

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 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

E 1450' FNL and 410' FWL, Section 28, T28N, R12W

At proposed prod. zone

Same

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

9 miles Southeast of Farmington, New Mexico

## 15. DISTANCE FROM PROPOSED\*

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

410'

## 16. NO. OF ACRES IN LEASE

1760.00

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

1900'

## 19. PROPOSED DEPTH

6500'

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

320

## 20. ROTARY OR CABLE TOOLS

Rotary

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

5603' 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 w/2% CaCl2-circ
7-7/8"	4-1/2" (New)	10.5# K-55	6500'	Stage 1-360 sx Class "B", 50:50 POZ, 6% gel, 2# med tuf plug/sx and 0.8% FLA. Tail in with 100 sx Class "B" Neat-circ. Stage 2-640 sx Class "B" 65:35 POZ, 6% gel, 2# med tuf plug/sx and 0.8% FLA. Tail in with 100 sx Class "B" Neat-circ. DV tool set at 3915'

This application to drill an Infill Basin Dakota well is pursuant to Order No. R-1670-V approved by the NMOCDC on May 22, 1979. This well will qualify under Section 103 of the Natural Gas Policy Act under Order No. R-1670-V. The gas from this well is dedicated to El Paso Natural Gas Co.

Application for an unorthodox location has been approved by the Santa Fe office of the NMOCDC.

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U. S. GEOLOGICAL SURVEY  
FARMINGTON, N. M.

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

R. A. Nauney

TITLE

District Engineer

DATE June 14, 1980

(This space for Federal or State office use)

AS

PERMIT NO.

APPROVAL DATE

APPROVED BY

Beverly Wamley

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

DISTRICT ENGINEER

N34 1165

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

## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088  
SANTA FE, NEW MEXICO 87501Form C-107  
Revised 10-1-78

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

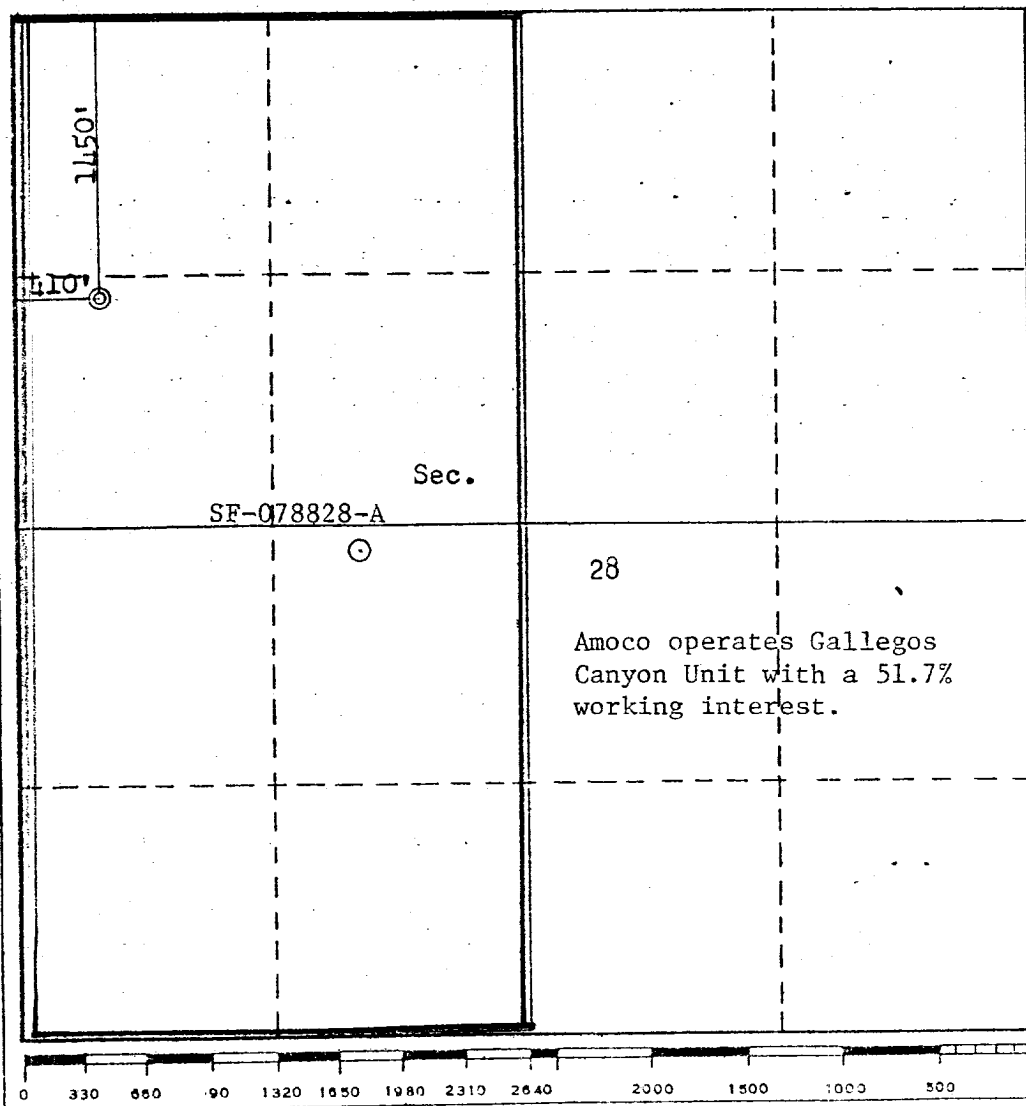
Operator <b>AMOCO PRODUCTION COMPANY</b>			Lease <b>GALLEGOS CANYON UNIT</b>		Well No. <b>174-E</b>
Unit Letter <b>E</b>	Section <b>28</b>	Township <b>28N</b>	Range <b>12W</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>1150</b> feet from the <b>North</b> line and <b>410</b> feet from the <b>West</b> line					
Ground Level Elev. <b>5603</b>	Producing Formation <b>Dakota</b>		Pool <b>Basin Dakota</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 Unitization (Gallegos Canyon Unit)

