

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 078051	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR El Paso Natural Gas Company			7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR PO Box 990, Farmington, NM 87401			8. FARM OR LEASE NAME Neil	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1820'N, 890'E At proposed prod. zone			9. WELL NO. 16	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 8 miles North of Aztec, NM			10. FIELD AND POOL, OR WILDCAT Blanco Pic.Cliffs	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 890'			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 4, T-31-N, R-11-W NMPM	
16. NO. OF ACRES IN LEASE 2218.66			12. COUNTY OR PARISH San Juan	
17. NO. OF ACRES ASSIGNED TO THIS WELL 149.31			13. STATE NM	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 400'			19. PROPOSED DEPTH 3065'	
20. ROTARY OR CABLE TOOLS Rotary			21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6161'GR	
22. APPROX. DATE WORK WILL START*				

23. 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"	24.0#	120'	106 cu.ft. to circulate
6 3/4"	2 7/8"	6.4#	3065'	615 cu.ft. to cover Ojo Alar

Selectively perforate and sandwater fracture the Pictured Cliffs formation.

A 3000 psi WP and 6000 psi test double gate preventer equipped with blind and pipe rams will be used for blow out prevention on this well.

This gas is dedicated.

The NE/4 of Section 4 is dedicated to this well.

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 D. G. Guisco TITLE Drilling Clerk DATE July 21, 1978
(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

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-120
Effective 1-1-65

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

Operator EL PASO NATURAL GAS COMPANY			Lease Neil (SF-078051)		Well No. 16
Unit Letter H	Section 4	Township 31N	Range 11W	County San Juan	

Actual Footage Location of Well:

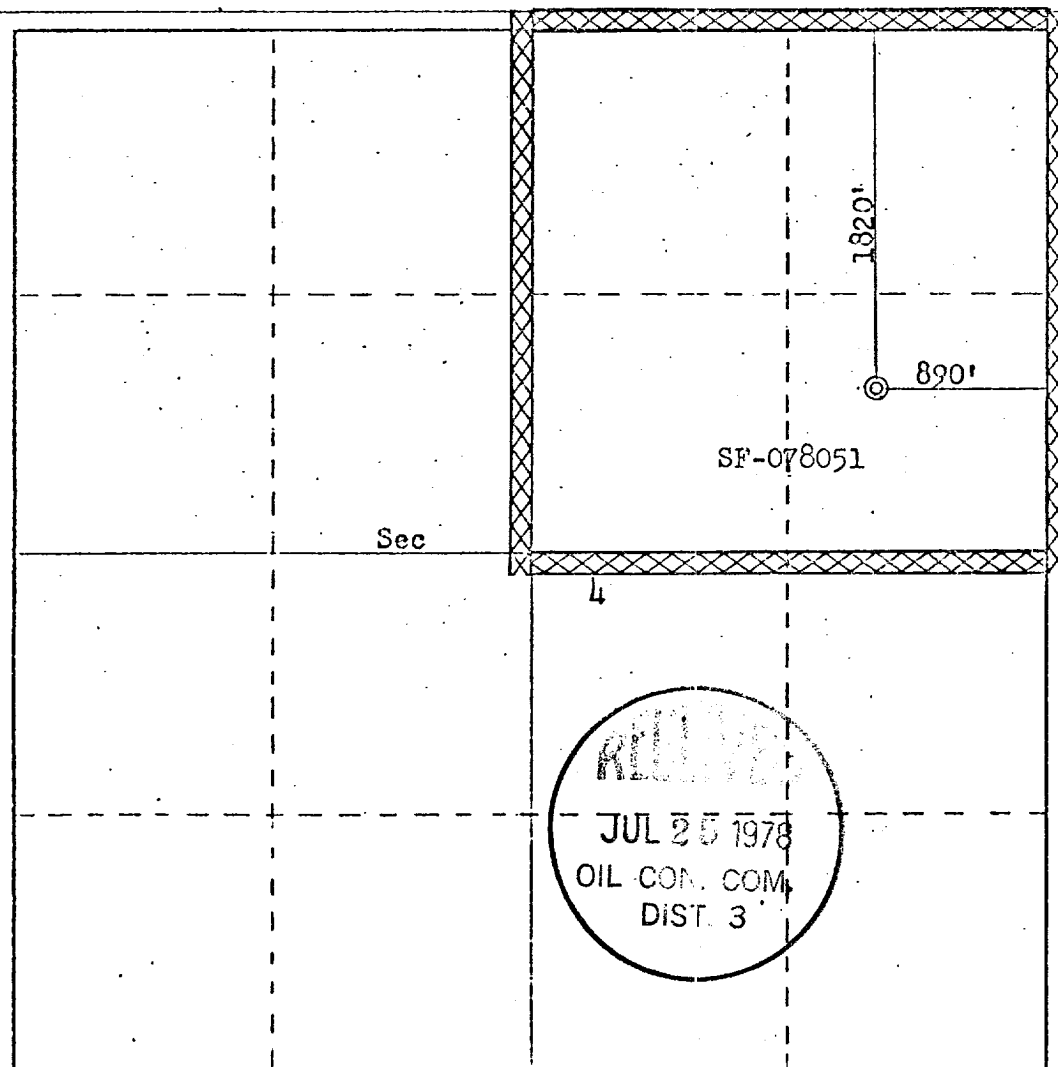
1820	feet from the	North	line and	890	feet from the	East	line
Ground Level Elev. 6161	Producing Formation Pictured Cliffs		Pool Blanco Pictured Cliffs		Dedicated Acreage 149.31		

