

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-015-24053

5. LEASE DESIGNATION AND SERIAL NO.

USA NM 0525452-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM, OR LEASE NAME

Washington Ranch
Storage Project WI

9. WELL NO.

WI Federal 21

10. FIELD AND POOL, OR WILDCAT

Washington Ranch Morrow

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

Sec. 3, T26S, R24E

11-C

12. COUNTY OR PARISH

Eddy

13. STATE

New Mexico

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 RECEIVED

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

At surface

1007 ENL, 1715 FWL

At proposed prod. zone

Same

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

6 miles SW Whites City, New Mexico

O.C.D.
ARTESIO, CABLE

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.)

3,738 GR

22. APPROX. DATE WORK WILL START*

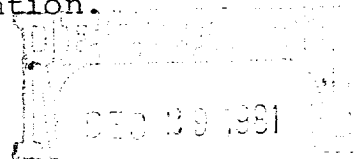
March, 1982

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.
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 NMOCD Order No. P-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 preventer program, if any.

24.

SIGNED

TITLE Drilling Engineer

DATE Dec. 4, 1981

(This space for Federal or State office use)

PERMIT NO.

APPROVED

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY

JAN 7 1982

JAMES A. GILLHAM
DISTRICT SUPERVISOR

*See Instructions On Reverse Side

NE EXICO 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.

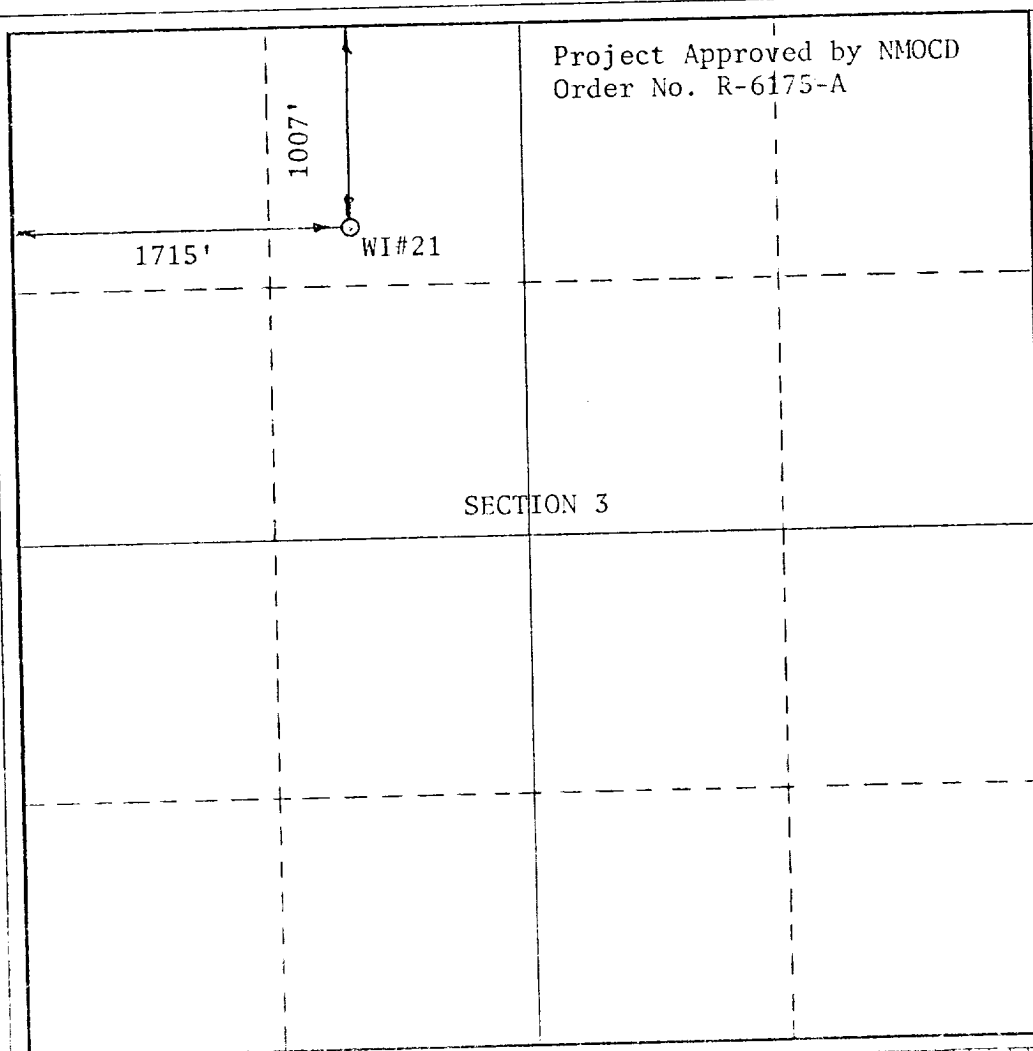
Operator El Paso Natural Gas Co.		Lease Washington Ranch Storage Project		Well No. WI#21
Unit Letter C	Section 3	Township 26-S	Range 24-E	County Eddy County, New Mexico
Actual Storage Location of Well: 1007 feet from the North line and 1715 feet from the West line				
Ground Level Elev. 3738	Producing Formation Morrow	Pool Washington Ranch <i>known</i>	Dedicated Acreage: N/A Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below. NA
- 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
- 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

