Copy to SF

United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Drawer 1857
Roswell, New Mexico 88201

RECEIVED
NOV 27 1973
O. C. C.
ARTESIA, OFFICE

November 26, 1973

Mr. Julian Ard
Post Office Box 1030
Midland, Texas 79701

Dear Mr. Ard:

Your Notice of Intention to Drill well No. 1 Blackberry Unit in the SW¼NW¼ sec. 25, T. 19 S., R. 30 E., N.M.P.M., Eddy County, New Mexico, lease New Mexico 06767, to a depth of 12,500 feet to test the Morrow formation in the Potash Area, is hereby approved.

Drilling of the well must be in compliance with the enclosed "Drilling Well Control Requirements for Deep Wells Drilled on Federal Oil and Gas Leases in the Artesia District" dated June 22, 1973.

One copy of the Notice is returned herewith. Please notify the District Engineer, Geological Survey, Post Office Drawer U, Artesia, New Mexico, 88210, in sufficient time for a representative to witness all cementing operations. The office phone number is Area Code 505-746-4841.

Sincerely yours,

(ORIG. SGD.)

CARL C. TRAWICK
Acting Area Oil & Gas Supervisor

Attachment

cc:
Washington Denver
Mining Branch (2)
✓NMOCC-Artesia (2) (w/2 cys Notice)
Artesia (w/cy Notice)
Roswell (2) (w/cy Notice)
Roswell (chrono)

N. M. O. C. C. COPY

Form 9-331 C
(May 1963)

SUBMIT IN T. ICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-015-21025

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Julian Ard

3. ADDRESS OF OPERATOR: P. O. Box 1030 - Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' from North & East lines of Sec. 25, T-19-S, R-30-E
At proposed prod. zone

5. LEASE DESIGNATION AND SERIAL NO.: NM-06767

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Hackberry Unit

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 25, T-19-S, R-30-E

12. COUNTY OR PARISH: Eddy

13. STATE: N.M.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 25 miles Northeast of Carlsbad, New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1980 Feet

16. NO. OF ACRES IN LEASE: 600

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.: None

19. PROPOSED DEPTH: 12,500

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3306 GR

22. APPROX. DATE WORK WILL START*: December 1, 1973

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48#	850	650 sx Lt. Wt. & 200 sx Class "C"
11 "	8-5/8"	24# & 32#	4250	2 stage w/ 900 sx & 600 sx
7-7/8"	5-1/2"	17# & 20#	12500	600 sx Class "C" 2% CaCl2

13-3/8" surface casing will be cemented to surface of ground.
8-5/8" casing will be cemented in 2-stages w/900 sx Class "C", 2% CaCl2 on 1st stage and 600 sx Class "C" 2% CaCl2 on 2nd stage, top of cement should be at approximately 700 feet.

MUD PROGRAM
See proposed Mud Program attached.

BLOW-OUT EQUIPMENT
See diagrams attached. (2)

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NOV 27 19
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ARTESIA

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ROSWELL, 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 X Julian Ard TITLE Owner DATE 11-8-73

(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

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

U.S. GOVERNMENT PRINTING OFFICE : 1963—O-711-396

839-171

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 221.37. 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 8-5/8-inch casing string and before drilling into the Wolfcamp 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 is out of the hole.

2. Accumulators shall maintain a pressure capacity reserve at all times to provide for repeated operation of hydraulic preventers.

3. A drill string safety valve 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 system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before

drilling into the Wolfcamp formation 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.

6. 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. NM 06757
Well Hanford 1-Hackberry Unit
Drillsite 1980'/N&L 25-1 S-30E
Depth 12 [illegible] Morrow [illegible]
Approved

N. MEXICO OIL CONSERVATION COMMISSI .

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	Lease	Well No.
Julian Ard	Hackberry Unit	1

Unit Letter	Section	Township	Range	County
G	25	19-South	30-East	Eddy

Actual Footage Location of Well: 1980 feet from the North line and 1980 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3306	Morrow Sand	wildcat	320 Acres

