

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.

SF 078199

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Houck Gas Com "A"

9. WELL NO.

1A

10. FIELD AND POOL, OR WILDCAT

Blanco Mesaverte

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA

NE/4 NW/4 Sec. 6

T-29-N, R-9-W

12. COUNTY OR PARISH 13. STATE

San Juan

NM

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, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

1020 FWL & 790 FWL, Section 6, T-29-N, R-9-W

At proposed prod. zone

Same

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

3 miles SW of Blanco, NM

15. DISTANCE FROM PROPOSED*

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

790'

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

3640'

16. NO. OF ACRES IN LEASE

264

19. PROPOSED DEPTH

4850'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

264

20. ROTARY OR CABLE TOOLS

Rotary

22. APPROX. DATE WORK WILL START*

September 1977

23. 5742 CL

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	32.3#	250'	250 sx
8-3/4"	7"	20#	2762'	460 sx
6-1/4"	4-1/2"	10.5#	4850'	310 sx

This well will be drilled to prevent drainage from offset wells. The well will be drilled through the Mesaverte formation using rotary tools. Fresh mud will be used for circulation from 2762' to surface and gas from TD (4850') to 2762'. Completion design will be based upon 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

TITLE

Area Engineer

DATE

8/1/77

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

AUG 5 1977
CON. COM.
DIST. 3

AUG 4 1977

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. Consult local

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.

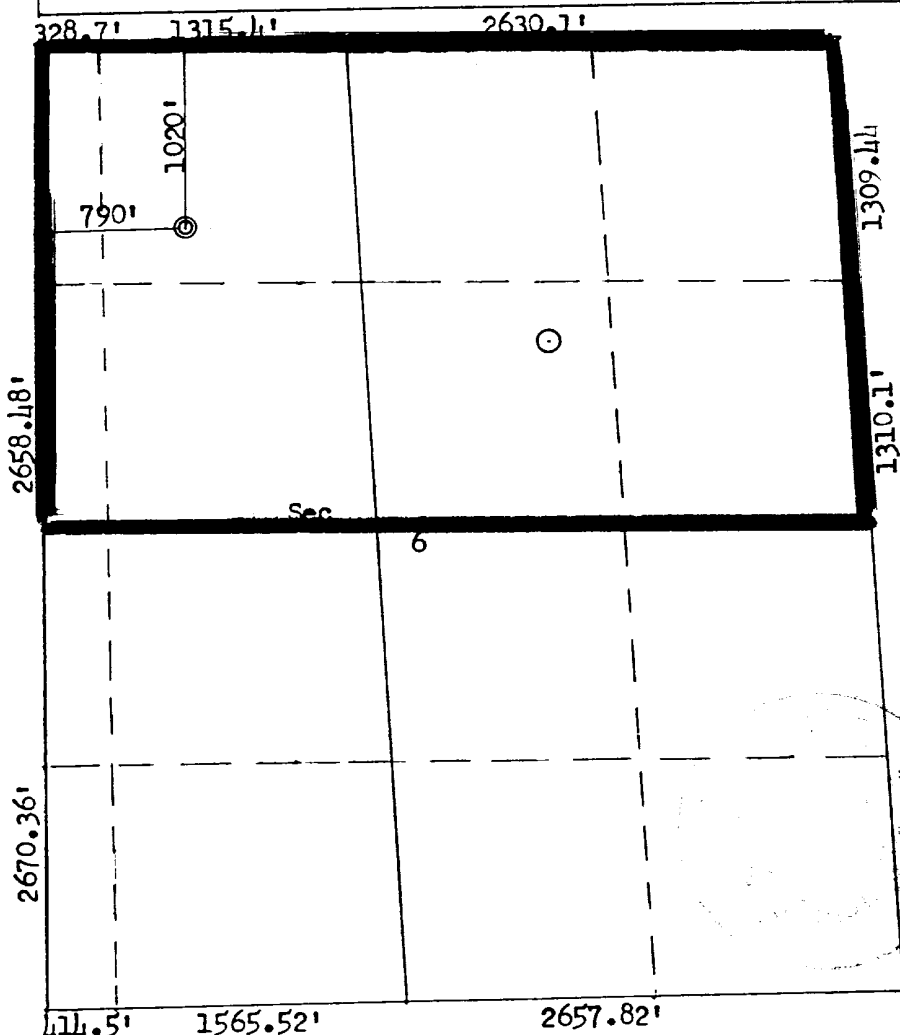
Operator Amoco Production Company			Lease Houck Gas Com "A"		Well No. 1A
Unit Letter C	Section 6	Township 29N	Range 9W	County San Juan	
Actual Footage Location of Well: 1020 feet from the North line and 790 feet from the West line					
Ground Level Elev. 5742	Producing Formation Mesa Verde		Pool Blanco Mesaverde		Dedicated Acreage: 264.0 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.