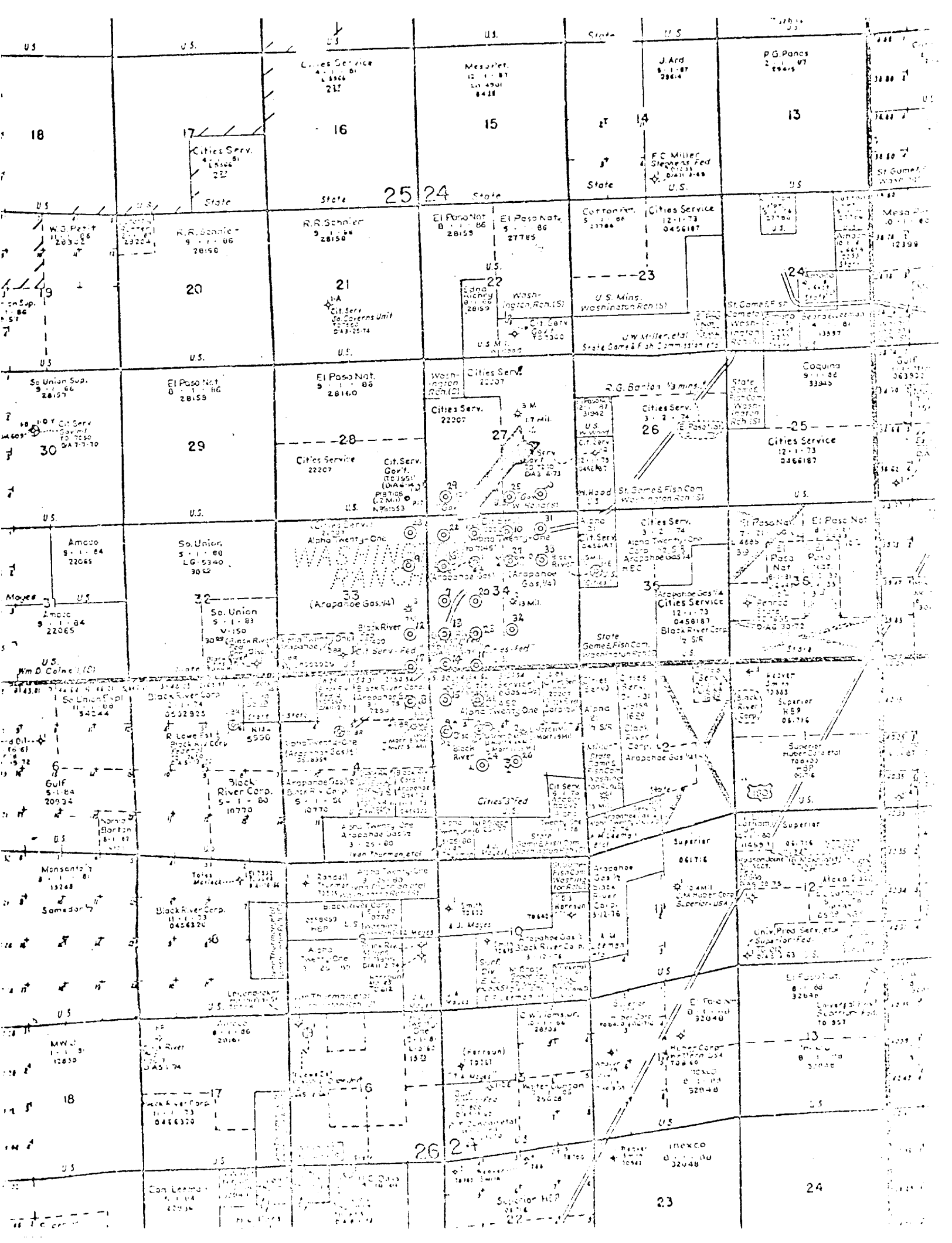
☐ Yes ☐ No If answer is "yes," type of consolidation _____