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.

A. B. Lucas

Name

Drilling Clerk

Position

El Paso Natural Gas Co.

Company

July 21, 1978

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

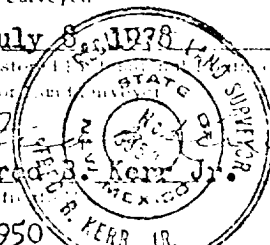
July 8, 1978

Registered Professional Surveyor and of the State of New Mexico

Fred B. Kerr Jr.

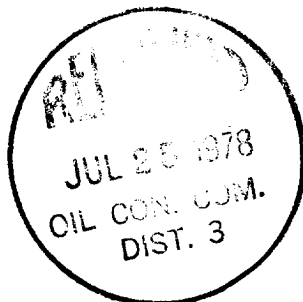
Certified by the State of New Mexico

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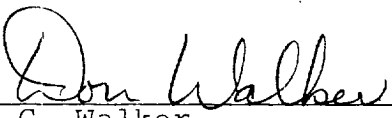
Multi-Point Surface Use Plan
Neil #16

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 Kiffin Canyon 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,



7. cont'd. 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 as designated by the responsible government agency 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 as designated by the responsible government agency.
11. Other Information - The terrain is high sandstone ledges and rolling hills with sagebrush growing. Coyote run on the proposed project site.
12. Operator's Representative - W.D. Dawson, PO Box 990, Farmington, NM
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.




D. C. Walker
Project Drilling Engineer

July 20, 1978

Operations Plan - Neil #16

I. Location: 1820'N, 890'E, Section 4, T-31-N, R-11-W, San Juan County, NM

Field: Blanco Pictured Cliffs

Elevation: 6161'GR

II. Geology:

A. Surface Formation: Nacimiento

Sub-surface Formation Tops:

Ojo Alamo	1050'	Pictured Cliffs	2850'
Kirtland	1130'	Lewis	3020'
Fruitland	2270'	Total Depth	3065'

B. Logging Program: Induction Electric and Gamma Ray Density at TD.

C. Coring: none

D. Testing: none

III. Drilling:

A. Anticipated Starting Date and Duration of the Project:

1979 Drilling Program - approximately 4 days to complete.

B. Circulating Medium: Treated water and a low solids gel base mud will be used from surface to TD.

IV. Materials:

A. Casing Program:	<u>Hole Size</u>	<u>Depth</u>	<u>Csg.Size</u>	<u>Wt.&Grade</u>
	12 1/4"	120'	8 5/8"	24.0# J-55
	6 3/4"	3065'	2 7/8"	6.4# J-55

B. Float Equipment: 8 5/8" surface casing - cement guide shoe.

2 7/8" production casing - 10' shoe joint with notched collar for guide shoe and 2 7/8" latch down baffle on top. Two 3 1/16" balls and one 2 7/8" latch down plug.

