

Multi-Point Surface Use Plan
Mudge #4A

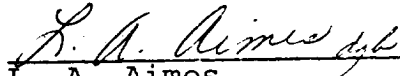
1. Existing Road - Please refer to Map No. 1 which shows the existing roads. New roads which will be required have been marked on this map. All existing and new roads will be properly maintained during the duration of this project.
2. Planned Access Roads - Please refer to Map No. 1. The grade of the access roads will be consistent with that of the local terrain. The road surface will not exceed twenty feet (20') in width. Upon completion of the project, the access road will be adequately drained to control soil erosion. Drainage facilities may include ditches, water bars, culverts or any other measure deemed necessary by trained Company personnel to insure proper drainage. Gates and/or cattleguards will be installed if necessary.
3. Location of Existing Wells - Please refer to Map No. 2
4. Location of Tank Batteries, Production Facilities, and Production Gathering and Service Lines - Please refer to Maps No. 1 and No. 2. Map No. 2 shows the existing gas gathering lines. Map No. 1 shows the existing roads and new proposed access roads. All known production facilities are shown on these two maps.
5. Location and Type of Water Supply - Water for the proposed project will be obtained from a water hole located at SW 29-32-10 (Decker Water Hole).
6. Source of Construction Materials - No additional materials will be required to build either the access road or the proposed location.

7. Methods of Handling Waste Materials - All garbage and trash materials will be put into a burn pit shown on the attached Location Plat No. 1. When clean-up operations are begun on the proposed project, the burn pit with its refuse will be buried to a depth of at least three feet (3'). A latrine, the location of which is also shown on Plat No. 1 will be provided for human waste. If large amounts of liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying any of these materials into the watershed. No earthen pit will be located on natural drainages; all earthen pits will be so constructed as to prevent leakage from occurring.
8. Ancillary Facilities - No camps or airstrips will be associated with this project.
9. Wellsite Layout - Please refer to the attached Plat No. 1.
10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed Mixture #2 will be used. The reseeding operation will be performed during the time period set forth by the regulatory body. The location production equipment will be painted green (Federal Standard #595 34127)
11. Other Information - The terrain is rough hills with sandstone ledges. Sagebrush grows on the proposed site. Deer sometimes graze the proposed location.

12. Operator's Representative - W. D. Dawson, Post Office Box 990,
Farmington, New Mexico 87401

13. 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 El Paso Natural Gas Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

May 5, 1977



L. A. Aimes
Sr. Drilling Engineer

LAA:pb

May 5, 1977

Operations Plan
Mudge #4A

I. Location: 1015'N, 1950'W, Section 1, T-31-N, R-11-W, San Juan County, NM

Field: Blanco Mesa Verde

Elevation: 6337'GL

II. Geology:

A. Formation Tops:	Surface	San Jose	Lewis	3245'
	Ojo Alamo	1225'	Mesa Verde	4817'
	Kirtland	1385'	Menefee	4917'
	Fruitland	2645'	Point Lookout	5327'
	Pic.Cliffs	3085'	Total Depth	5765'

B. Logging Program: GR-Ind. and GR-Density at Total Depth.

C. Coring Program: none

D. Natural Gauges: 4917', 5327' and at Total Depth.
Also gauge any noticeable increase in gas. Record all gauges in daily drilling report and on morning report.

III. Drilling:

A. Mud Program: mud from surface to 3445'. Gas from intermediate casing to Total Depth.

IV. Materials:

A. Casing Program:	<u>Hole Size</u>	<u>Depth</u>	<u>Casing Size</u>	<u>Wt.&Grade</u>
	13 3/4"	200'	9 5/8"	32.3# H-40
	8 3/4"	3445'	7"	20.0# K-55
	6 1/4"	3295-5765'	4 1/2"	10.5# K-55

B. Float Equipment: 9 5/8" surface casing - Larkin guide shoe (fig. 102)

7" intermediate casing - Dowell guide shoe (fig. 50101) and Dowell self-fill insert float valve (fig. 53003), 5 B&W stabilizers (Prod. No. 637085) every other joint above shoe. Run float two joints above shoe.

