

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

C/SF

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 Co.

3. ADDRESS OF OPERATOR

1800 Wilco Bldg., Midland, Texas 79701

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

At surface

950' FNL, 950' FWL

At proposed prod. zone

Same

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

6 Miles SW Whites City, NM

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

7050 +

20. ROTARY OR CABLE TOOLS

Rotary

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

3727 GR

22. APPROX. DATE WORK WILL START*

February 1982

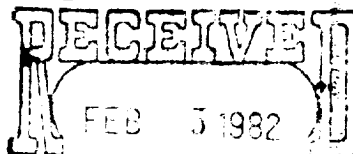
23.

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 1/2"	9 5/8"	32.3 H-40	800'	630 cu.ft. Circulate
8 1/2"	7"	23.0 N-80	7050'	1341 cu.ft.

Project approved by NMOCD 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.



OIL & GAS
U.S. GEOLOGICAL SURVEY
ROSWE, NEW MEXICO

Posted ID-1
+ NL Book
Amended Location
3-5-82

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

L. F. Mitchell

TITLE Area Drilling Eng.

DATE 2-4-82

(This space for Federal or State office use)

PERMIT NO.

APPROVED

APPROVAL DATE

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY

FEB 22 1982

JAMES A. GILLHAM
DISTRICT SUPERVISOR

TITLE

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

DATE

See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION LAT

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

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

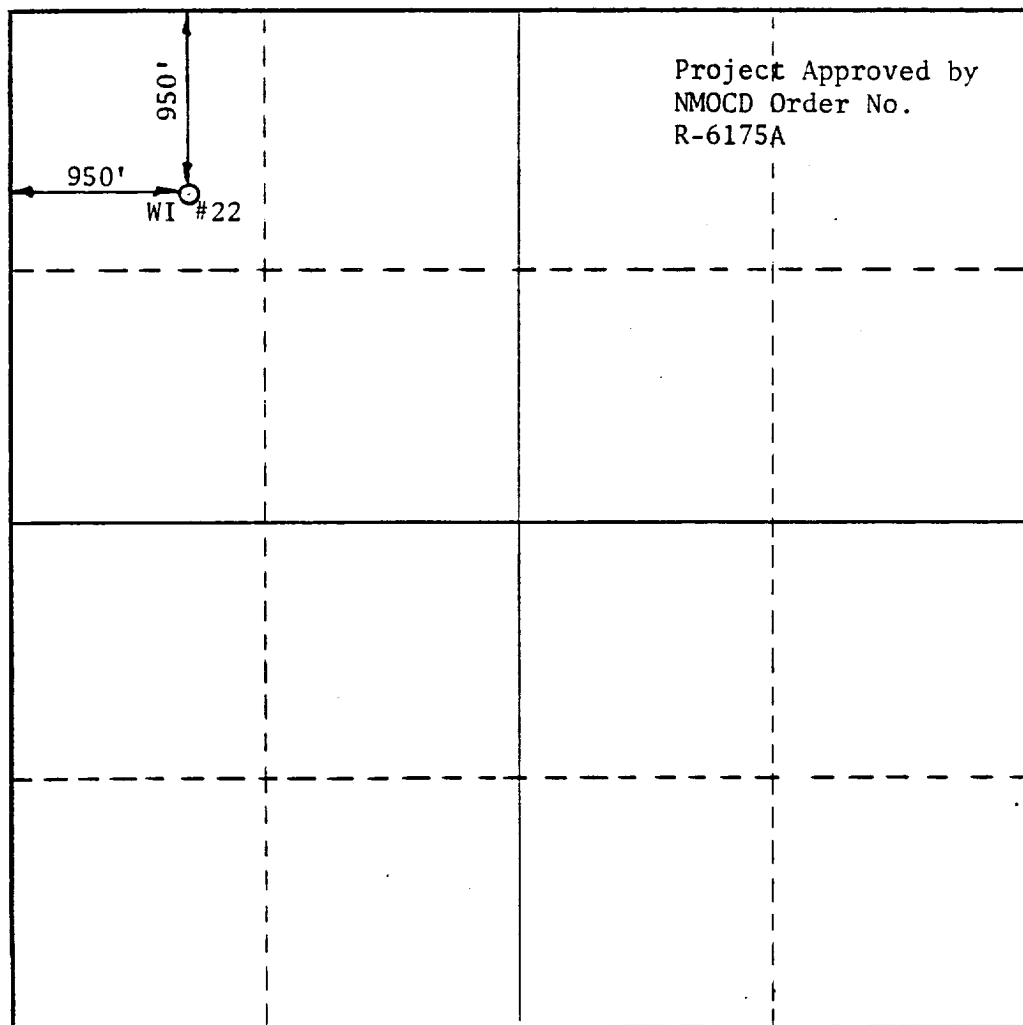
Operator El Paso Natural Gas Company			Lease Washington Ranch Storage Project		Well No. WI #22
Unit Letter D	Section 34	Township 25-S	Range 24-E	County Eddy County, New Mexico	
Actual Footage Location of Well: 950 feet from the North line and 950 feet from the West line					
Ground Level Elev. 3727'	Producing 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.
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. L. Mitchell
 Name