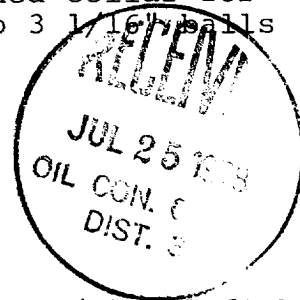
C. Tubing: none

D. Wellhead Equipment: Larkin wellhead (fig. 75)

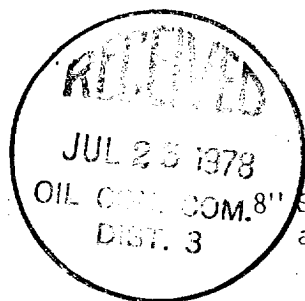
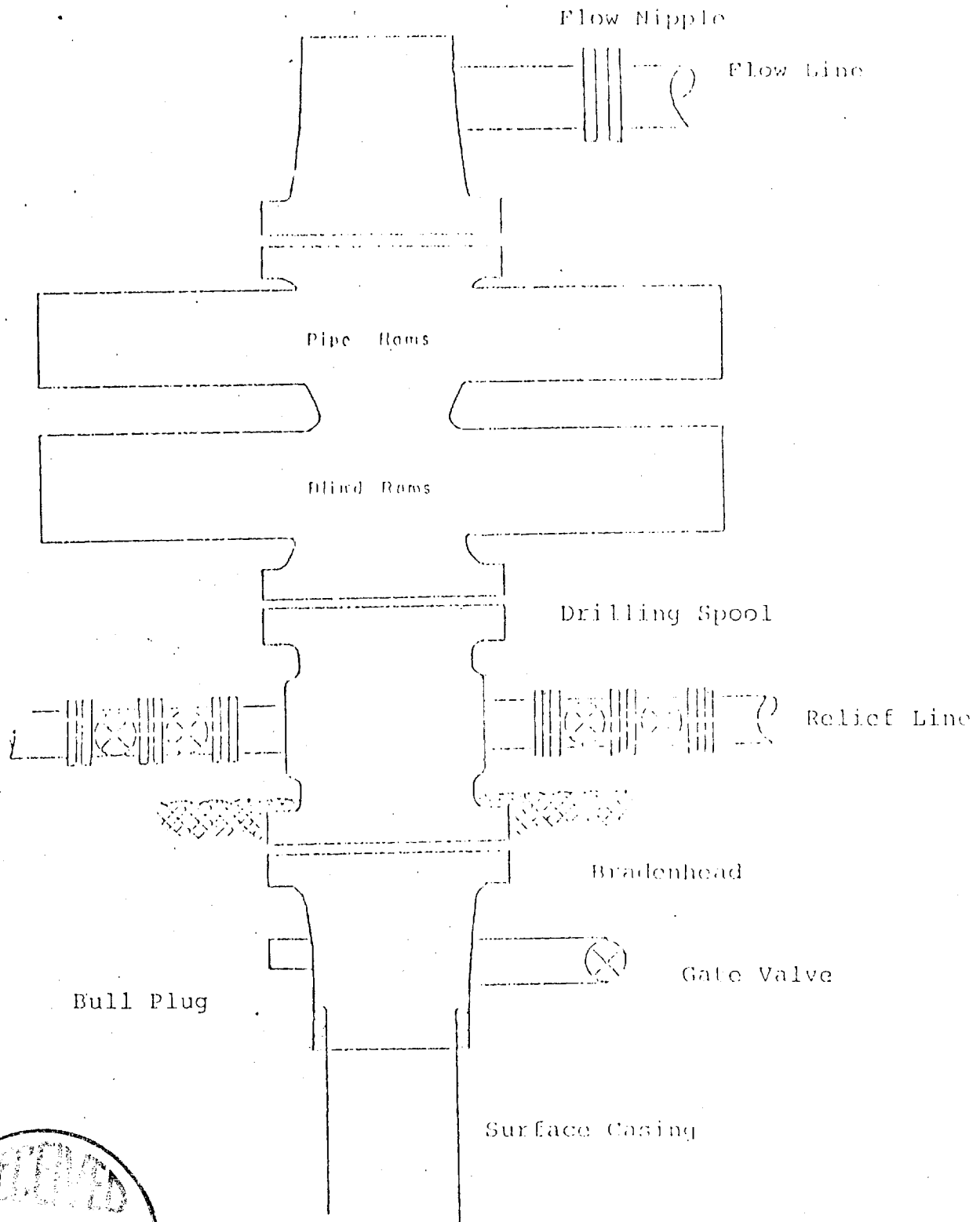
V. Cementing:

8 5/8" surface casing - 90 sks. of Class "B" cement with 1/4# gel-flake per sack and 3% calcium chloride (106 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hrs. Test casing wellhead and BOP to 600#/30 minutes.

2 7/8" production - 329 sks. 65/35 Class "B" Poz with 6% gel, 2% CaCl₂, and 8.3 gallons water per sack followed by 70 sks. Class "B" neat cement (615 cu.ft. slurry, 50% excess to cover Ojo Alamo). Run temperature survey after 12 hrs.

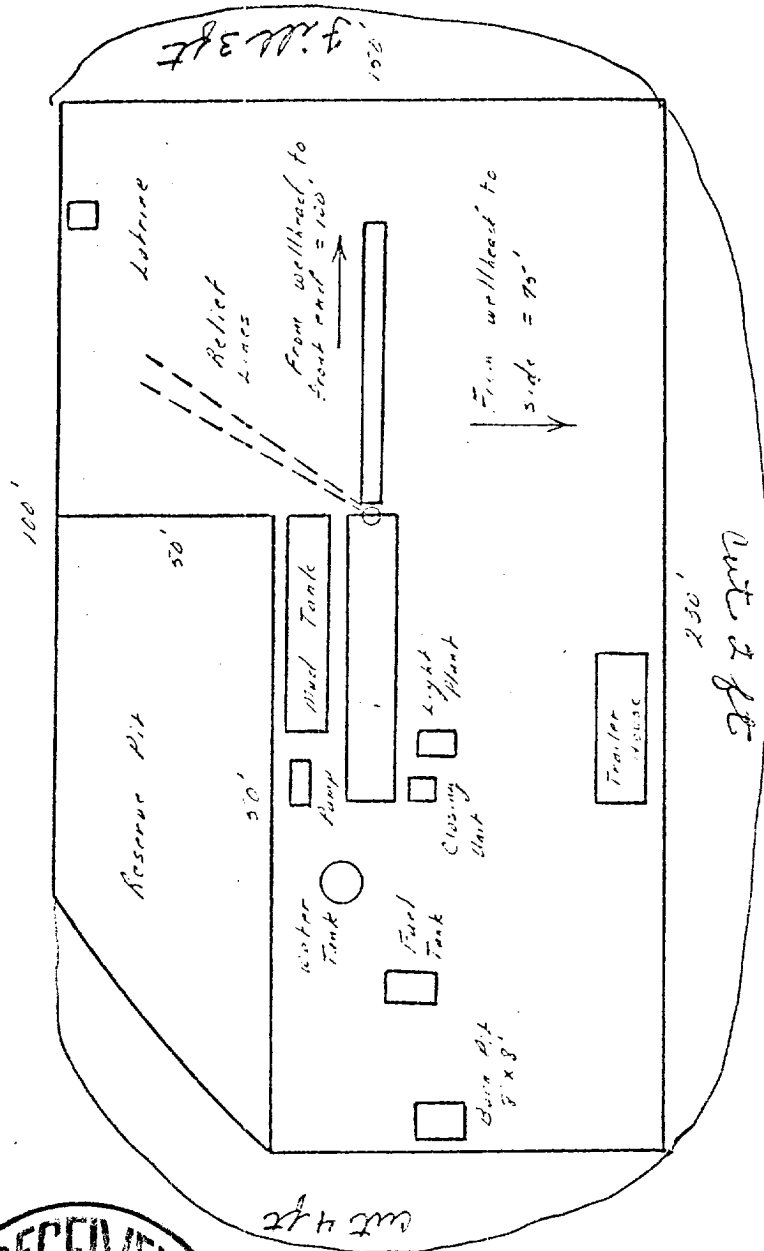
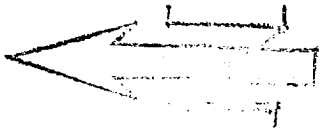


