

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK a. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> b. TYPE OF WELL DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> c. NAME OF OPERATOR AMOCO PRODUCTION COMPANY d. ADDRESS OF OPERATOR 501 Airport Drive, Farmington, New Mexico 87401 e. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 920' FNL and 1620' FEL, Section 23, T25N, R5W At proposed prod. zone Same f. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 14 miles Northeast of Counselor, New Mexico g. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any) 920' h. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2269' i. NO. OF ACRES IN LEASE 2560 j. NO. OF ACRES ASSIGNED TO THIS WELL 160 & 160 k. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2269' l. PROPOSED DEPTH 3960' m. ROTARY OR CABLE TOOLS Rotary n. ELEVATIONS (Show whether DF, RT, GR, etc.) 6330' GL o. APPROX. DATE WORK WILL START* As soon as permitted		5. LEASE DESIGNATION AND SERIAL NO. Jicarilla Contract 148 6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache 7. UNIT AGREEMENT NAME Jicarilla Contract 148 8. WELL NO. 20 9. FIELD AND POOL, OR WILDCAT So. Blanco Pictured Cliffs Otero Chacra 10. SEC., T., R., M., OR B.L.K. AND SURVEY OR AREA NW/4, NE/4, Section 23, T25N, R5W 11. COUNTY OR PARISH Rio Arriba 12. STATE New Mexico	
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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	320'	315 sx Class "B" w/2% CaCl2-circ
7-1/8"	5-1/2" (New)	15.5# K-55	3960'	Stage 1: 200 sx Class "B" Neat-circ
This casing and cementing program is subject to appeal program to 30 CTR 290.				Stage 2: 500 sx Cl B 50:50 POZ, 6% gel, 2# med tuf plug/sx and .8% FLA.
				Tail in w/100 sx Cl B Neat-circ.
				Set DV tool at 3200'.

Amoco proposes to drill the above dual well to further develop the So. Blanco Pictured Cliffs/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 surface use plan are attached.

The gas from the Pictured Cliffs formation is dedicated to Northwest Pipeline Company, and the gas from the Chacra is dedicated to El Paso Natural Gas Co.

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.

SIGNED W. L. Peterson TITLE District Engineer DATE October 3, 1980

(This space for Federal or State office use)

APPROVED
AS AMENDED

PERMIT NO.

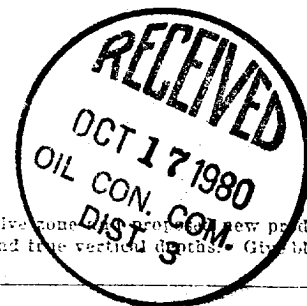
APPROVAL DATE

APPROVED BY
CONDITIONAL

TITLE

DATE

OCT 16 1980
JAMES F. SIMS
DISTRICT ENGINEER



OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-78

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

Operator AMOCO PRODUCTION COMPANY			Lease JICARILLA CONTRACT 118		Well No. 20
Unit Letter B	Section 23	Township 25N	Range 5W	County Rio Arriba	
Actual Footage Location of Well: 920 feet from the North line and 1620 feet from the East line					
Ground Level Elev. 6830	Producing Formation Pictured cliffs/ Chacra		Pool So. Blanco Pictured Cliffs/ Otero Chacra East		Dedicated Acreage: 160 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.

Sec.		920'	
		1620'	
23			

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 5, 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.

OIL CONSERVATION DIVISION
DIST. 3

Date Surveyed

July 30, 1980

Registered Professional Engineer
and Land Surveyor No.*Fred B. Kerr, Jr.*
Fred B. Kerr, Jr.

Certificate No. 3950

3950

SUPPLEMENTAL INFORMATION TO FORM 9-331C

JICARILLA CONTRACT 148 NO. 20
920' FNL & 1620' FEL, SECTION 23, T25N, R5W
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	2530'	4313'
Kirtland	2680'	4163'
Fruitland	2865'	3978'
Pictured Cliffs	3050'	3793'
Chacra (if present)	3876'	2967'
Mesaverde [Cliff House	'	'
Point Lookout	'	'
Gallup	'	'
Dakota	'	'
TD	3960'	2883'

Estimated KB elevation: 6843'

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:

DIL-SP-GR: Surf-TD
FDC-CNL-GR: Surf-TD
GR: 0-2000'

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

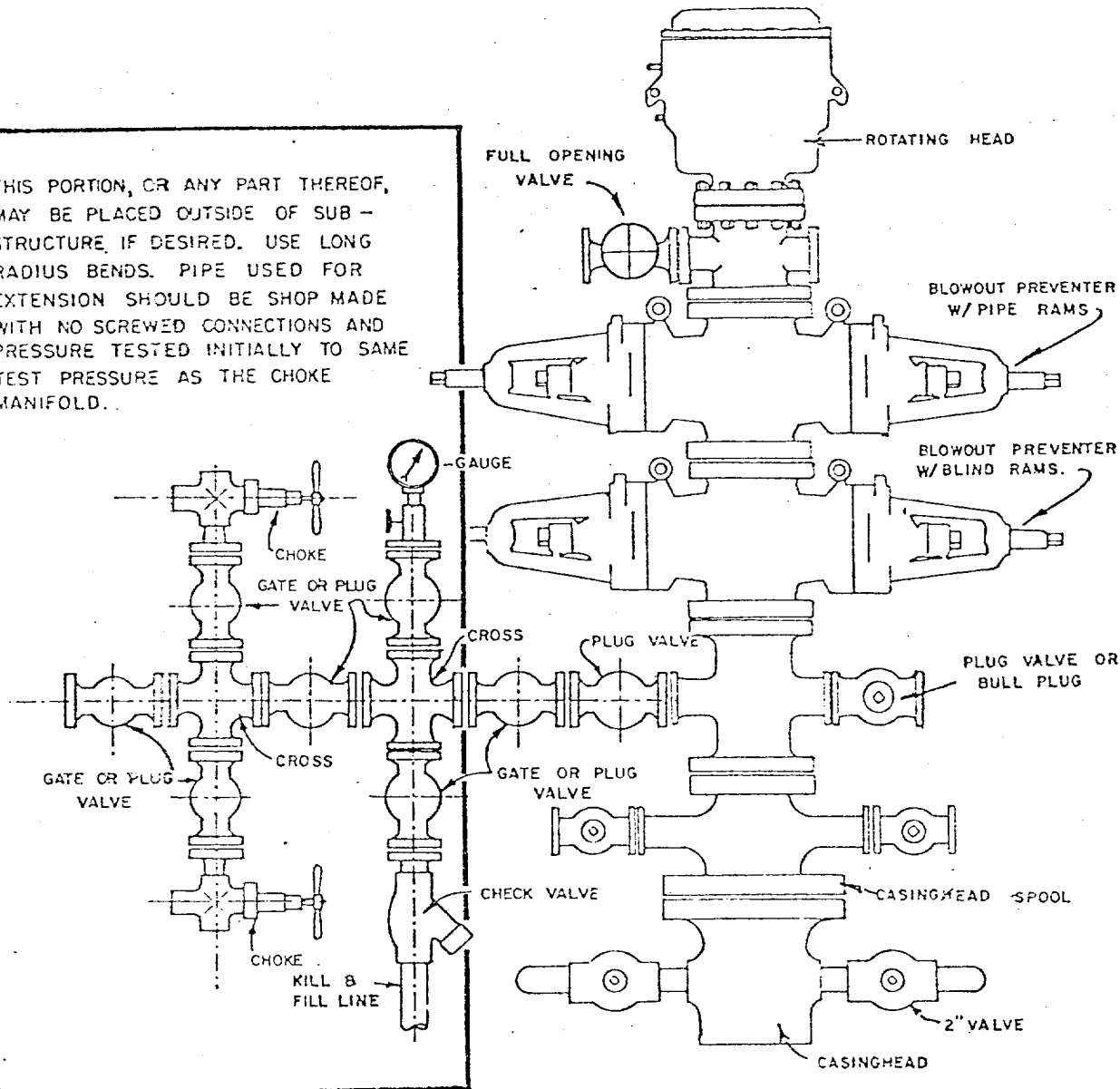
Operations will commence when permitted and last approximately 3 weeks.

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.

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. 20
920' FNL & 1620' FEL, SECTION 23, 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 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 Jicarilla Contract 148 Well No. 10, approximately one-half mile northwest.
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. No cuts will 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 and pediment slope with southwesterly drainage, and sandstone outcrops, with sandy clay loam soil; vegetation consists of sagebrush, grease wood and other native grasses.

