

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-015-24038

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

Storage

SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

El Paso Natural Gas Company

3. ADDRESS OF OPERATOR

1800 Wilco Building, Midland, Texas 79701

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

At surface

393' FSL 649' FEL

At proposed prod. zone
Same

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

6 miles SW Whites City, New Mexico

15. DISTANCE FROM PROPOSED*

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

NA

16. NO. OF ACRES IN LEASE

NA

17. NO. OF ACRES ASSIGNED
TO THIS WELL

NA

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

NA

19. PROPOSED DEPTH

±7,050'

20. ROTARY OR CABLE TOOLS

Rotary

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

3757' GR

22. APPROX. DATE WORK WILL START*

Feb. 1, 1982

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
16"	13 3/8" cond.	29.3 H-40	40'	30 Cu. ft. CIRCULATE
12 1/4"	9 5/8"	32.3 H-40	800'	630 cu. ft. to circulate
8 1/2"	7"	23.0 H-80	7,050'	1341 Cu. ft.

Project approved by NMOC Order No. R-6175-A.

Selectively perforate and treat the Morrow formation for gas storage.

A 3000 psi W.P. and 6000 psi test double gate BOP with blind and pipe
rams will be used for blowout prevention.

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 prevention program, if any.

24.

SIGNED

TITLE

Drilling Engineer

DATE

December 4, 1981

(This space for Federal or State office use)

PERMIT NO.

APPROVED

APPROVAL DATE

APPROVED BY
CONDITIONS OF APPROVAL

JAMES A. GILLHAM

TITLE

DATE

DEC 28 1981

JAMES A. GILLHAM
DISTRICT SUPERVISOR

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

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

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

Operator El Paso Natural Gas Co.			Lease Washington Ranch Storage Project <i>WI 720</i>		Well No. WI 17 17
Unit Letter P	Section 33	Township 25-S	Range 24-E	County Eddy County, New Mexico	
Actual Well Location of Well: 393 feet from the South line and 649 feet from the East line					
Ground Level Elev. 3757	Enclosing Formation Morrow	Pool Washington Ranch		Dedicated Acreage: N/A Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. NA
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). NA
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? NA

☐ 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.

Project Approved by NMOCD
Order No. R-6175-A

SECTION 33

WI#17 649'

393'

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

G. D. Mickey
G. D. Mickey

Name

Drilling Engineer

Position

El Paso Natural Gas Co.

Company

December 4, 1981

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.

