

N. M. O. G. C. COPY

SUBMIT IN 'PLICATE*
(Other instructions on
reverse side)Form approved.
Budget Bureau No. 42-R1425.UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR
Union Oil Company of California

3. ADDRESS OF OPERATOR
P.O. Box 671 - Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface
860' FNL & 2160' FEL
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
3 miles east of Carlsbad

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY (A LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
860

16. NO. OF ACRES IN LEASE
320

17. NO. OF ACRES ASSIGNED TO THIS WELL
320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
-

19. PROPOSED DEPTH
11850'

20. ROTARY OR CABLE TOOLS
Rotary

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

22. APPROX. DATE WORK WILL START*
On approval

12. COUNTY OR PARISH
Eddy

13. STATE
N.M.

5. LEASE DESIGNATION AND SERIAL NO.
NM-0473303-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Federal "3"

9. WELL NO.
2

10. FIELD AND POOL, OR WILDCAT
Undesignated Morrow Gas

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 3, T-22S, R-27E

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17½"	13-3/8"	48	400	600 sx -circulate to surface
12½"	9-5/8"	40	5300	2500 sx
8½"	5½"	17	11850	Determine from log

3000 psi WP Manual/Hydraulic B.O.P. from 400 - 5300'
5000 psi WP Manual/Hydraulic B.O.P. from 5300' - T.D.
5000 psi WP Hydril and Rotating Head from 5300' - T.D.

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ARTESIA, NEW MEXICO

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 B. B. Bynum TITLE District Drilling Supt. DATE Sept. 25, 1973

(This space for Federal or State office use)

SUBJECT TO ATTACHED DEEP WELL CONTROL
REQUIREMENTS DATED APPROVAL DATE SEP 27 1973DECLARED WATER BASIN
1.33.9CEMENT BEHIND THE
CASING MUST BE CIRCULATEDAPPROVED
CONDITIONS OF APPROVAL, IF ANY:
K. E. SEEKWA
ACTING DISTRICT ENGINEERTHIS APPROVAL IS VOID IF OPERATIONS
ARE NOT COMMENCED WITHIN 3 MONTHS.
EXPIRES JAN 16 1974 See Instructions On Reverse SideNOTIFY USGS BY TELEPHONE TIME TO
WITNESS CEMENTING THE 1.33.9 CASING.



United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Drawer U
Artesia, New Mexico 88210

June 22, 1973

NOTICE

DRILLING WELL CONTROL REQUIREMENTS FOR DEEP WELLS DRILLED ON FEDERAL OIL AND GAS LEASES IN THE ARTESIA DISTRICT

The following requirements are established in accordance with 30 CFR 221.24, 221.36, and 221.41. Blowout preventer equipment, choke equipment, drilling fluid characteristics, drilling fluid monitors, and the conduct of drilling procedures shall be such as are necessary to prevent the blowout of any well. In addition to all other applicable rules, regulations, and accepted good operating practices, drilling shall be in accordance with the following safety requirements:

1. After setting the 15" casing string and before drilling into WALTON formation, the blowout preventers and related control equipment shall be pressure tested to rated working pressures by an independent service company. Any equipment failing to test satisfactorily shall be repaired or replaced. This office should be notified in sufficient time for a representative to witness the tests and shall be furnished a copy of the pressure test report. In addition, the pipe rams and bag-type preventer shall be actuated at least once each 24 hours and the blind rams each time the drill pipe enters the hole.
2. Accumulators shall be in a pressure capacity reserve at all times in order to permit operation of hydraulic preventers.
3. A drill pipe latch, if required in the open position shall be maintained on the rig floor at all times while drilling operations are being conducted.
4. Blowout prevention drills shall be conducted as necessary to insure that each drilling crew is properly trained to carry out emergency duties.
5. Mud pumps, including equipment, with derrick floor indicators and vision windows shall be installed and operating before

drilling into the WOLF CAMP
and used until production casing is run and cemented. Monitoring
equipment shall consist of the following:

- (1) A recording pit level indicator to determine pit volume gains and losses.
 - (2) A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.
 - (3) A flow sensor on the flow-line to warn of any abnormal mud returns from the well.
5. When coming out of the hole with drill pipe, the annulus shall be filled with mud before the mud level drops below 150 feet. The volume of mud required to fill the hole shall be watched, and any time there is an indication of swabbing, or influx of formation fluids, proper blowout prevention precautions must be taken. The mud shall not be circulated and conditioned except on or near bottom, unless well conditions prevent running the pipe to bottom.
7. A copy of these requirements shall be posted on the rig floor or in the dog house during the drilling of the well.


James A. Knauf
District Engineer

Lease No. W-1427323-A
Well W-1427323-A-110"
Drillsite W-1427323-A-275
Depth 110"
Approved W-1427323-A

MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form 100
Supersedes 100-1
1-1-70

All data are available from the public records of the State of New Mexico.