Name
J. L. KRUPKA
Position
AREA ENGINEER
Company
AMOCO PRODUCTION COMPANY
Date
JULY 28, 1977

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
June 29, 1977
Registered Professional Engineer and Land Surveyor
Fred B. Kerr Jr.
Certificate No.
3950

HOUCK GAS COM "A" NO. 1A
1020 FNL & 790 FWL, SECTION 6, T-29-N, R-9-W
SAN JUAN COUNTY, NEW MEXICO

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.

JULY 28, 1977
Date

L. O. Jones AREA SUPERINTENDENT
Name and Title

DEVELOPMENT PLAN
 HOUCK GAS COM "A" NO. 1A
 1020 FNL & 790 FWL, SECTION 6, T-29-N, R-9-W
 SAN JUAN COUNTY, NEW MEXICO

The proposed location is located on coarse sandy soil with juniper and pinon pine trees, snakeweed, rabbit brush, Mormon tea, prickly pear, and Challa cacti. The geological name of the surface formation is the Nacimiento. No new road will be required. No construction materials will be required to build the location, and the location will be leveled and cleaned up upon completion.

The water will be hauled to the location from a ditch in Blanco, over existing roads. The hole will be drilled using fresh mud from surface to 2762' and gas from 2762' to TD (4850). Upon completion the location will be cleaned, leveled, and the reserve pit will be backfilled. Attached is the BLM seeding plan to be followed for this well.

There are no airstrips in the vicinity.

The estimated tops of important geological formations bearing hydrocarbons are:

<u>FORMATION</u>	<u>DEPTH</u>	<u>ELEVATION</u>
Pictured Cliffs	2362'	+3393'
Cliffhouse	3950'	+1805'
Menefee	4109'	+1646'
Point Lookout	4563	+1192'

Estimated KB elevation: 5755'

The proposed setting depths of each casing string and type of cement to be used for each is as follows:

<u>DEPTH</u>	<u>CSG. 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 .
2762'	7"	20#	8-3/4"	360 - Class "B", 2% CaCl ₂ , 2# Med. Tuf Plug/sx.
				100 - Class "B" Neat.
2762-4850'	4-1/2"	10.5#	6-1/4"	260 - Class "B" 50:50 Poz, 2% Gel, 2# Med Tuf Plug/sx, 0.2% Friction Reducer.
				50 - Class "B" 50:50 Poz, 2% Gel.

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

Amoco plans to run the following logs from TD to intermediate casing: Induction Gamma Ray, Density Gamma Ray. No cores or Drill Stem Tests will be taken.

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

Our proposed starting date is September 1977, 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.

