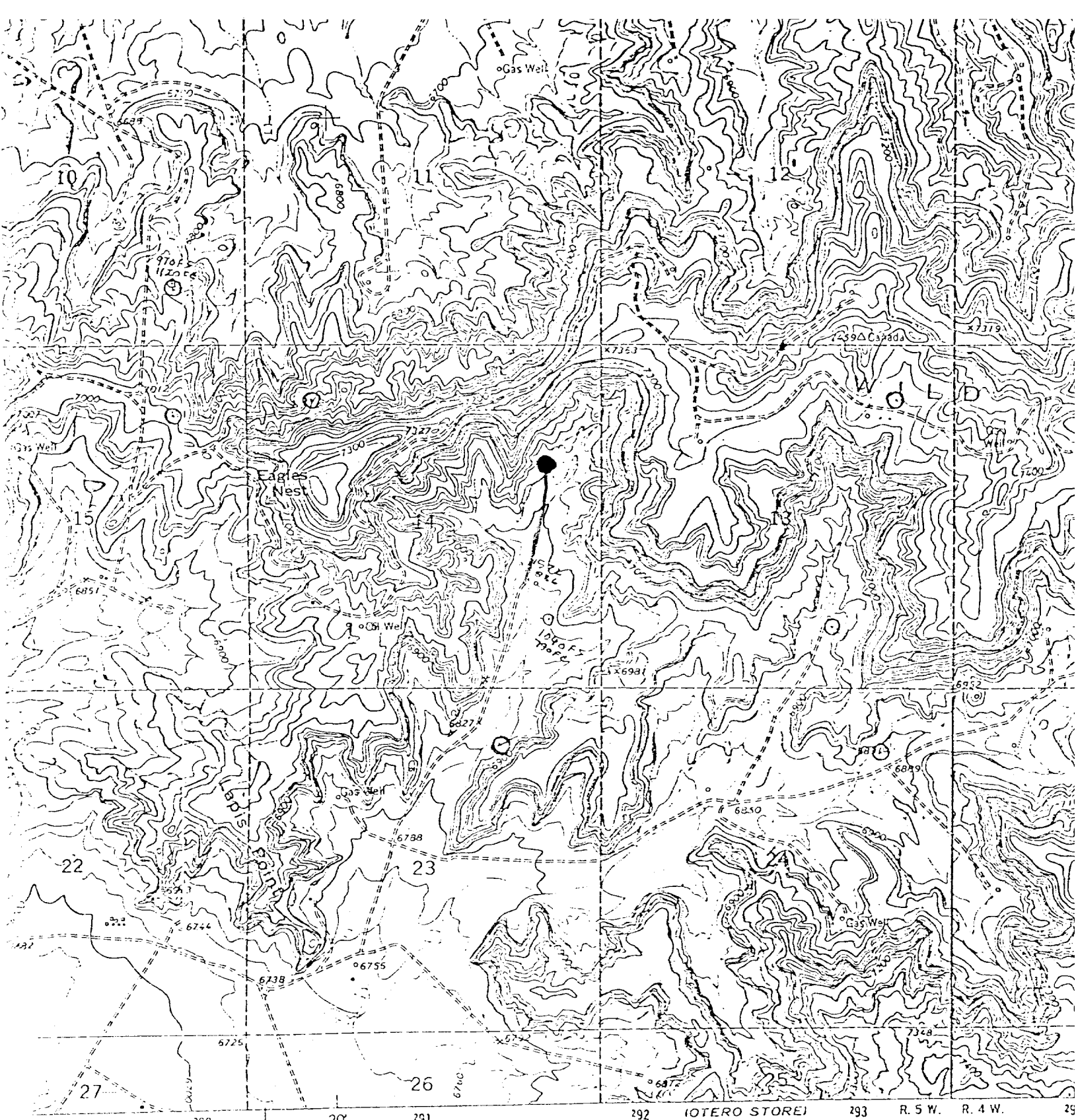
Date Surveyed

July 30, 1980

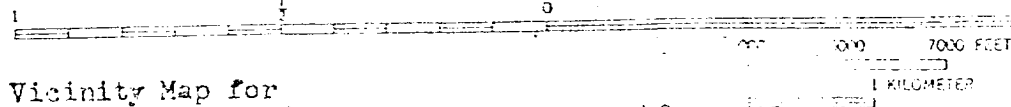
Registered Professional Engineer  
and Land Surveyor