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 COMPANY

Date

FEBRUARY 15, 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

January 28, 1980

Registered Professional Engineer and/or Land Surveyor

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

Certificate No. KERR, JR.

3950

SUPPLEMENTAL INFORMATION TO FORM 9-331C

GALLEGOS CANYON UNIT NO. 174E  
1450' FNL & 410' FWL, SECTION 28, T28N, R12W  
SAN JUAN COUNTY, NEW MEXICO

The geologic name of the surface formation is the Tertiary Nacimiento.

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	167 '	5449 '
Kirtland	377 '	5239 '
Fruitland	1045 '	4571 '
Pictured Cliffs	1315 '	4301 '
Chacra (if present)	'	'
Mesaverde	[ Cliff House 2865 '	2751 '
	[ Point Lookout 3765 '	1851 '
Gallup	4935 '	681 '
Dakota	5845 '	- 229 '
TD	6500 '	- 884 '

Estimated KB elevation: 5616 '

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:

SP-GR-Induction  
FDC-CNL-GR

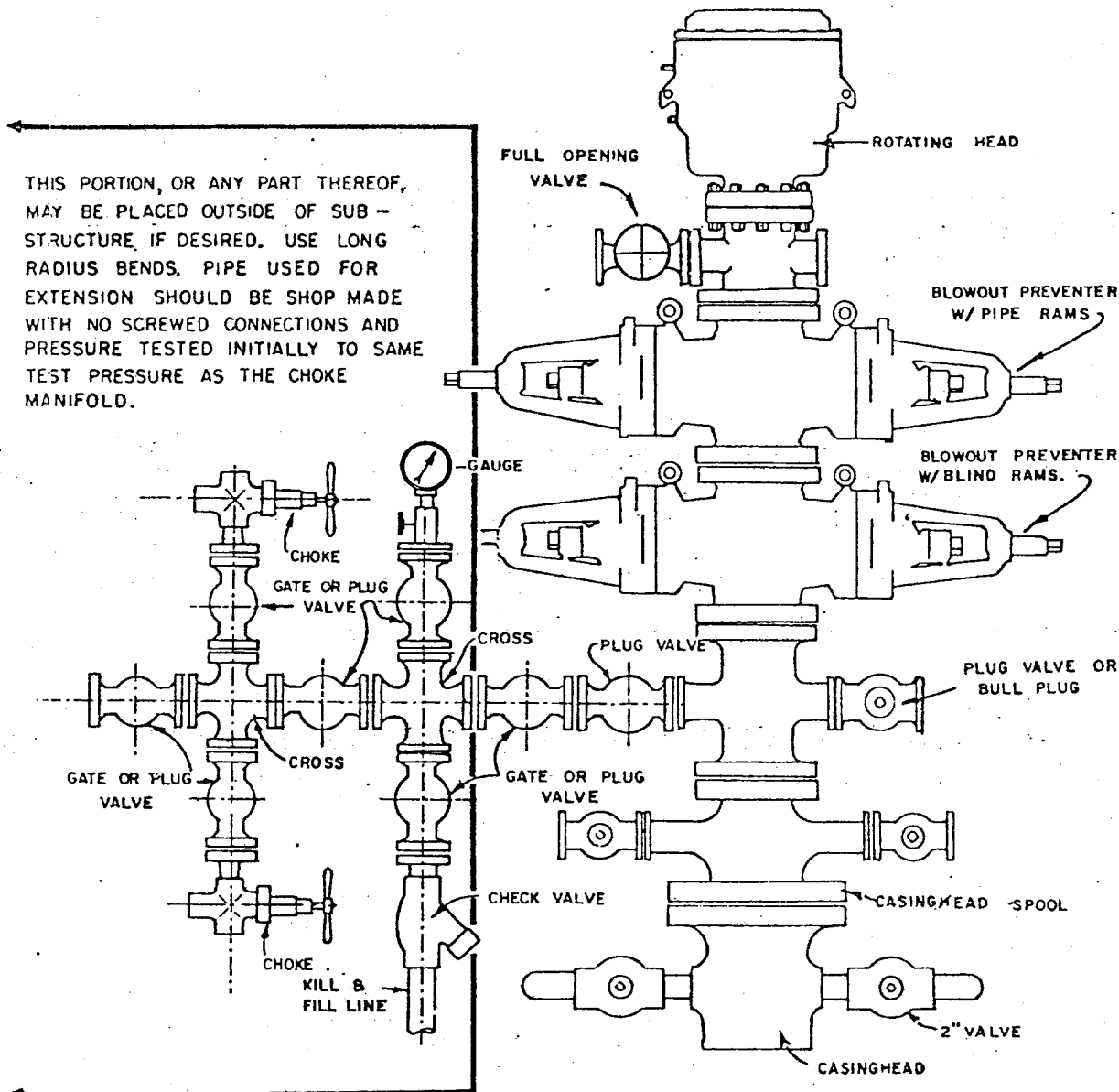
Completion design will be based on these logs. No cores or drill stem tests will be taken.

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.

1. Blowout Preventers and Master Valve to be fully 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 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.



## 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

GALLEGOS CANYON UNIT NO. 174E  
1450' FNL & 410' FWL, SECTION 28, T28N, R12W  
SAN JUAN COUNTY, NEW MEXICO

1. The attached topographic map shows the proposed route to the location.
2. It will not be necessary to build any access road.
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 is a 380-barrel tank and facilities located at Gallegos Canyon Unit Well No. 165 (H-29-28-12) and at Gallegos Canyon Unit No. 174 (K-28-28-12).
5. Water will be hauled from the San Juan River.
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. An 8-foot cut will be made on East 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 instructed by the Bureau of Indian Affairs (NAPI).
11. The general topography is an uneven terrain, sandy loam soil, with vegetation consisting of Juniper and native grasses.

Representatives of the U. S. Geological Survey's Farmington Office inspected the site with Amoco personnel. Cultural resources inspection was conducted by an archaeologist from Salmon Ruins.

