

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-039-22176

5. LEASE DESIGNATION AND SERIAL NO.

Jicarilla Contract 146

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Jicarilla Apache

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Jicarilla Contract 146

9. WELL NO.

19E

10. FIELD AND POOL, OR WILDCAT

Basin Dakota

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREANE/4, NW/4, Section 4,  
T25N, R5W

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

Infill

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  
930' FNL and 1720' FWL, Section 4, T25N, R5W

At proposed prod. zone

Same

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

16 miles northeast of Counselors, New Mexico

15. DISTANCE FROM PROPOSED\*

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

930'

16. NO. OF ACRES IN LEASE

2557

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

318.6

18. DISTANCE FROM PROPOSED LOCATION\*

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

2800'

19. PROPOSED DEPTH

7400'

20. ROTARY OR CABLE TOOLS

Rotary

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

6603' 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" (NEW)	24 # K-55	300'	315 sx Class "B" Neat
7-7/8"	4-1/2" (NEW)	11.6# N-80	7400'	1700 sx Class "B" 50:50 Poz

This application to drill an Infill Basin Dakota well is pursuant to Order No. R-1670-V approved by the NMOCC on May 22, 1979. This well will qualify under Section 103 of the Natural Gas Policy Act under Order No. R-1670-V. Attached is one copy of subject order and the U. S. Department of Interior Ratification letter of June 8, 1979. Gas from this acreage is dedicated to Northwest Pipeline Corporation.



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

*B. E. Fairchild*

TITLE District Engineer

DATE September 17, 1979

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

SEP 21 1979

*ok Frank*

\*See Instructions On Reverse Side

U. S. GEOLOGICAL SURVEY  
DURANGO, COLO.

## 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.

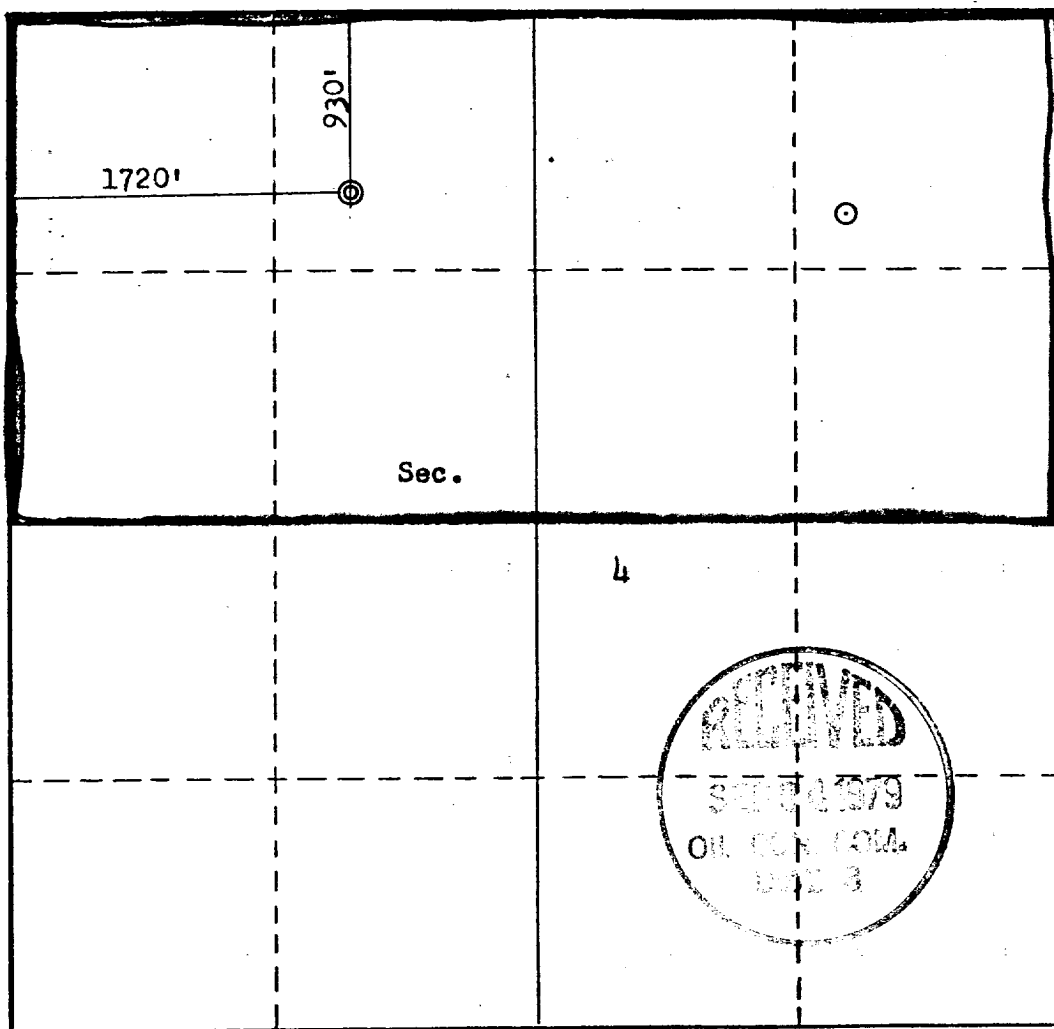
Operator <b>AMOCO PRODUCTION COMPANY</b>			Lease <b>JICARILLA CONTRACT 146</b>			Well No. <b>19-E</b>		
Unit Letter <b>C</b>	Section <b>4</b>	Township <b>25N</b>	Range <b>5W</b>	County <b>Rio Arriba</b>				
Actual Footage Location of Well: <b>930</b> feet from the <b>North</b> line and <b>1720</b> feet from the <b>West</b> line								
Ground Level Elev. <b>6603</b>		Producing Formation <b>Dakota</b>		Pool <b>Basin Dakota</b>			Dedicated Acreage: <b>318.6</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.

