

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

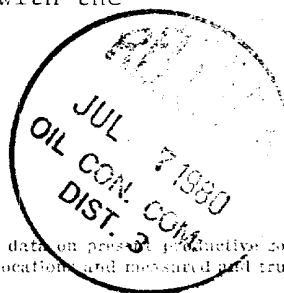
1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. SF-078903-B		
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> INFILL <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME Gallegos Canyon Unit		
2. NAME OF OPERATOR AMOCO PRODUCTION COMPANY			7. UNIT AGREEMENT NAME Gallegos Canyon Unit		
3. ADDRESS OF OPERATOR 501 Airport Drive, Farmington, New Mexico 87401			8. FARM OR LEASE NAME		
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 600' FNL and 515' FEL, Section 33, T28N, R12W At proposed prod. zone Same			9. WELL NO. 185E		
11. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 10 miles Southeast of Farmington, New Mexico			10. FIELD AND POOL, OR WILDCAT Basin Dakota		
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 515'			11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA NE/4, NE/4, Section 33, T28N, R12W		
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2055'			12. COUNTY OR PARISH San Juan		
21. ELEVATIONS (Show whether DE, RT, GR, etc.) 5731' GL			13. STATE New Mexico		
16. NO. OF ACRES IN LEASE 640.0			17. NO. OF ACRES ASSIGNED TO THIS WELL 320		
19. PROPOSED DEPTH 6500'			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
12-1/4"	8-5/8" (New)	24# K-55	300'	315 sx Class "B" w/2% CaCl ₂ -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. Stage 2-640 sx Class "B" 65:35 POZ, 6% gel, 2# med tuf plug/sx, and 0.8% FLA. Tail in w/ 100 sx Class "B" Neat-circ. DV tool set at 4146'.

This application to drill an Infill Basin Dakota well is pursuant to Order No. R-1670-V approved by the NMOC 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 filed with the Santa Fe office of the NMOC.

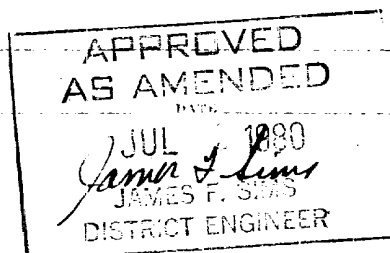


IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface location and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED B.E. Jackson TITLE District Engineer DATE April 21, 1980
(This space for Federal or State office use)

PERMIT NO. Charles Johnson APPROVAL DATE APPROVED AS AMENDED
APPROVED BY Charles Johnson TITLE JAMES F. SMITH
CONDITIONS OF APPROVAL, IF ANY:

NMOC



OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-102
Revised 10-1-78

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

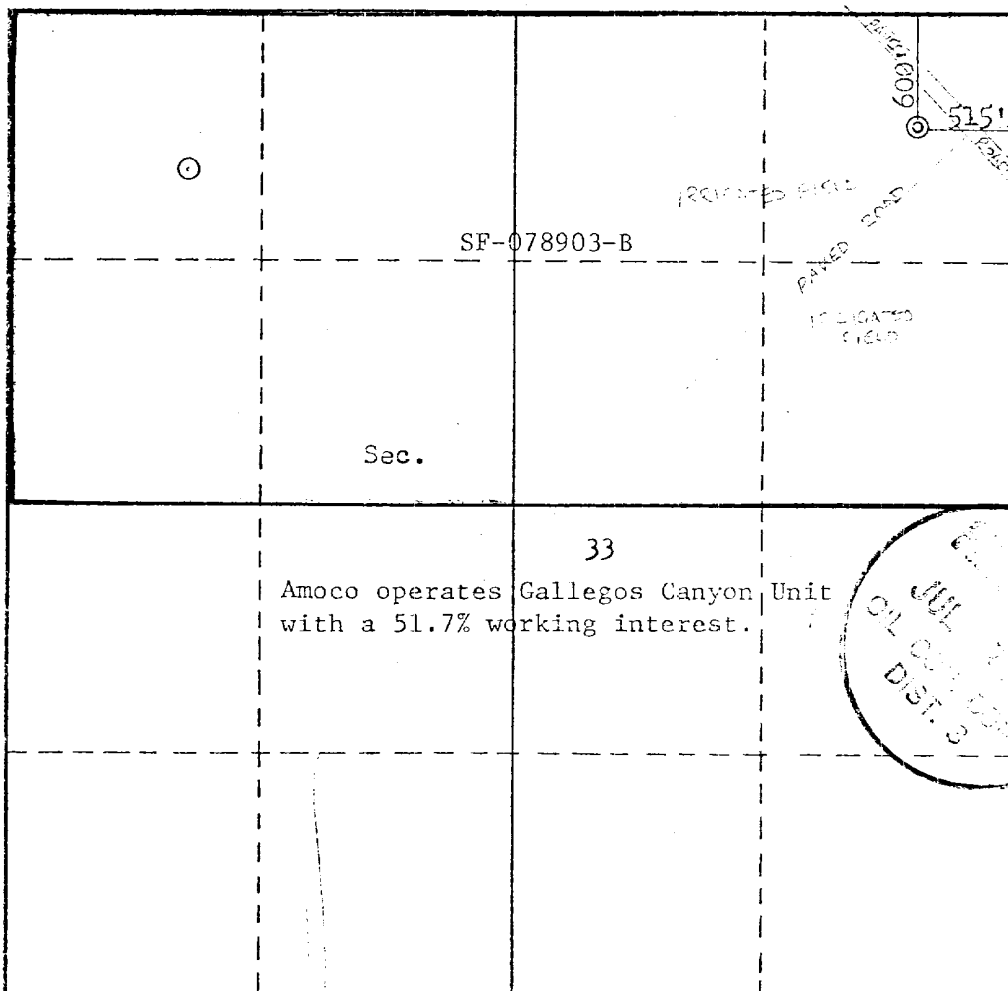
Operator AMOCO PRODUCTION COMPANY			Lease GALLEGOS CANYON UNIT		Well No. 185-E
Unit Letter A	Section 33	Township 28N	Range 12W	County San Juan	
Actual Footage Location of Well: 600 feet from the North line and 515 feet from the East line					
Ground Level Elev. 5731	Producing Formation Dakota		Pool Basin Dakota	Dedicated Acreage: 320 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 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

MARCH 28, 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

March 26, 1980

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

Certificate No.

3950

SUPPLEMENTAL INFORMATION TO FORM 9-331C

GALLEGOS CANYON UNIT NO. 185E
600' FNL & 515' FEL, SECTION 33, 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	240 '	5504'
Kirtland	286 '	5458'
Fruitland	1036 '	4708'
Pictured Cliffs	1386 '	4358'
Chacra (if present)	'	'
Mesaverde	Cliff House 2946 '	2798'
	Point Lookout 3846 '	1893'
Gallup	5036 '	708'
Dakota	5951 '	-207'
TD	6500 '	-756'

Estimated KB elevation: 5744 '