4 1/2" liner - T.I.W. liner hanger with neoprene packoff. Larkin geyser shoe (fig. 222) and Larkin flapper type float collar (fig. 404 M&F).

C. Tubing: 5765' of 2 3/8", 4.7#, J-55 8rd EUE tubing with a common pump seating nipple above perforated pup joint with bull plugged full joint for mud anchor on bottom.

D. Wellhead Equipment: 10" 900 x 9 5/8" casing head. 10" 900 x 6" 900 xmas tree.

Operations Plan - Mudge #4A

V. Cementing:

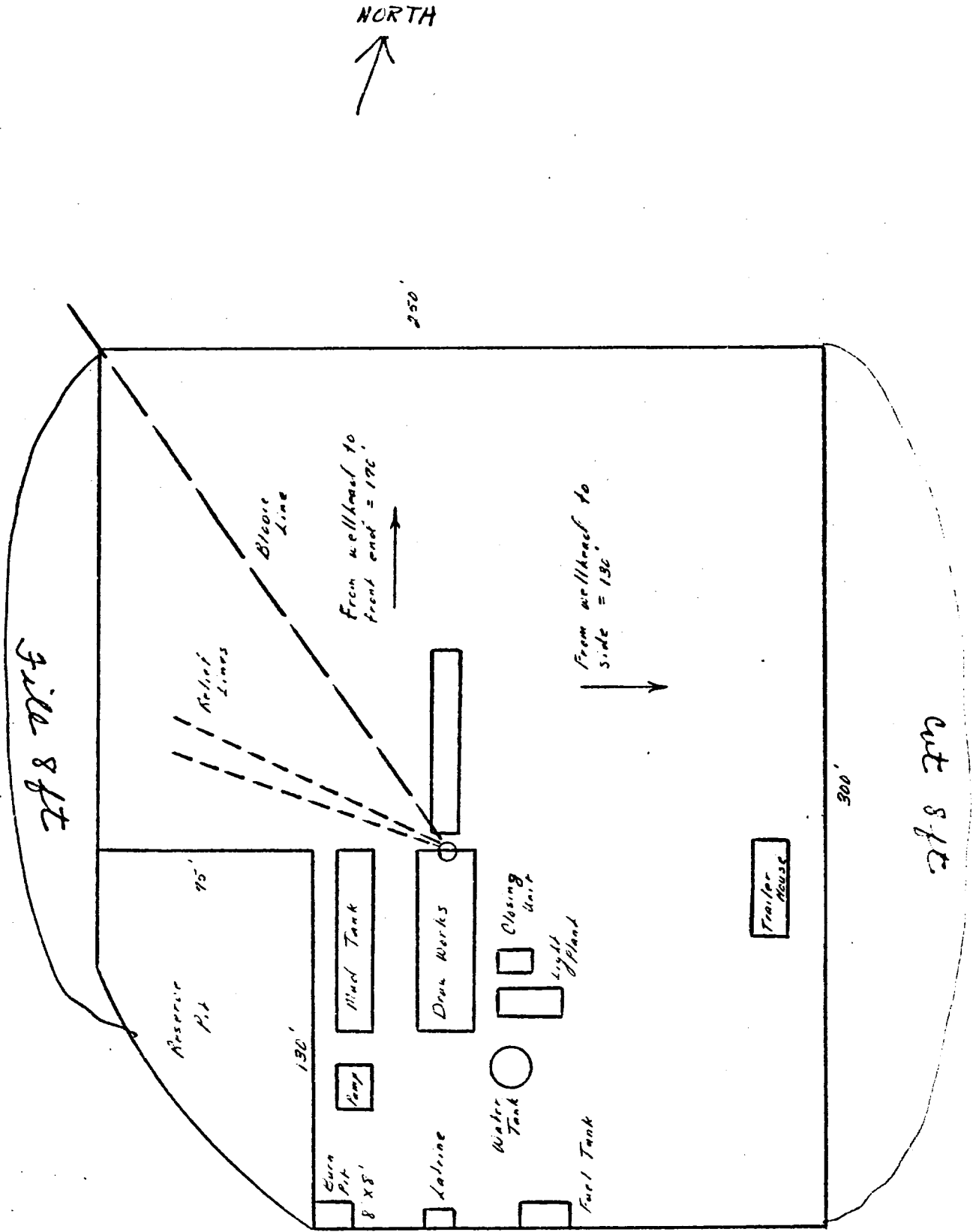
9 5/8" surface casing - use 190 sks. of Class "B" cement with 1/4# gel-flake per sack and 3% calcium chloride (224 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600#/30 minutes.

