

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

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

1150' FWL & 1590' FWL

At proposed prod. zone

Same

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

Approximately 5 miles northeast of Blanco, New Mexico

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

1150'

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

2025'

16. NO. OF ACRES IN LEASE

320

19. PROPOSED DEPTH

4900'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

320

20. ROTARY OR CABLE TOOLS

Rotary

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

5712' est. GL

22. APPROX. DATE WORK WILL START*

December, 1976

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	new 9-5/8"	32.3#/H-40	250'	280 sx
8-3/4"	new 7"	20# /K-55	2825'	540 sx
6-1/4"	new 4-1/2"	11# /X-52	2625'-4900'	270 sx

Amoco proposes to drill the above well to prevent drainage caused by offsetting infill drilling. The well will be drilled through the Mesaverde formation using rotary tools with drilling mud as a circulating media from surface to 2825' and with gas as a circulating media from 2825' to TD. The completion design will be based on open hole logs. A diagram and acreage plat are attached. A copy of all logs will be filed with your office on completion.

The acreage is dedicated to El Paso Natural Gas Company.

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

(This space for Federal or State office use)

TITLE

Area Engineer

DATE

December 9, 1976

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

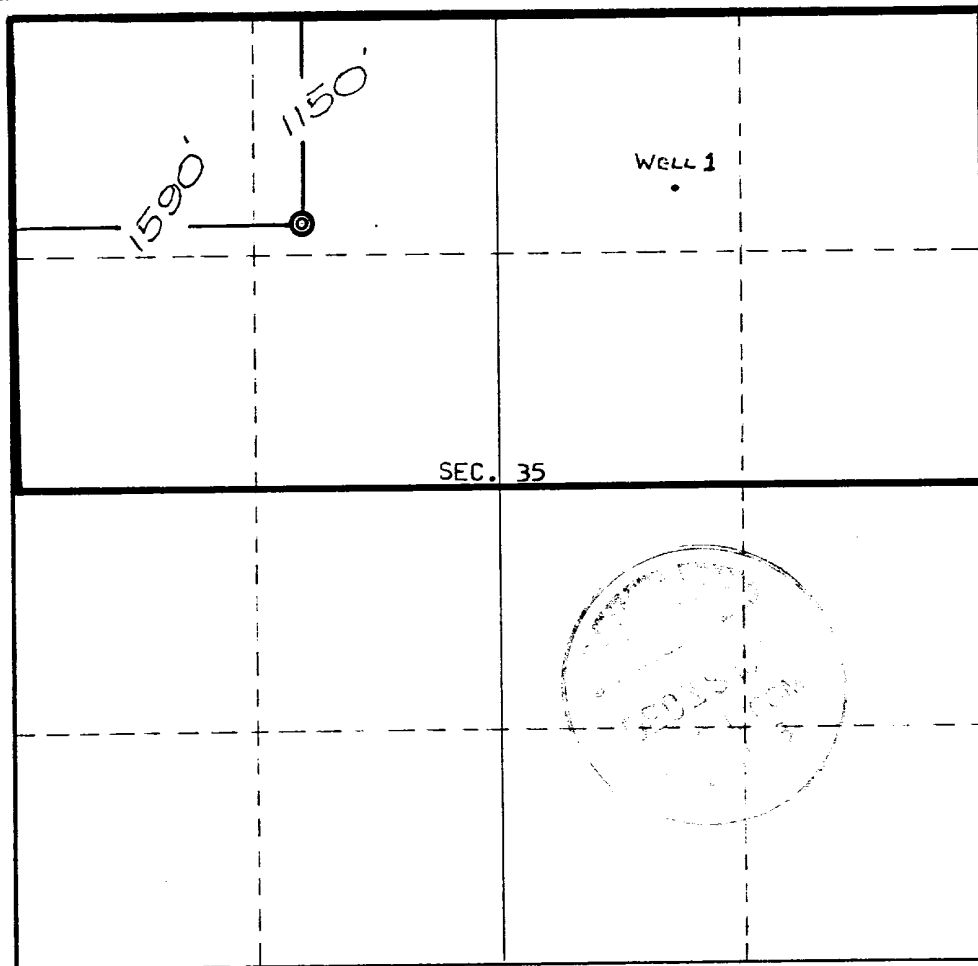
Owner Amoco Production Company			Lease Sandoval Gas Com "A"		Well No. 1A
Unit Letter C	Section 35	Township 30 North	Range 9 West	County San Juan	
Actual Footage Location of Well: 1150 feet from the North line and 1590 feet from the West line					
Ground Level Elev. 5712	Producing Formation Mesaverde		Pool Blanco Mesaverde	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 _____