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

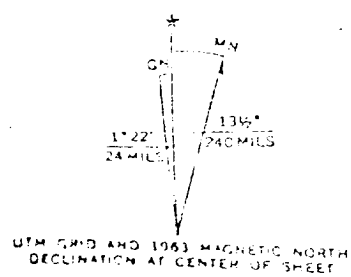
Certificate No. *U. KERR, JR.*  
3950



SCALE 1:24000

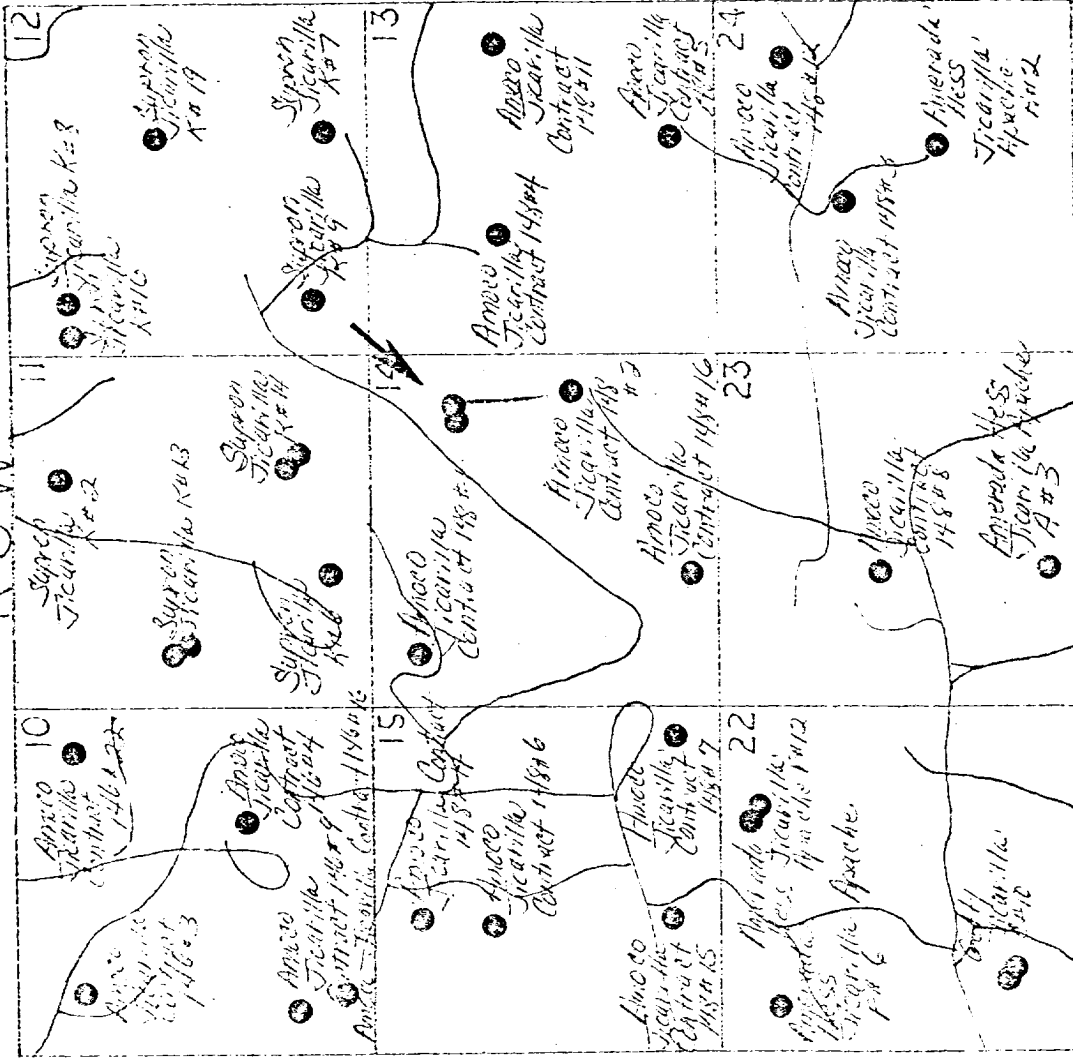


Vicinity Map for  