H. L. Mitchell

Position

Area Drilling Eng.

Company

El Paso Natural Gas Co.

Date

2-4-82

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.

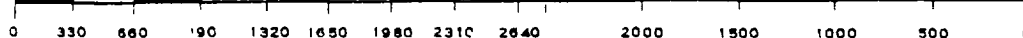
Date Surveyed

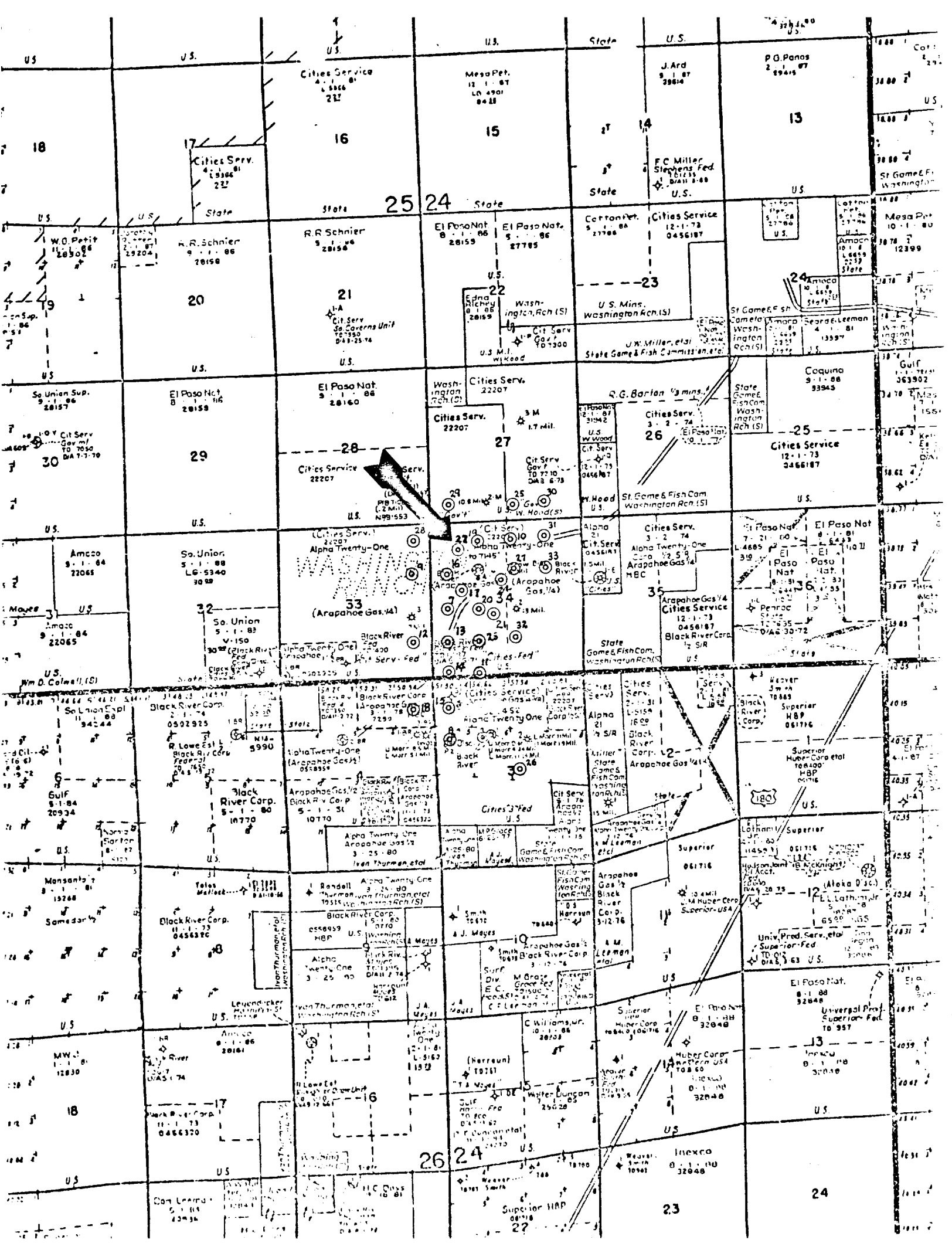
1/26/82

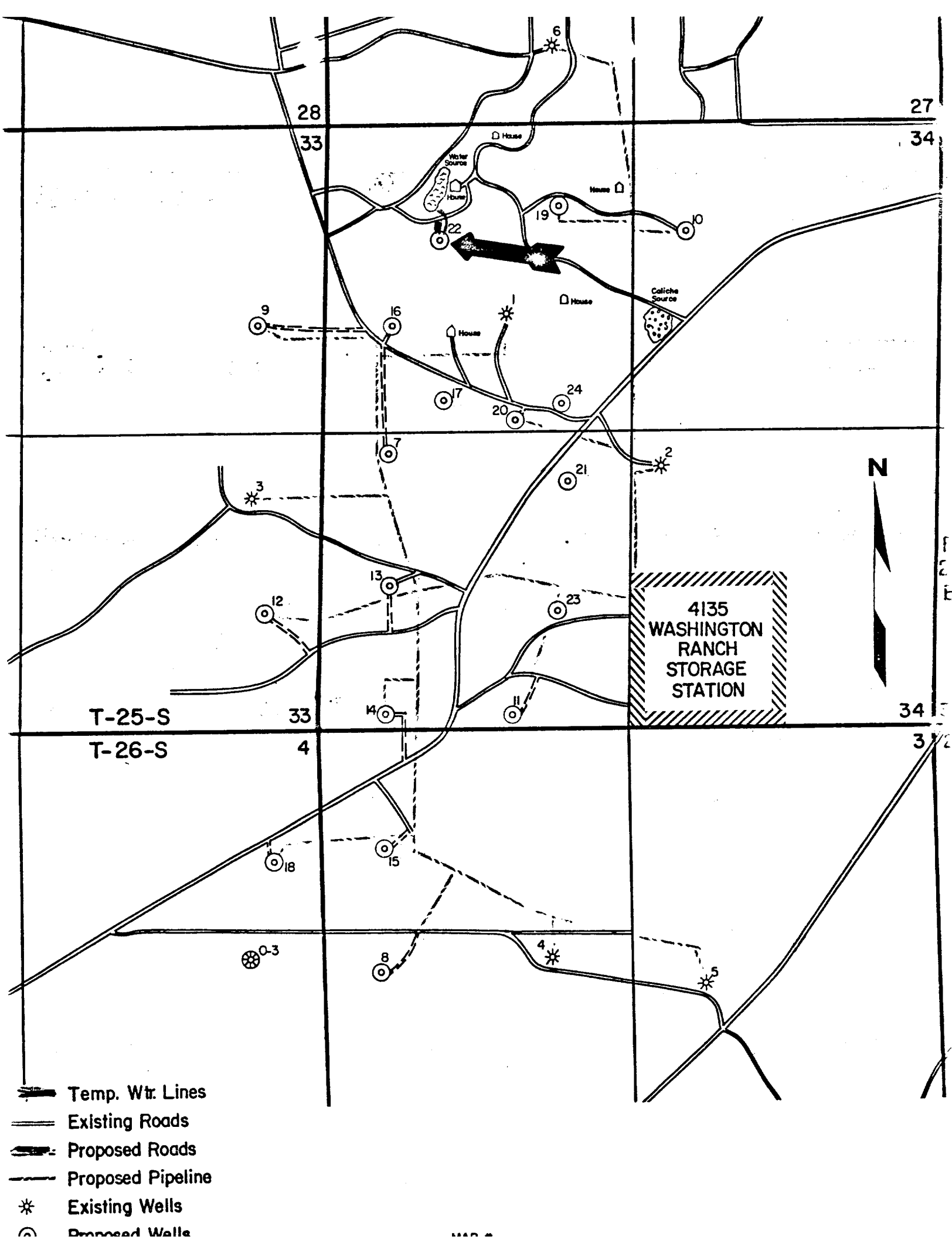
Registered Professional Engineer and/or Land Surveyor

E. J. Monteth
 Certificate No.

LS #1317







OPERATIONS PLAN

Washington Ranch Storage Project W.I. 22

I. Location:

Section 34, T-25-S, R-24-E
Eddy County, New Mexico

Field:

Washington Ranch

Elevation: 3727 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.	<u>+ 7,050</u>

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:

<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CSG SIZE</u>	<u>WT & GRADE</u>
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" OD 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.

