

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

MESA PETROLEUM CO.

3. ADDRESS OF OPERATOR

1600 Lincoln, 2800 Lincoln Center, Denver, Colorado 80264

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

At surface

1530'/N & 930'/W

At proposed prod. zone

same

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

10. DISTANCE FROM PROPOSED*

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

16. NO. OF ACRES IN LEASE

2522.06

18. DISTANCE FROM PROPOSED LOCATION*

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

19. PROPOSED DEPTH

6650

17. NO. OF ACRES ASSIGNED
TO THIS WELL

w/320

20. ROTARY OR CABLE TOOLS

ROTARY

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

22. APPROX. DATE WORK WILL START*

November 30, 1979

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	24	300	200 sk
7 7/8	5 1/2	15.5	6650	555 sk

(SEE ATTACHMENTS)

Gas under this lease is dedicated to a contract.

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

John Alexander
JOHN ALEXANDER

TITLE

AGENT

DATE November 28, 1979

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

NMOCC

MESA PETROLEUM COMPANY

Formation Information and Drilling Practices

WELL:

McLeod Federal 2E

LOCATION:

1530' /N & 930' /W

s. 34-28N-10W

San Juan Co., NM

LEASE NUMBER

SF046563

1. Surface Formation

Nacimiento

2. Estimated Formation Tops

Ojo Alamo	920	Point Lookout	4280
Pictured Cliff	1910	Greenhorn	6240
Cliff House	3410	Dakota	6330

3. Estimated Depth of Anticipated Water, Oil, Gas or Minerals

1910	gas	4280	gas
3510	gas	6330	gas

4. Proposed Casing Program

0-300' 10 3/4", 40.5#, K-55 ST&C new casing. Cement w/ 200 sk. class "B" + 2% CaCl₂

0-6650 5 1/2", 15.5#, ST&C new casing. Cement 1st stage w/ 325 sk 50-50 Pozmix + 2% gel. Cement 2nd stage w/ 130 sk 65-35 Pozmix + 12% gel followed by 100 sk 50-50 Pozmix + 2% gel. Estimated cement top 1700'.

5. Pressure Control Equipment - Blowout Preventer

The attached schematic shows the type of blowout preventer to be used while drilling. The unit will be tested to 800 psi prior to drilling from under surface pipe by pressuring through casing valves with blind ram closed. This procedure will be repeated with the pipe rams closed on a joint of drill pipe. Operation of the hydraulic system will be checked daily.

6. Drilling Fluids

Depth	Type	Vis	Weight	Fluid Loss
0-300	Gel Lime	35-45	8.6-9.0	N/L
300-6650	Low solids	30-40	8.6-11.5	10

7. Auxiliary Equipment

- a. bit float
- b. stabbing valve to be used in drill pipe when the kelly is not connected
- c. rotating drilling head

8. Logging - Coring - Testing

Logging: IES, FDC/CNL, Caliper
Coring: None planned
Testing: None planned

9. Abnormal Temperatures, Pressures or Potential Hazards

None expected.

10. Starting Date

Anticipated starting date is November 30, 1979. Approximately 15 days will be needed to build roads, location and drill to total depth. Completion will commence immediately and require approximately 20 days.

SHAFER HYDRAULIC BLOWOUT PREVENTERS

(Patented)

TYPE LWS PREVENTERS—8", 3000 lb. & 5000 lb.—10", 5000 lb.
12", 3000 lb.—13 5/8", 5000 lb.—16", 3000 lb.