 AMOCO PRODUCTION CO. #26 JICARILLA CONTRACT 143  
 1850'FNL 790'FEL Sec. 14-T25N-R5W  
 RIO ARriba COUNTY, NEW MEXICO



R 5 W

T 25 N

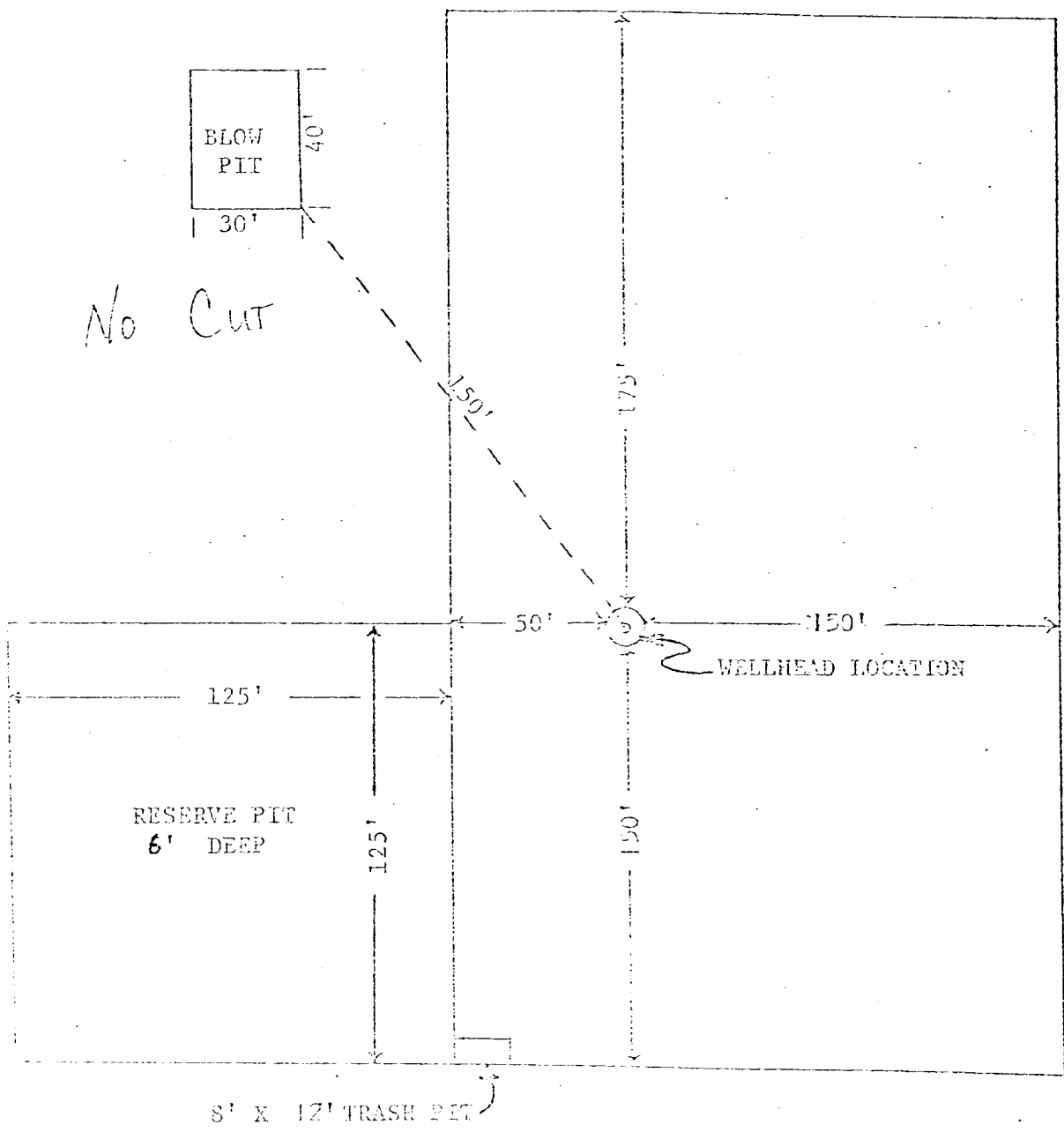
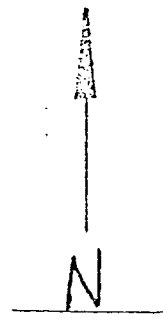