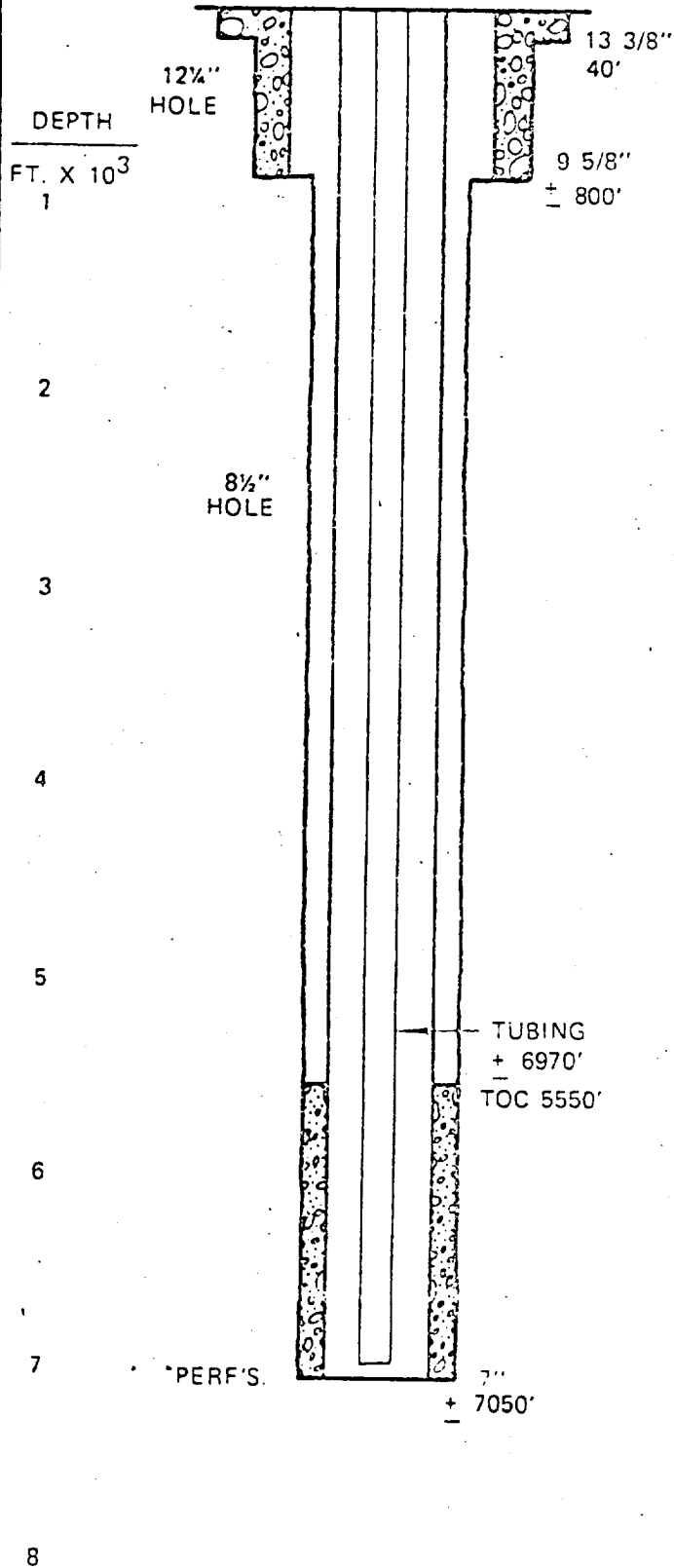
B. Surface Casing (12 1/4" X 9 5/8"):

Use 480 sx Class "C", 2% CaCl₂ and 5 lbs Kolite and 1/4# Celloflate 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"):