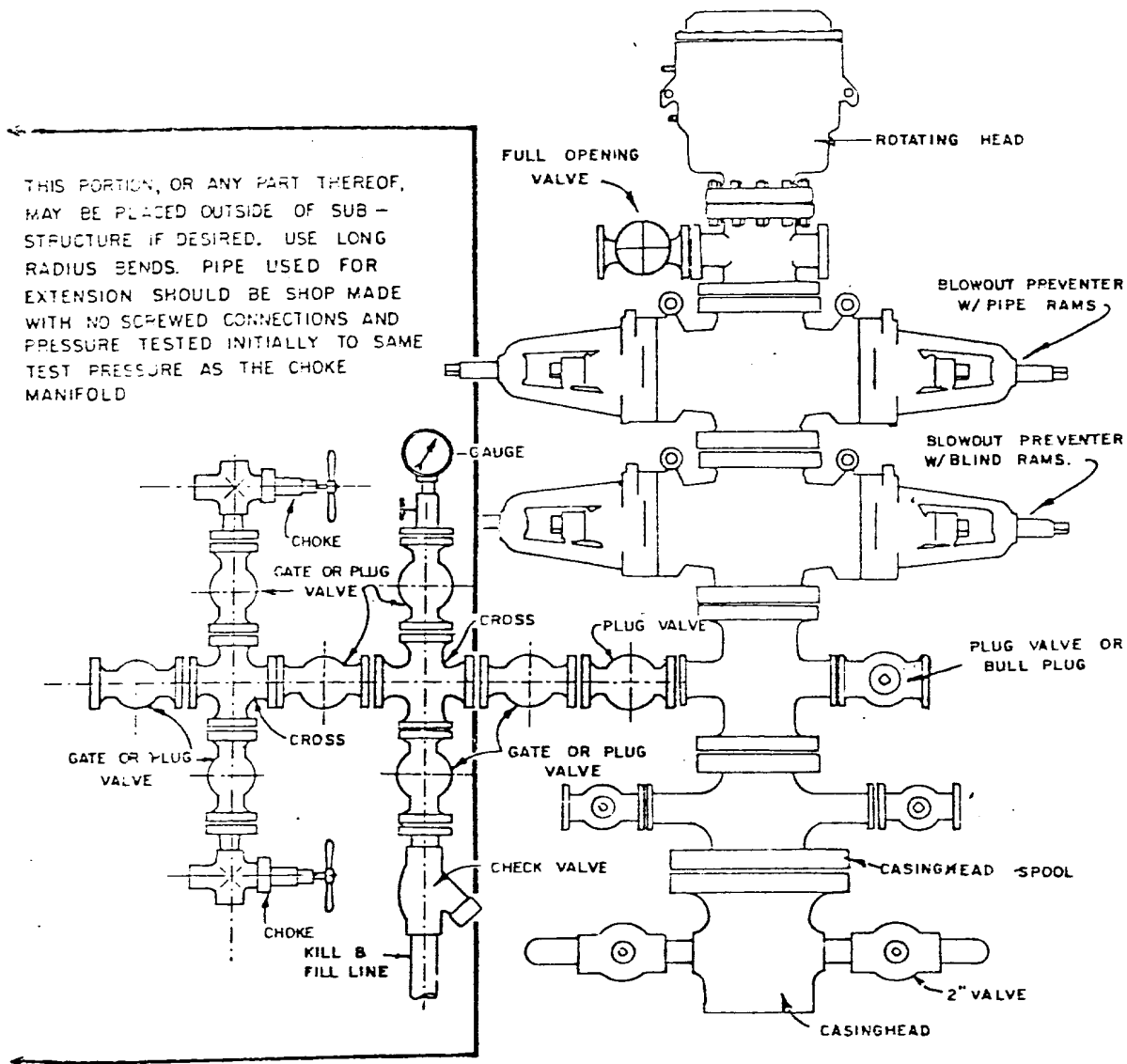
FOURWING SALTBUSH (dewinged) (Atriplex canescens) - $\frac{1}{2}$ lb.