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

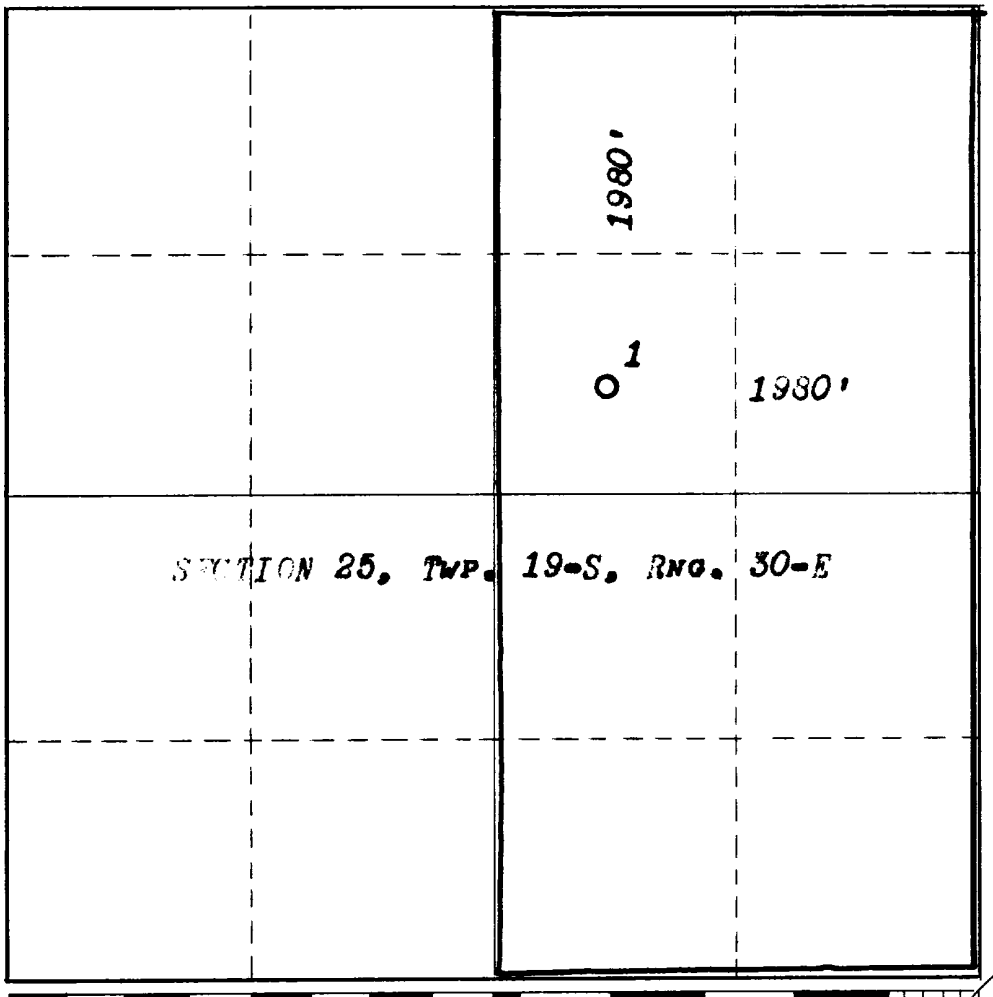
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.

Name
X Julian Ard

Position
Owner

Company
Julian Ard

Date
11-8-73

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.