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.

H. D. Montgomery
Name **H. D. Montgomery**
Area Engineer

Position
AMOCO PRODUCTION COMPANY

Company
November 30, 1976

Date

REGISTERED LAND SURVEYOR
I certify that the location shown on this plat was plotted in the field and that the same was made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.
Reg. No. 3602
E. V. ECHOHAWK

Date Surveyed
November 29, 1976

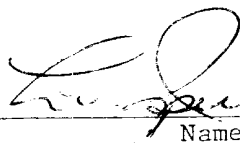
Registered Professional Engineer:
and/or Land Surveyor:

E. V. Echhawk
Certificate No. **3602**
E. V. Echhawk LS

CERTIFICATION
SANDOVAL GAS COM "A" NO. 1A
1150' FNL & 1590' FWL, SECTION 35, T-30-N, R-9-W

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.

December 9, 1976
Date

 - Area Supt.
Name and Title

DEVELOPMENT PLAN
SANDOVAL GAS COM "A" NO. 1A
1150' FNL & 1590' FWL, SECTION 35, T-30-N, R-9-W
SAN JUAN COUNTY, NEW MEXICO

The proposed location has sagebrush, snakeweed, and various herbs and grasses as vegetation. The geological name of the surface formation is the Animas. A new 200' x 20' road will be built to the new location. The new road will tie directly into an existing road. No construction materials will be used for building the location; dirt will be leveled at the well site. No location cut will be required. Verbal approval of the drill site has been obtained from Mr. Bob Moore, BLM; Mr. Ray Swanson, USGS, and Mrs. Nancy S. Hewett, Archaeologist.

Arrangements are being made to haul water from an irrigation ditch, approximately 4 miles. Drilling fluid to 2825' will be a low solids, non-dispersed drilling mud, and the well will be gas drilled from 2825' to TD (4900'). Upon completion the location will be cleaned up and leveled. Drilling mud and water will be hauled away and the reserve pit backfilled. Attached is the BLM seeding plan to be followed for this well. In addition, all surface equipment will be painted green so as to follow BLM requirements.

There are neither airstrips nor camps in the vicinity.

The estimated tops of important geological formations bearing hydrocarbons are:

<u>Formation</u>	<u>Depth</u>	<u>Elevation</u>
Pictured Cliffs	2430'	+3295'
Cliffhouse	4020'	+1705'
Menefee	4215'	+1510'
Point Lookout	4610'	+1115'

Estimated KB elevation: 5725'

<u>Est. Depth</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Hole Size</u>	<u>Sacks Cement - Type</u>
250'	9-5/8"	32.3#	12-1/4"	250 - Class "B", 2% CaCl ₂ .
2825'	7"	20#	8-3/4"	490 - Class "B", 6% Gel, 2# Med. Tuf Plug/sx.
				50 - Class "B", 2% CaCl ₂ .
2625-4900'	4-1/2"	11#	6-1/4"	195 - Class "B", 50:50 Poz, 6% Gel, 2# Med. Tuf Plug/sx, 0.2% friction reducer.
				75 - Class "B", 50:50 Poz, 6% Gel.

--2--

Amoco's standard blowout prevention will be employed, see attached drawing for blowout preventer design.

Amoco plans to run the following logs from TD to the intermediate casing: Induction-Gamma Ray, Density-Gamma Ray. No cores or drill stem tests will be taken.