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

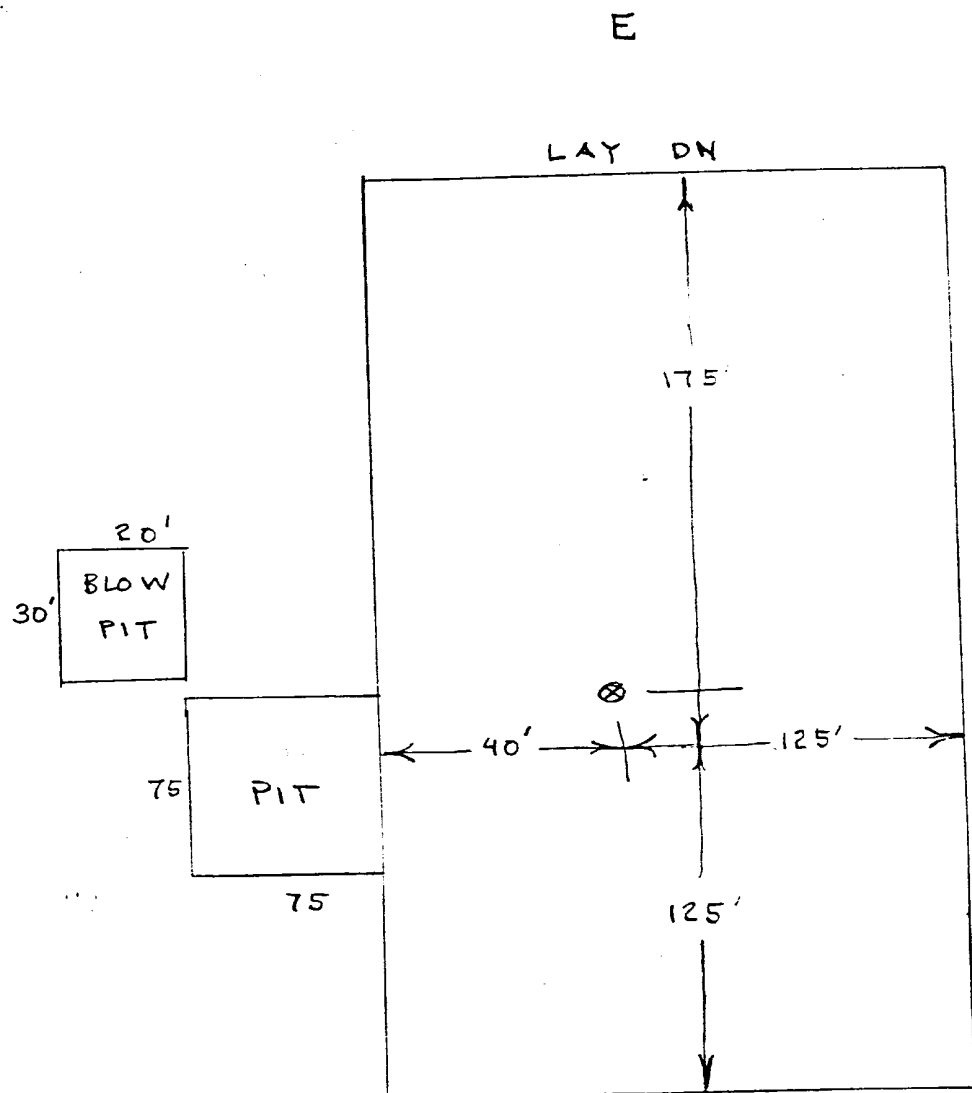
WINTERFAT (Eurotia lanata) - $\frac{1}{2}$ lb.