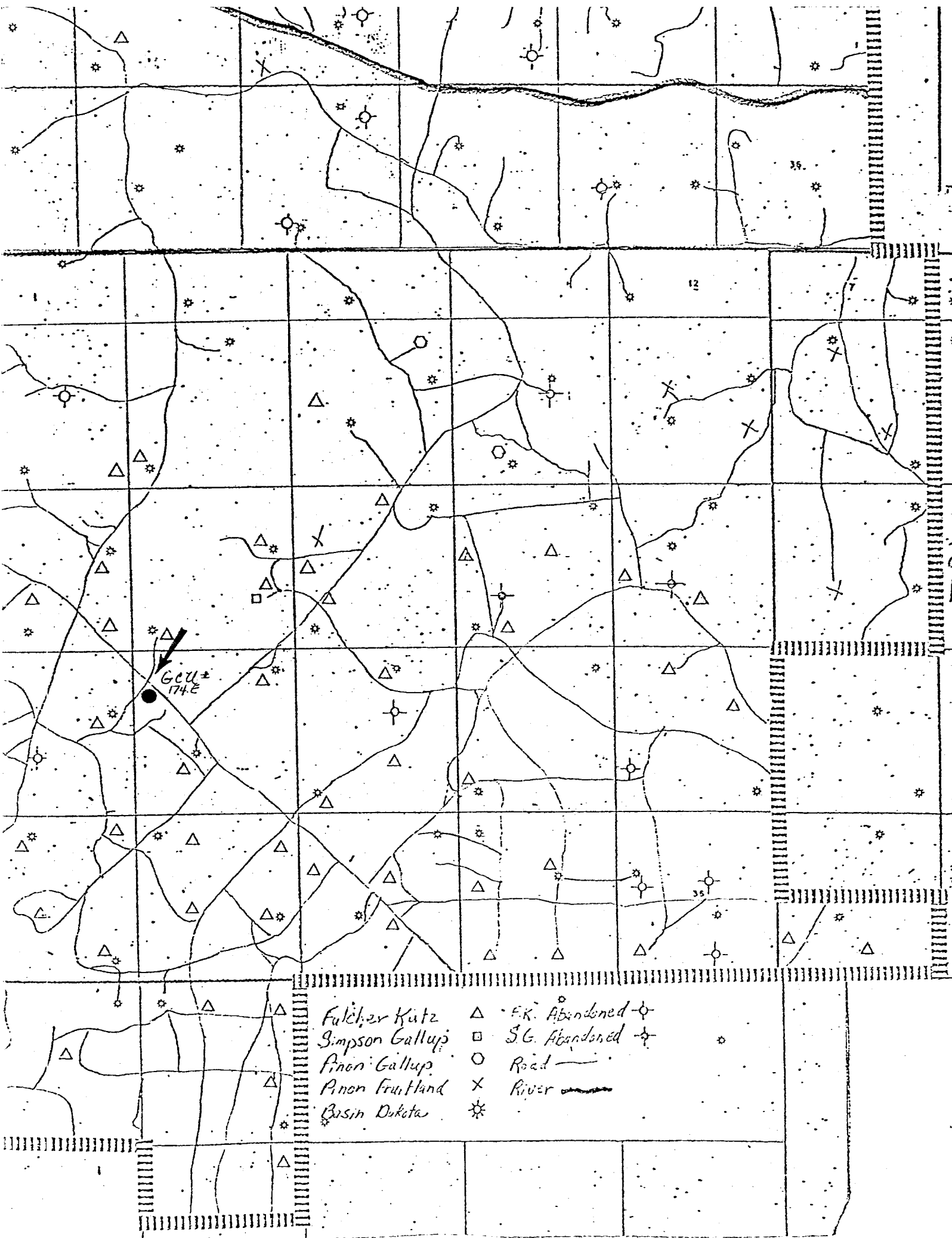
12. Operator's Representative: R. W. Schroeder  
Phone: Office: 505-325-8841; Home: 505-325-6164  
Address: 501 Airport Drive, Farmington, NM 87401

