

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

1660 Lincoln, 2800 Lincoln Center, Denver, Colorado 80264

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

2290'N & 2290'E

At proposed prod. zone

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

15. 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

160

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION*

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

19. PROPOSED DEPTH

5900

20. ROTARY OR CABLE TOOLS

ROTARY

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

6980 GL

22. APPROX. DATE WORK WILL START*

October 15, 1980

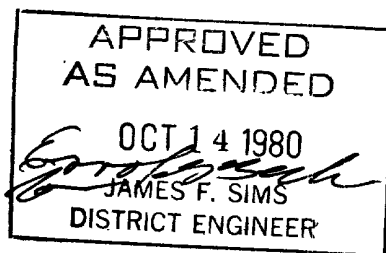
23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	24	250	250 sks CIRCULATE
7 7/8	4 1/2	10.5	5900	950 sks

(SEE ATTACHMENTS)

SEE ATTACHMENT TO 50 CFR 290.

GAS UNDER THIS LEASE IS NOT 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

TITLE AGENT

DATE September 15, 1980

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-78

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

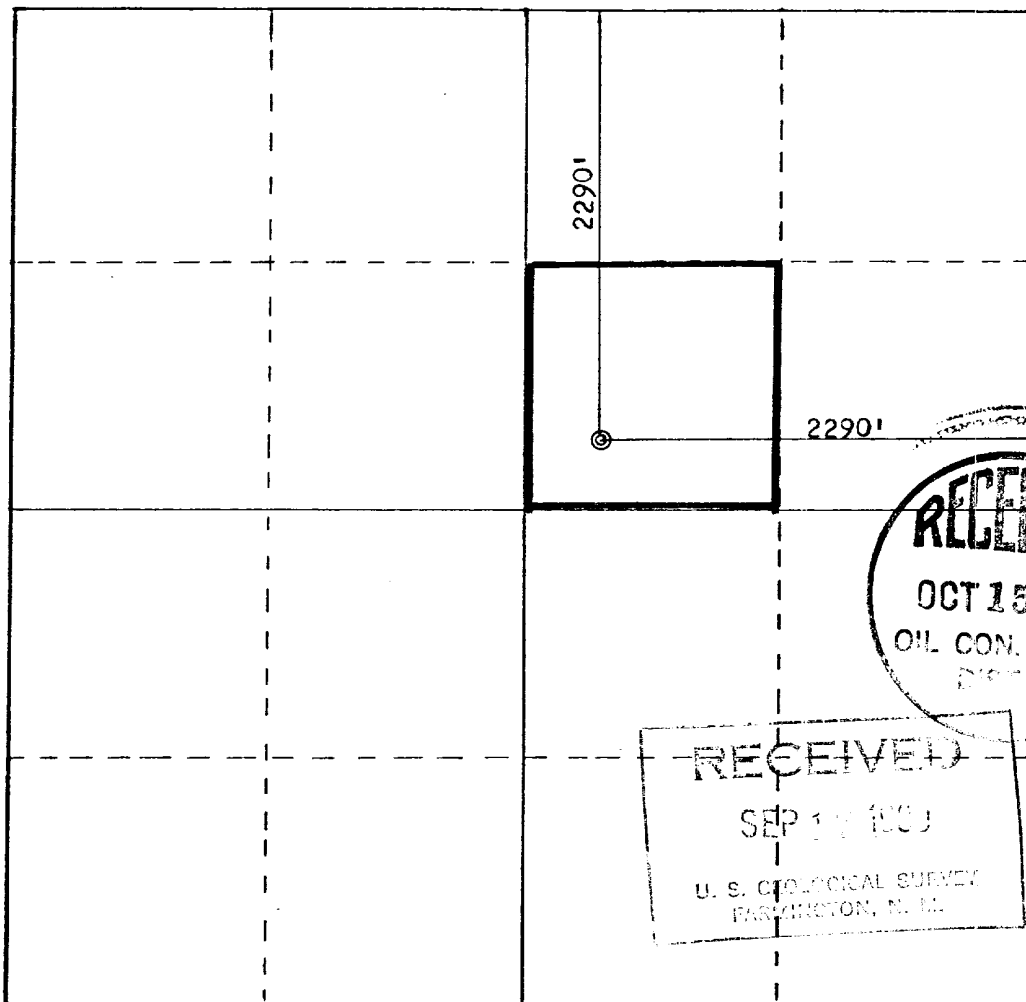
Operator MESA PETROLEUM COMPANY			Lease MESA-SOUTH BLANCO FEDERAL 31		Well No. 1
Unit Letter G	Section 31	Township 24N	Range 7W	County Rio Arriba	
Actual Footage Location of Well: 2290 feet from the North line and 2290 feet from the East line					
Ground Level Elev: 6980	Producing Formation GALLUP		Pool LYBROOK GALLUP		Dedicated Acreage: 40 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.