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

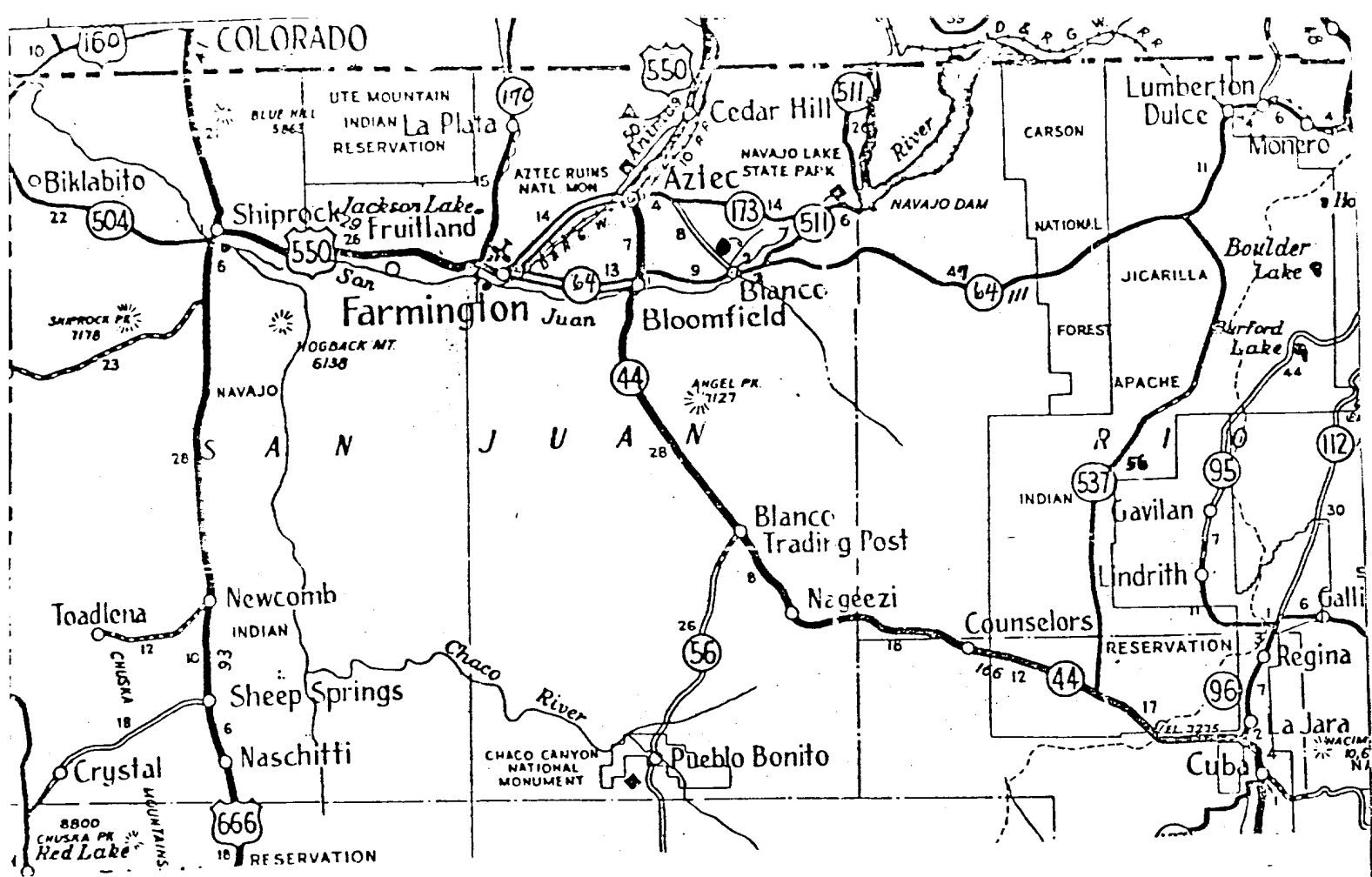
THIS PORTION, OR ANY PART THEREOF, MAY BE PLACED OUTSIDE OF SUB-STRUCTURE IF DESIRED. USE LONG RADIUS BENDS. PIPE USED FOR EXTENSION SHOULD BE SHOP MADE WITH NO SCREWED CONNECTIONS AND PRESSURE TESTED INITIALLY TO SAME TEST PRESSURE AS THE CHOKE MANIFOLD