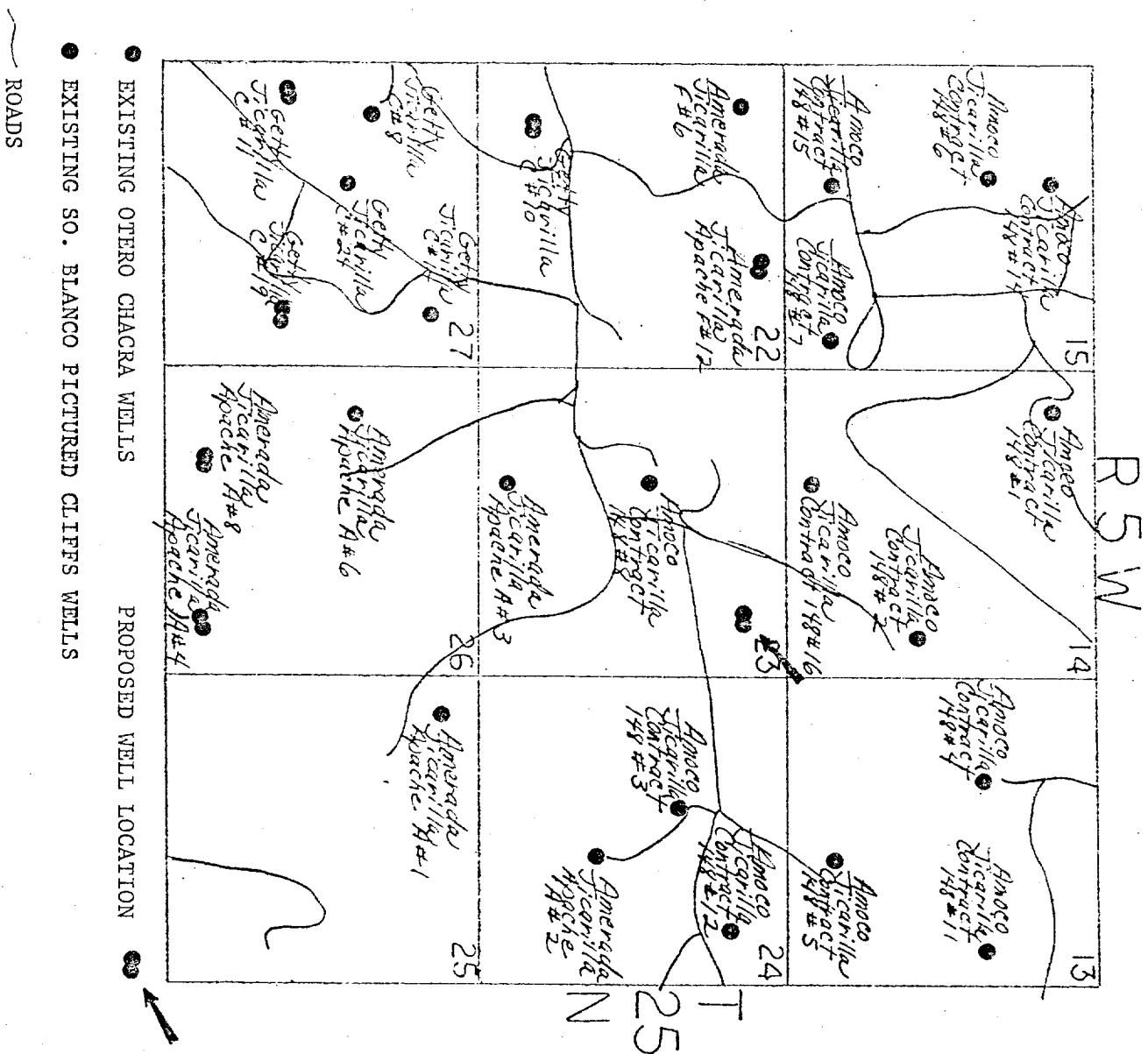
Representatives of the U. S. Geological Survey's Farmington Office and the Jicarilla Tribe's Dulce Office inspected the site with Amoco personnel. Cultural resources inspection was conducted by an archaeologist from San Juan College.