Scale: 1"=1000'

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

John Alexander
Name
JOHN ALEXANDER

Position
Agent

Company
MESA PETROLEUM CO.

Date
September 10, 1980

RECEIVED
OCT 15 1980
OIL CON. COM.
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.

RECEIVED
Date Surveyed
August 27, 1980

Registered Professional Engineer
and Land Surveyor

Fred B. Kerr Jr.
Fred B. Kerr Jr.

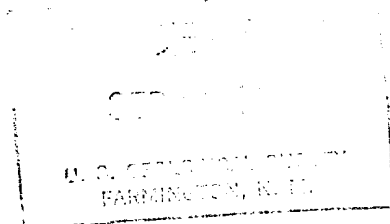
Certificate No.
3950

FORMATION INFORMATION AND DRILLING PRACTICES

MESA PETROLEUM

WELL: South Blanco 31 No.1
LOCATION: 2290'/N & 2290'/E
Section 31-24N-7W
Rio Arriba Co., N.M.

LEASE NO. NM 33005



1. Surface Formation
Nacimientos
2. Estimated Formation Tops

Kirtland	1560'	Point Lookout	4420'
Fruitland	2000'	Mancos	4675'
Cliffhouse	3620'	Gallup	5460'
3. Estimated Depth of Anticipated Water, Oil, Gas or Minerals - 5460' oil
4. Proposed Casing Program

0-250'	8 5/8", 54#, K-55 new casing. Cement to be 250 sks class "B" & 2% CaCl ₂
250-5900'	4 1/2", 10.5# K-55 new casing. First stage 200 sks Halliburton light followed by 150 sks class "B" w/ 2% gel. 2nd stage 600 sks Halliburton light w/ 6 1/4# Gilsontite/sk. Stg tool to be below Chacra.
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 1000 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 drillpipe. Operation of the hydraulic system will be checked daily.
6. Drilling Fluids

Depth	Type	Vis	Weight	Fluid Loss
0-250	gel-lime	35-45	8.6-9.0	N/L
250-5900	low-solids	30-40	8.6-11.5	10
7. Auxiliary Equipment
 - a. bit float
 - b. stabbing valve to be used in drillpipe when kelly is not connected
8. Logging - Coring and Testing Program

Logging - Open hole - IES, FDC, GR, Caliper
Testing - None planned
Coring - None planned
9. Abnormal Temperatures, Pressures or Potential Hazards

There may be abnormal gas pressure in the Fruitland zone. A rotating head and careful mud control should negate this danger.
10. Starting Date

Anticipated starting date is October 15, 1980. Approximately 10 days will be needed to build roads and location and drill the well to total depth. Completion will commence immediately and require approximately 20 days.



(Potented)

PARTS AND DIMENSIONAL ILLUSTRATIONS

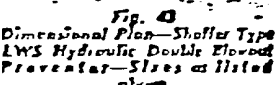
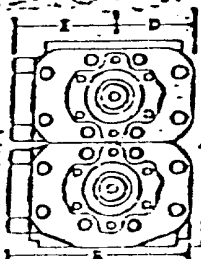


Fig. 44
Dimensional End Elevation—
Shafter Type LWS Hydraulic
Double Blowout Preventer—
Sizes as listed above



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

[illegible]

SURFACE DEVELOPMENT PLAN

MESA PETROLEUM

SOUTH BLANCO 31 #1

2290'/N & 2290'/E
Rio Arriba Co., N.M.

LEASE NO. NM 33005

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 State Hwy.44 as indicated. The existing roads should bear normal drilling operation traffic, and will not have to be upgraded.

2. Planned Access Road (Shown in red)

The new access road will be about 3/4 mile 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 10%. This road follows an existing trail.

3. Location of Existing Wells

All wells (water, disposal, drilling) are shown and so labeled on the topo map.

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

All production facilities are to be contained within the proposed location site. Mesa operates no other facilities in the area.

5. Location and Type of Water Supply

Water for drilling will be trucked from the Chapman's waterhole approximately 2 miles to the south. Water is privately owned.

6. Source of Construction Materials

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

7. Methods of Handling Waste Disposal

The location of the reserve and burn pit is shown on the attached drillsite layout. All trash and burnable material will be burned in the burn pit when safety permits. All nonburnable material (drilling fluids, cuttings, chemicals) will be stored in the reserve pit and then buried when they have dried. Any oil produced while drilling will be trucked from the location prior to leaving pit to dry out. Pits will be completely fenced during drying time, then backfilled with dirt prior to preparing the location for production or abandonment.