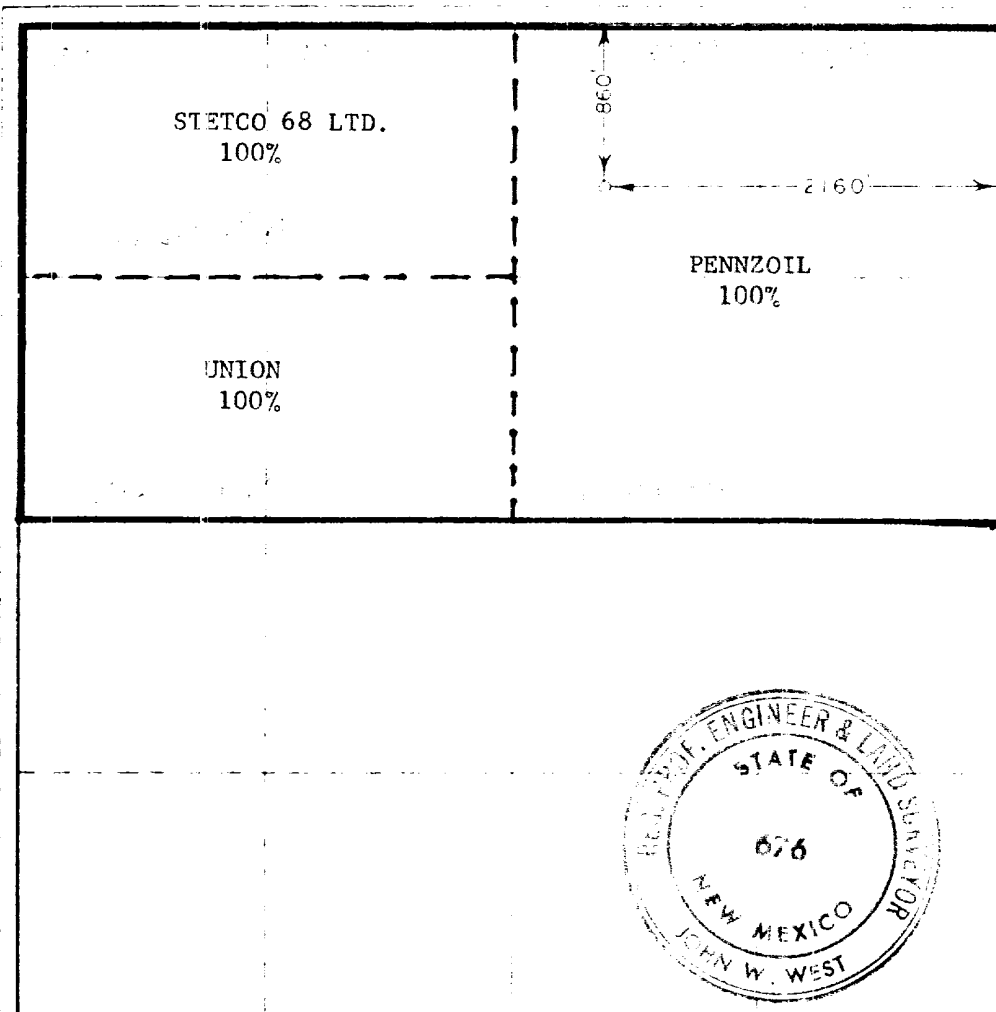
UNION OIL CO. OF CALIFORNIA		FEDERAL 3		2
B	3	22 SOUTH	27 EAST	EDDY
860	NORTH	2160	EAST	
Morrow		Undesignated Morrow Gas		320

- Outline the acreage dedicated to the subject well by colored pen. Do not have marks on the plat below.
- If more than one lease is dedicated to the well, list each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, forced pooling, etc.

☐ Yes ☒ No If answer is "Yes" give details as follows:

If answer is "No" list the owners and tract descriptions which have actually been consolidated. Use reverse side of this form if necessary. To be communitized upon completion

No allowance will be assigned to the well unit if interests have been consolidated by communitization, unitization, forced pooling, or otherwise for until a non-standard unit communitizing such interests has been approved by the Commission.



CERTIFICATION

I hereby certify that the information furnished hereon is true and correct to the best of my knowledge and belief.

D. D. Byrom

District Drilling Supt.

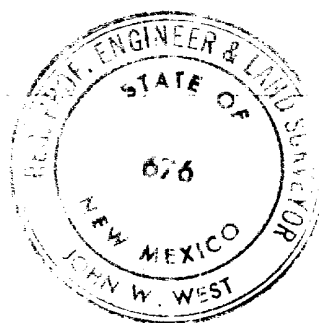
Union Oil Co. of California

September 25, 1973

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U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO



SEPTEMBER 21, 1973

Register of Deeds
County of Eddy

John W. West

Union Oil and Gas Division: Central Region
P. O. BOX 671
Union Oil Company of California
500 North Marienfeld, Midland, Texas 79701
Telephone (915) 682-9731



Midland District

September 25, 1973

U. S. Geological Survey
P. O. Drawer U
Artesia, New Mexico 88210

Gentlemen:

Federal "3" Well No. 2
Eddy County, New Mexico
Twelve-point Surface Use Plan

Attached herewith the "Application for Permit to Drill" on Federal lands is Union's Twelve-point Surface Use Plan.