PARTS AND DIMENSIONAL ILLUSTRATIONS

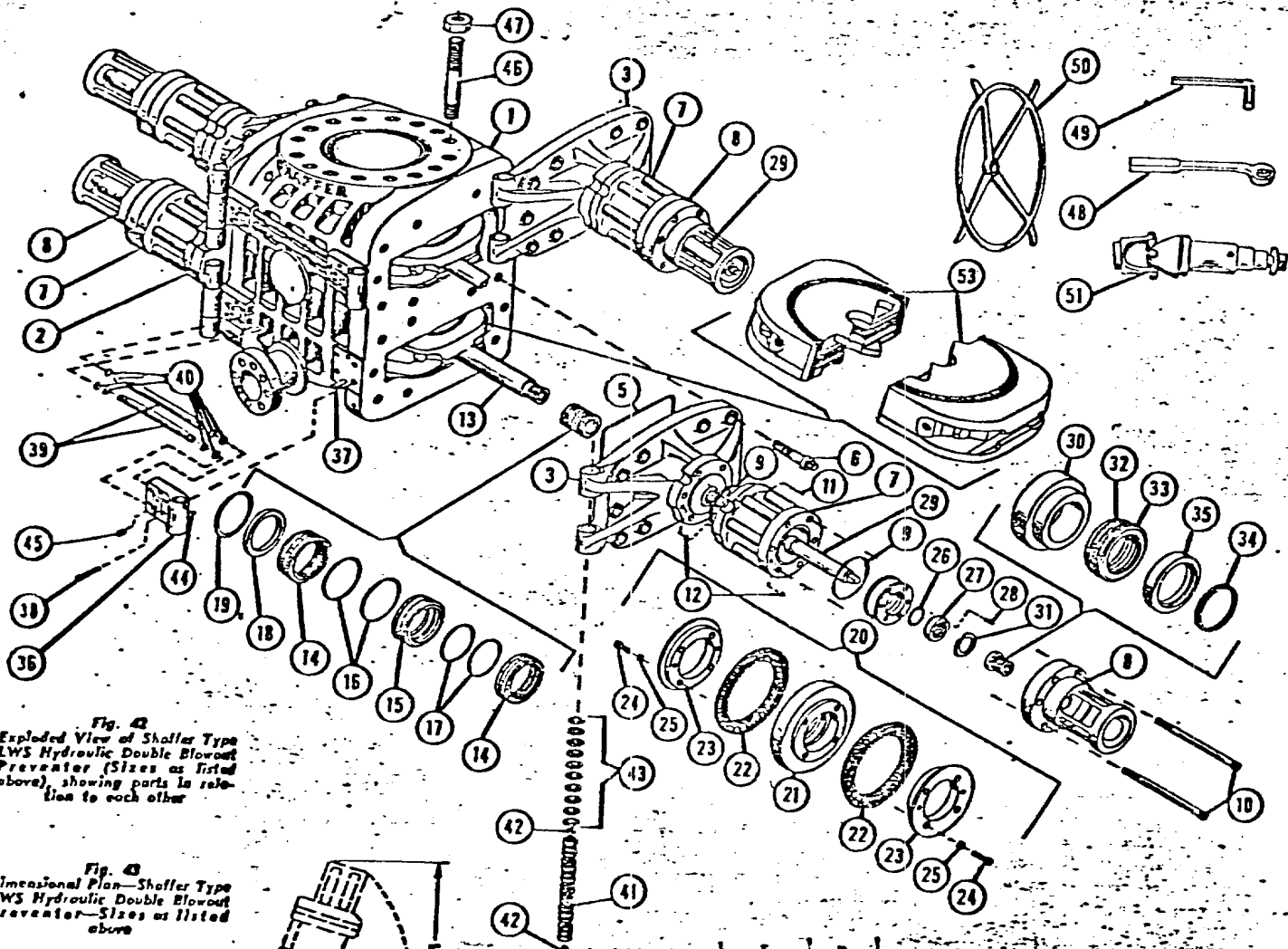


Fig. 42
Exploded View of Shaffer Type LWS Hydraulic Double Blowout Preventer (Sizes as listed above), showing parts in relation to each other

Fig. 43
Dimensional Plan—Shaffer Type LWS Hydraulic Double Blowout Preventer—Sizes as listed above

Fig. 44
Dimensional End Elevation—Shaffer Type LWS Hydraulic Double Blowout Preventer—Sizes as listed above

STANDARD ACCESSORIES

- (50) 4 Hand Wheels
- (48) 1 Door Wrench
- (49) 1 Cylinder & Cylinder Head Wrench
- (51) 4 Universal Joints