7" intermediate casing - use 146 sks. of 65/35 Class "B" Poz with 12% gel (15.52 gallons of water per sack) followed by 100 sks. of Class "B" with 2% calcium chloride (500 cu.ft. of slurry, 50% excess to cover Ojo Alamo). Run temperature survey at 8 hours. WOC 12 hours. Test casing to 1200#/30 minutes.

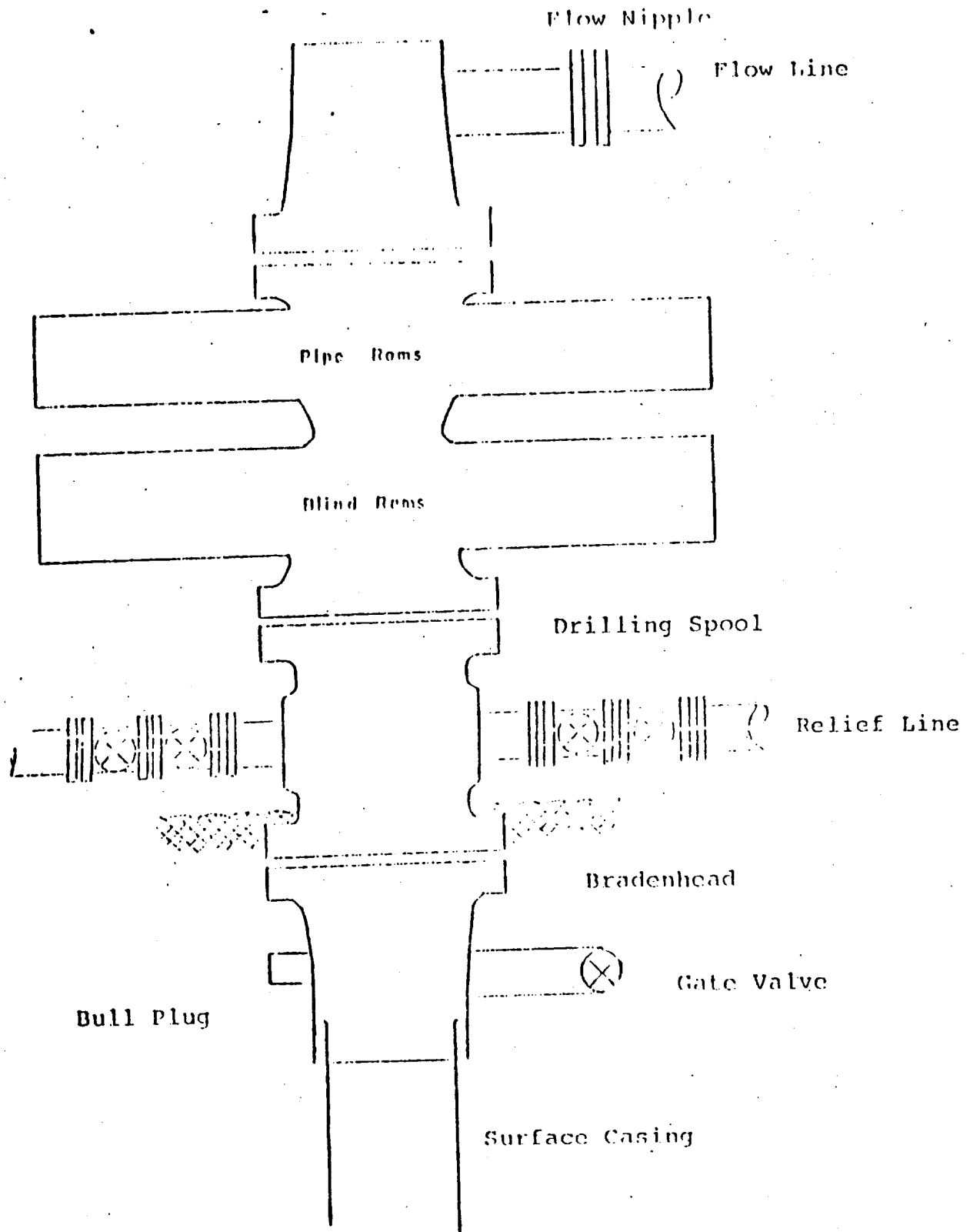
4 1/2" liner - precede cement with 20 barrels of gel water (2 sks. gel) Cement with 244 sks. of Class "B" cement with 4% gel, 1/4 cu.ft. of fine gilsonite per sack and 0.6% Halad-9 (430 cu.ft. of slurry, 70% excess to circulate liner).