Our experience drilling in this area has shown that no abnormal pressures, temperatures, or hydrogen sulfide gas will be encountered.

Our proposed starting date is in December, 1976, and a three week operation is anticipated.

BLM SEEDING REQUIREMENTS
IN THE FARMINGTON RESOURCE AREA

1. SEED MIXTURE 2

2. TIME:

All seeding will take place between July 1 and September 15.

3. EQUIPMENT:

Seeding will be done with a disc-type drill with two boxes for various seed sizes. The drill rows will be eight to ten inches apart. The seed will be planted not less than one-half inch deep or more than one inch deep. The seeder will be followed with a drag, packer, or roller to insure uniform coverage of the seed, and adequate compaction. Drilling will be done on the contour where possible, not up and down the slope. Where slopes are too steep for contour drilling, a "cyclone" hand seeder or similar broadcast seeder will be used. Seed will then be covered to the depth described above by whatever means is practical.

4. SPECIES TO BE PLANTED IN POUNDS PURE-LIVE-SEED PER ACRE:

CRESTED WHEATGRASS (Agropyron desertorum) - $3\frac{1}{4}$ lbs.

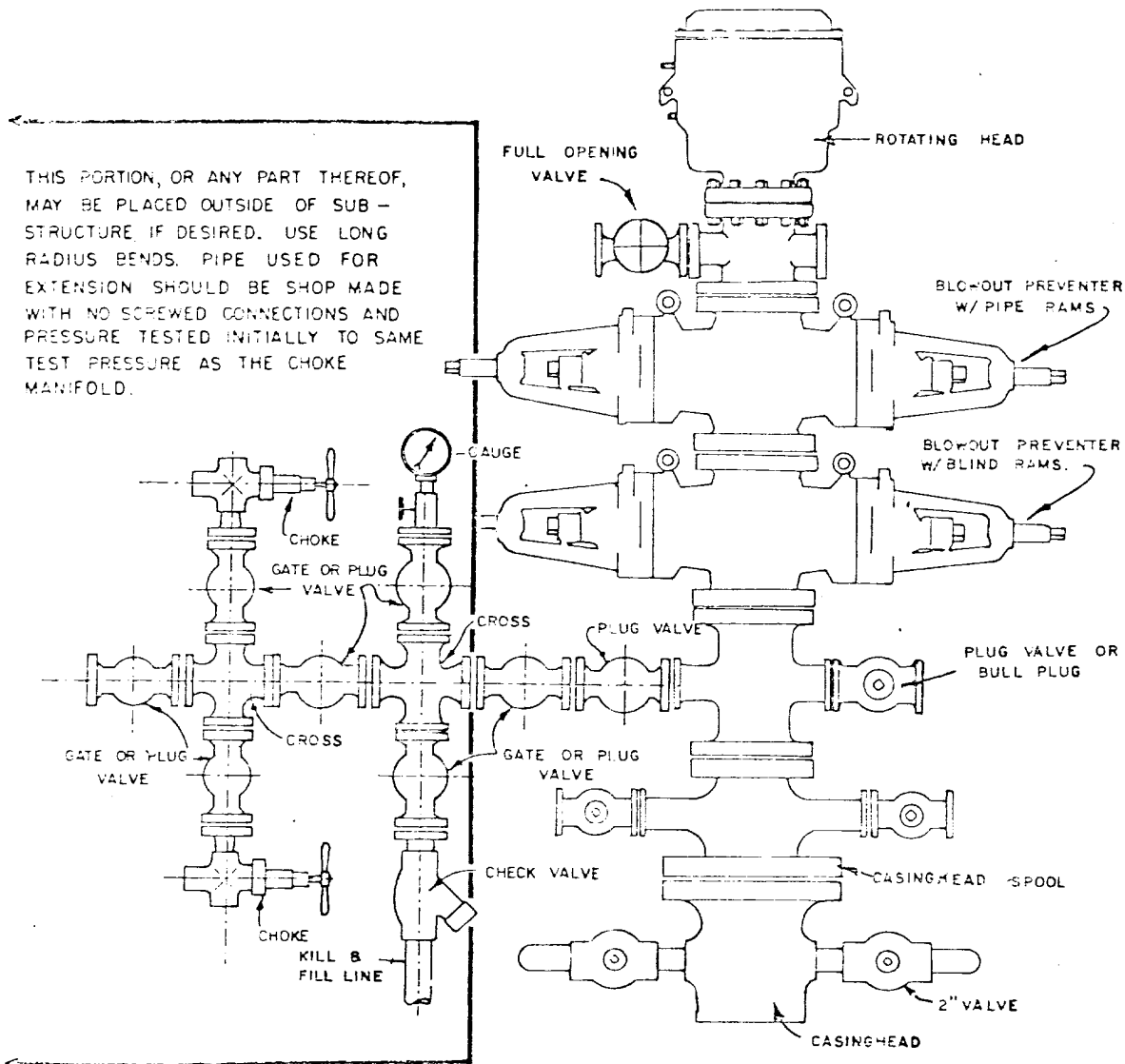
FOURWING SALTBUSH (dewinged) (Atriplex canescens) - $\frac{1}{2}$ lb.