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Date Surveyed
Nov. 7, 1973

Registered Professional Engineer and/or Land Surveyor

Certificate No.
754

Drilling Fluids Division

Date October 22, 1973

Company ARD DRILLING COMP. Location Section 25-T19S-R30E

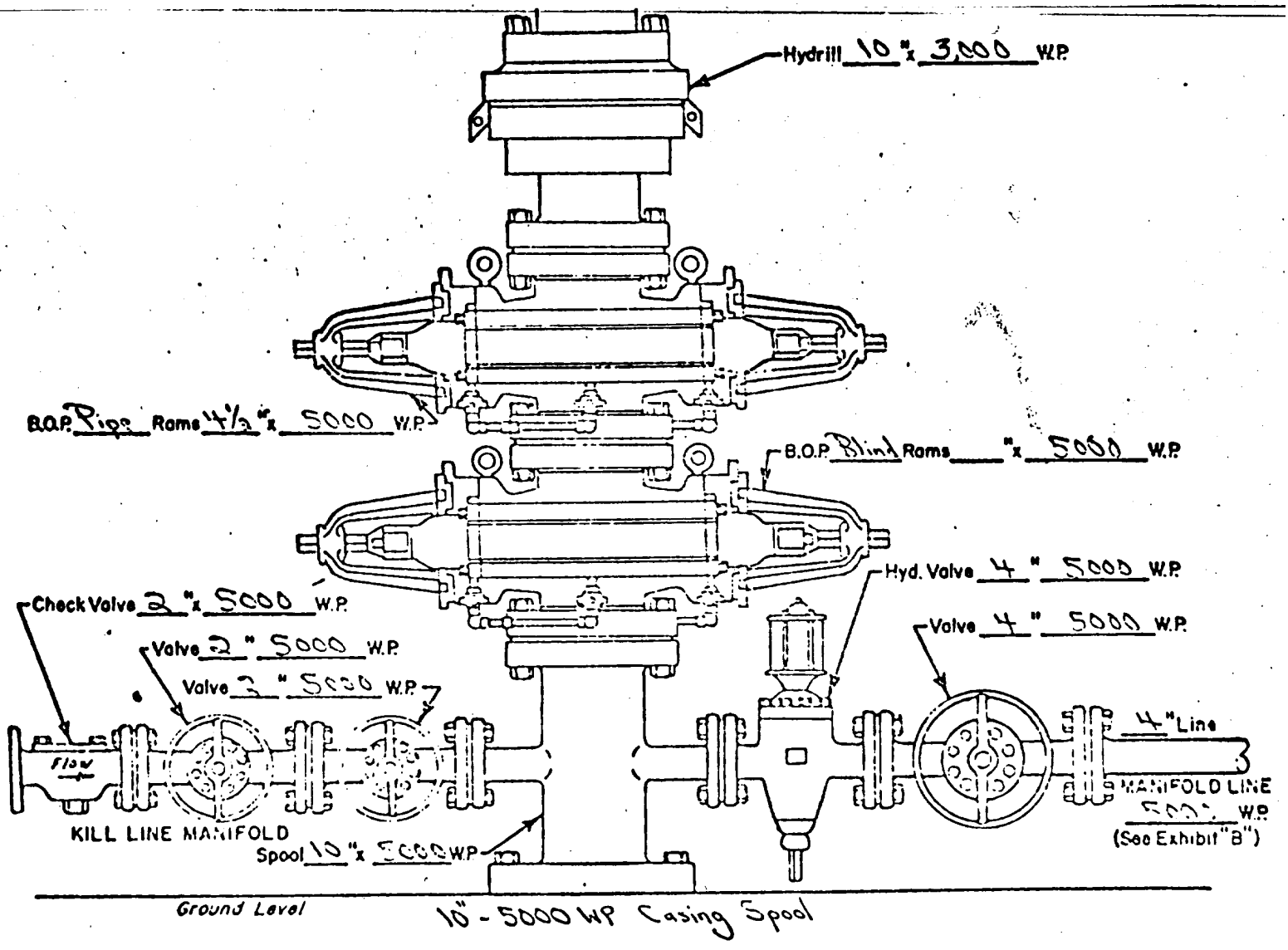
Well Name Hackberry Unit #1 Survey

County Eddy State New Mexico

MUD SPECIFICATIONS				CASING	FORMATION
Depth ft	Mud Weight ppg	Viscosity sec qt	API Filtrate ml		
R E V I S I O N					
0-850	8.0-9.4	32-45	No Control	13-3/8" 800	Yates
MILGEL® and MIL-LIME™ to spud, maintaining to set 13-3/8" pipe.					
850-4,250	9.0-9.6	28-29	No Control	8-5/8" 4,250	
Brine water. Paper-Ox for seepage.					
4,250-8,500	8.3-8.8	28-30	No Control		Bone Springs
Fresh water - circulate reserve pit. Use Paper-Ox for seepage. Should seepage become excessive, we suggest a prehydrated MILGEL® sweep.					1st Bone Sp. Sand
8,500-10,200	9.5-10.0	28			2nd Bone Sp. Sand
					3rd Bone Sp. Sand
Start potash brine, using Paper-Ox for seepage. Circulate the reserve pit.					Wolfcamp
10,200-12,500	9.5-10.0	32-35	10-8 ml		Strawn Atoka
While continuing to circulate the reserve pit, add Polymer and Drispac to produce the suggested properties. Control the pH with Caustic Soda and Soda Ash.					