LAA:pb

El Paso Natural Gas Company
Typical location plot for Mesa Verde and Dakota wells

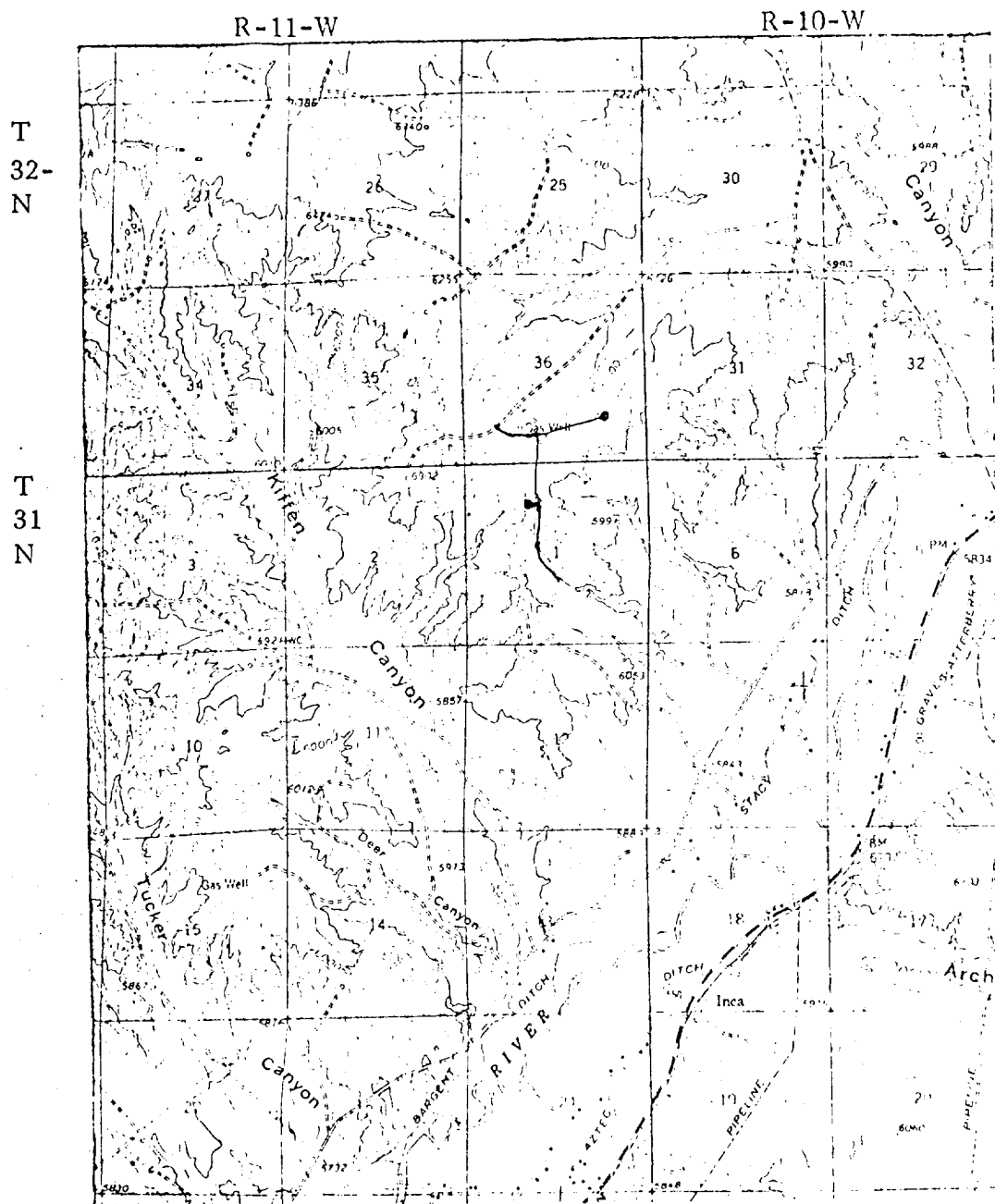


Typical B.O.P. Installation for Mesa Verde Well



Series 900 Double Gate BOP, rated
at 3000 psi Working Pressure
When gas drilling operations begin a Shaffer type 50
or equivalent rotating head is installed on top of the
flow nipple and the flow line is converted into a blowie line