EXISTING OTERO CHACRA WELLS ●

PROPOSED WELL LOCATION ●

EXISTING SO. BLANCO PICTURED CLIFFS WELLS ●

ROADS

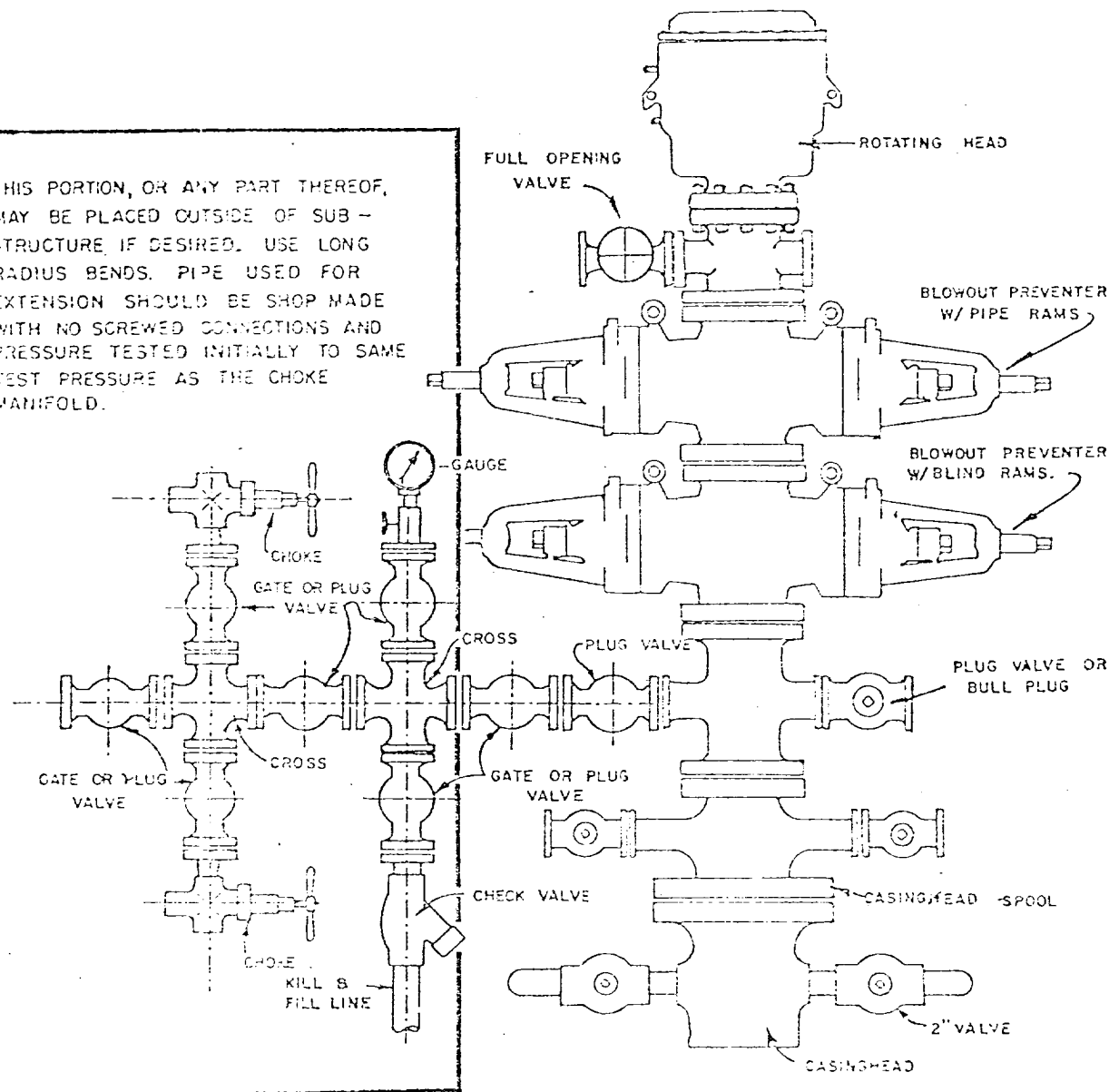


APPROXIMATELY 1.1 ACRES

|                                  |  |               |
|----------------------------------|--|---------------|
| Amoco Production Company         |  | SCALE: 1"=50' |
| DRILLING LOCATION SPECIFICATIONS |  |               |
| THARILLA CONTRACT 1142 #26       |  | DRG. NO.      |

1. Blowout Preventers and Master Valve to be fluid operated, and all fittings must be in good condition.
2. Equipment through which bit must pass shall be as large as the inside diameter of the casing that is being drilled through.
3. Nipple above Blowout Preventer shall be same size or larger than BOP being drilled through.
4. All fittings to be flanged.
5. Omsco or comparable safety valve must be available on rig floor at all times with proper connection or sub. The I.D. of safety valve should be as great as I.D. of tool joints of drill pipe, or at least as great as I.D. of drill collars.

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

API Series # 900

EXHIBIT D-4

OCTOBER 16, 1969

Operation of BOP by closing both pipe and blind rams will be tested each trip or, on long bit runs, pipe rams will be closed once each 24 hours.

MULTI-POINT SURFACE USE PLAN

JICARILLA CONTRACT 148 NO. 26  
1850' FNL & 790' FEL, SECTION 14, T25N, R5W  
RIO ARriba COUNTY, NEW MEXICO

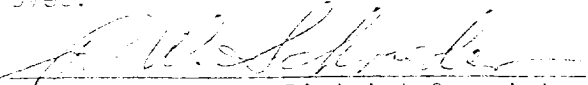
1. The attached topographic map shows the proposed route to the location.