ESTIMATED MUD COST: $12,000.00

TSD-DFR-8-11/70

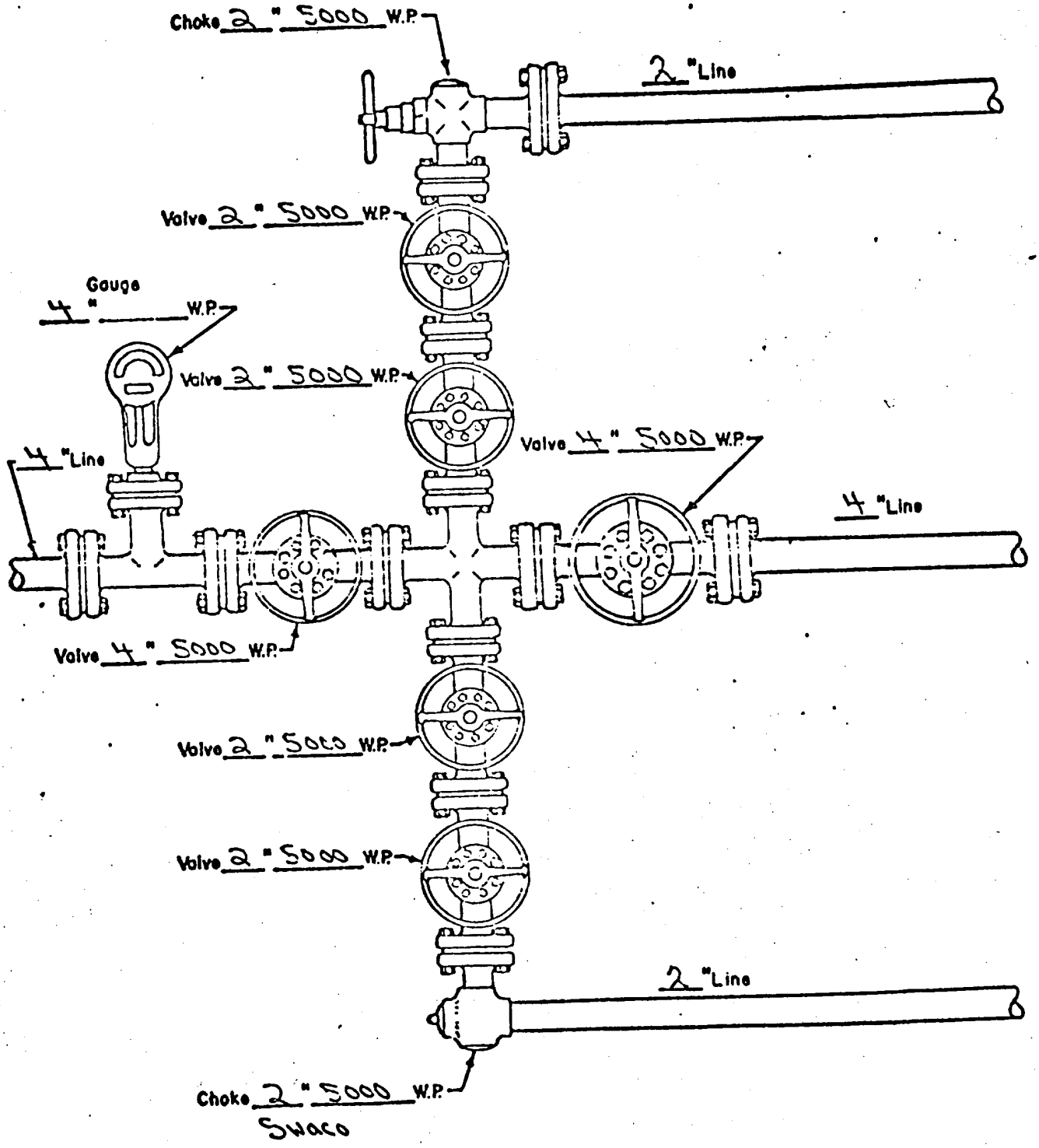


WELL HEAD B.O.P.

5000 #W.P.