EL PASO NATURAL GAS COMPANY
MUDGE 4A
NW 1-31-11



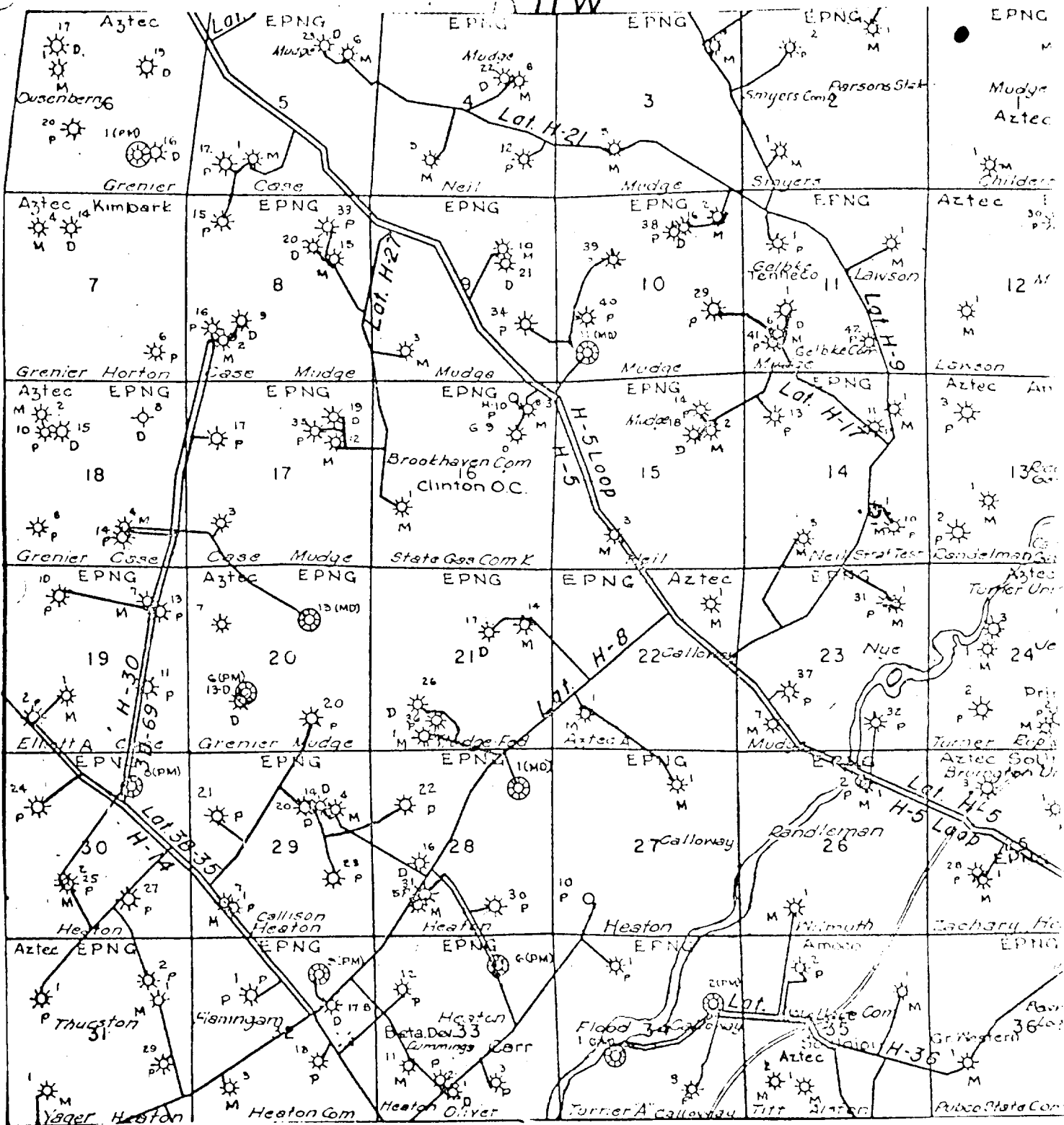
MAP #1

LEGEND OF RIGHT-OF-WAYS

EXISTING ROADS	— — — — —
EXISTING PIPELINES	+ + +
EXISTING ROAD & PIPELINE	+ + + — — — —
PROPOSED ROADS	— — — — —
PROPOSED PIPELINES	+ + +
PROPOSED ROAD & PIPELINE	+ + + — — — —

NW 1-31-11

T
31
N



Proposed Location

OIL CONSERVATION COMMISSION
Carter DISTRICT

OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE 5-6-77

RE: Proposed MC _____
Proposed DHC _____
Proposed NSL ✓ _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated 5-5-77
for the El Paso Natural Gas Co. Mudge #4A C-1-31N-11W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve

Yours very truly,

AR Kendrick

El Paso NATURAL GAS
COMPANY

P. O. BOX 990
FARMINGTON, NEW MEXICO 87401
PHONE: 505-325-2841

May 5, 1977

Mr. Joe Ramey
New Mexico Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

This is a request for administrative approval for an unorthodox gas well location in both the Blanco Pictured Cliffs and Blanco Mesa Verde pools.

It is intended to locate the El Paso Natural Gas Company Mudge #4A 1015' from the North line and 1950' from the West line of Section 1, T-31-N, R-11-W, in San Juan County, New Mexico.

There is a bluff located directly west of the proposed location which makes it extremely difficult and expensive to build an orthodox location. The subject well is unorthodox because it is located less than 790' from the East lease line. El Paso is the offset operator to the east.

All operators of proration units offsetting the proposed unorthodox location have been notified of this application by certified mail.

A plat showing the proposed well location and one showing offset ownership are attached.