BLOWOUT PREVENTER HOOKUP



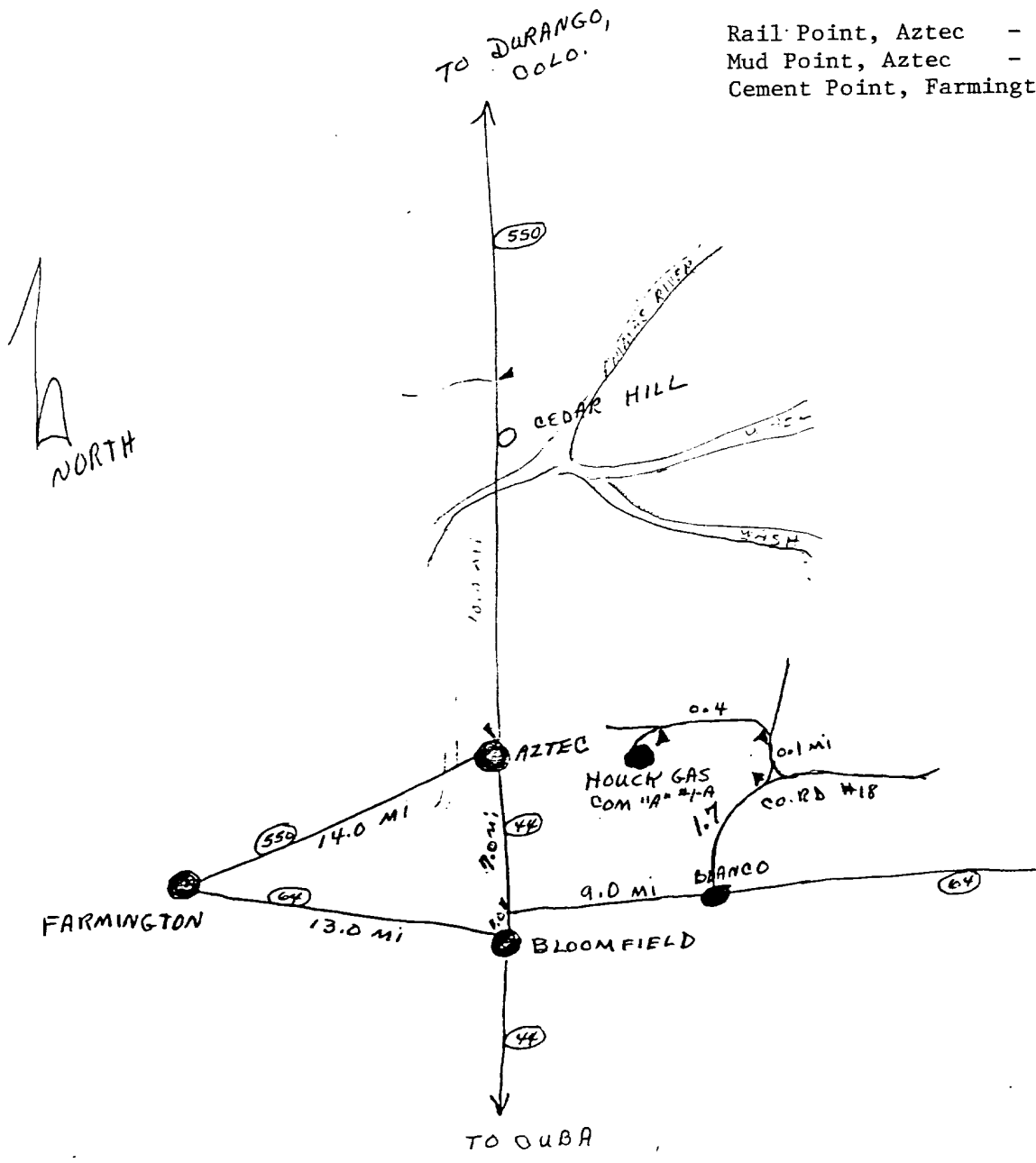
HOUCK GAS COM "A" 1A
 SEC 31 T30N R9W
 1025 FNL 790 FWL
 NE $\frac{1}{4}$ NW $\frac{1}{4}$