- Item 1. Existing roads including location of the exit from main highway - EXHIBIT A.
2. Planned access roads - EXHIBITS A, B, & C. No new roads will need be constructed.
3. Location of existing wells - EXHIBIT A.
4. Lateral roads to well locations - EXHIBIT A.
5. Location of tank batteries and flow lines - There are no flow lines nor tank batteries within a 1/2 mile radius of the proposed location. See EXHIBIT B for proposed location of tank battery and sales gas line.
6. Location and type of water supply - Water needed for drilling will be trucked from supply wells near Carlsbad.
7. Method for handling waste disposal - All incendiary material will be burned on location. Other items will be hauled away.
8. Location of camps - Trailer house will be located on drill site for supervisory personnel. No other camps are anticipated.

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Item 9. Location of airstrips - None.

10. Location of layout to include position of the rig, mud tanks, reserve pits, burn pits, pipe racks, etc. - EXHIBIT C.

11. Plans for restoration of the surface - Upon completion or P&A of well, location pits will be filled and leveled and location cleaned up.

12. Any other information - Location is on rolling caliche hills sparsely covered with scrub mesquite. There are no steep hillsides or gullies. The location will be brought to grade by blasting and ripping caliche hillside.

Very truly yours,

UNION OIL COMPANY OF CALIFORNIA

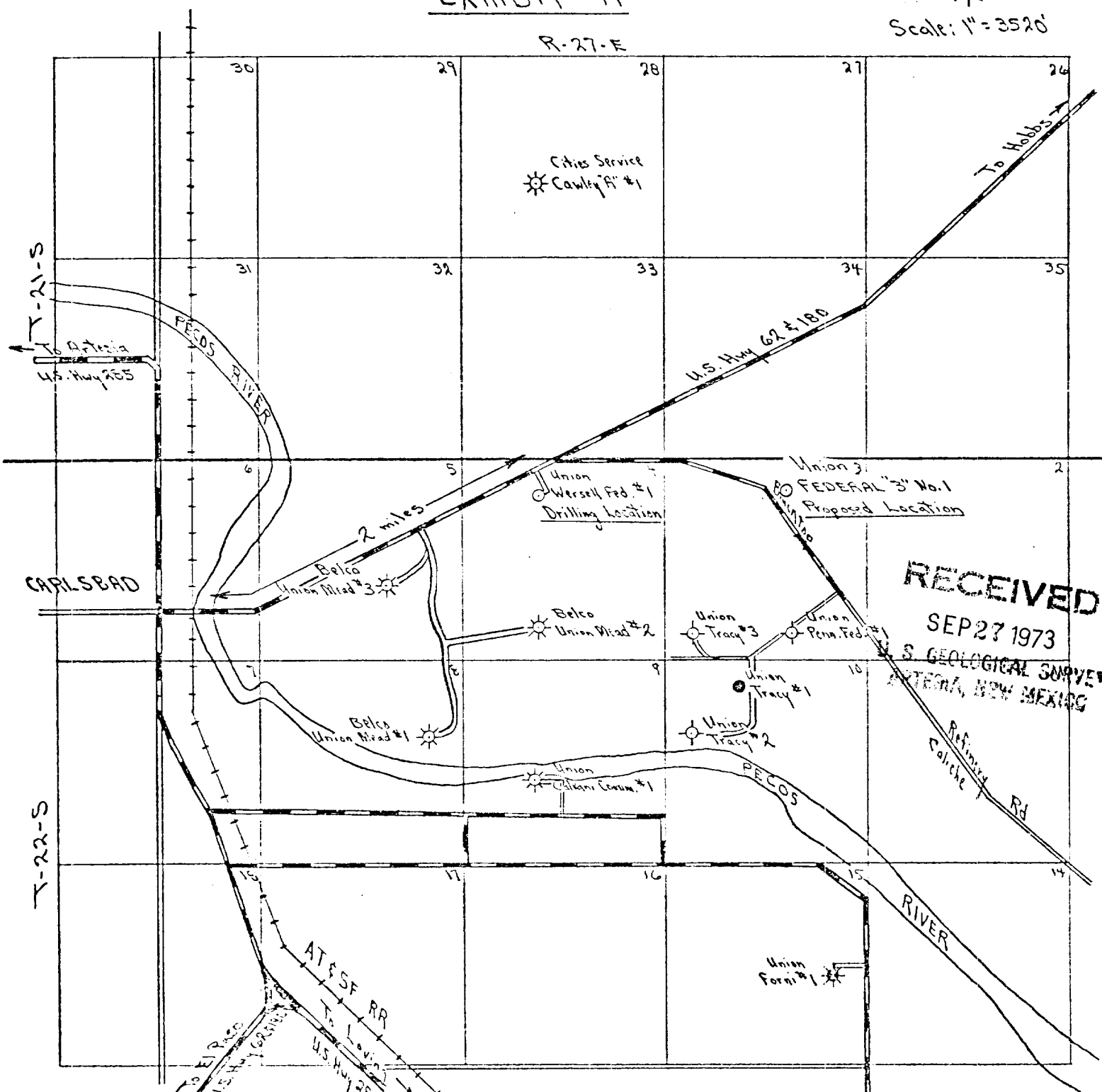


T. G. Byrom
District Drilling Superintendent

TGB:gl

Attachments

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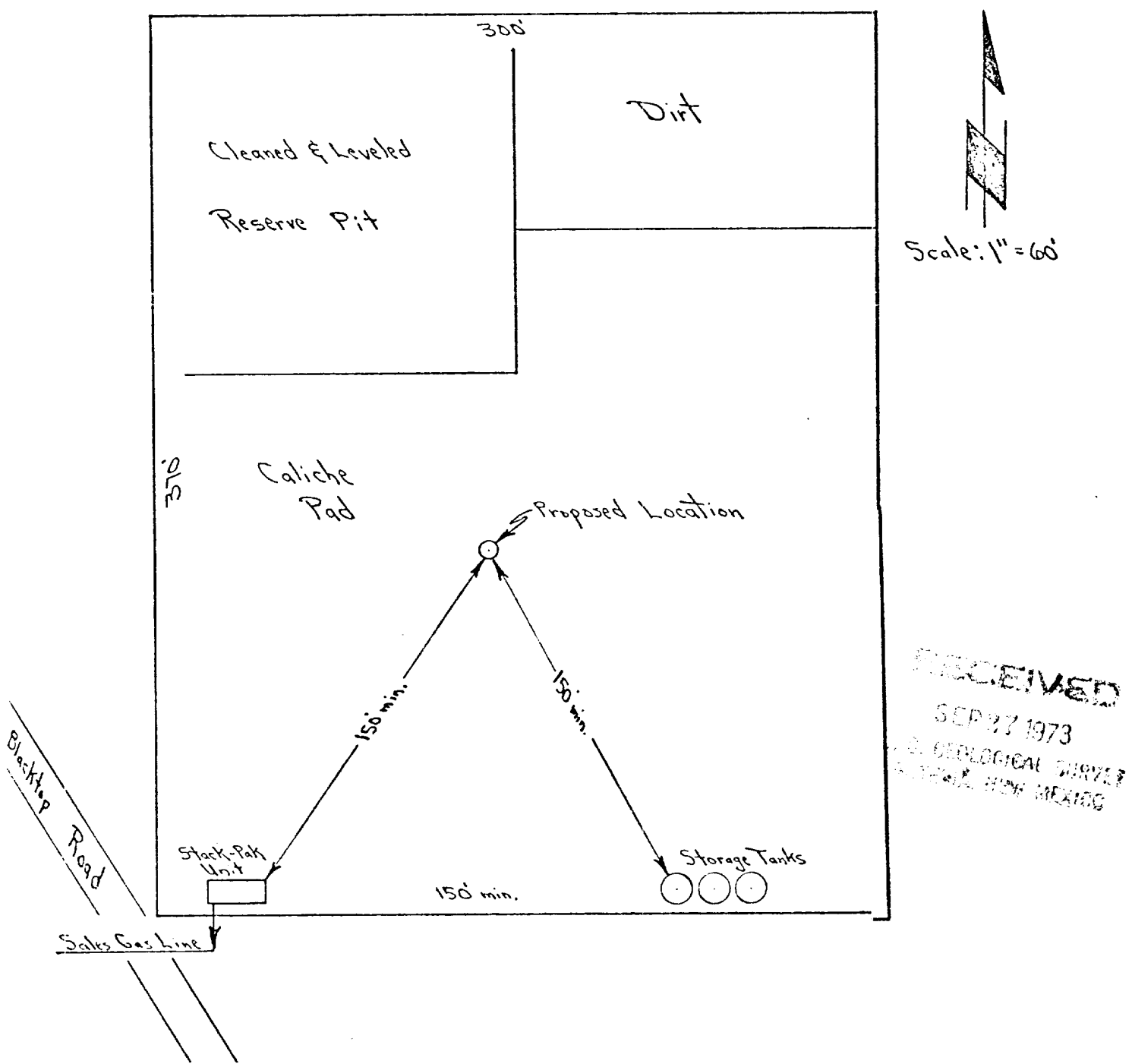
9-24-73