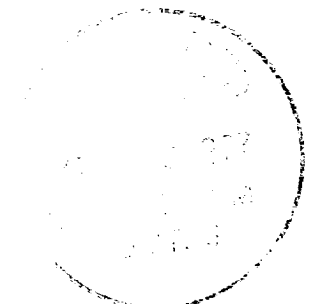
Sincerely,

L. A. Aimes

L. A. Aimes
Sr. Drilling Engineer

LAA:pb

cc: P. T. McGrath
A. R. Kendrick
Jim Permenter



NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION FORM

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

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

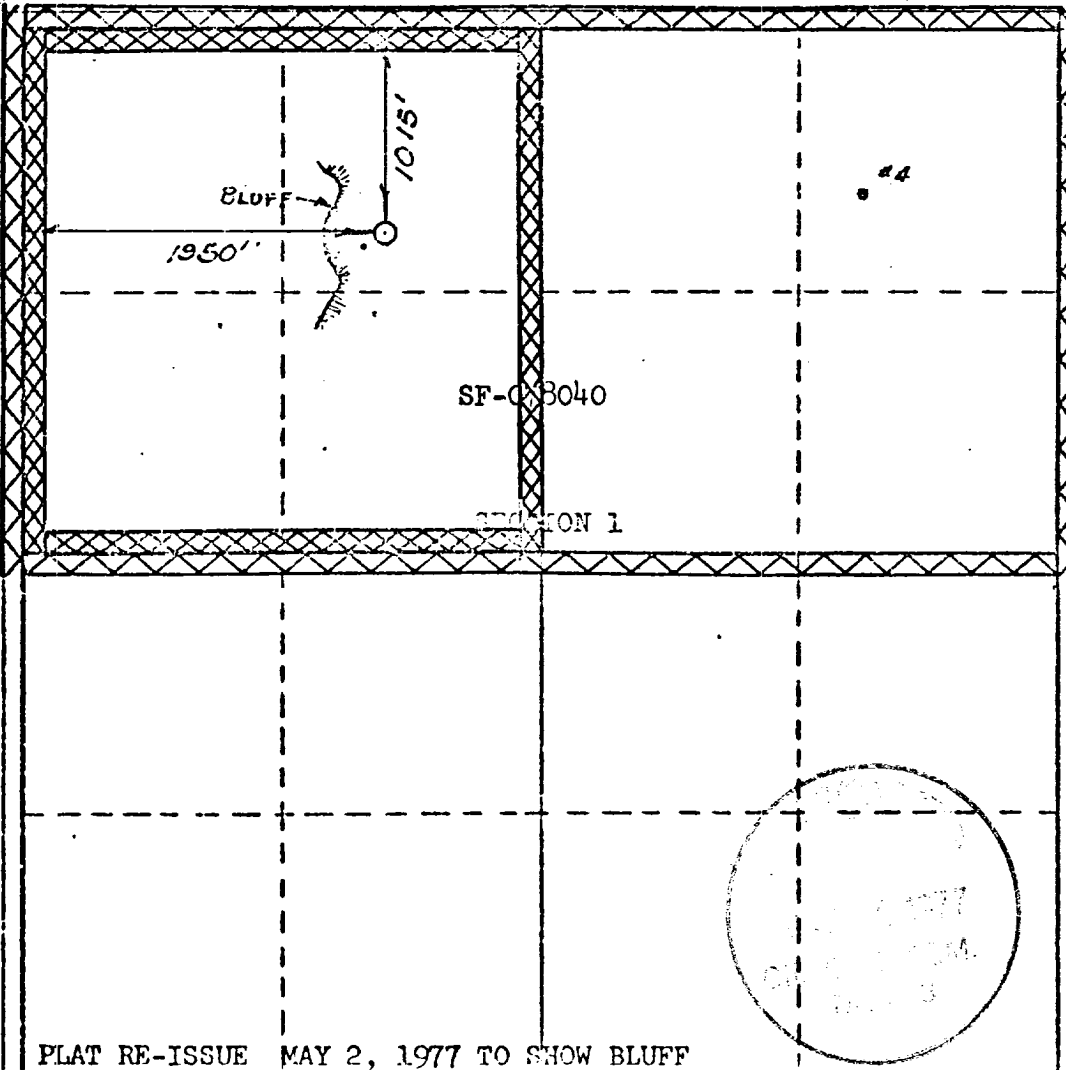
Operator EL PASO NATURAL GAS COMPANY		Lease MUDGE (SF-078040)		Well No. 4A
Unit Letter C	Section 1	Township 31-N	Range 11-W	County SAN JUAN
Actual Footnote Location of Well: 1015 feet from the NORTH line and 1950 feet from the WEST line				
Ground Level Elev. 6337	Producing Formation PICTURED CLIFFS & MESA VERDE		Pool BLANCO PICTURED CLIFFS BLANCO MESA VERDE	Dedicated Acreage: 160.34 & 320.59 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 _____