*B. E. Fackrell*

Name

B. E. Fackrell

Position

District Engineer

Company

AMOCO PRODUCTION CO.

Date

August 27, 1979

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

August 28, 1979

Registered Professional Engineer  
and/or Land Surveyor*Fred B. Kerr Jr.*

Certificate No. B. KERR.

3950

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

SUPPLEMENTAL INFORMATION TO FORM 9-331C  
JICARILLA CONTRACT 146 NO. 19E  
930' FNL & 1720' FWL, SECTION 4, T25N, R5W  
RIO ARriba COUNTY, NEW MEXICO

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

Estimated tops of important potential hydrocarbon bearing formations:

<u>FORMATION</u>	<u>DEPTH</u>	<u>ELEVATION</u>
Dakota	6965'	- 349'
Gallup	6290'	+ 326'
Mesaverde	4490'	+ 2126'
Chacra	3655'	+ 2961'
Pictured Cliffs	2835'	+ 3781'
TD	7400'	- 784'

Estimated KB elevation: 6616'.

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

Induction Electric - SP

Compensated Density  $\emptyset$  - Gamma Ray

Compensated Neutron  $\emptyset$  - Gamma Ray

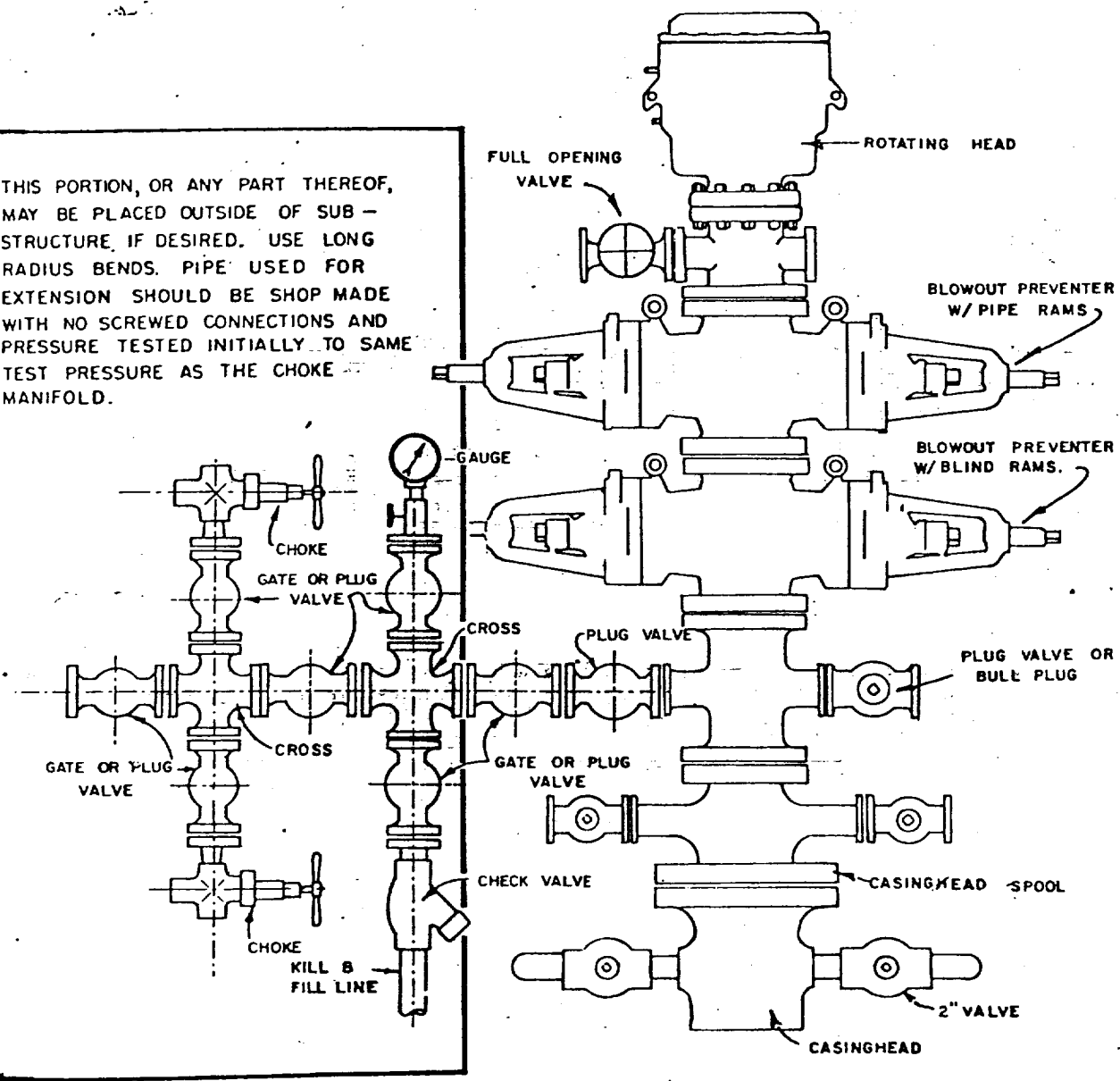
Gamma Ray (Separate Log) 5" Scale 2000' - Surface

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 three weeks.

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

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

MULTI-POINT SURFACE USE PLAN

JICARILLA CONTRACT 146 NO. 19E  
930' FNL & 1720' FWL, SECTION 4, T25N, R5W  
RIO ARriba COUNTY, NEW MEXICO

1. The attached topographic map shows the proposed route to the location.
2. It will not be necessary to build any new road.
3. Existing oil and gas wells within a one-mile radius of our proposed well have been spotted on the vicinity map.
4. There is a 380-barrel tank and facilities located at well indicated on the topo map.
5. Water will be hauled from Tapacito water hole.
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.
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. Drilling mud will be hauled away and the reserve pit back filled. Reseeding of the site will be carried out as instructed by the Bureau of Indian Affairs.
11. The general topography is a sandy clay-type soil with vegetation of sage and native grasses.