DIMENSIONAL AND ENGINEERING DATA ON ABOVE SIZES OF TYPE LWS PREVENTERS

Refer to Figs. 43 and 44

Refer to Figs. 43 and 44

Size	Max. Service Pressure, Working psi	Test Pressure, psi	Vertical Rise	Max. Ram Size	Approx. Weight, Lbs.		A				B	C	D	E	F	G	Closing Rate	Opening Rate	U.S. Gals. Fluid To Close Rams	U.S. Gals. Fluid To Open Rams
					Saddled Flange		Height													
					Single	Double	Single		Double											
							Saddled Flange	Bellied Flange	Saddled Flange	Bellied Flange										
8"	3,000	6,000	11"	7"	2,900	3,500	24 1/2"	41 1/2"	25 1/2"	70 1/2"	11 1/2"	14 1/2"	22"	48"	5.8 to 1	1.25 to 1	2.75	2.8		
10"	4,000	8,000	11"	8 1/2"	3,500	4,500	26 1/2"	43 1/2"	27 1/2"	72 1/2"	11 1/2"	14 1/2"	22"	48"	5.8 to 1	1.25 to 1	2.75	2.8		
12"	3,000	6,000	12 1/2"	10 1/2"	6,000	7,000	34 1/2"	51 1/2"	34 1/2"	82 1/2"	12 1/2"	16 1/2"	27"	52"	5.5 to 1	1.25 to 1	2.53	2.9		
13 5/8"	4,000	8,000	12 1/2"	10 1/2"	8,300	9,700	36 1/2"	53 1/2"	36 1/2"	84 1/2"	12 1/2"	16 1/2"	27"	52"	5.5 to 1	1.25 to 1	2.53	2.9		
16"	3,000	6,000	14 1/2"	12 1/2"	8,500	9,700	36 1/2"	53 1/2"	36 1/2"	84 1/2"	12 1/2"	16 1/2"	27"	52"	5.5 to 1	1.25 to 1	2.53	2.9		

MESA PETROLEUM COMPANY

Surface Use Plan

WELL:

McLeod Federal 2E

LOCATION:

1530' /N & 930' /W

S34-T28N-R10W

San Juan Co., NM

LEASE NUMBER:

SF046563

1. Existing Roads (Shown in green)

The attached topographic map shows all existing roads within one mile of the proposed location. The access road will join an existing location.

2. Planned Access Road

The access road will be approximately 200' long and 20' wide. No turnouts will be needed. Water bars will be used to aid drainage and prevent erosion. Maximum grade will be about 5%. No fences or cattleguards will be crossed.

3. Location of Existing Wells

All wells (water, oil, gas, disposal and drilling) are shown and so labeled on the attached topographic map.

4. Location of Tank Batteries, Prod. Facilities, Prod. Gathering & Service Lines

All production facilities are to be contained within the proposed site. Other facilities operated by Mesa are shown on the attached topographic map.

5. Location of Water Supply

Water for drilling will be trucked from Aztec, NM, approximately 6 miles southwest of the location. Water is privately owned.

6. Source of Construction Materials

Any construction material required for road or location will be excess material accumulated from building such sites.

7. Methods of Handling Waste Disposal (Refer to attached well site layout)

All burnable material will be burned in the trash pit when conditions permit. All nonburnable material (drilling fluids, cuttings, chemicals, etc.) will be held in the reserve pit and buried when dry. Any oil produced while drilling will be trucked from the location prior to leaving the pit to dry. Pits will be fenced during dryout time, then completely backfilled with dirt prior to preparing the location for production or abandonment. Material that cannot be otherwise safely disposed of will be carried to a sanitary land fill.

8. Ancillary Facilities

No ancillary facilities are planned.

9. Well Site Layout

The attached layout shows the drilling rig with all facilities. Cut and fill required is also indicated.

10. Plans for Restoration of Surface

Restoration of well site and access road will begin within 90 days of well completion, weather permitting. Should the well be abandoned, the drilling site will be reshaped to its approximate former contour. The access road will be plowed and leveled. Both site and road will have topsoil replaced and will be reseeded when germination can occur.

Should the well be commercial, that portion of the location not needed for operation will be repaired as above. The portion needed for daily production operations, and the access road, will be maintained in good repair.

In either case, cleanup of the site will include burning any safely burnable material, filling of all pits, carrying away of all nonburnable material and chemicals that cannot be buried. Any oil that has accumulated on the pits will be trucked away.

11. Other Information

This well is located about $1\frac{1}{2}$ miles northeast of El Paso's Angel Peak Station. The area is rugged and covered with sagebrush, yucca, Pinon and Cedar trees. The soil is a sandy clay. Small animals and rodents inhabit the area.