Typical Mud Drilled B.O.P. Installation
for Pictured CUIs Well



Series 900 Double Gate BOP, rated
at 3000 psi Working Pressure

El Paso Natural Gas Company
 Typical Location Plot for Pictured Cliffs Well
 Well # 16 NE 4-31-11 PC



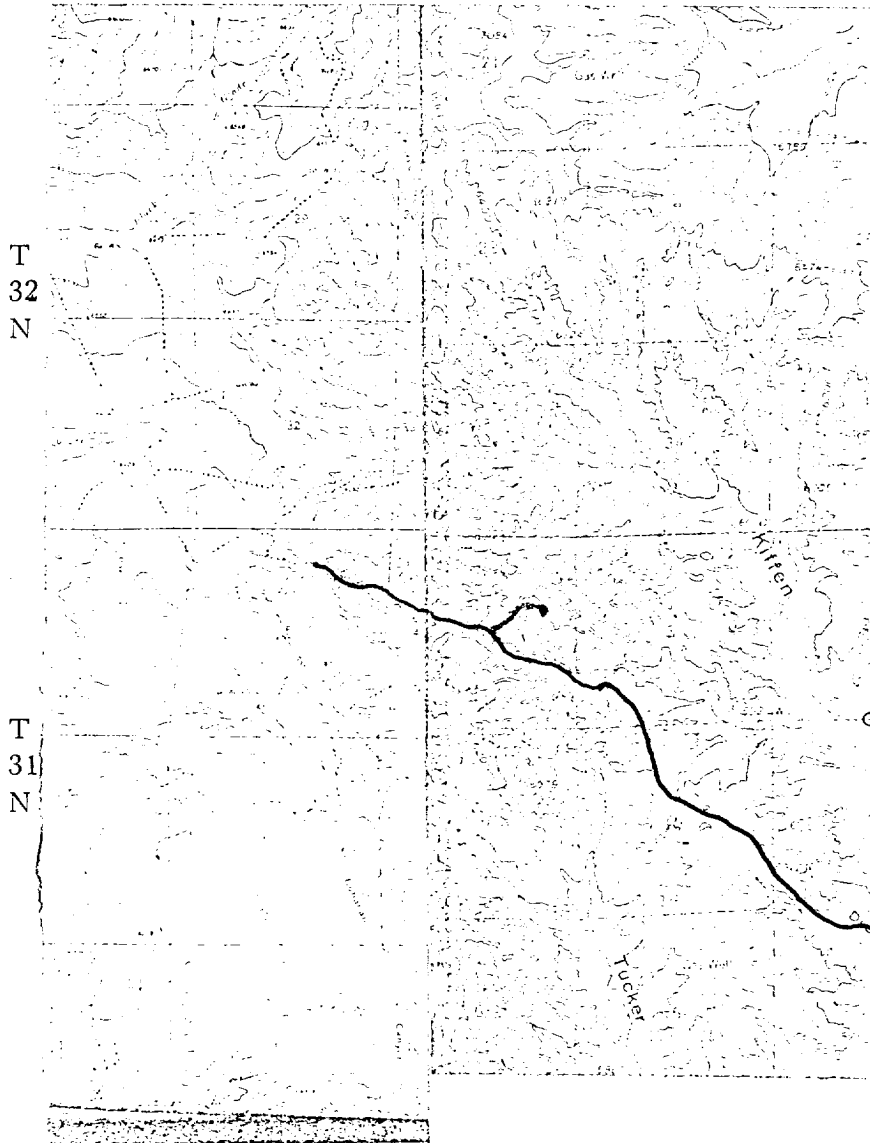
Scale: 1" = 20'