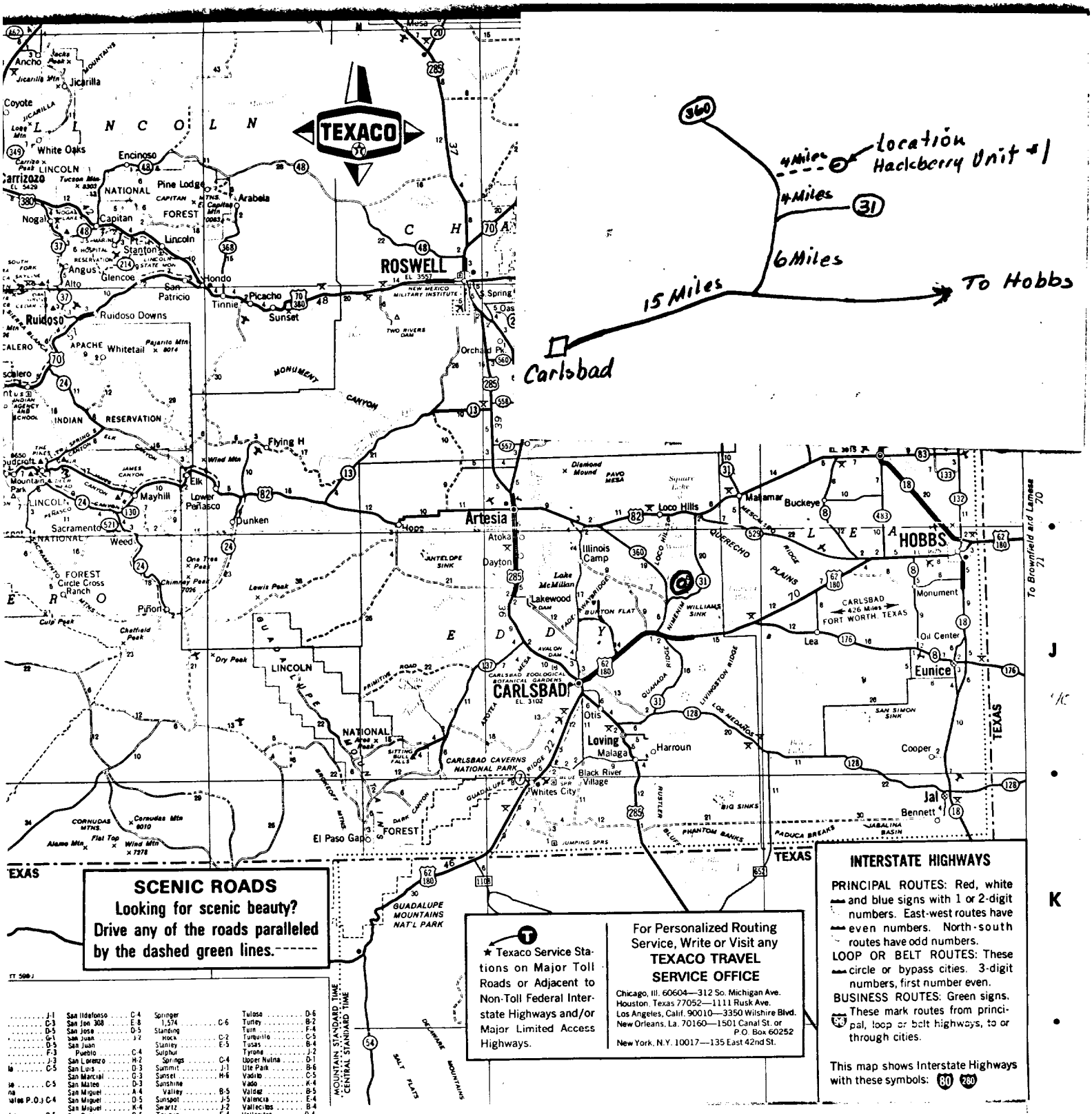
☐ Manuel

☒ Hydraulic



MANIFOLD
5000 #W.P.

☒ Manual
☐ Hydraulic



SCENIC ROADS

Looking for scenic beauty? Drive any of the roads paralleled by the dashed green lines.------

★ Texaco Service Stations on Major Toll Roads or Adjacent to Non-Toll Federal Interstate Highways and/or Major Limited Access Highways.