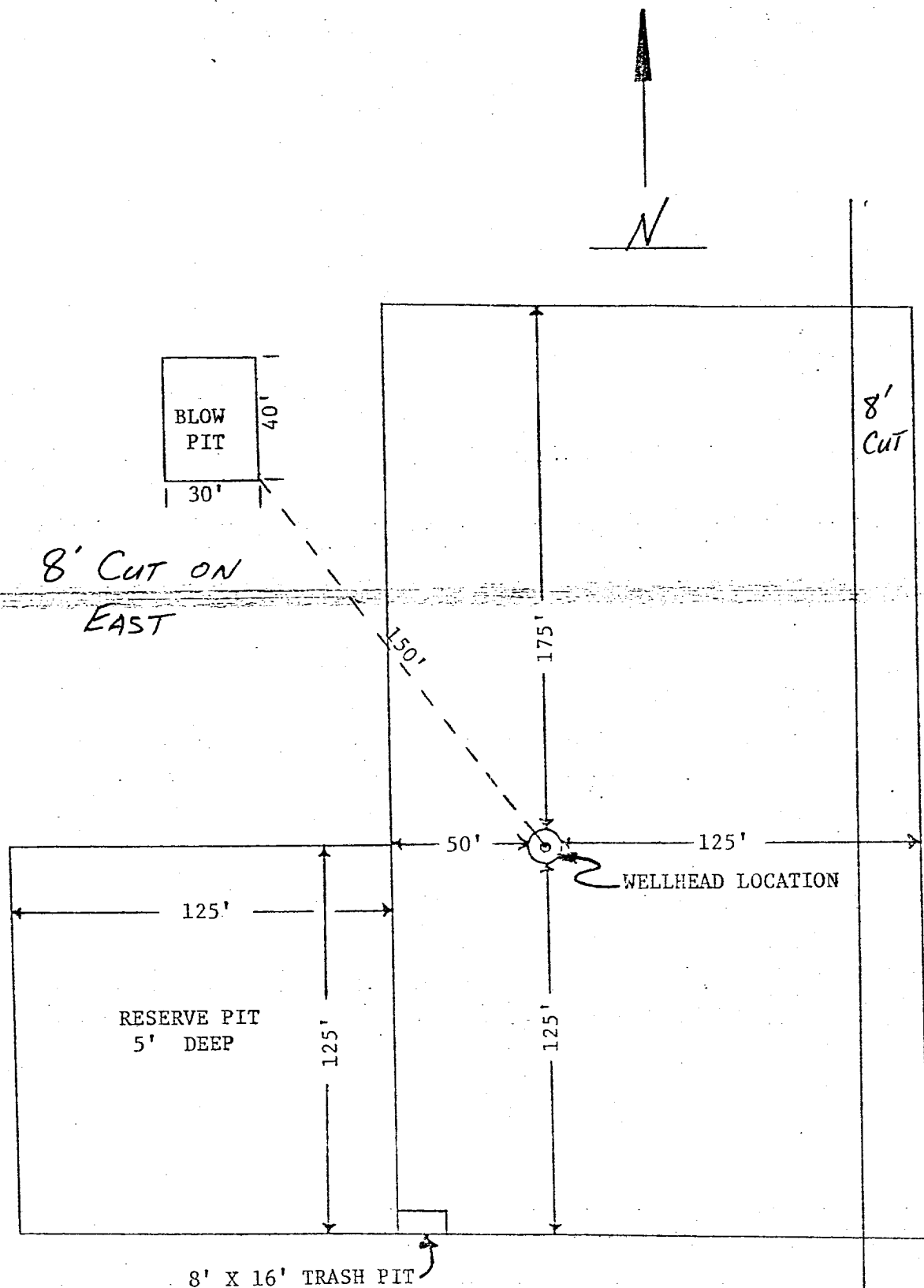
Certification: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the 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 March 14, 1980

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







APPROXIMATELY 1.2 ACRES

Amoco Production Company	SCALE: 1"=50'
DRILLING LOCATION SPECIFICATIONS	
CONTRACT NUMBER # 174F	DRG. NO.