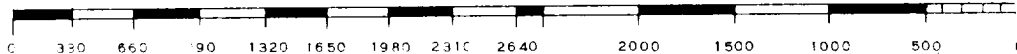
Date Surveyed

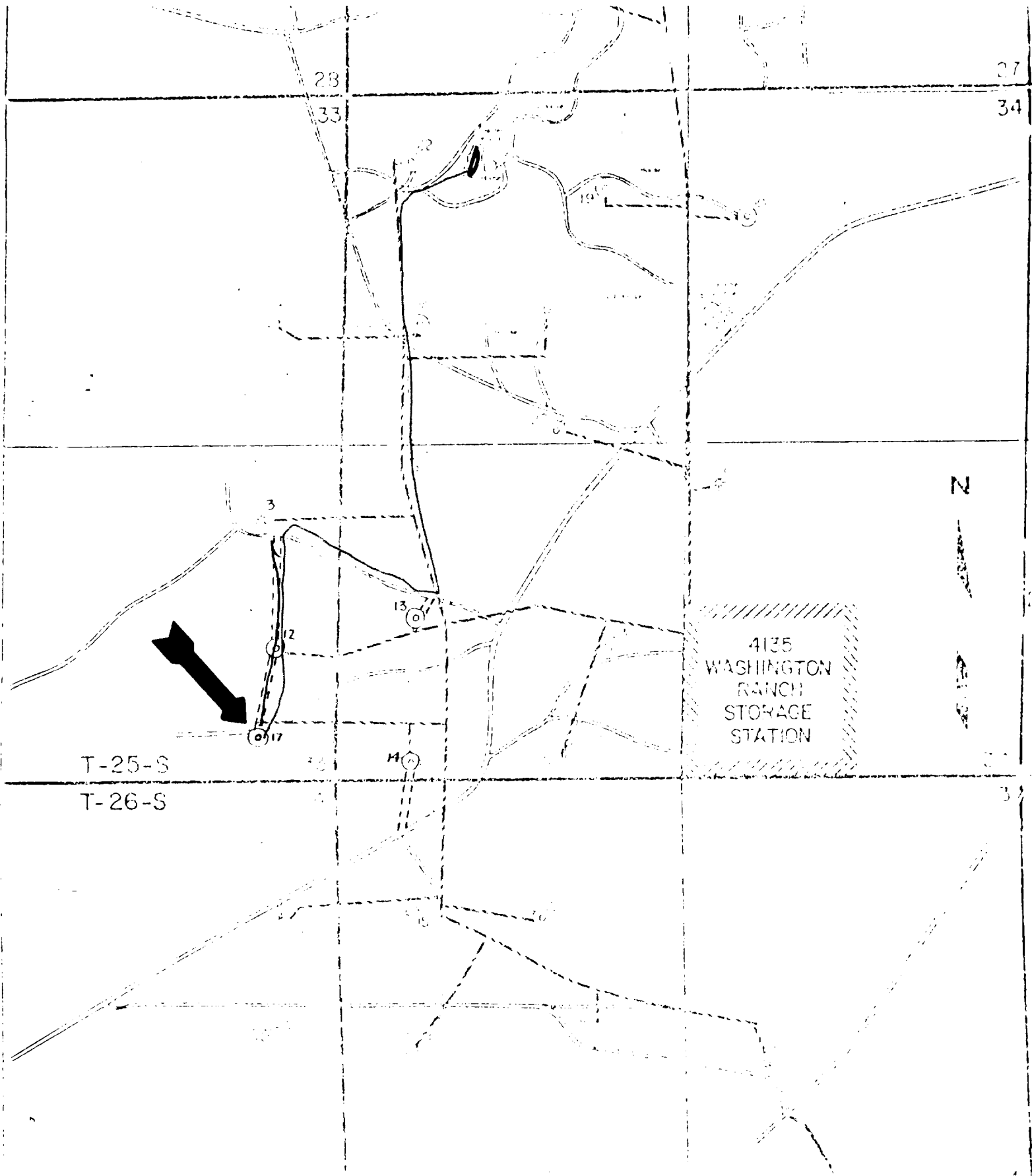
4-21-81

Registered Professional Engineer
and/or Land Surveyor

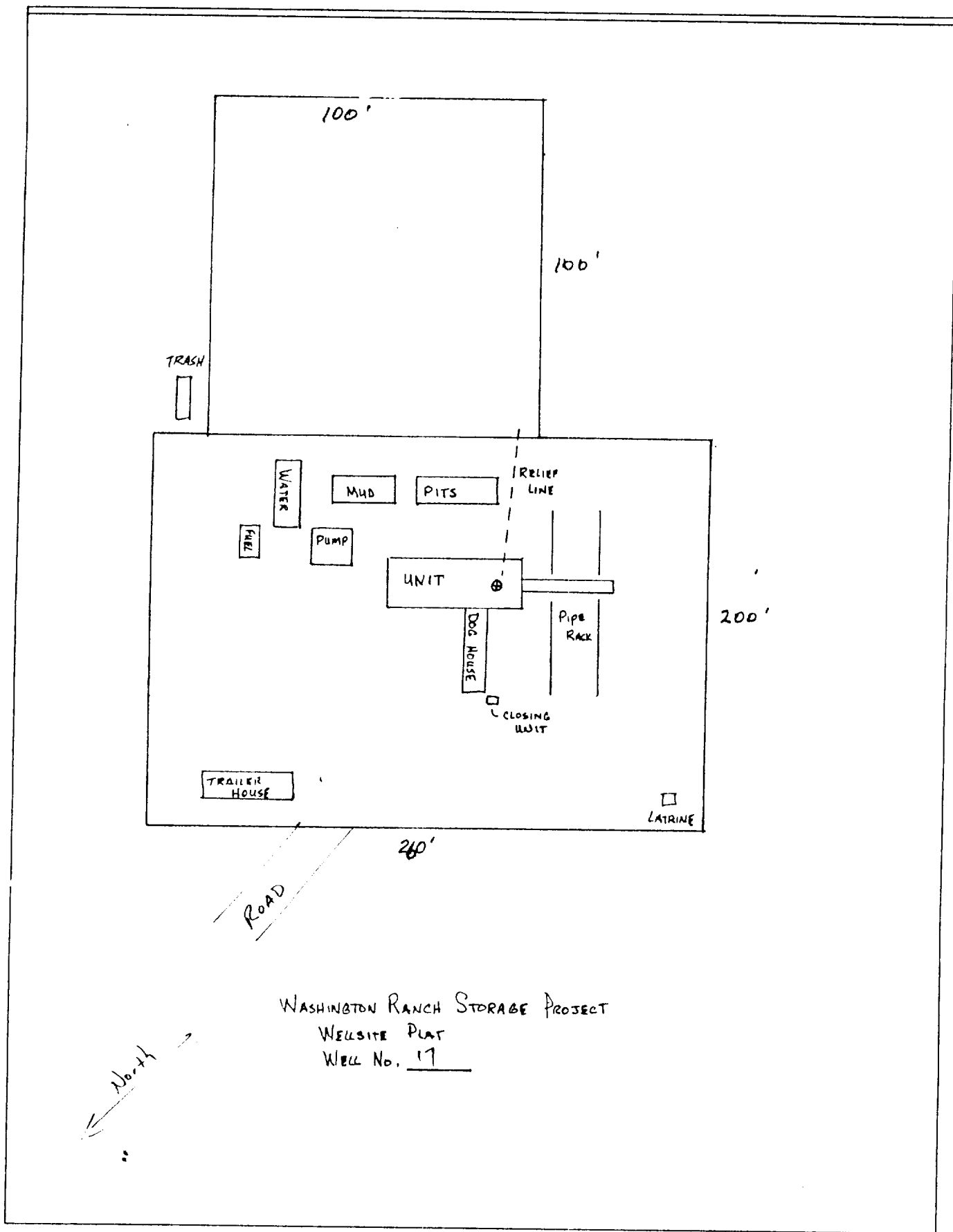
Earl R. Montell

Certificate No.
LS #1317





-  Temp. Water Line
-  Existing Roads
-  Proposed Roads
-  Proposed Pipeline
-  Existing Wells
-  Proposed Wells



OPERATIONS PLAN

Washington Ranch Storage Project W.I.

I. Location:

Section , T- -S, R-24-E
Eddy County, New Mexico

Field:

Washington Ranch

Elevation:

GR

II. Geology:

A. Formation Tops:

Surface	Quaternary
Castile	180
Lamar	500
Dela. Ss	575
Cherry Cn	1,475
Bone Spring	3,550
Wolfcamp	5,550
Strawn	5,685
Atoka	6,950
Morrow Ls	6,500
Morrow Clastics	6,620
T.D.	= 7,050

B. Logging Program:

FDC-CNL
Dual Induction - SFL @ SP & GR curves
BHC-Sonic

C. Coring:

None

III. Drilling:

A. Mud Program:

Fresh water non-dispersed mud from surface
to coring point.
Use low fluid loss non-dispersed mud from