For Personalized Routing Service, Write or Visit any **TEXACO TRAVEL SERVICE OFFICE**

Chicago, Ill. 60604—312 So. Michigan Ave.
Houston, Texas 77052—1111 Rusk Ave.
Los Angeles, Calif. 90010—3350 Wilshire Blvd.
New Orleans, La. 70160—1501 Canal St. or P.O. Box 60252
New York, N.Y. 10017—135 East 42nd St.

INTERSTATE HIGHWAYS

PRINCIPAL ROUTES: Red, white and blue signs with 1 or 2-digit numbers. East-west routes have even numbers. North-south routes have odd numbers.

LOOP OR BELT ROUTES: These circle or bypass cities. 3-digit numbers, first number even.

BUSINESS ROUTES: Green signs. These mark routes from principal, loop or belt highways, to or through cities.

This map shows Interstate Highways with these symbols: 30 280

NEW MEXICO

SCALE OF MILES

0 5 10 20 30 40

ONE INCH EQUALS APPROXIMATELY 21.6 MILES

HIGHWAY MARKERS

INTERSTATE 40 UNITED STATES 66 STATE 41 TEXAS FARM OR RANCH 308

ROAD CLASSIFICATIONS

CONTROLLED ACCESS DIVIDED HIGHWAYS (Entrance and Exit only at Interchanges) — Divided / Undivided — Interchanges

OTHER DIVIDED HIGHWAYS — Paved

PRINCIPAL THROUGH HIGHWAYS

OTHER THROUGH HIGHWAYS — Paved / Gravel

MILEAGES

MILEAGE BETWEEN TOWNS AND JUNCTIONS 3 4

MILEAGE BETWEEN DOTS 35

LONG DISTANCE MILEAGES SHOWN IN RED

SPECIAL FEATURES

STATE PARKS — With Campsites ▲ Without Campsites △

RECREATION AREAS — With Campsites ▲ Without Campsites △

PORTS OF ENTRY — Open 24 Hours — Inquire Locally

POINTS OF INTEREST

SCHEDULED AIRLINE STOPS

MILITARY AIRPORTS

OTHER AIRPORTS

SKI AREAS

TIME ZONE BOUNDARY

SELECTED REST AREAS

POPULATION SYMBOLS

State Capital — Under 1,000 — 1,000 to 2,500 — 2,500 to 5,000 — 5,000 to 10,000 — 10,000 to 25,000 — 25,000 to 50,000 — 50,000 to 100,000 — 100,000 and over

JULIAN ARD
P. O. BOX 1030
MIDLAND, TEXAS 79701

(Rev. 11-13-73)

DEVELOPMENT PLAN

308 WALL TOWERS EAST
915-684-5716

Julian Ard No. 1, Hackberry Unit Well, located 1980 feet from North and East lines of Section 25, T-19-S, R-30-E, Eddy County, New Mexico.

1. 15.2 miles East of Carlsbad on Highway 62/180, turn North on State Highway #31, go 5.7 miles to Junction of Highway 31 and 360, continue NE on Highway 31 for 1.7 miles, turn left in Northeasterly direction on graded road 1.6 miles.
2. Turn East on Graded road 4/10 mile to location.
3. Plats enclosed.
4. N/A
5. N/A
6. Water will be hauled.
7. All waste will be put in waste pit and covered.
8. N/A
9. N/A
10. Rig plat enclosed.
11. Surface will be restored to its original condition as near as possible.