Union Oil Company of California

FEDERAL "3" WELL NO. 2

Location: 860' FNL & 2160' FNL of Section 3, T-22-S, R-27-E,
Eddy County, New Mexico

EXHIBIT B

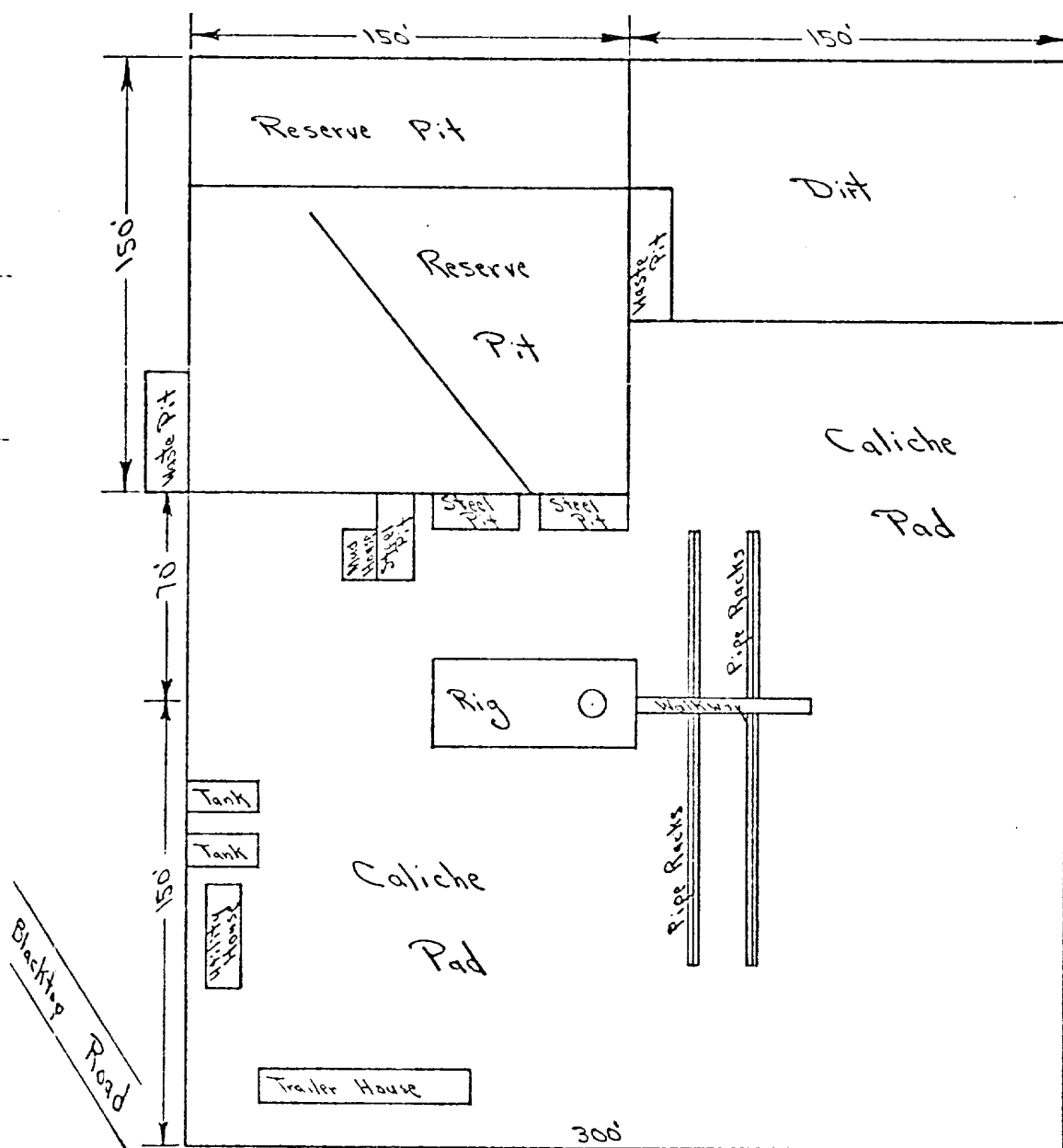


WJG
9-24-73

Union Oil Company of California
FEDERAL "3" WELL NO. 2

Location: 860' FNL & 2160' FWL of Section 3, T-22-S, R-27-E,
Eddy County, New Mexico