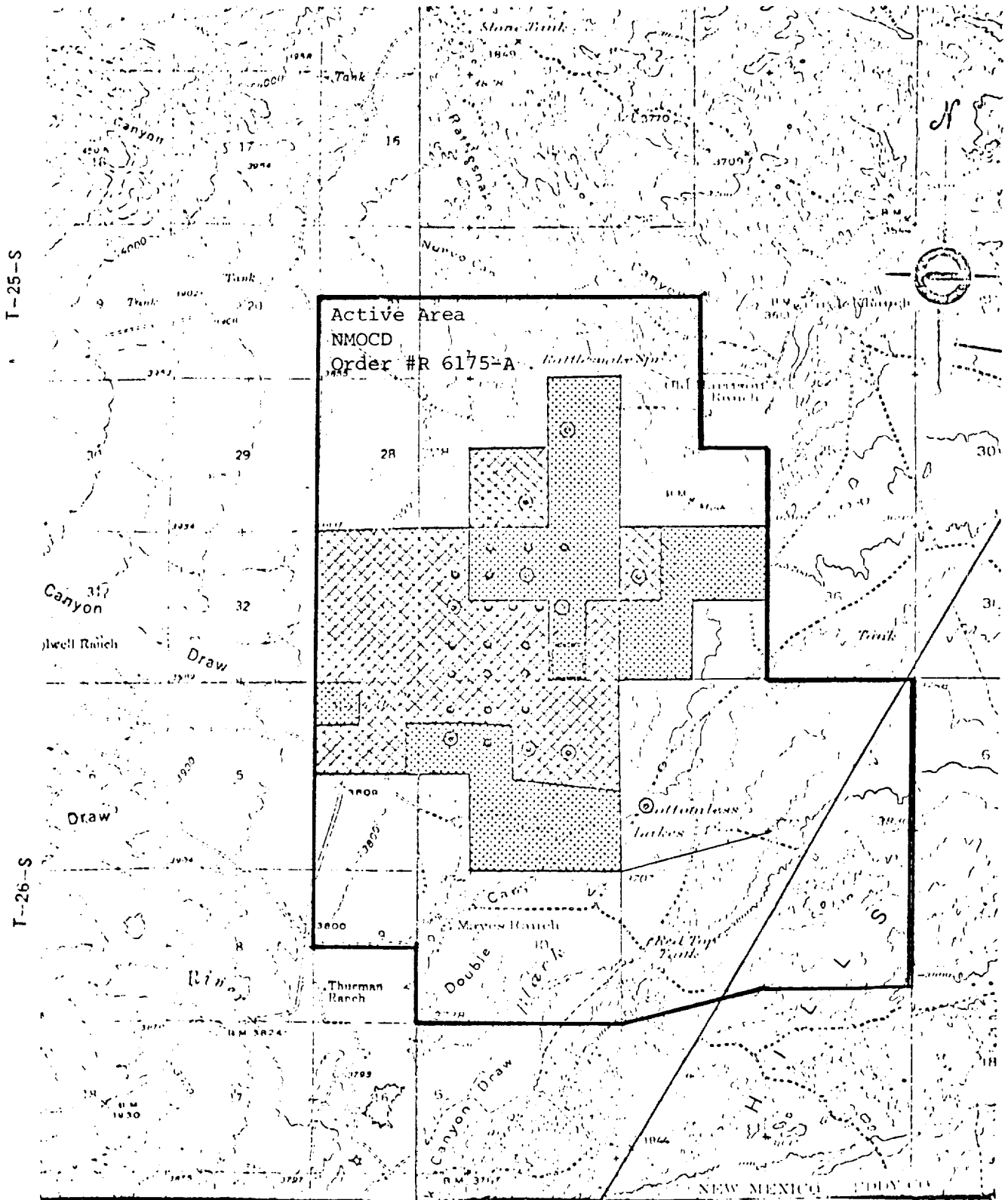
Use caliper volume plus 20% to fill to approx. 5,550'. Cement with approx. 250 sx Class "H" plus 4% gel and 10% salt, 0.5% D65 and 10 lbs Kolite. WOC 18 hrs. Run temperature survey after 8 hrs.

WASHINGTON RANCH PROPOSED NEW I-W WELL



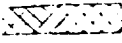
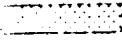
SIZE	GRADE	WT	BURST	COLLAPSE	DRIFT ID
13 3/8"	USED				
9 5/8"	H-40	32.3	2270	1400	8.845
7"	K-55 *	23	4360	3270	6.241
2 7/8"	J-55	6.5	7260	7680	2.441
*N-80					

*AVG. MID. PERF. 6970'