coring point to T.D.

IV. Materials:

A. Casing Program:

HOLE SIZE	DEPTH	CSG SIZE	WT & GRADE
16"	40'	13 3/8"	29.3# H-40
12 1/4"	800'	9 5/8"	32.3# H-40
8 1/2"	7,050'	7"	23.0# N-80

B. Float Equipment:

13 3/8" conductor - None
 9 5/8" surface - Cement guide shoe, orifice fill insert float two jts off bottom, centralizers on jts 1, 3, 5, 7, 9, 11
 7" production - Cement guide shoe, float collar at top of first jt, one centralizer and four turbolizers per jt for first 16 jts, one centralizer every 3rd jt for 21 jts thereafter. Rough coat bottom 1,500' of casing.

C. Tubing:

7,000 ft. 2 7/8" 6.5# J-55

D. Wellhead Equipment:

Bradenhead, 9 5/8" OD slip-on X 11" 3000# W.P.
 @ 10" X 7" CD hanger
 Tbg Spool 11" 3000# W.P. X 7 1/16" 5000# W.P.
 with 6" X 2 7/8" CD hanger
 Upper Run: 3 1/8" 5000# W.P. master valve
 and production valves.

V. Cementing:

A. Conductor Casing (15" X 13 3/8"):

Cement in place with redi-mix aggregate cement (approx. 2 yds), WOC 12 hrs.