2. It will be necessary to build an access road approximately 3 miles in length, and 20 feet wide. Road to be bar ditched on one side.
3. Existing oil and gas wells within a one-mile radius of our proposed well have been spotted on the lease road map.
4. There are two 380-barrel tanks and facilities located at Jicarilla Contract 148 Well No. 10 (N-14-25N-12W).
5. Water will be hauled from Largo Wash.
6. No construction materials will be hauled in for this location.
7. A 125' by 125' pit will be built on location to hold all drilling waste. Upon completion of the well, pit will be fenced and waste and liquids left to dry, then pit will be filled and leveled. If any liquids remain, they will be hauled away prior to back filling.
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 cut will not be necessary.
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 instructed by the Bureau of Indian Affairs.
11. The general topography is a canyon bottom with southerly drainage, alluvial surface deposits, and sandstone outcrops, with a sandy clay loam soil. Vegetation consists of Juniper, sagebrush and native grasses.

Representatives of the U. S. Geological Survey's Farmington Office and the Jicarilla Tribe's Dulce Office inspected the site with Amoco personnel. Cultural resources inspection was conducted by an archaeologist from San Juan College.

12. Operator's Representative: R. W. Schroeder  
Phone: Office: 505-325-3841; Home: 505-325-6164  
Address: 501 Airport Drive, Farmington, NM 87401

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.

Date: November 17, 1980

  
R. W. Schroeder, District Superintendent