SAND DROPSEED (Sporobolus cryptandrus) - $\frac{3}{4}$ lb.

WINTERFAT (Eurotia lanata) - $\frac{1}{2}$ lb.

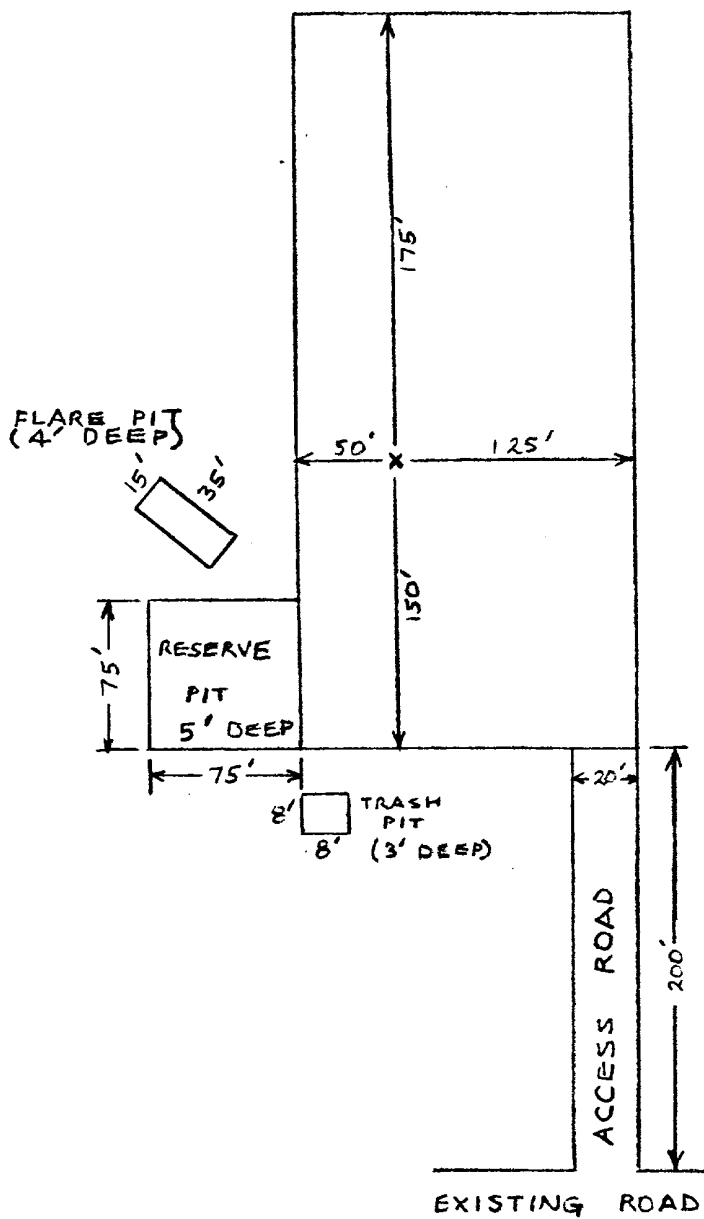
ALKALI SACATON (Sporobolus airoides) - $\frac{3}{4}$ lb.