EL PASO NATURAL GAS COMPANY

Neil #16

NE 4-31-11

R-11-W



MAP #1

LEGEND OF RIGHT-OF-WAYS

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

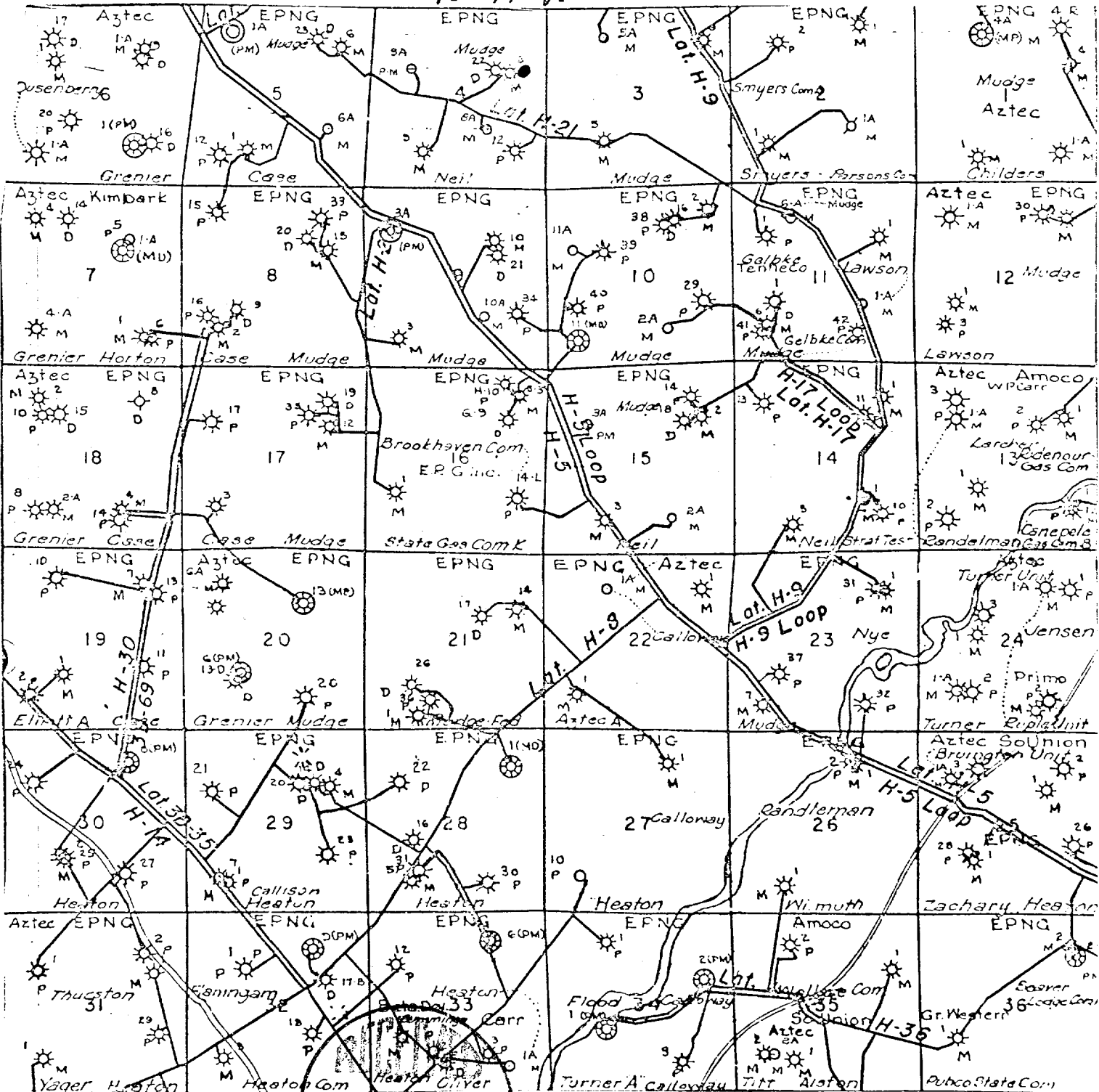
EL PASO NATURAL GAS COMPANY

Neil #16

NE 4-31-11

R-11-W

T
31
N



JUL 25 1978
OIL CON. COM.
DIST. 3

Map #2
Proposed Location