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

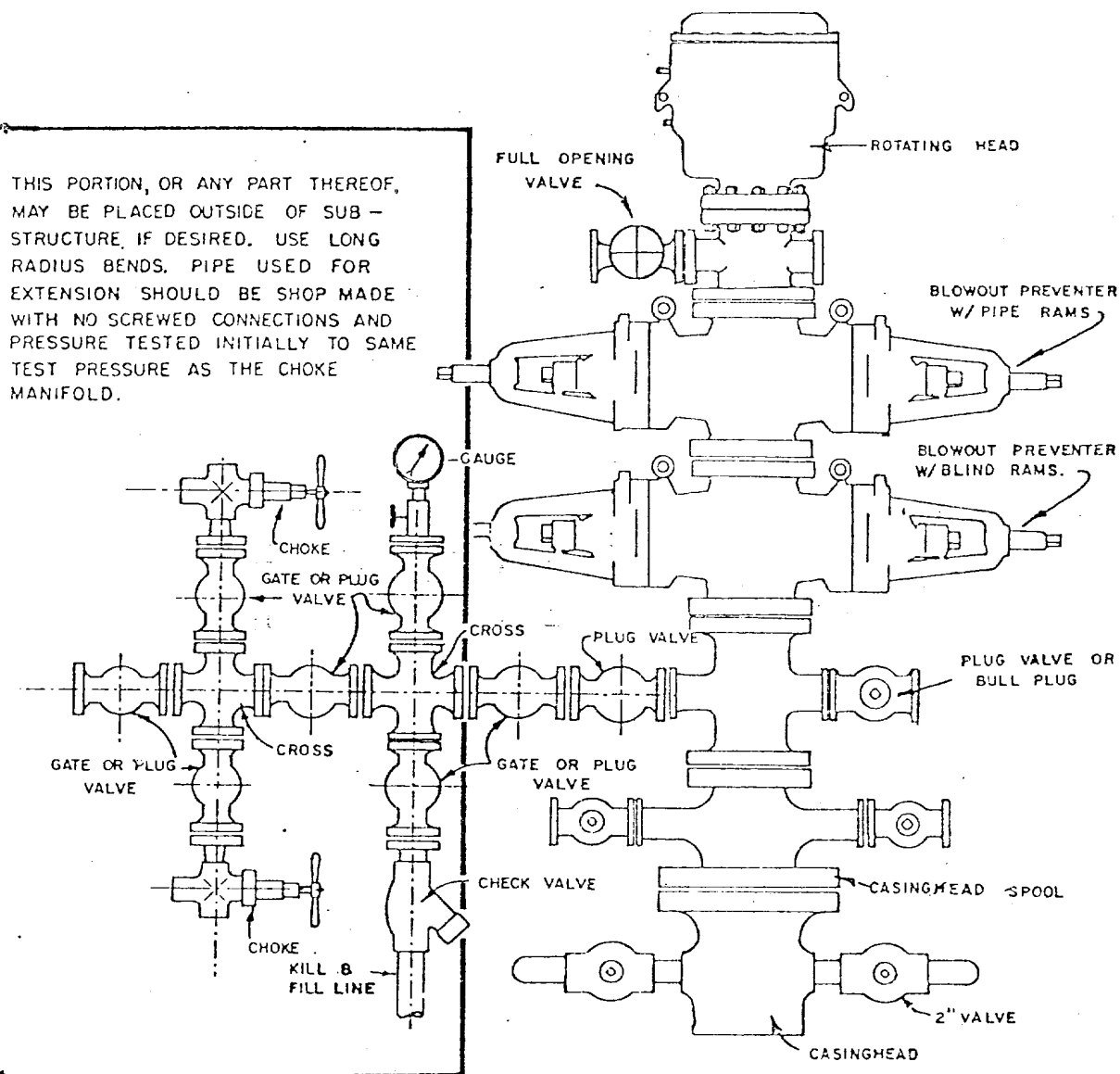
Completion design will be based on these logs. No cores or drill stem tests will be taken.

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 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. 185E
600' FNL & 515' FEL, SECTION 33, 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. 233 (M-27-28-12) and at Gallegos Canyon Unit No. 185 (D-33-28-12).
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. A 2-foot cut will be made on southeast 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 a flat terrain, at edge of cultivated field.