EXHIBIT C



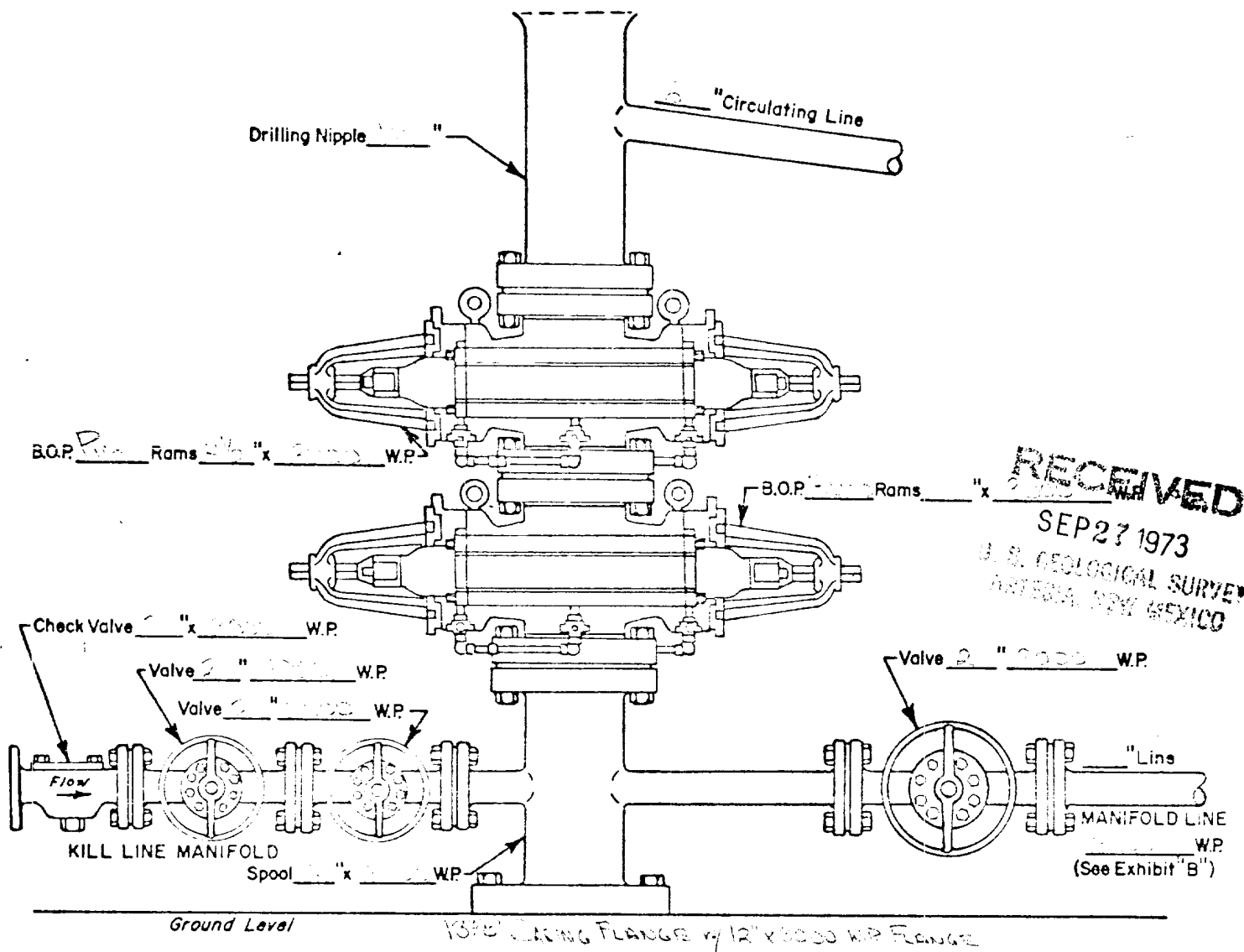
Scale: 1" = 60'

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Rolling caliche hills with scrub mesquite

UNION OIL COMPANY OF CALIFORNIA

EXHIBIT A-1

WELL NAME: 2LOCATION: 2-27.52-27.5

WELL HEAD B.O.P.