Julian Ard

JULIAN ARD - OWNER

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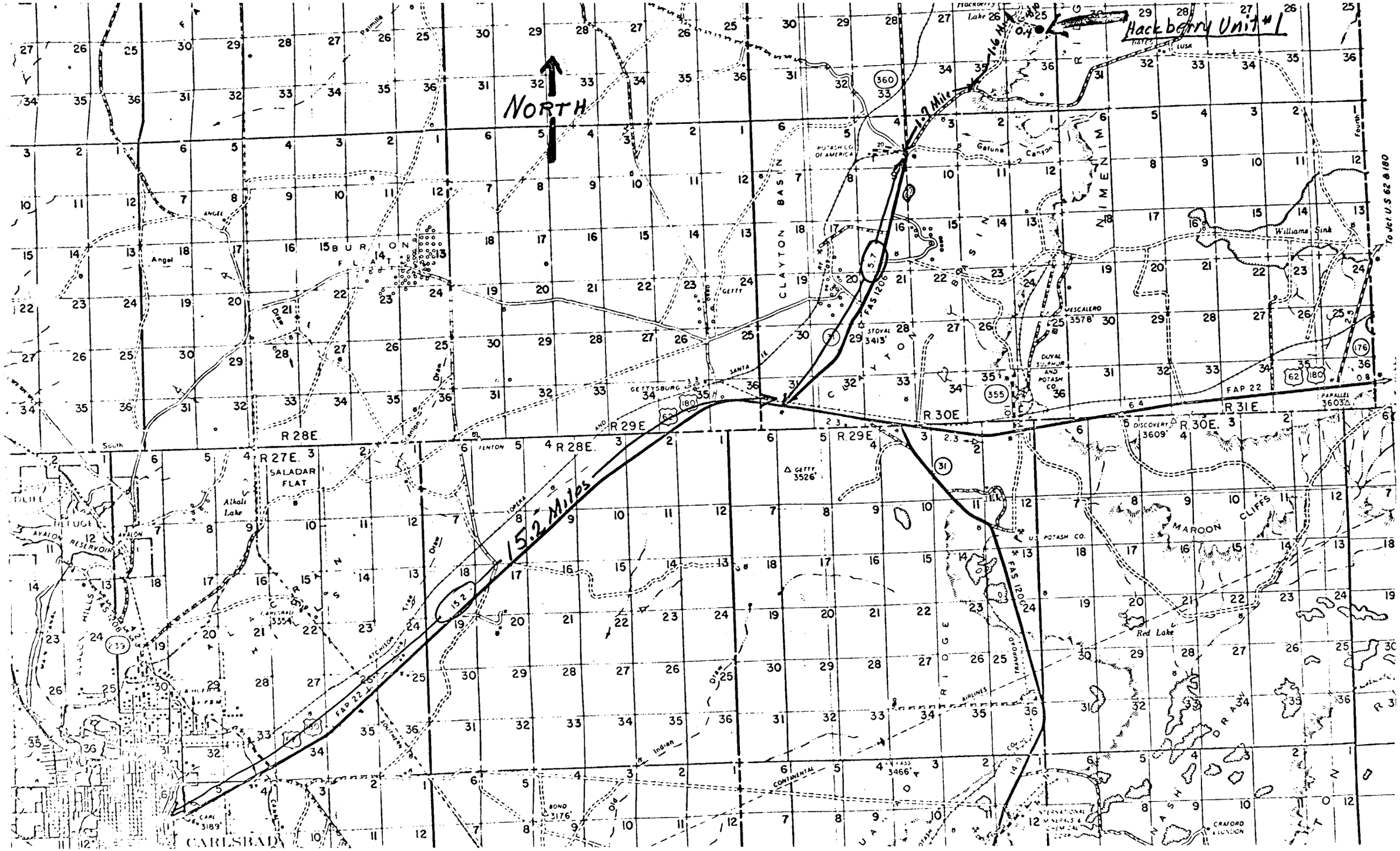
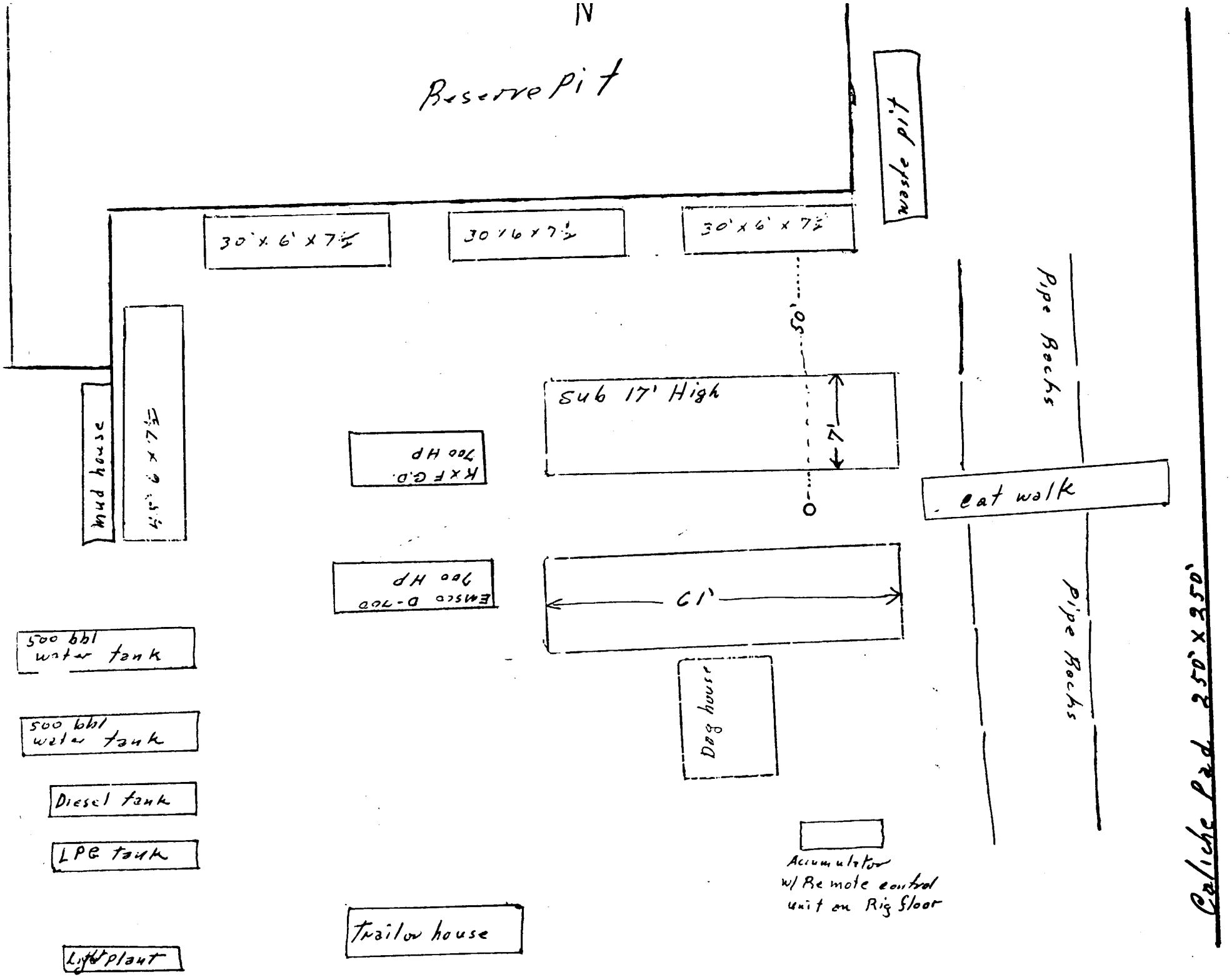
ARTESIA, NEW MEXICO


