

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-048-24291

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

790' FNL and 990' FWL, Section 26, T29N, R12W

At proposed prod. zone

Same

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

7 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)

840'

18. DISTANCE FROM PROPOSED LOCATION*

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

3148'

16. NO. OF ACRES IN LEASE

43,146.62

19. PROPOSED DEPTH

6500'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

N 320

20. ROTARY OR CABLE TOOLS

Rotary

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

5461' GL

22. APPROX. DATE WORK WILL START*

As soon as permitted

23.

PROPOSED CASING AND CEMENTING PROGRAM

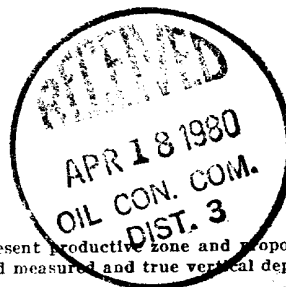
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" (New)	24# K-55	300'	315 sx Class "B" w/2% CaCl2 circ
7-7/8"	4-1/2" (New)	10.5# K-55	6500'	Stage 1-360 sx Class "B" 50:50 POZ 6% gel, 2# med tuf plug/sx and 0.8% FLA. Tail in w/ 100 sx Class B Neat-circ.

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. The gas from this well is dedicated to El Paso Natural Gas.

Rehabilitation Plan from surface owner is attached.

RECEIVED

FEB 25 1980

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

B.E. Jachull

TITLE

District Engineer

DATE

February 19, 1980

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

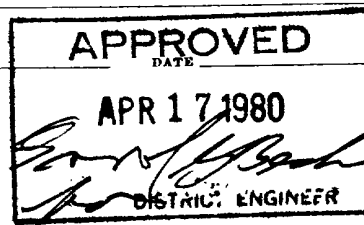
APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

ok Frank

NMOCC



All distances must be from the outer boundaries of the Section

Operator AMOCO PRODUCTION COMPANY			Lease GALLEGOS CANYON UNIT		Well No. 145-E
Unit Letter D	Section 26	Township 29N	Range 12W	County San Juan	
Actual Footage Location of Wells: 790 feet from the North line and 990 feet from the West line					
Ground Level Elev. 5461	Producing Formation Dakota		Pool Basin Dakota		Dedicated Acreage: 320 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.

<p>990'</p> <p>SF-079907</p>		<p>790'</p> <p>RECEIVED FEB 25 1980 U. S. GEOLOGICAL SURVEY FARMINGTON, N. M.</p>		<p>Fee</p>	
<p>Sec.</p>		<p>26</p>		<p>Amoco operates Gallegos Canyon Unit with a 51.7% working interest.</p> <p>Subject well located on Fee Surface and Federal Mineral Ownership.</p>	

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 6, 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 are true and correct to the best of my knowledge and belief.

RECEIVED
APR 18 1980
OIL CON. DIV.
DIST. 3

Date Surveyed
February 11, 1980

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 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

Lease No.: GCU; Well Name and No.: GCU 145 E
 Location: 1070 ENE 8th FAL, Sec. 16, T. 29 N., R. 12 W.

Amoco Prod Co intends to drill a well on surface owned by W B Dook. The lessee/operator agrees to complete the following rehabilitation work if the well is a producer:

- ☒ Yes ☐ No Maintain access road and provide adequate drainage to road.
☒ Yes ☐ No Reshape and reseed any area not needed for maintenance of the pump and support facilities.

Other requirements: _____

The following work will be completed when the well is abandoned:

- ☒ Yes ☐ No Pit will be fenced until dry, then filled to conform to surrounding topography.
☒ Yes ☐ No Water bars will be constructed as deemed necessary.
☐ Yes ☒ No Site will require reshaping to conform to surrounding topography.
☒ Yes ☐ No Entire disturbed area will be reseeded. If yes, the following seed mixture will be used.