2-27.5 #W.P.☒ Manual☐ Hydraulic

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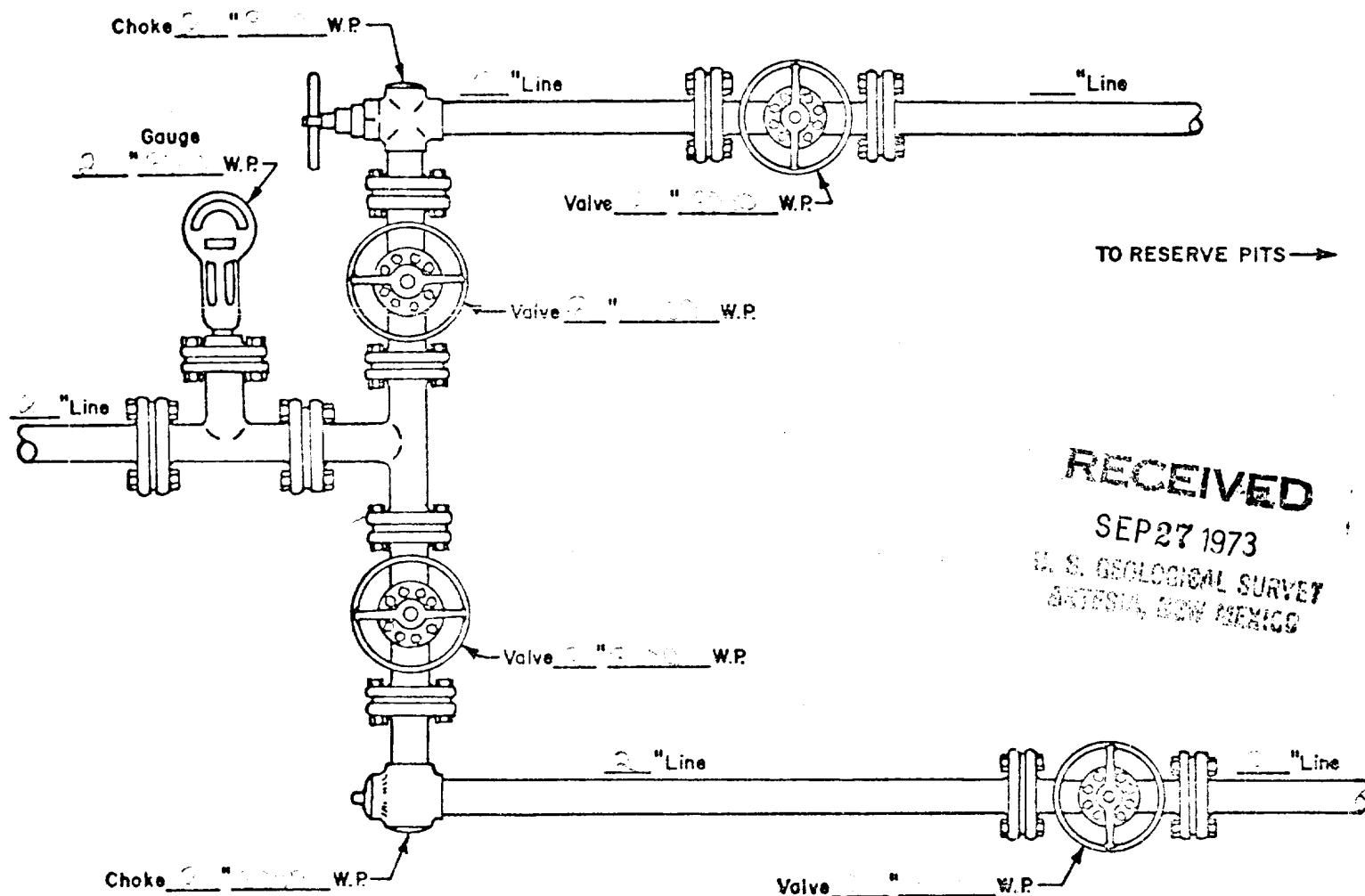
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ARTESIA, NEW MEXICO

UNION OIL COMPANY OF CALIFORNIA
EXHIBIT B-1

WELL NAME: FERNANDO, 2 1/2 miles NW

LOCATION: ARTESIA, BOW MEXICO

2 1/2 miles NW Artesia, Bow Mexico



MANIFOLD

2 " W.P.