Position _____

Company _____

Date _____

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

APRIL 7, 1977

Registered Professional Engineer
and of Land Surveyor

Certificate No. **1760**

PLAT RE-ISSUE MAY 2, 1977 TO SHOW BLUFF

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

EL PASO NATURAL GAS COMPANY

Well Name MUDGE #4 A, Blanco Mesaverde

Footage----- 1015' FNL, 1950' FWL

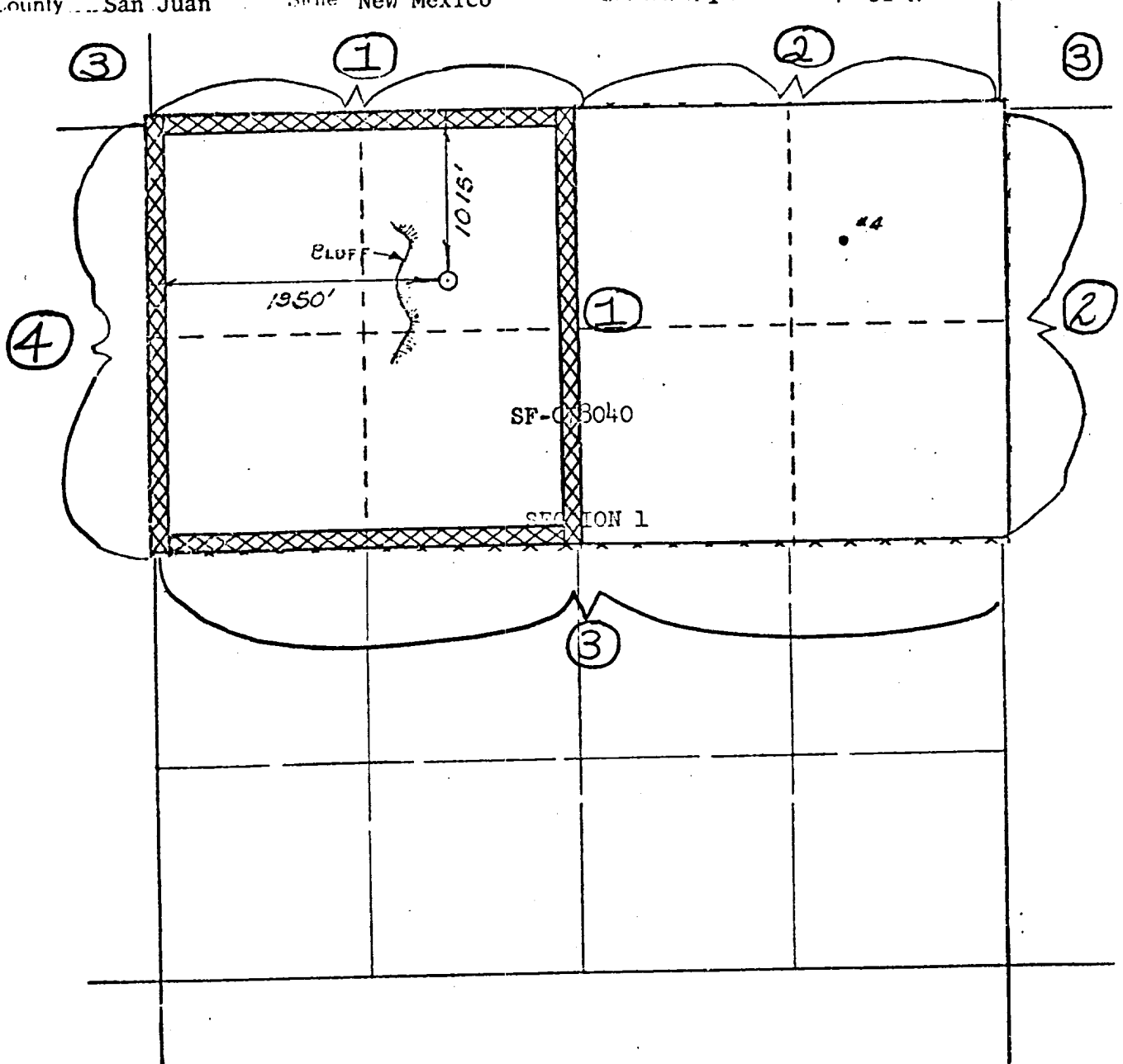
APPLICATION FOR NON-STANDARD LOCATION

County ... San Juan

State New Mexico

Section .. 1 Township 31 N.

Range 11 W



REMARKS: 1. El Paso Natural Gas Company
2. Mesa Petroleum
3. Aztec Oil & Gas Company
4. American Petrofina et al