Surface belongs to the Bureau of Land Management.

There are no occupied dwellings in the area. No artifacts were noticed.

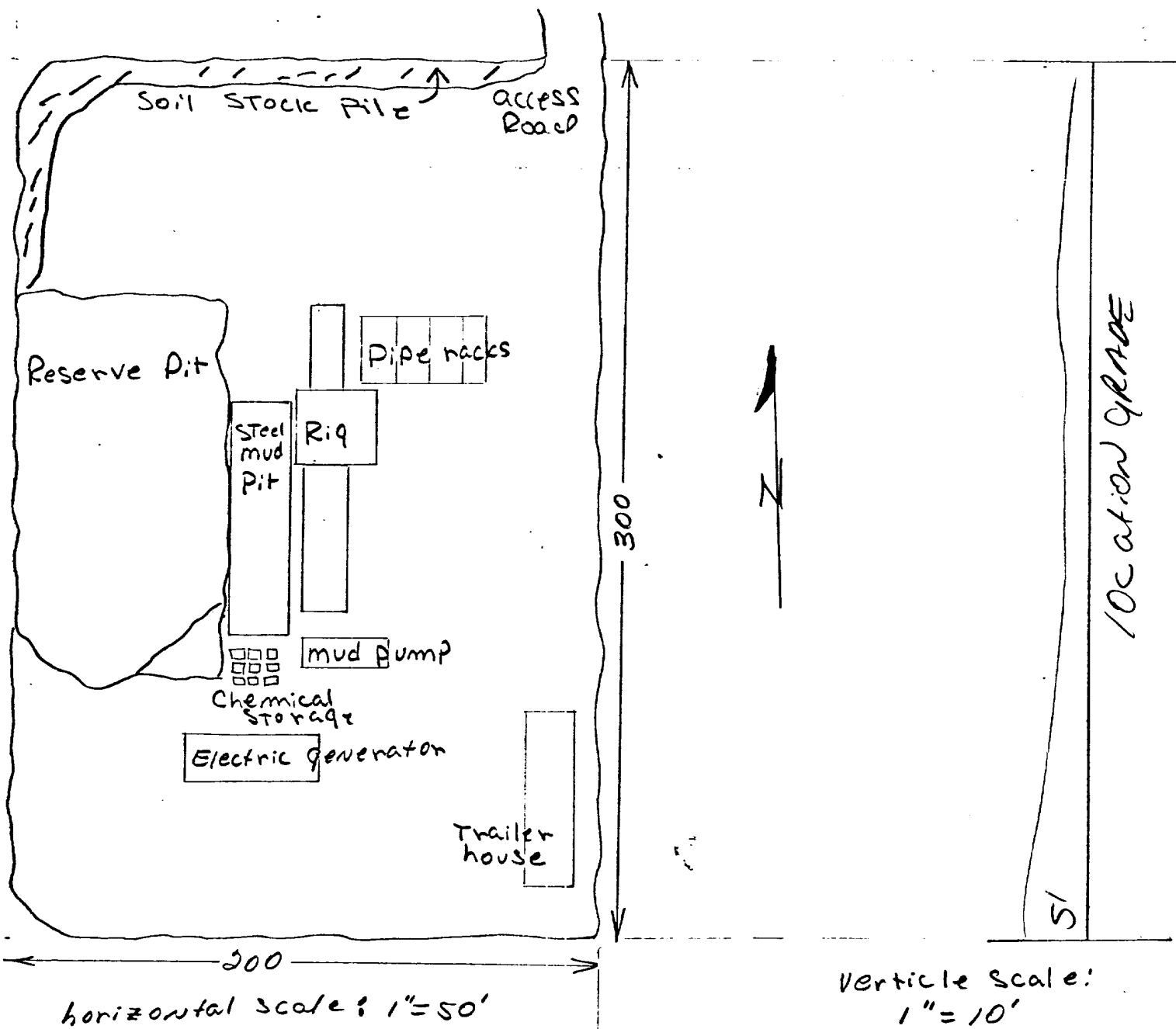
12. John Alexander
3E Company, Inc.
P.O. Box 190
Farmington, NM 87401
Phone: 505-327-4020

13. I hereby certify that I or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Mesa Petroleum Co. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