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

NORTH →

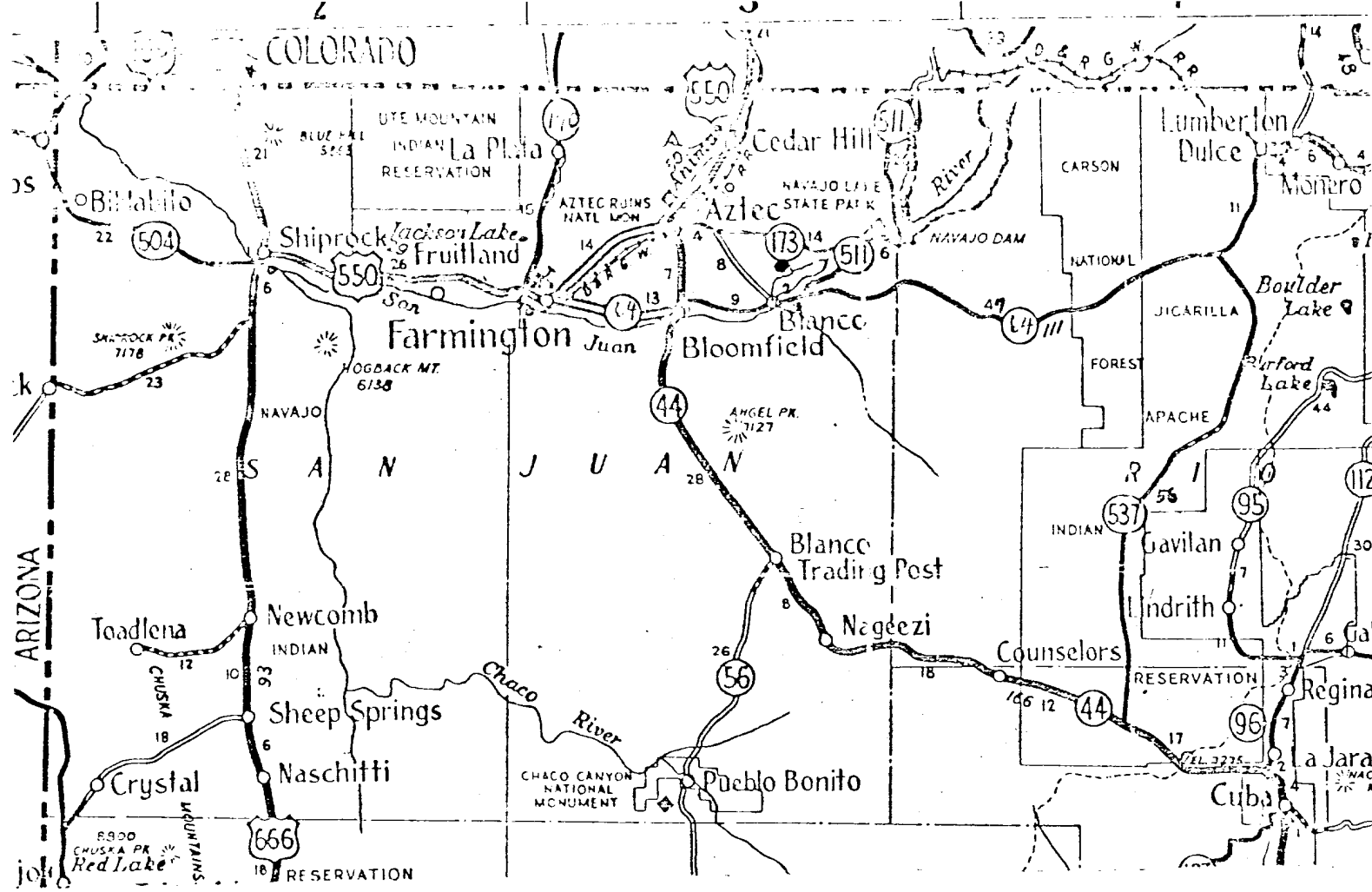


Amoco Production Company

SCALE: NONE

LOCATION DIAGRAM SANDOVAL GAS COM "A" NO. 1A