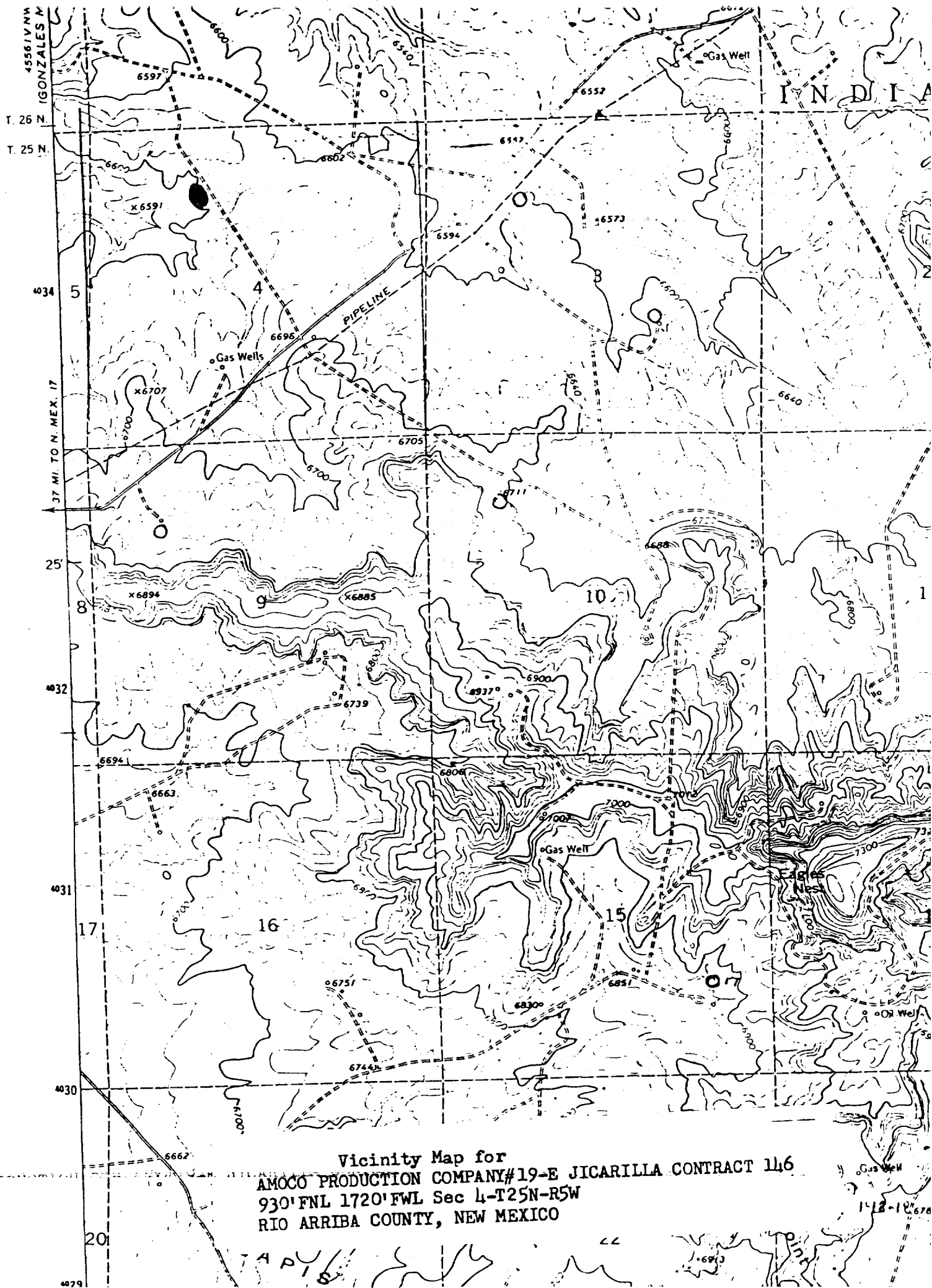
Representatives of the U. S. Geological Survey's Durango Office and the Jicarilla Tribe's Dulce Office will inspect the site with Amoco personnel. Cultural resources inspection will be conducted by an archaeologist from San Juan College.