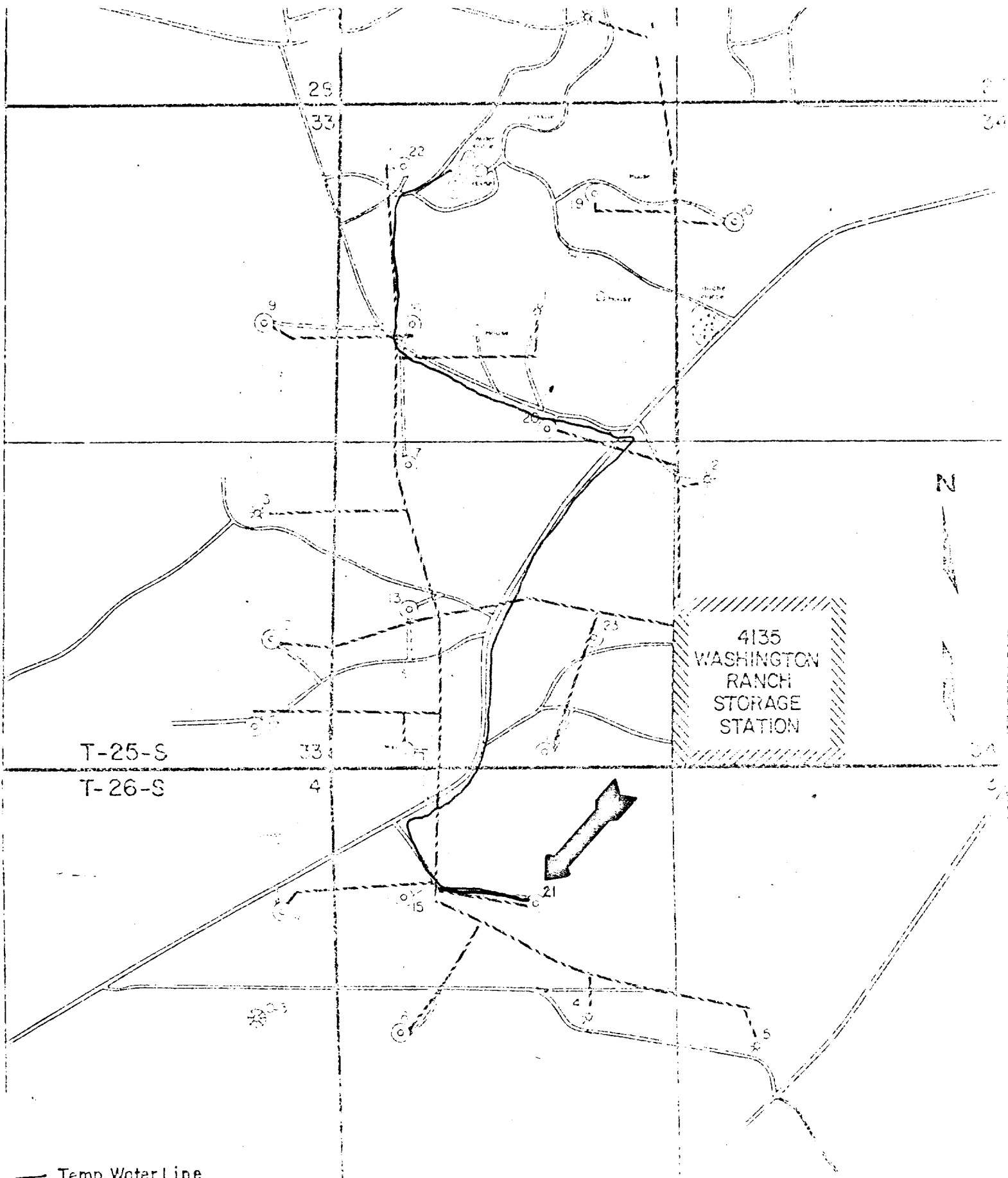
If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

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.



CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
<i>G. D. Mickey</i>	
Name	G. D. Mickey
Position	Drilling Engineer
Company	El Paso Natural Gas Co.
Date	December 4, 1981
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	4-22-81
Initialed and signed by me and/or Land Surveyor	
<i>E. R. Smith</i>	
Certified to No. LS 44317	





- 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:

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

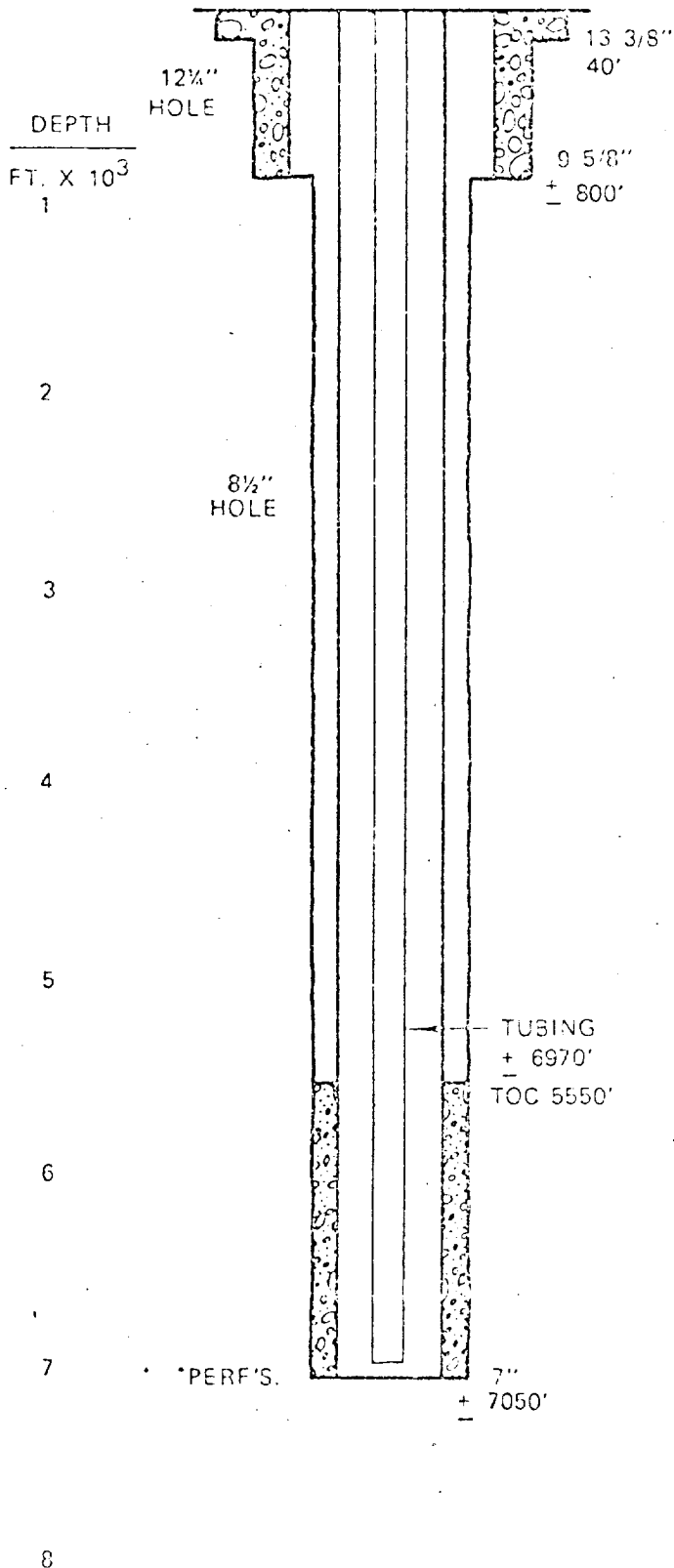
B. Surface Casing (12 1/4" X 9 5/8"):

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	5.241
2 7/8"	J-55	6.5	7260	7680	2.441
*N-80					