BEM seeds

- ☒ Yes ☐ No Access road will be closed, rehabilitated and reseeded using the same seed mixture as above.
☐ Yes ☐ No Access road will remain for surface owner's use.
☒ Yes ☐ No Water bars will be constructed on the access road as deemed necessary.

Other requirements: _____

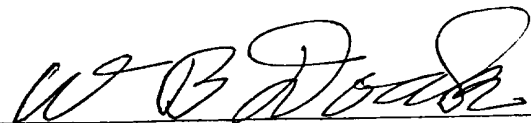
Surface Owner:

Name: W B Dook
 Address: Box 137
 City: Farmington NM
 State: NM 87401
 Telephone: 632-2460
 Date: _____

Operator/Lessee:

Name: Amoco Prod Co
 Address: 501 AIRPORT Dr.
 City: FARMINGTON NM
 State: NM
 Telephone: 325-8842
 Date: _____

I CERTIFY that above rehabilitation plan is acceptable to me. I also waive an intensive Cultural Resource Field Inventory.



(Surface owner's signature)

This plan does not affect any other agreements between the lessee/operator and surface owner.

SUPPLEMENTAL INFORMATION TO FORM 9-331C
GALLEGOS CANYON UNIT NO. 145E
790' FNL & 990' FWL, SECTION 26, T29N, 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	333 '	5141 '
Kirtland	393 '	5081 '
Fruitland	973 '	4501 '
Pictured Cliffs	1493 '	3981 '
Chacra (if present)	2593 '	2881 '
Mesaverde	Cliff House 3056 '	2418 ' .
	Point Lookout 3773 '	1701 '
Gallup	5113 '	361 '
Dakota	5973 '	-499 '
TD	6500 '	-679 '

Estimated KB elevation: 5474 '

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

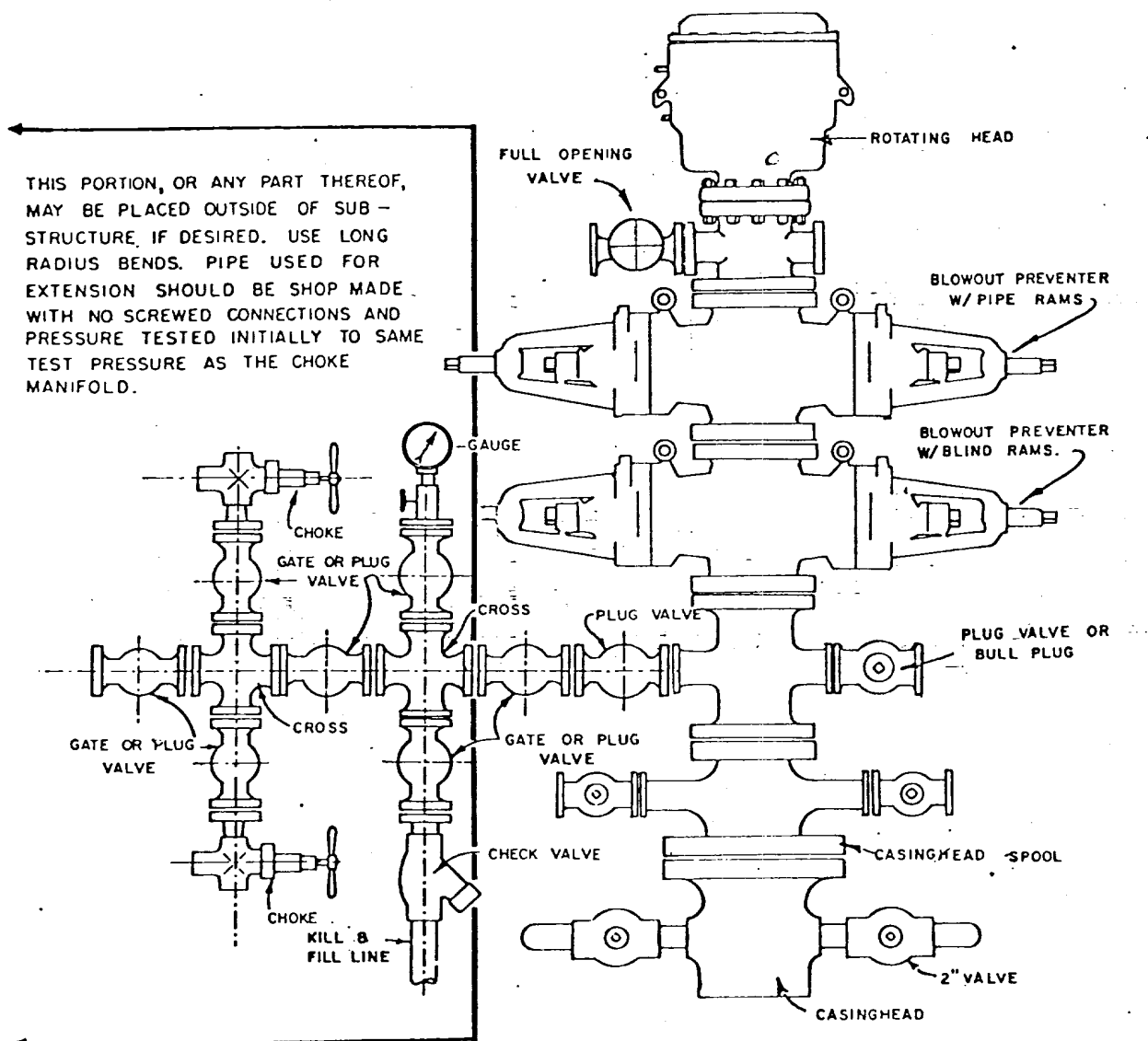
Completion design will be based on these logs. No cores or drill stem tests will be taken.