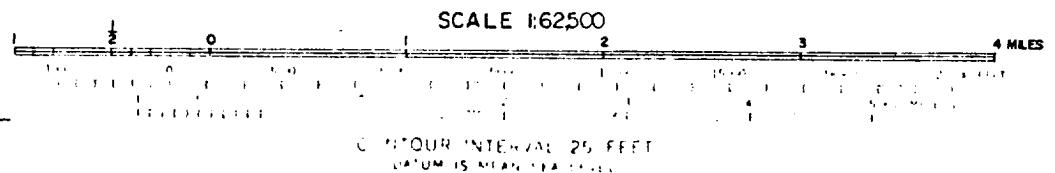


R-24-E

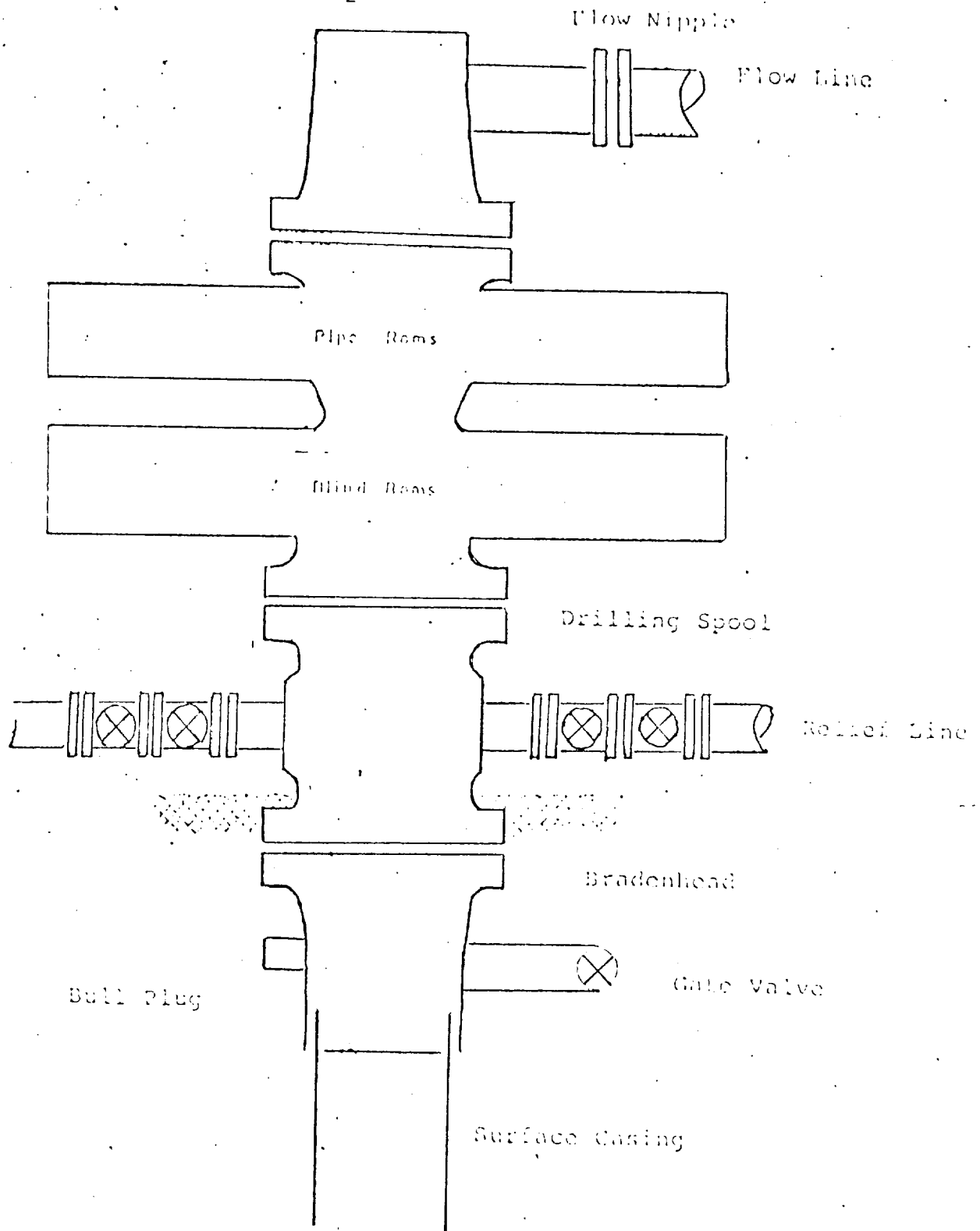
LEGEND

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

WASHINGTON RANCH STORAGE PROJECT



Typical B.G.P. Installation



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