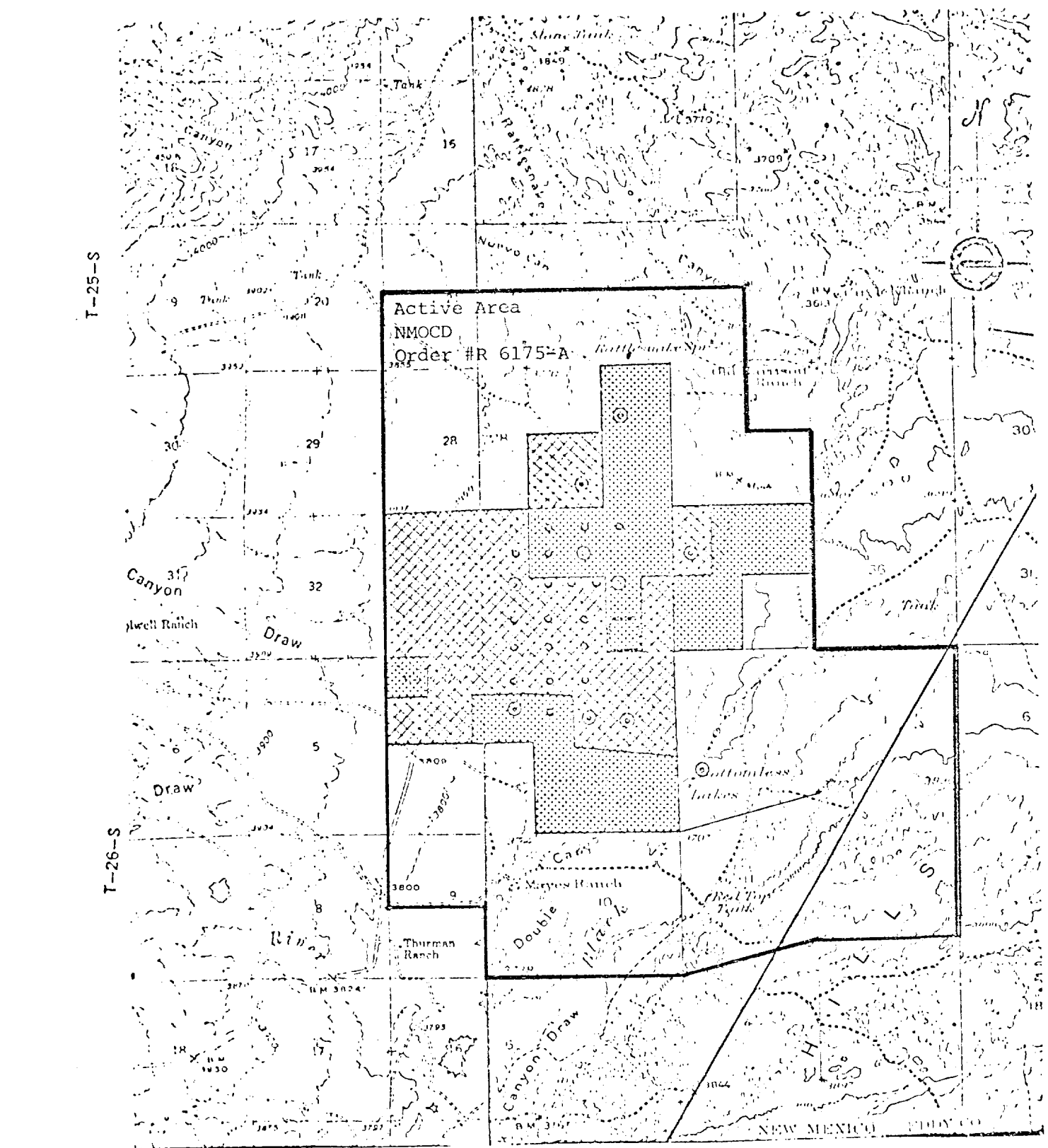
*AVG MID. PERF. 6970'

T-25-S

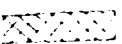
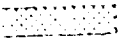
T-26-S