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 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 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. 145E
790' FNL & 990' FWL, SECTION 26, T29N, R12W
SAN JUAN COUNTY, NEW MEXICO

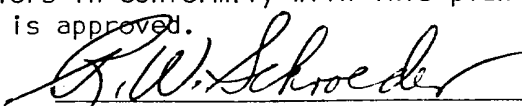
1. The attached topographic map shows the proposed route to the location.
2. It will be necessary to build an access road to the location 600 feet long, 20 feet wide, and will be bar ditched on one side.
3. Existing oil and gas wells within a one-mile radius of our proposed well have been spotted on the vicinity map.
4. There is a 380-barrel tank and facilities located at Gallegos Canyon Unit Well No. 145, NE/4 Section 26, T29N, R12W.
5. Water will be hauled from the San Juan River a distance of about 3 miles.
6. No construction materials will be hauled in for this location.
7. A 150' by 150' 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. No cuts will be necessary as location is nearly level.
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 detailed on Rehabilitation Plan with surface owner.
11. The general topography is a sandy and boggy low land covered with a dense growth of tamarask.

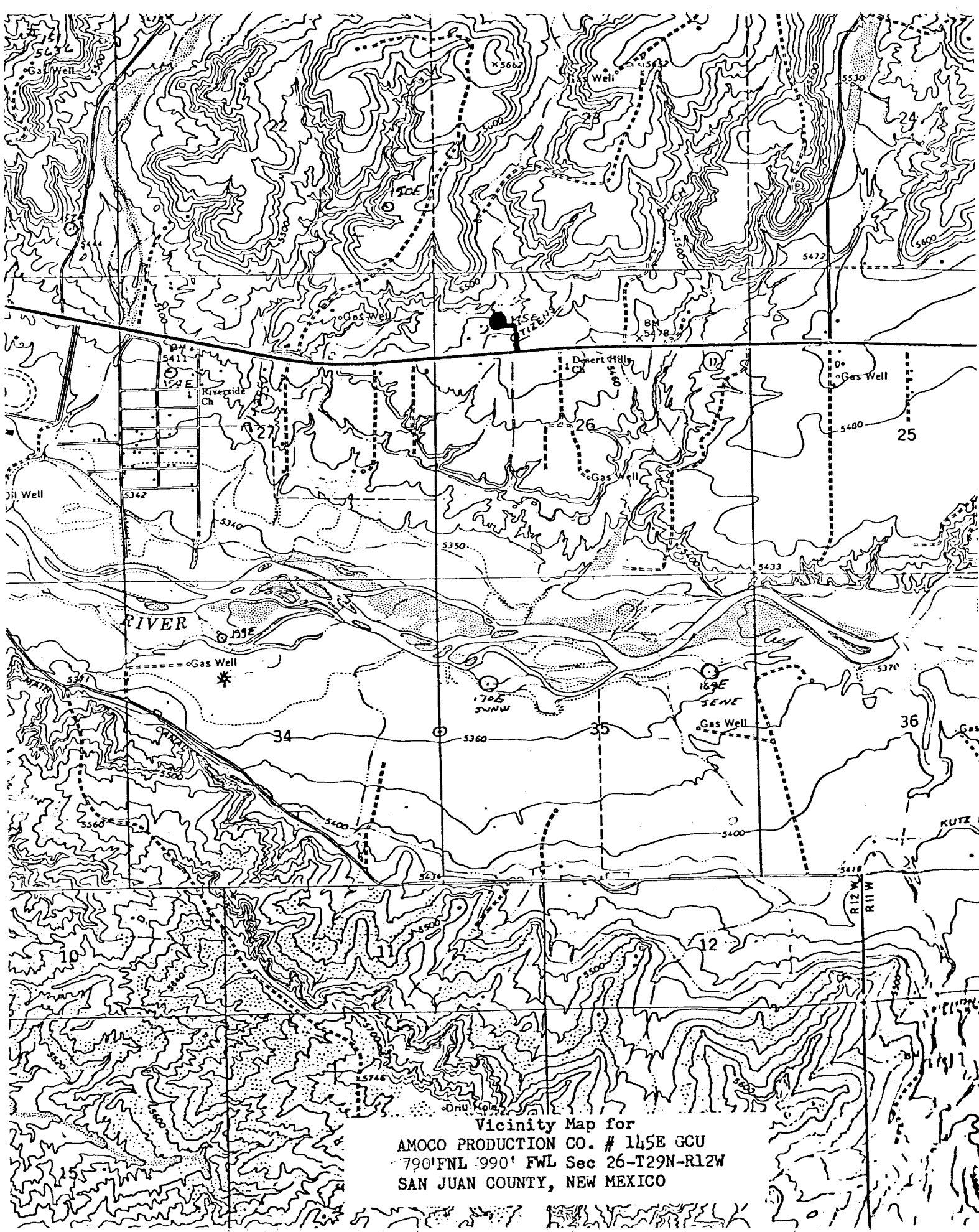
Amoco personnel met with the surface owner and worked out rehabilitation plans for surface disturbance. Representatives of the U. S. Geological Survey's Farmington Office and the Bureau of Land Management will inspect the site with Amoco personnel. Cultural resources inspection will be conducted by an 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