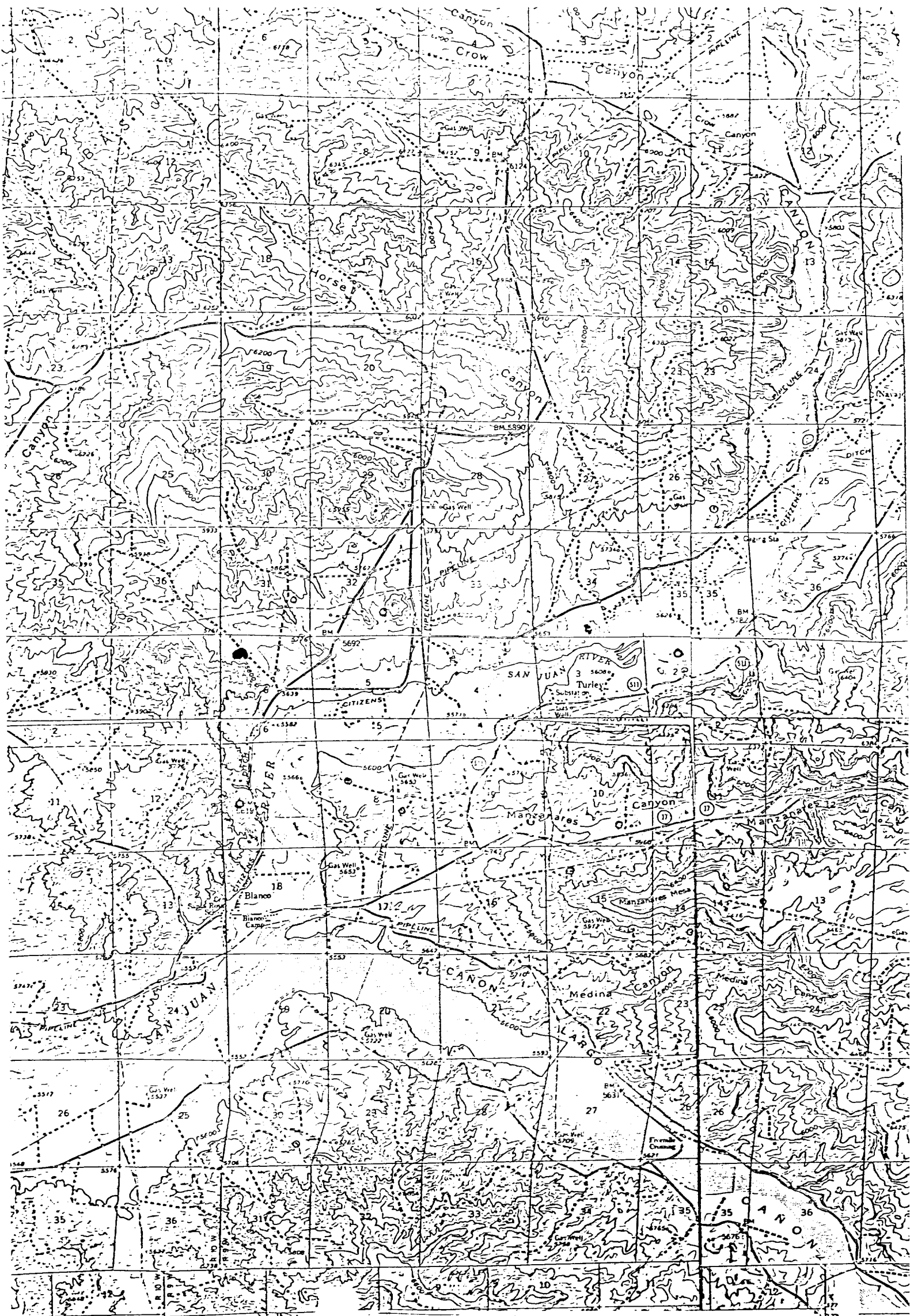


FARMINGTON AREA TRAFFIC SKETCH
 DENVER DIVISION
 Houck Gas Com "A" No. 1-A
 San Juan County, New Mexico
 Amoco WI: 100%

Rail Point, Aztec - 18.2 miles
 Mud Point, Aztec - 18.2 miles
 Cement Point, Farmington - 25.2 miles

7-19-77





Vicinity Map for
AMOCO PRODUCTION CO. #1A Houck Gas Com "A"
1020'FNL 790'FWL Sec 6- T29N-R9W
San Juan County, New Mexico