12. Operator's Representative: R. W. Schroeder  
Phone: Office: 505-325-8841; Home: 505-325-6164  
Address: 501 Airport Drive, Farmington, NM 87401

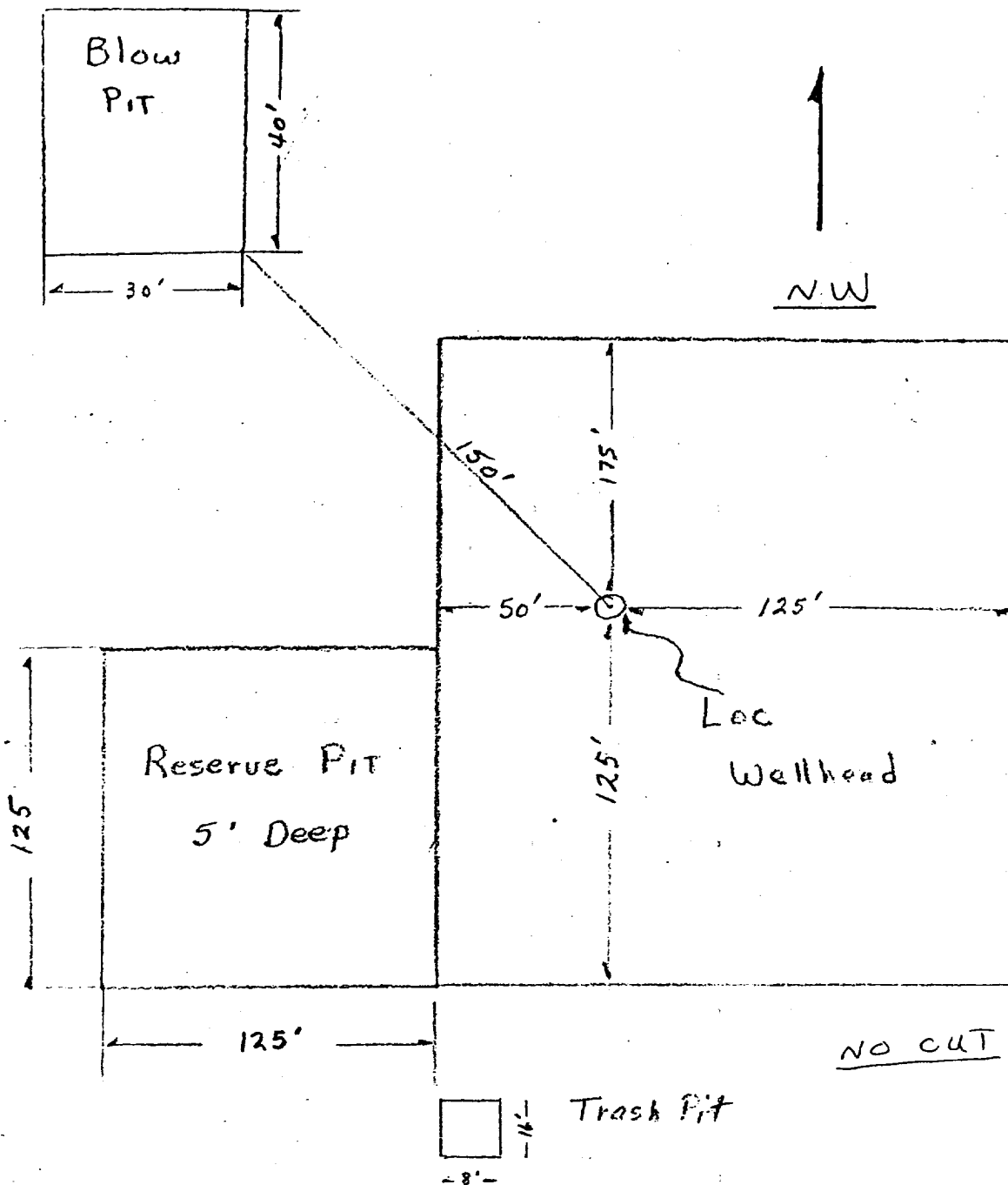
Certification: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the 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 September 17, 1979