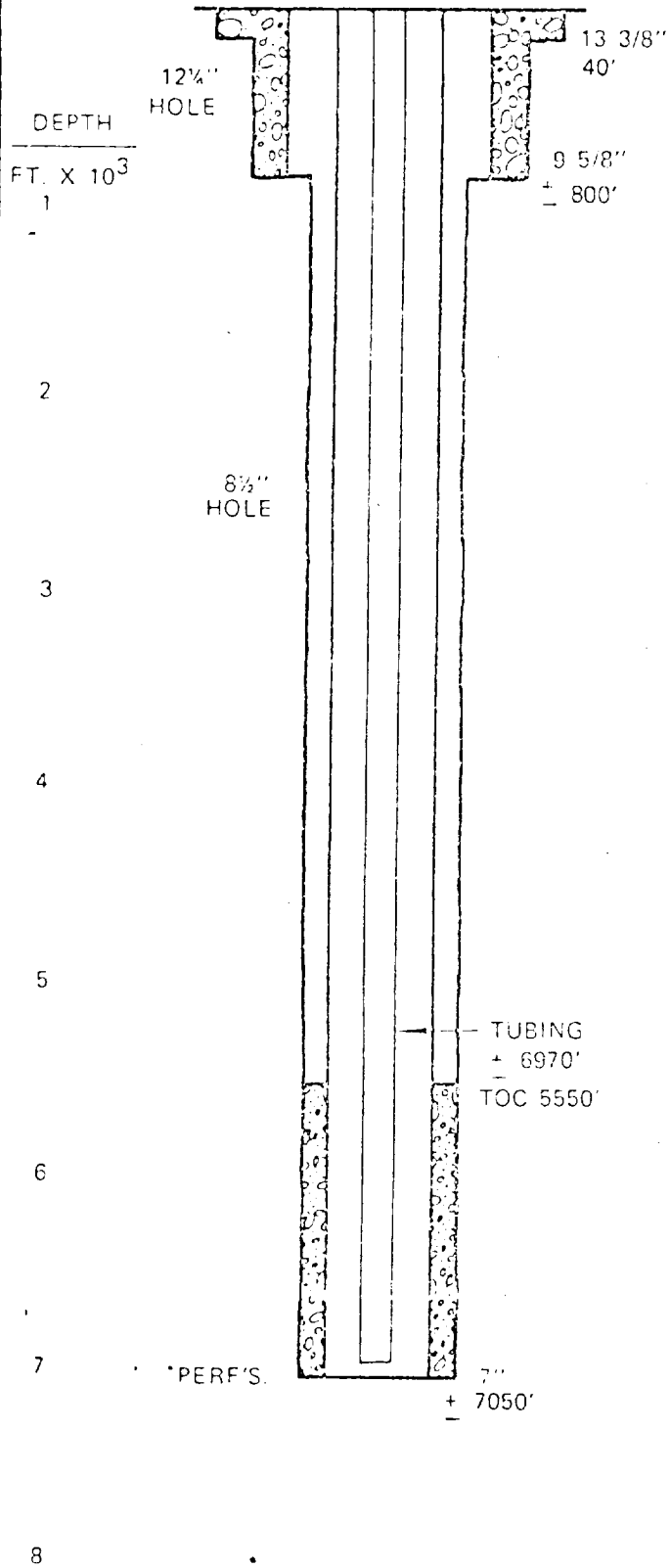
B. Surface Casing (12 1/4" X 9 5/8"):

Use 480 sx Class "C", 2% CaCl₂ and 5 lbs Kolite and 1/4# Celloflute per sack. (630 cu. ft., 150% excess to circulate to surface). WOC 8 hrs. Test csg to 800 psi for 30 min. before drilling plug.

C. Production Casing (8 1/2" X 7"):

Use caliper volume plus 20% to fill to approx. 5,550'. Cement with approx. 250 sx Class "H" plus 4% gel and 10% salt, 0.5% DGS and 10 lbs Kolite. WOC 18 hrs. Run temperature survey after 8 hrs.