1150' FNL X 1590' FWL, SECTION 35, T-30-N, R-9-W

DRG. NO. 12-9-76



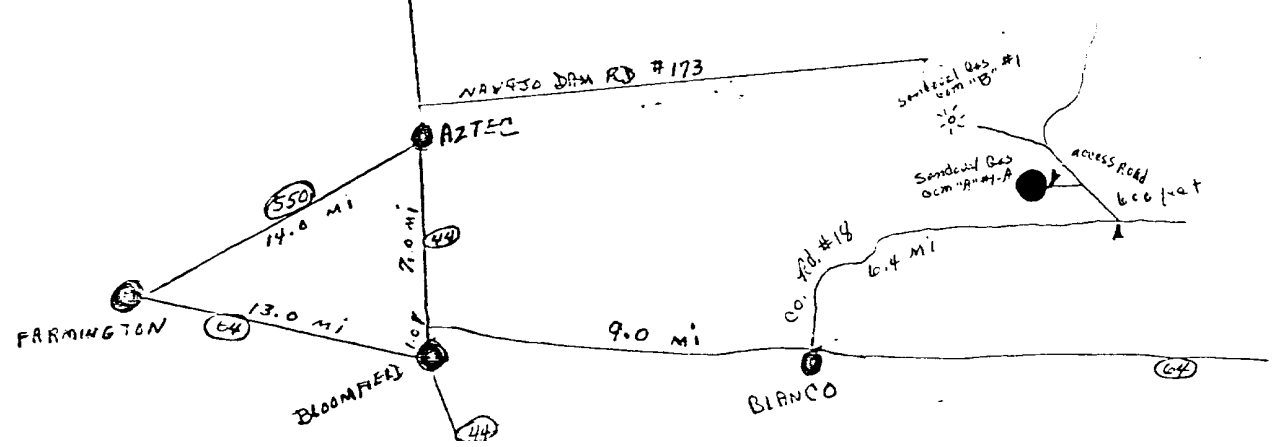
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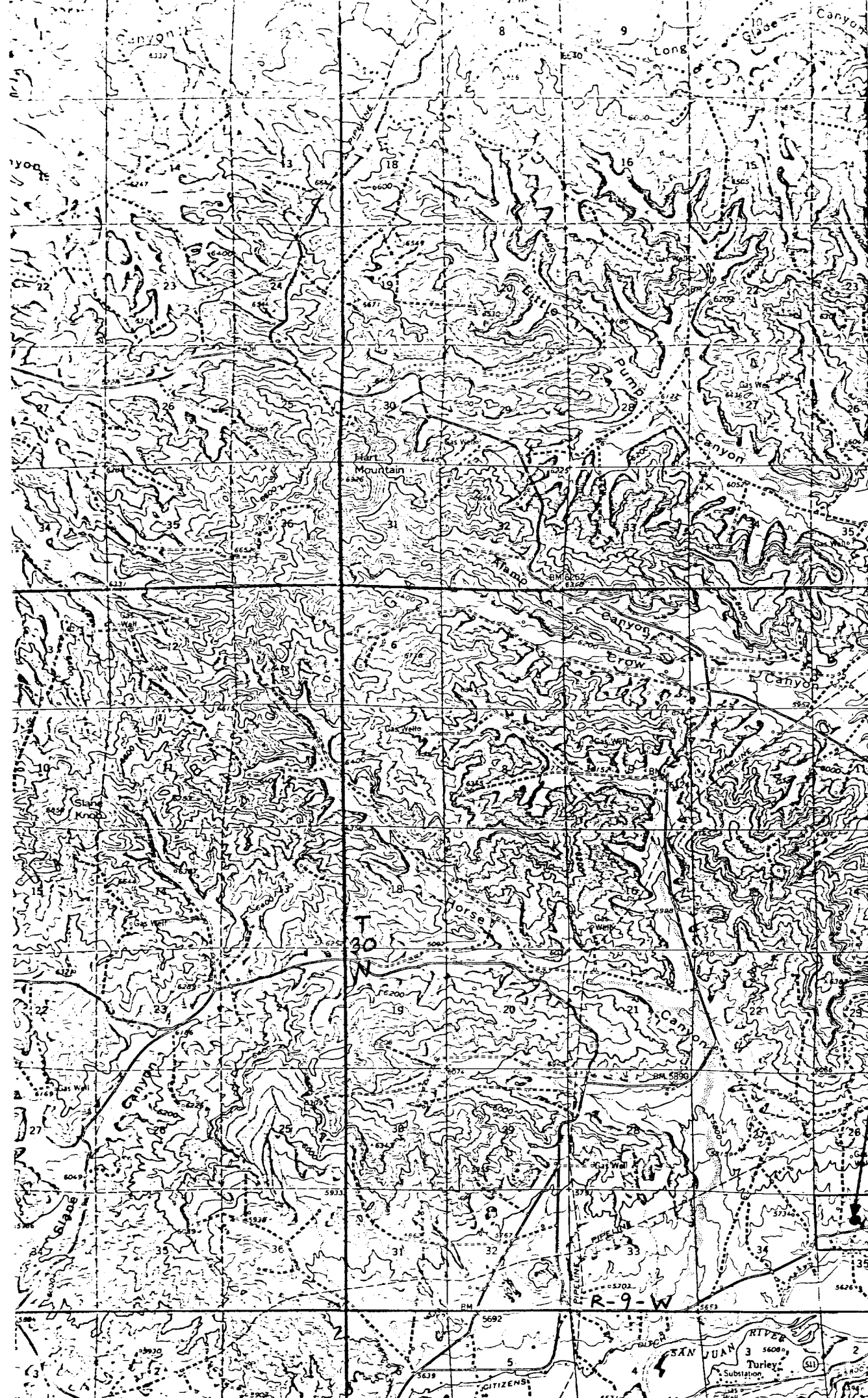
NORTH