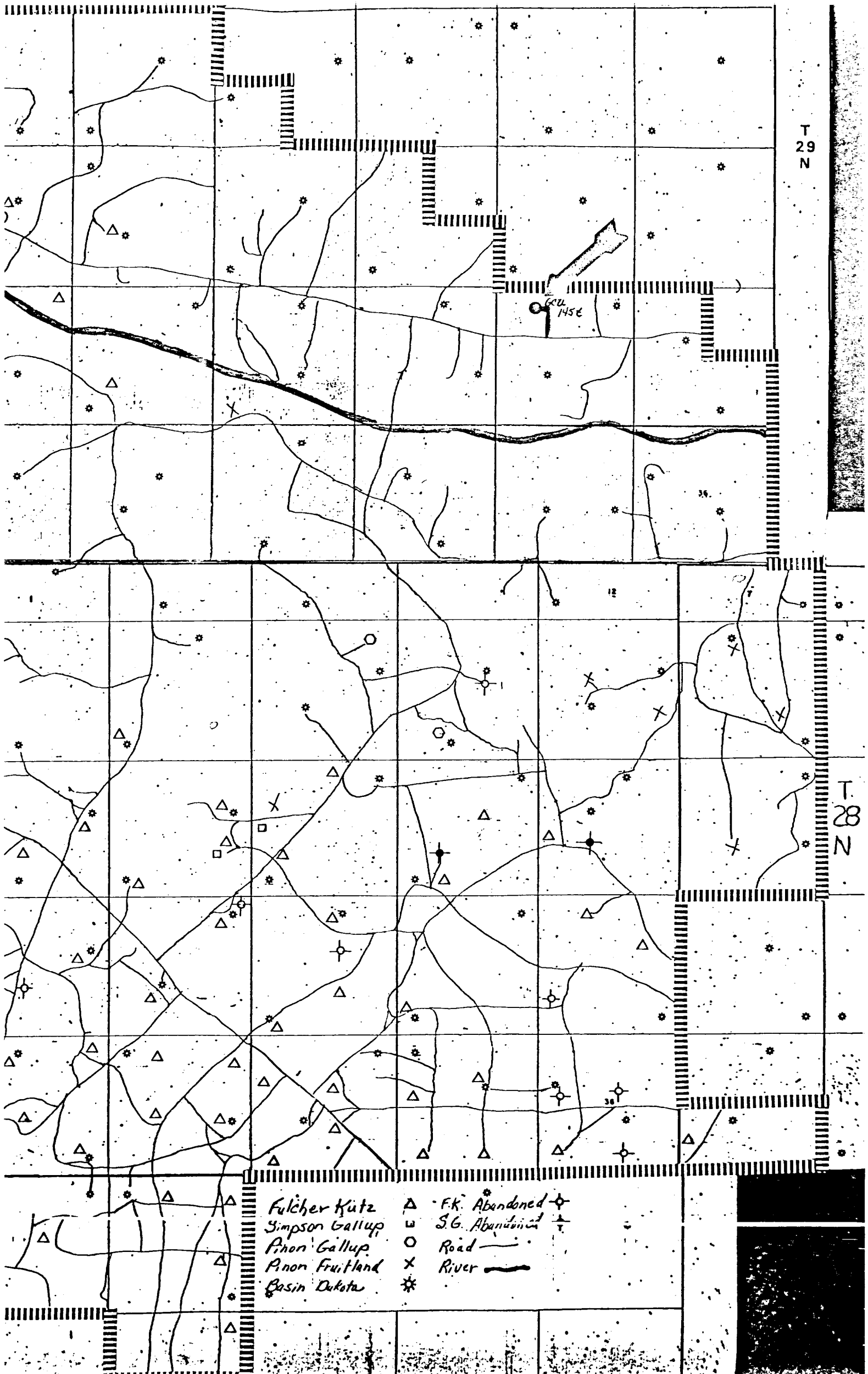
Certification: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the 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 February 11, 1980