8. A portable chemical toilet will be supplied for human waste.

9. Ancillary Facilities

No ancillary facilities are planned.

10. Well Site Layout

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

11. Plans for Restoration of Surface

Restoration of the wellsite and access road will begin within 90 days of well completion, weather permitting, and if required by private land owner. Should the well be abandoned, the drilling site will be reshaped to its approximate former contour. The access road will be plowed up and leveled. Both drillsite and road will have any top soil replaced, and be reseeded when germination of seeds can take place.

In either case, cleanup of the site will include burning of any safely burnable material, filling of all pits, carrying away of all nonburnable material and any

chemicals that cannot be safely buried, and the hauling off of any oil that may have accumulated on the pits while drilling.

12. Other Information

The location lies on a flat area. The area is rugged and covered by native grasses and bushes. There are no occupied dwellings on the location.

The surface is federally owned. No artifacts or cultural sites were noticed.

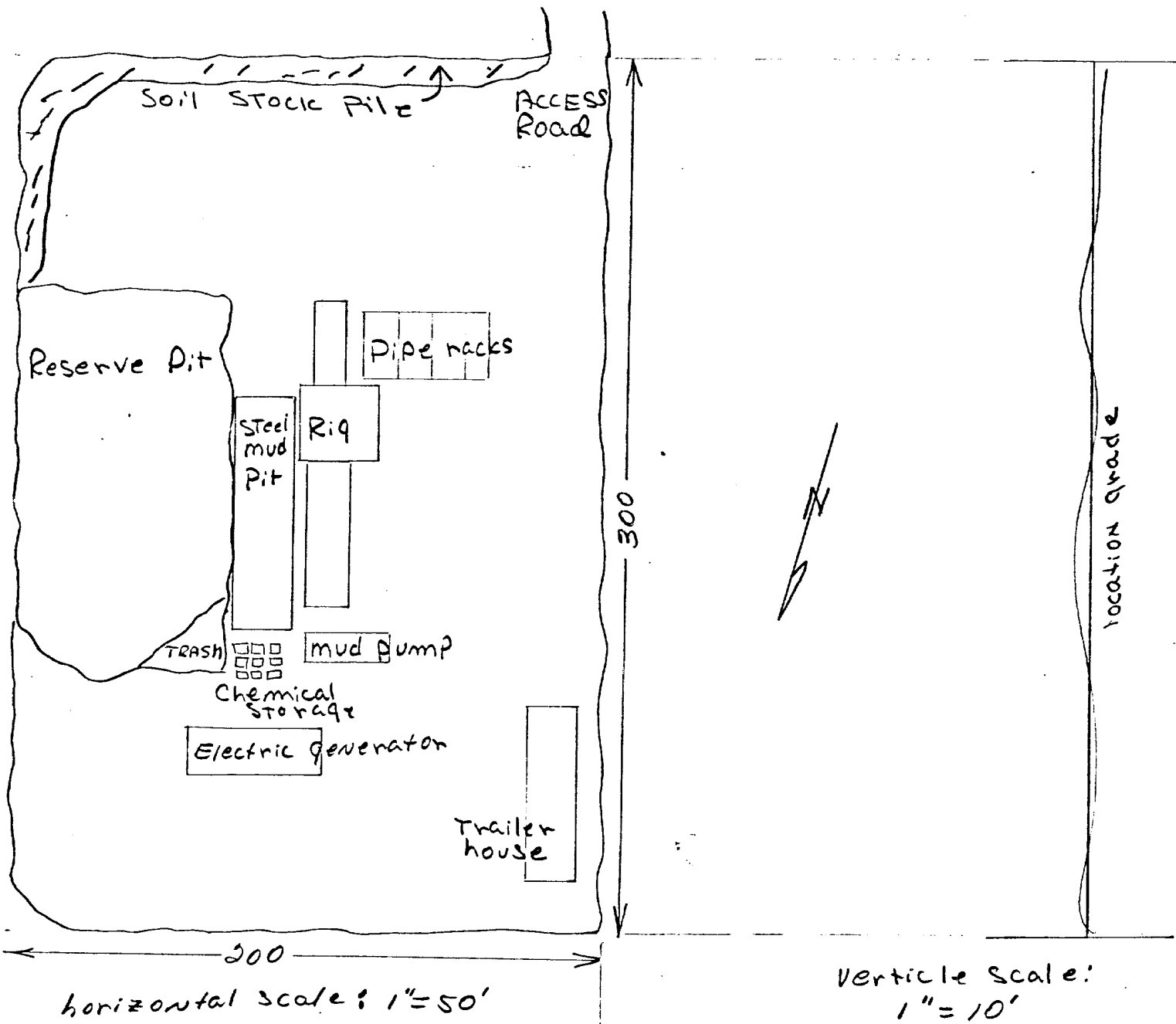
13. JOHN ALEXANDER - 3E Company, Inc.
P.O. Box 190
Farmington, NM 87401
Phone: 505-327-4020

14. I hereby certify that I or persons under my direct supervision have inspected the proposed drillsite 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.