Hackberry Unit #1
NORTH
1.9 Mile
1.6 Mi
0.4
15.2 Miles
5.7
15.2
R 28E
R 27E.
R 29E
R 30E
R 31E
R 28E.
R 29E.
R 30E.
SALADAR FLAT
Alkali Lake
CLAYTON BASIN
BURTON FLAT
GETTYSBURG
STOVAL 3413'
MESCALERO 3578'
DISCOVERY 3609'
GETTY 3526'
MAROON CLIFFS
Red Lake
Williams Sink
Gatuna Canyon
POTASH CO. OF AMERICA
DUVAL SULPHUR AND POTASH CO.
U.S. POTASH CO.
FAS 1206
FAP 22
To Jct. U.S. 62 & 180
CARLSBAD
CARL 3189'
BOND 3176'
CARLSBAD 3354'
PASS 3466'
Angel
Palmilla
Lake
Indian
Continental
Santa Fe
Atchison
Topeka
Southern
Pacific
Airlines
Frisco
Dam
Canal
Reservoir
Avalon
Hills
Refuge
Fenton
Getty
Lusk
Hatch
Crawford
Lucion
Nashville
Parallel 3603


N
Reserve Pit
waste pit
30' x 6' x 7½
30' x 6' x 7½
30' x 6' x 7½
50'
Pipe Racks
Sub 17' High
7'
mud house
4½ x 9 x 7½
K x F G.D.
700 HP
cat walk
EMSCO D-700
900 HP
61'
Pipe Racks
500 bbl
water tank
Dog house
500 bbl
water tank
Diesel tank
LPG tank
Accumulator
w/ Remote control
unit on Rig floor
Trailer house
Light plant
Caliche Pad 250' x 350'