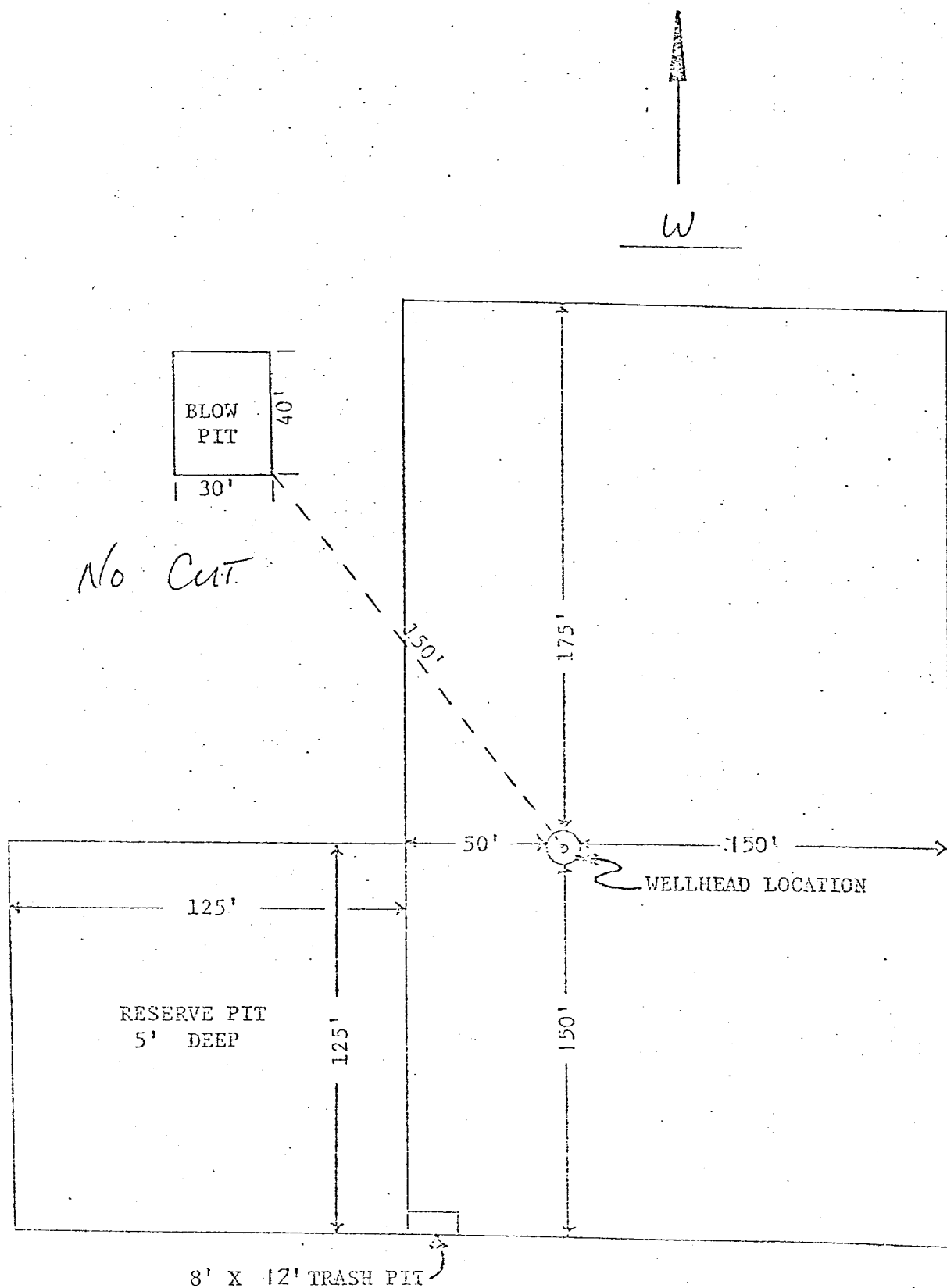
12. Operator's Representative: R. W. Schroeder
Phone: Office: 505-325-8841; Home: 505-325-6164
Address: 501 Airport Drive, Farmington, NM 87401

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 October 1, 1980

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





APPROXIMATELY 1.2 ACRES