R. W. Schroeder  
R. W. Schroeder, District Superintendent



Vicinity Map for  
AMOCO PRODUCTION COMPANY#19-E JICARILLA CONTRACT 1146  
930' FNL 1720' FWL Sec 4-T25N-R5W  
RIO ARriba COUNTY, NEW MEXICO



Approximately 1.2 Acres

Amoco Production Company	SCALE: <i>NONE</i>
Drilling Location Specs. JICARILLA CONTRACT 146 NO. 19E	DRG. NO.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☐ gas ☒ well ☐ other Infill
2. NAME OF OPERATOR  
Amoco Production Company
3. ADDRESS OF OPERATOR  
501 Airport Drive Farmington, NM 87401
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 930' FNL and 1720' FWL, Section 4,  
AT TOP PROD. INTERVAL: Same T25N, R5W  
AT TOTAL DEPTH: Same
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF <input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE <input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES <input type="checkbox"/>	<input type="checkbox"/>
ABANDON* <input type="checkbox"/>	<input type="checkbox"/>
(other) <u>Spud and Set Casing</u>	

5. LEASE  
Jicarilla Contract 146
6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
Jicarilla Apache
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME  
Jicarilla Contract 146
9. WELL NO.  
19E
10. FIELD OR WILDCAT NAME  
Basin Dakota
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
NE/4 NW/4 Section 4, T25N, R5W
12. COUNTY OR PARISH  
Rio Arriba
13. STATE  
NM
14. API NO.
15. ELEVATIONS (SHOW DF, KDB, AND WD)  
6603' GL

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Spudded 12-1/4" hole on 12-4-79, and drilled to 307'. Set 8-5/8", 24.0# surface casing at 283' on 12-4-79 and cemented with 315 sx class "B" Neat cement containing 2% CaCl<sub>2</sub>. Circulated out 20 sx Good cement to surface.

Drilled 7-7/8" hole to TD of 7438'. Set 4-1/2", 11.60# production casing at 7438' on 12-17-79 and cemented stage one with 350 sx class "B" Neat cement containing 50:50 Poz, 6% gel, 2# Medium tuf plug, and 0.8% fluid loss additives per sx. Tailed in with 180 sx class "B" Neat cement.

Cemented stage two with 1010 sx class "B" Neat cement, containing 65:35 Poz, 6% gel, 2# Medium tuf plug and 0.8% fluid loss additives per sx. Tailed in with 100 sx class "B" Neat cement.

Set DV tool at 5321'.

Released rig on 12-17-79.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

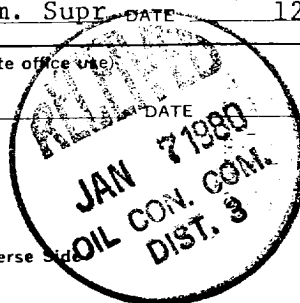
18. I hereby certify that the foregoing is true and correct

SIGNED E. E. SYOBODA TITLE Dist. Adm. Supr. DATE 12-28-79

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side



1973  
GEOLOGICAL SURVEY  
FARMINGTON, N.M.