September 15, 1980

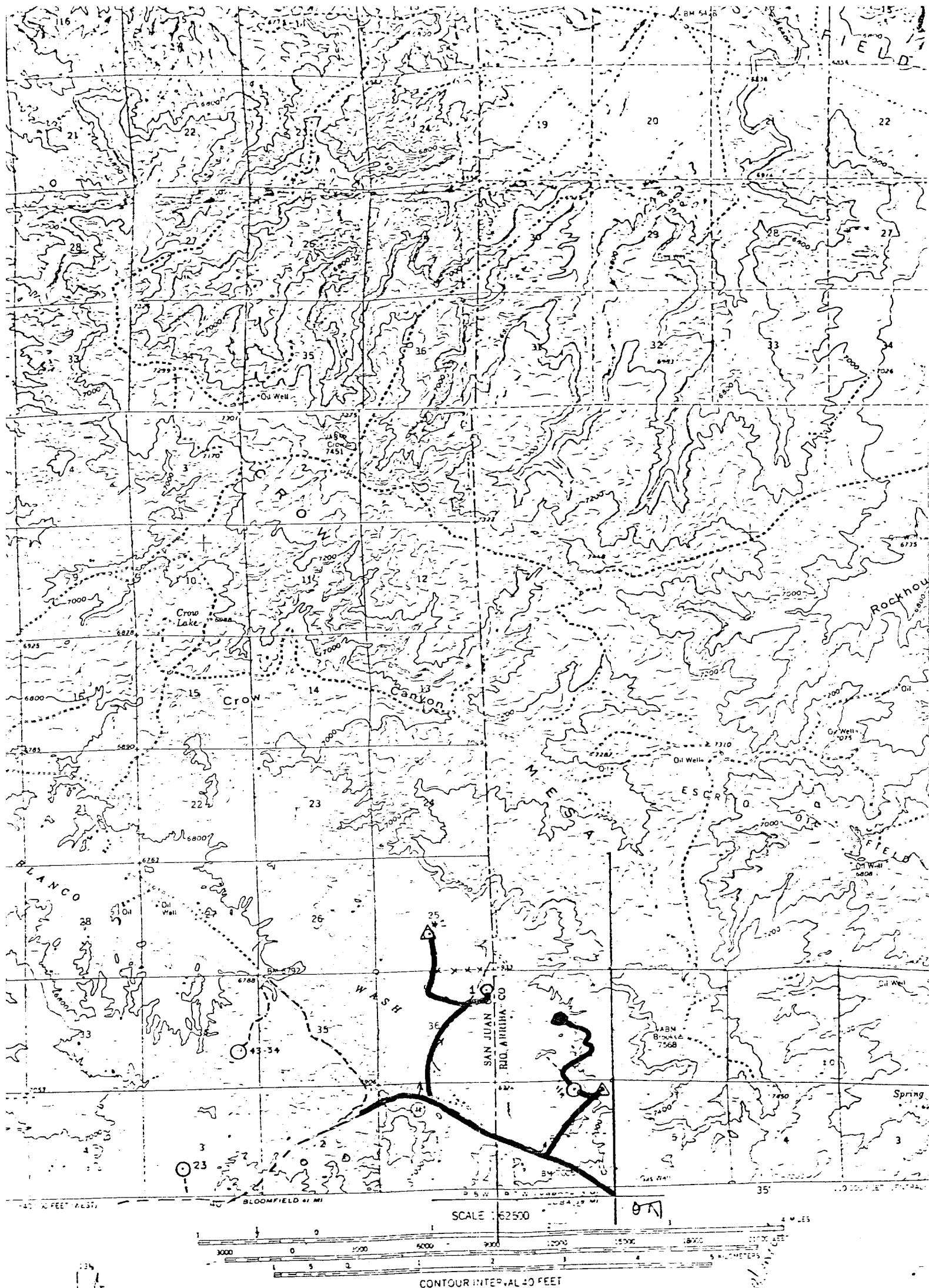

JOHN ALEXANDER

JA:cp



MESA PETROLEUM CO.
SOUTH BLANCO 31 NO. 1
NE/4 31-24N-7W
RIO ARRIBA CO., N.M.

location grade



TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN
DECLINATION, 1959

Vicinity Map for
MESA PETROLEUM CO. #1 MESA-SOUTH BLANCO-FEDERAL 31
2290'FNL 2290'FEL Sec. 31-T24N-R7W
RIO ARRIBA COUNTY, NEW MEXICO