R. W. Schroeder, District Superintendent



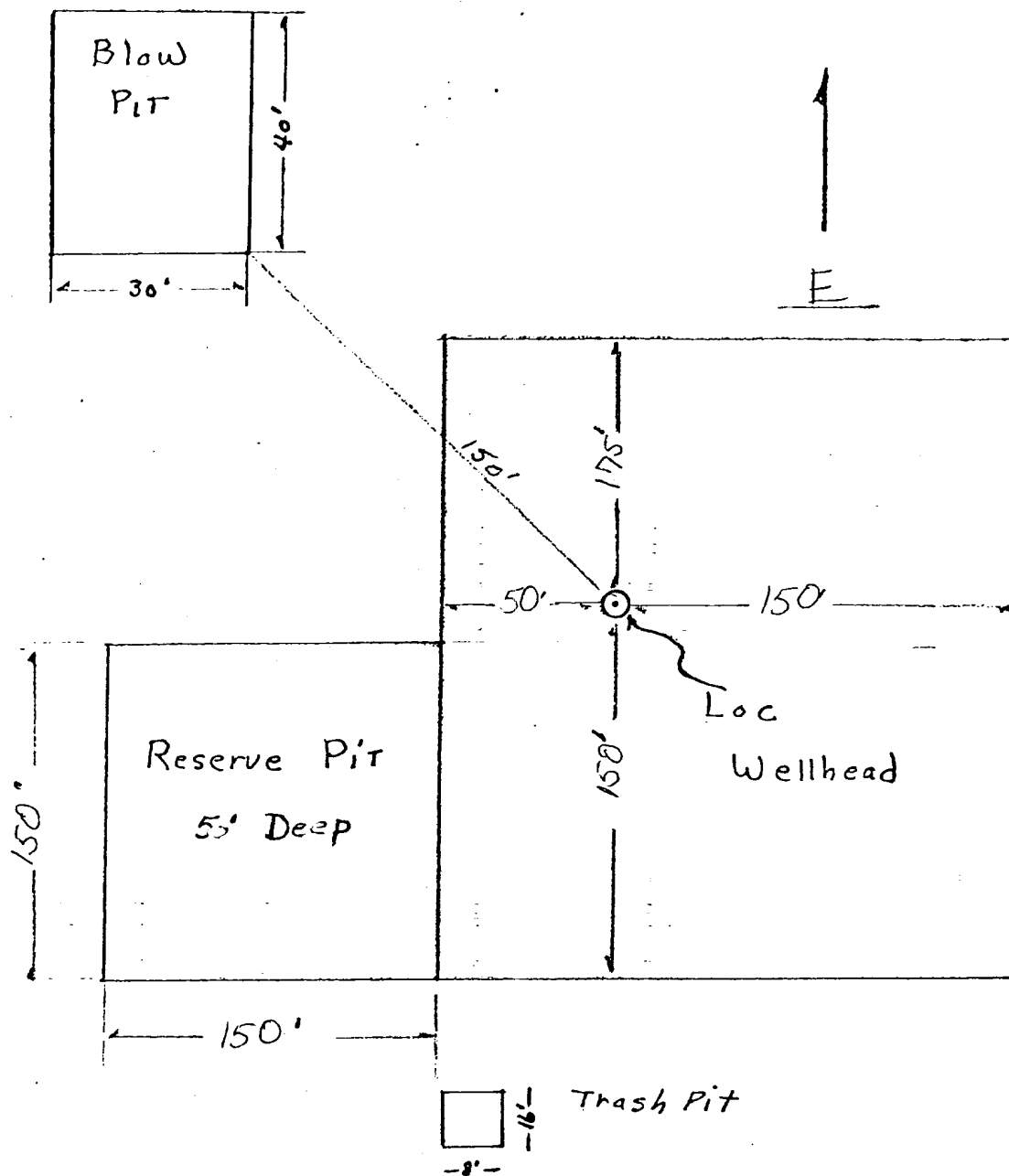
Vicinity Map for
AMOCO PRODUCTION CO. # 145E GCU
790'FNL 990' FWL Sec 26-T29N-R12W
SAN JUAN COUNTY, NEW MEXICO



T 29 N

T 28 N

- | | | | |
|----------------|---|----------------|---|
| Fulcher Kutz | △ | F.K. Abandoned | ⊕ |
| Simpson Gallup | □ | S.G. Abandoned | ⊕ |
| Anon Gallup | ○ | Road | — |
| Anon Fruitland | × | River | — |
| Basin Dakota | * | | |



Approximately 1.2 Acres

Amoco Production Company		SCALE: <i>NONE</i>
Drilling Location Specs		DRG. NO.
Callegos Canyon Unit No. 145 E		