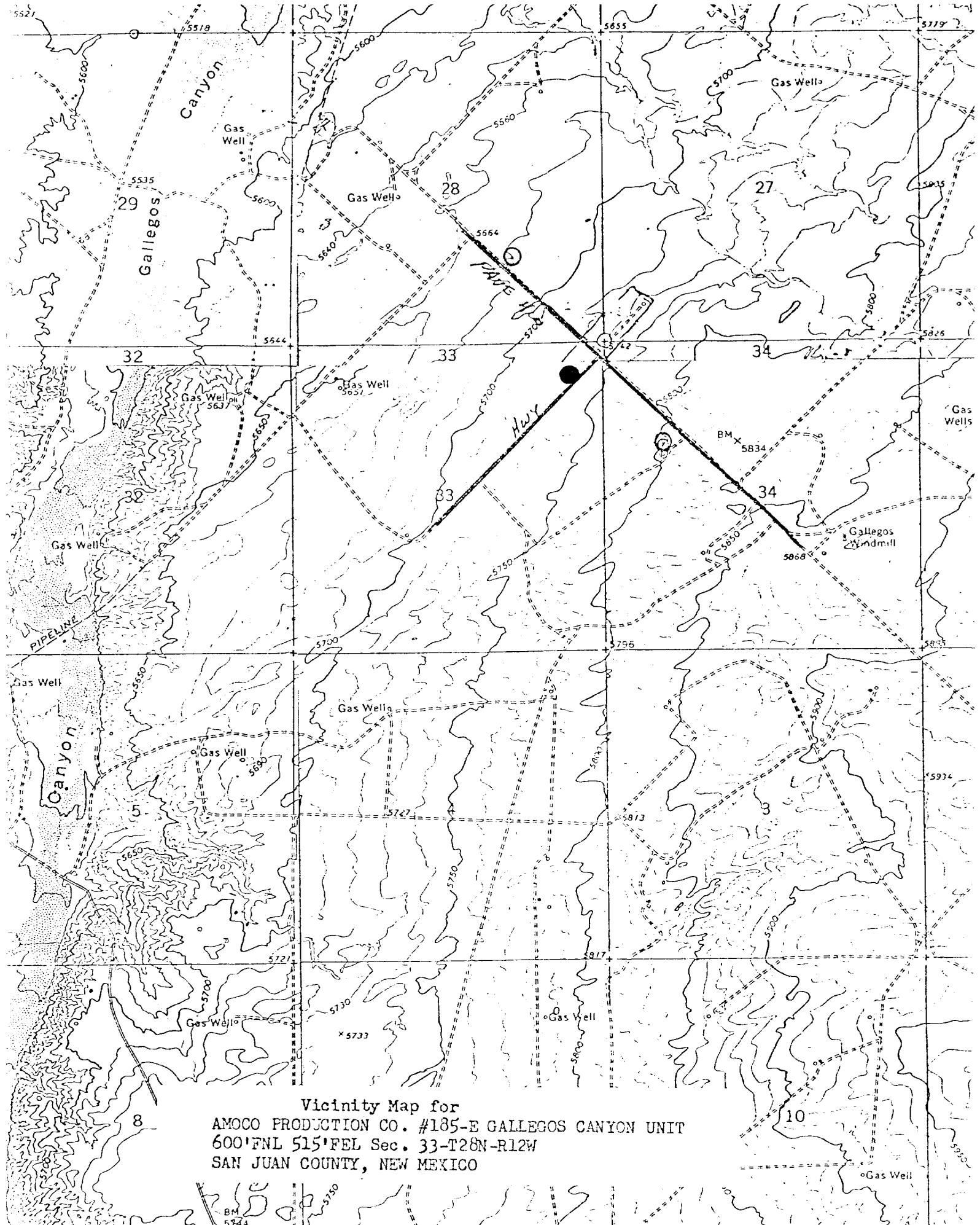
Representatives of the U. S. Geological Survey's Farmington Office inspected the site with Amoco personnel. Cultural resources inspection was not conducted as a blanket archaeological clearance has been previously established for the area in which this well is located.

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.