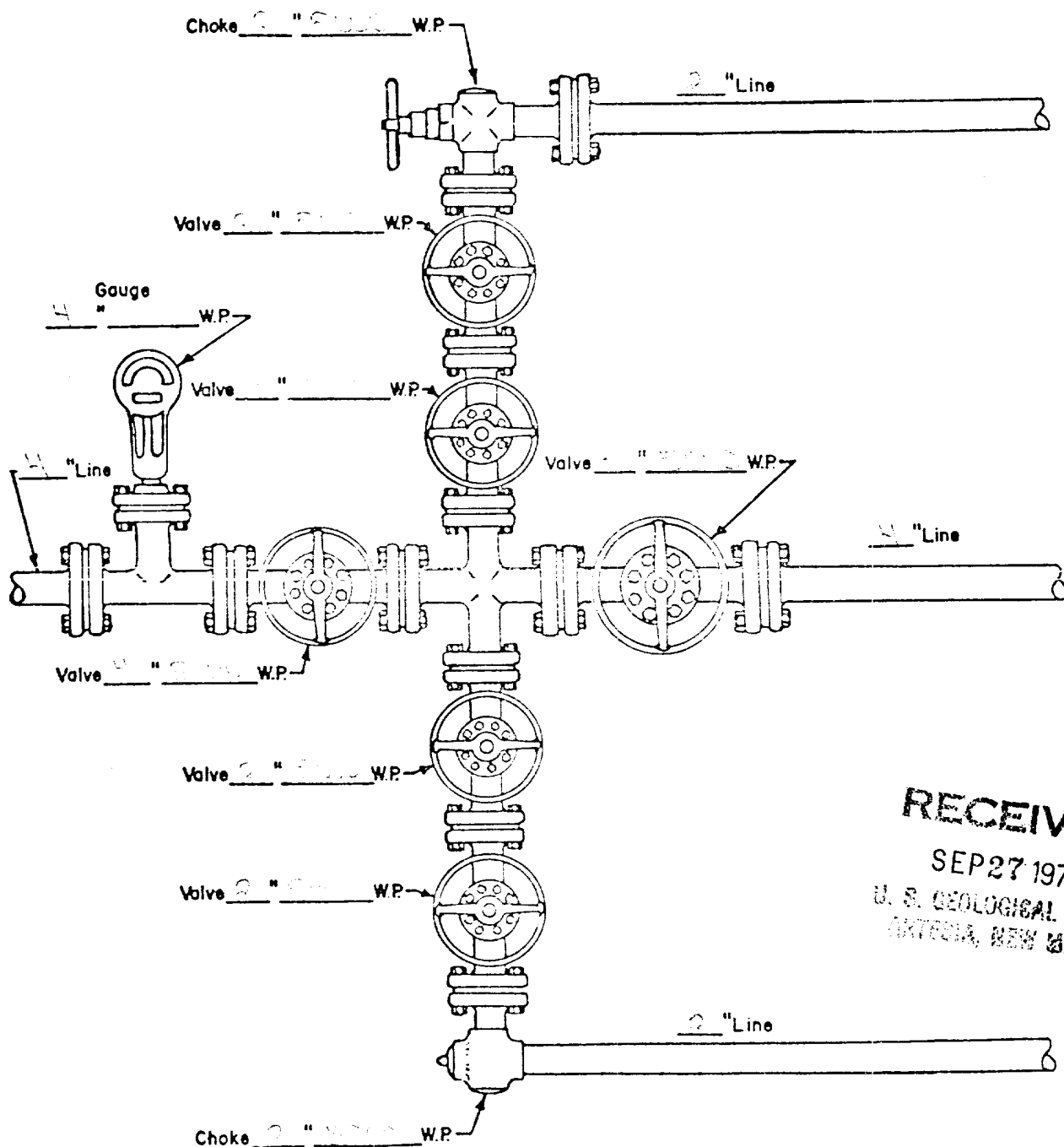
☒ Manuel

☐ Hydraulic

UNION OIL COMPANY OF CALIFORNIA
EXHIBIT B-2

WELL NAME: 2

LOCATION:



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ALBUQUERQUE, NEW MEXICO

MANIFOLD
#W.P.

☒ Manual
☐ Hydraulic

UNION OIL COMPANY OF CALIFORNIA
DISTRICT OFFICE - MIDLAND, TEXAS

DRILLING PROGRAM

Field: Undesignated Morrow Gas

Location: 860' FNL & 2160' FEL of
Section 3, T-22-S, R-27-E, Eddy County,
New Mexico.

Well Name: FEDERAL "3" WELL NO. **2**

Estimated Total Depth: 11,850'

Drilling Data: Geolograph from surface to total depth
Ten-foot drilling time from 400' to total depth

Samples: Ten-foot from 400' to total depth

Estimated Formation Tops:

Delaware Sand	2030'	Atoka	10,490'
Bone Spring	5160'	T. Morrow	10,930'
Wolfcamp	8750'	M. Morrow	11,300'
Forni Zone	9700'	L. Morrow	11,500'
Lusk Zone	10,350'	Chester	11,750'

Logs: Gamma-Ray Compensated Neutron-Formation Density & Dual Laterolog w/Caliper
from total depth to surface. If shows are present in Delaware, run Density
Log & Dual Laterolog before intermediate casing is set.

DSTs: TWO.

Cores: NONE.

Deviation: Five degrees maximum with rate of change not to exceed 1° per 100 feet of
interval.

Casing & Mud Program:

Depth	Size Hole	Casing	Cement	W.O.C.	Mud		
					Wt.	Vis.	W.L.
0' to 400'	17-1/2"	13-3/8"	*600	18 Hrs.	As needed to spud.		
400' to 5300'	12-1/4"	9-5/8"	**2500	18 Hrs.	Brine.		
5300' to 9500'	8-1/2"	-	-	-	Water.		
9500' to TD	8-1/2"	5-1/2"	***	6 Hrs.	10-11	35-45	<15

Rig to be released after nipping up 5-1/2" casing.

*Surface casing to be cemented w/300 sxs. Class "H" cement w/4% gel & 2% CaCl₂, followed
by 300 sxs. Class "H" Neat cement w/2% CaCl₂ added.

**Intermediate casing to be cemented w/2000 sxs. HOWCO "LIGHT" or equivalent, followed by
500 sxs. Class "H" cement.

***Production casing cement to be determined from Caliper Log.

NOTE: Surface casing cement is calculated to circulate.

NOTE: Changes in the above program will be at the direction of a qualified Union Oil
Company of California representative and should be clearly indicated on the pro-
gram posted at the rig.

T. G. Byrom
T. G. Byrom

District Drilling Superintendent