FARMINGTON AREA TRAFFIC SKETCH
DENVER DIVISION
Sandoval Gas Com "A" Well No. 1-A
San Juan County, New Mexico
AMOCO WI: 84%

Rail Point, Aztec - 22.4 Mi.
Mud Point, Aztec - 22.4 Mi.
Cement Point, Farmington - 29.4 Mi.

12-1-76





SANDEVAL GAS CO.
"A" NO. 1A
BLANCO MESA
1150' FNL V
1570' FNL

4074000m. N.

T. 30 N.

T. 29 N.

36°45'

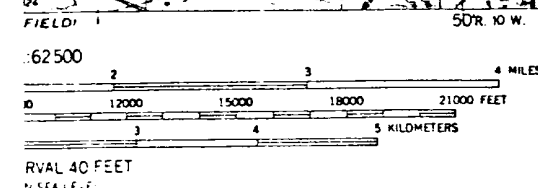
107°45'

107°45'

107°45'

107°45'

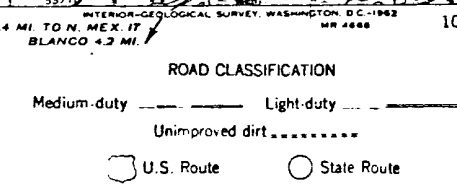
107°45'



Property of
**Pan American Petroleum
Corporation**



QUADRANGLE LOCATION



AZTEC, N. MEX.
N3645-W10745/15

1959

ALL MAPS TO BE USED IN ACCORDANCE WITH THE
FEDERAL GOVERNMENT OF WASHINGTON 25, D.C.
AND SIMILAR IS AVAILABLE ON REQUEST