WASHINGTON RANCH PROPOSED NEW I-W WELL



SIZE	GRADE	WT	BURST	COLLAPSE	DRIFT ID
13 3/8"	USED				
9 5/8"	H-40	32.3	2270	1400	8.845
7"	K-55	23	4360	3270	6.241
2 7/8"	J-55	6.5	7260	7680	2.441
*N-80					

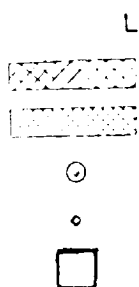
*AVG. MID. PERF. 6970'

T-25-S

T-26-S

R-24-E

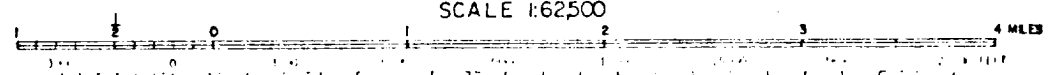
Active Area
NMOCD
Order #R 6175-A



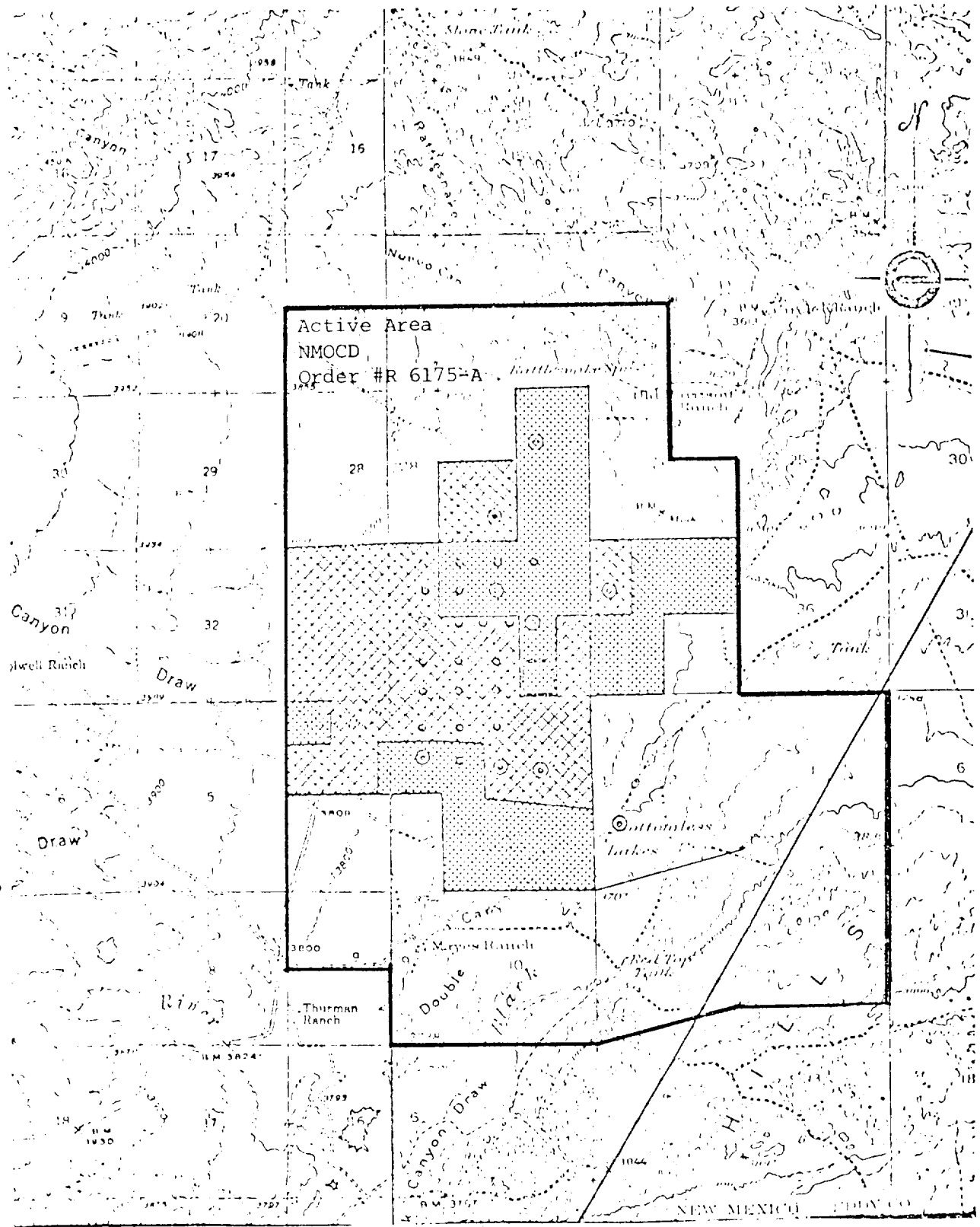
U.S. LAND
FEE LAND
EXISTING WELL
PROPOSED WELL
PROPOSED PLANT SITE

WASHINGTON RANCH STORAGE PROJECT

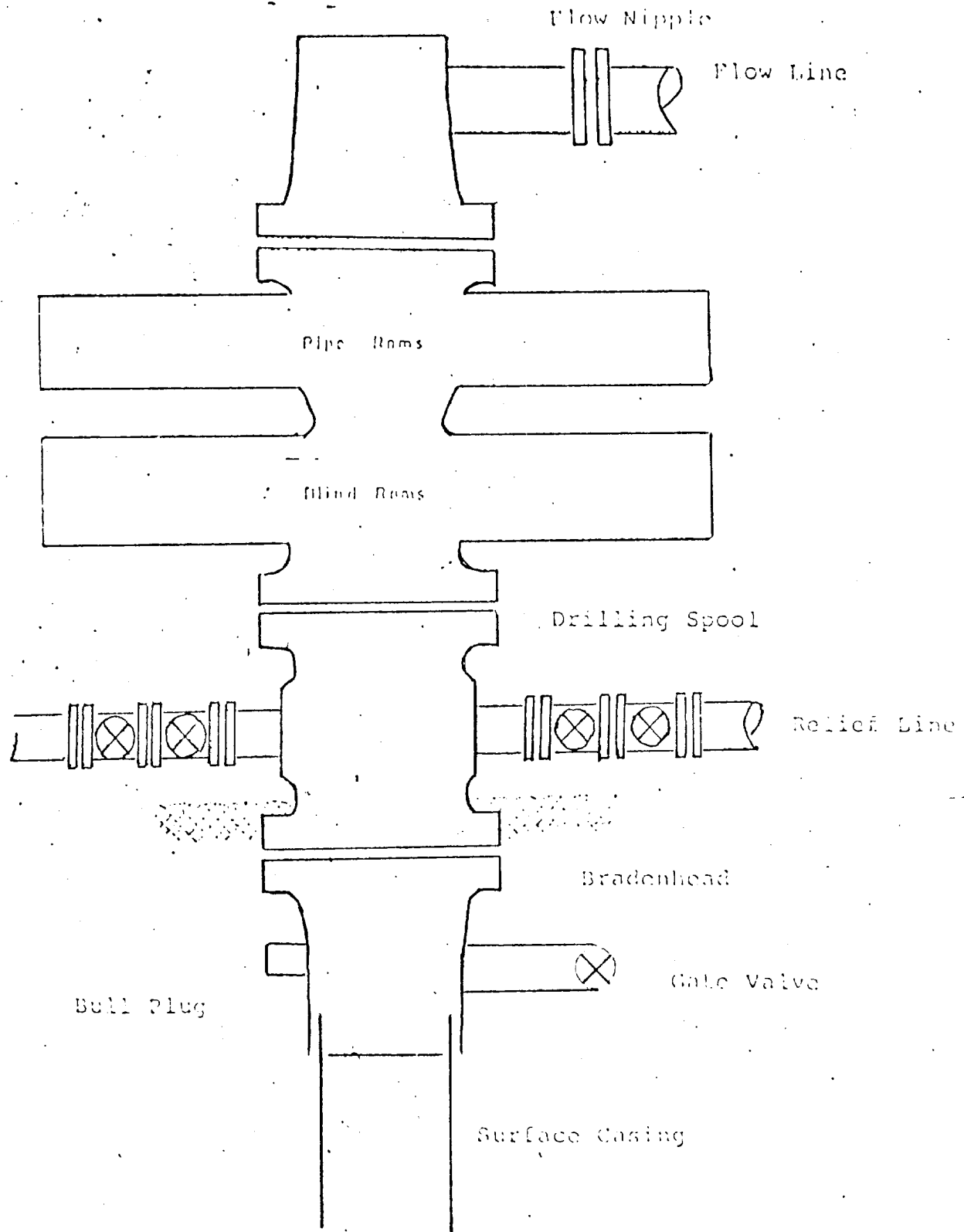
SCALE 1:62500



C contour interval 25 FEET
ELEVATION IN FEET



Typical B.O.P. Installation



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