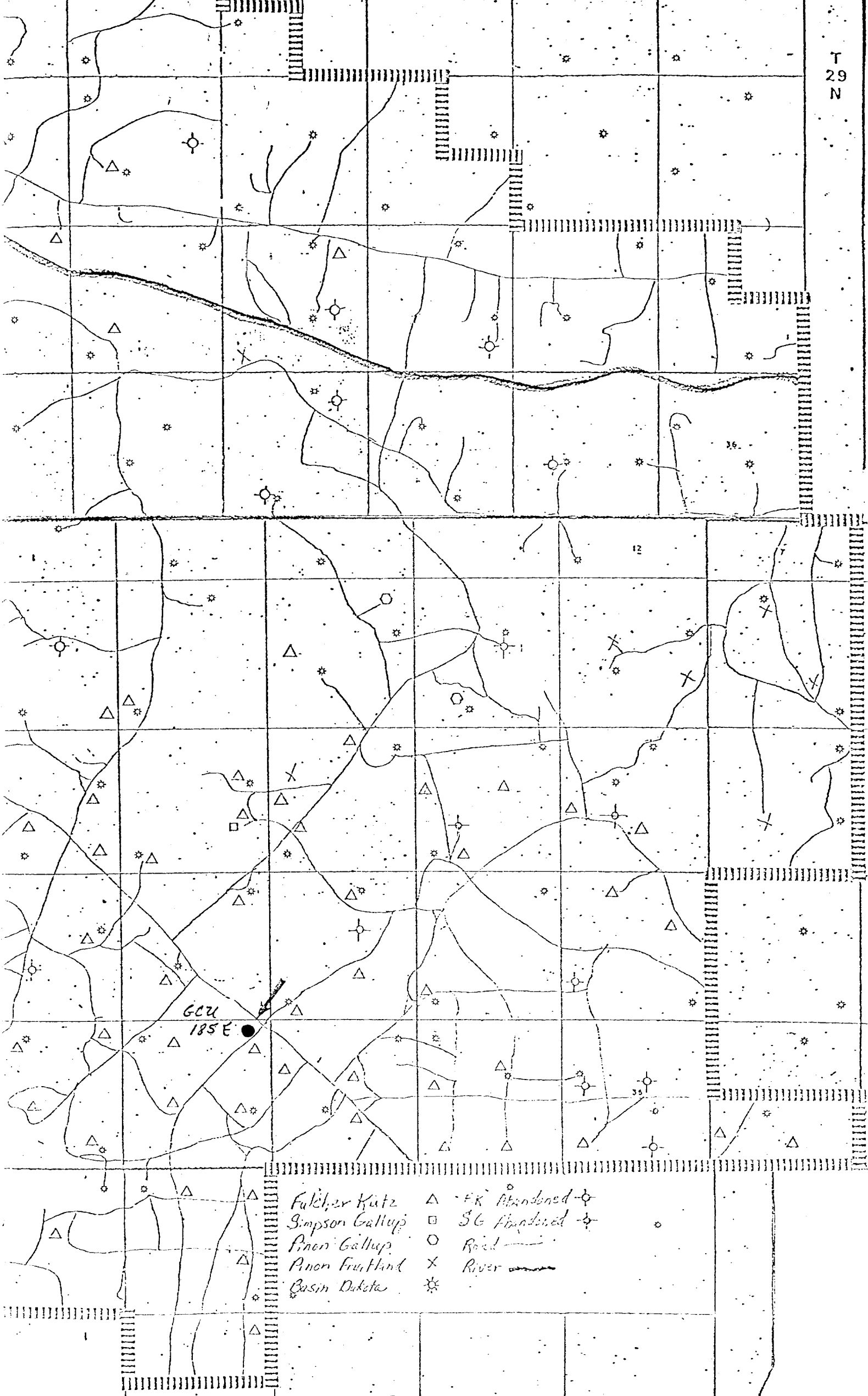
Date April 14, 1980

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

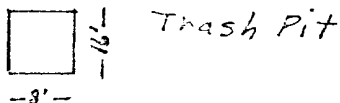
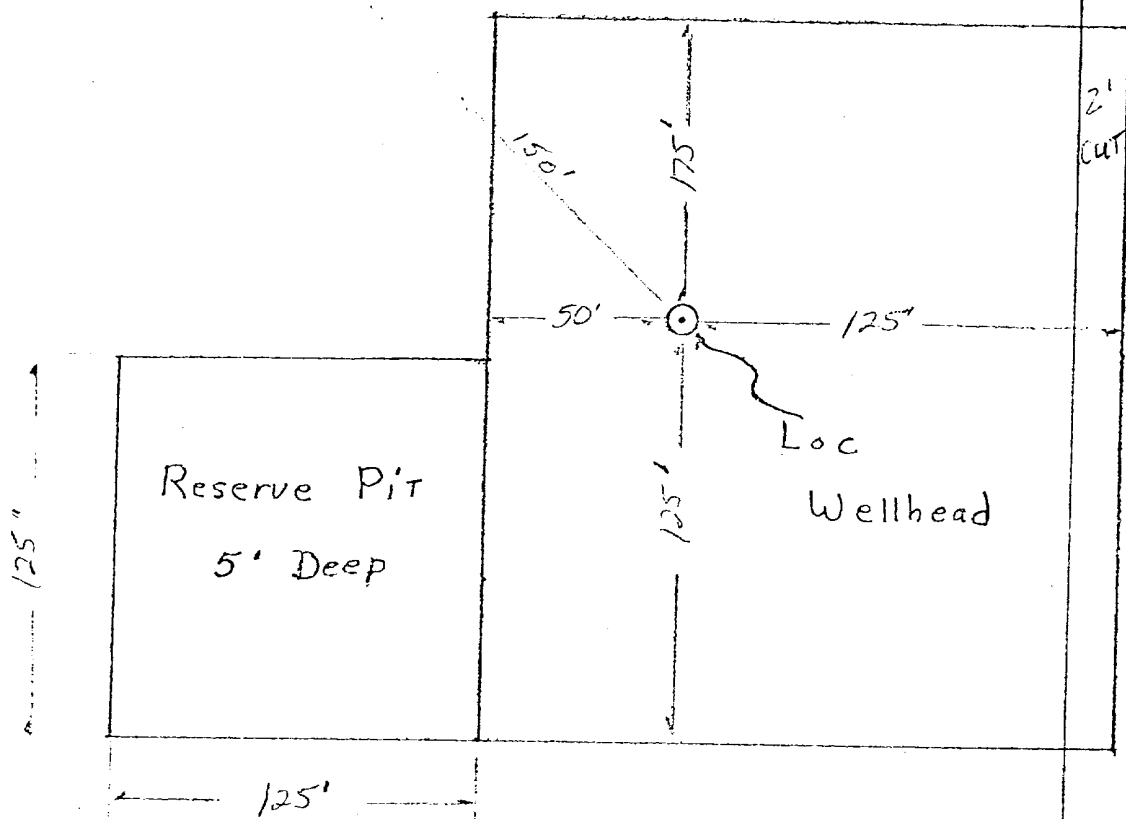
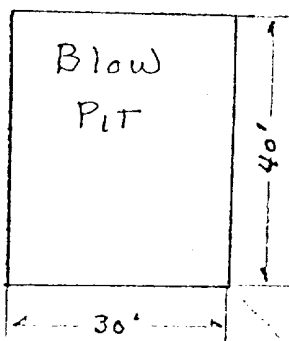


Vicinity Map for
AMOCO PRODUCTION CO. #185-E GALLEGOS CANYON UNIT
600'FNL 515'FEL Sec. 33-T28N-R12W
SAN JUAN COUNTY, NEW MEXICO

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29
N



- | | | | |
|-----------------|---|-----------|-------|
| Fulcher Kutz | △ | Abandoned | ✱ |
| Simpson Gallup | □ | Highway | ✱ |
| Piner Gallup | ○ | Road | — |
| Piner Fruitland | × | River | ~~~~~ |
| Basin Dakota | ✱ | | |



Approximately 1.2 Acres

Amoco Production Company		SCALE: <i>NONE</i>
Drilling Location Specs		
GALLEGOS CANYON UNIT #185E		DRG. NO.