11-26-78
DATE

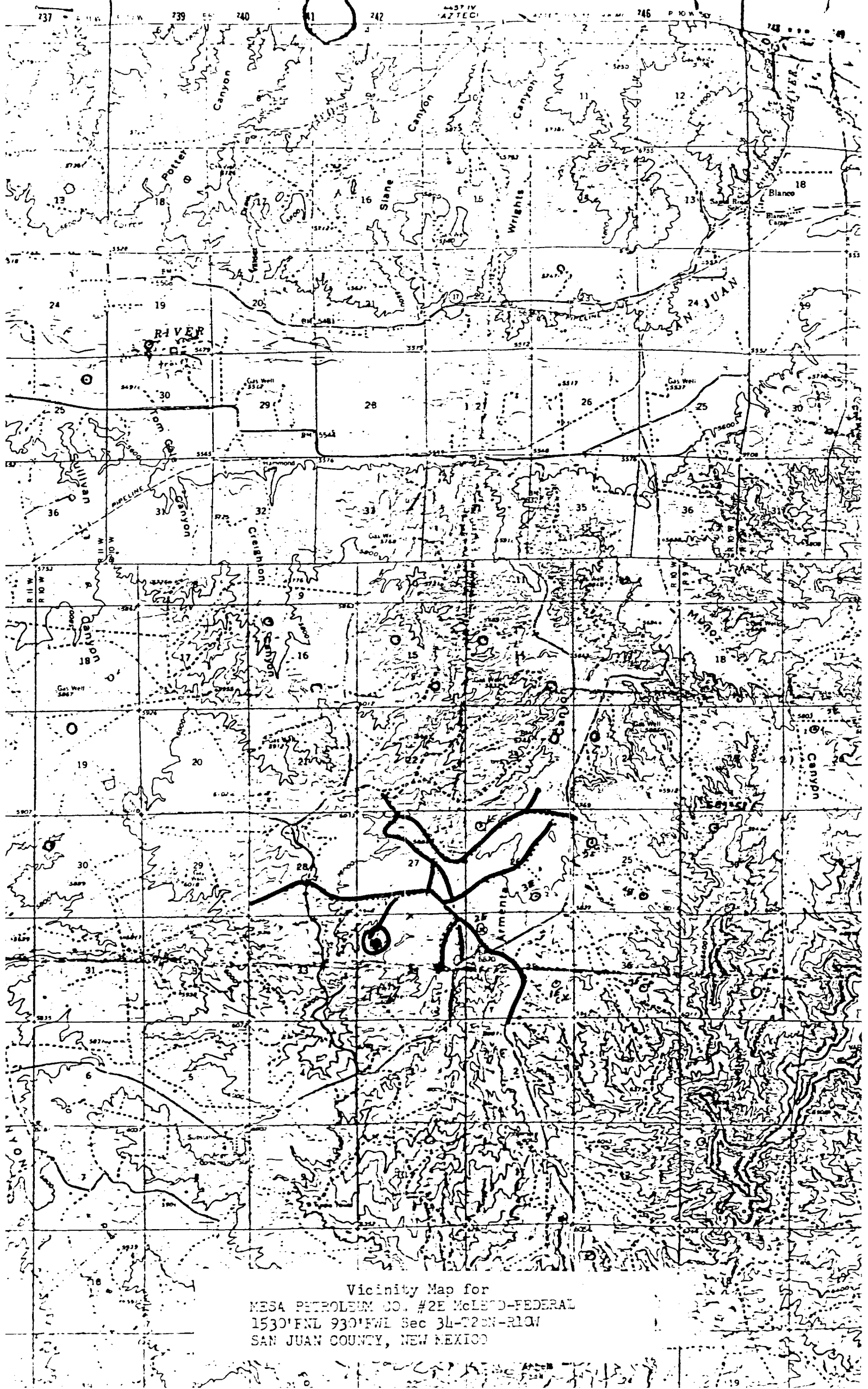
John Alexander
JOHN ALEXANDER

JA:cp



MESA Petroleum
McLeod FEDERAL #2E

34- 08N-10W
SAN JUAN CO., N.M.



Vicinity Map for
MESA PETROLEUM CO. #2E McLEOD-FEDERAL
1530'FNL 930'FWL Sec 34-T2N-R10W
SAN JUAN COUNTY, NEW MEXICO