R-24-E

Active Area
NMOCD
Order #R 6175-A

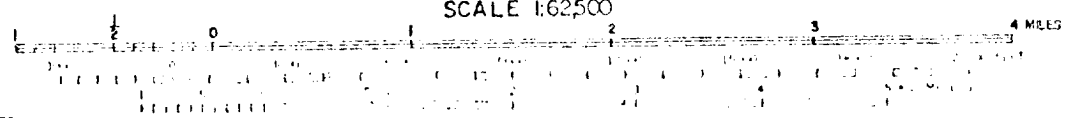


LEGEND

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

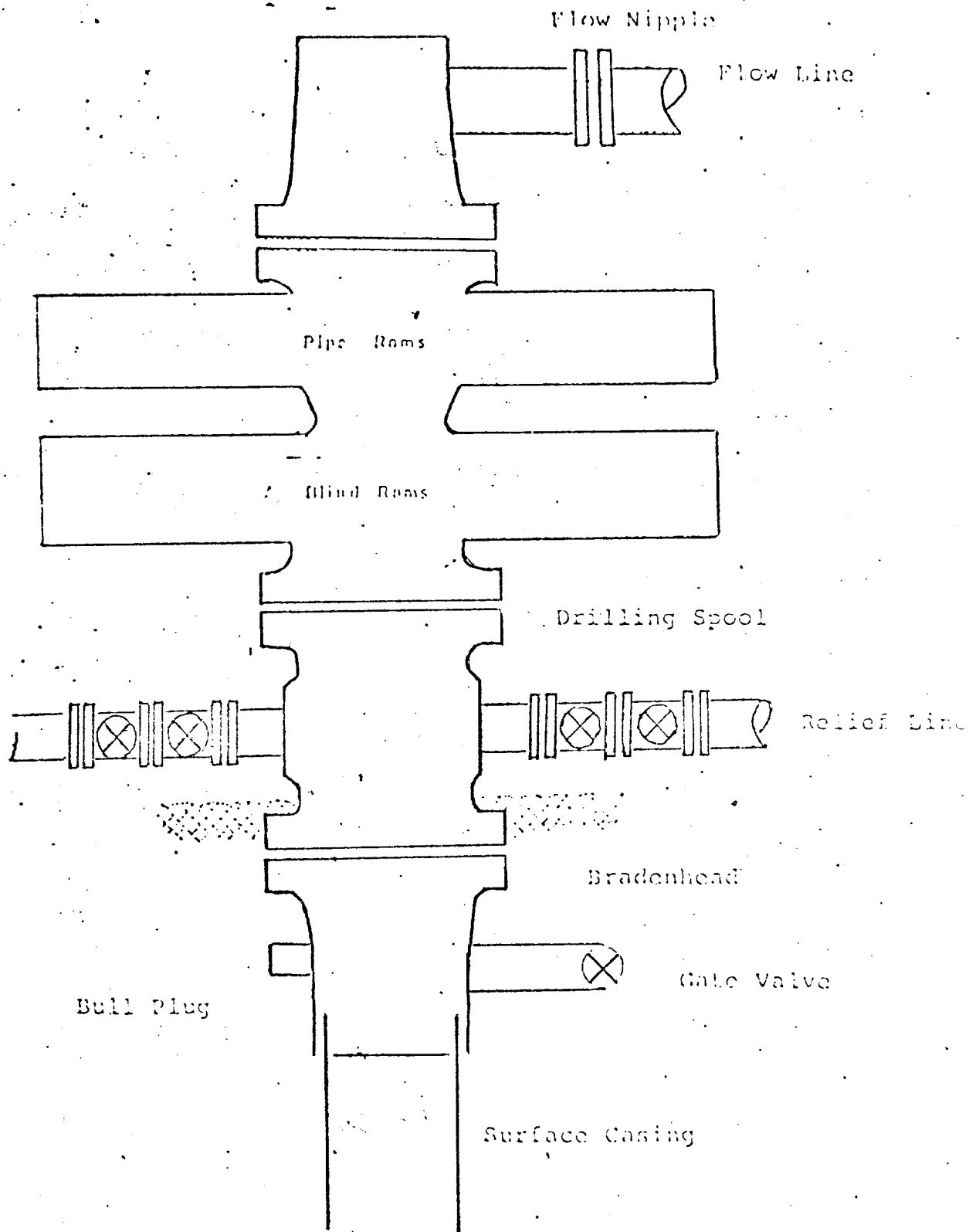
WASHINGTON RANCH STORAGE PROJECT

SCALE 1:62500



EACH INTERVAL 25 FEET
VERTICAL IS MEAN SEA LEVEL

Typical B.G.P. Installation



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