

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 802644. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface 315' N and 720' W

At proposed prod. zone same

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 drig. unit line, if any)16. NO. OF ACRES IN LEASE
32017. NO. OF ACRES ASSIGNED
TO THIS WELL
32018. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.19. PROPOSED DEPTH
731020. ROTARY OR CABLE TOOLS
ROTARY

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

6727' GL

22. APPROX. DATE WORK WILL START*
January 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	300	300
7 5/8	5 1/2	15.5-17	7310	1000

Gas under this lease is dedicated to a contract.

See attachments for details.

An application for nonstandard location has been filed.

RECEIVED
DEC 31 1979
U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCED

EXPIRES 4/28/80

LIVE
JAN 28 1980
OIL CON. COM.
DIST. 3

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

December 26, 1979

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO THE FOLLOWING ATTACHED
"GENERAL INSTRUCTIONS"

Call C-104 for NSL

NMOCC

APPROVED

JAN 25 1980

ACTING DISTRICT ENGINEER

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

Operator MESA PETROLEUM COMPANY			Lease FEDERAL		Well No. 16-E
Unit Letter D	Section 9	Township 27N	Range 8W	County San Juan	
Actual Footage Location of Well: 315 feet from the North line and 720 feet from the West line					
Ground Level Elev. 6727	Producing Formation Dakota		Pool Basin Dakota		Dedicated Acreage: 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.

720' -315'

Sec. 9

RECEIVED
JAN 28 1980
OIL CON. COM.
DIST. 3

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

Date
December 26, 1979

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

November 21, 1979
Registered Professional Engineer
and/or Land Surveyor
Frederick B. [Signature]
Frederick B. [Signature]
Certification No. [Signature]

OIL CONSERVATION DIVISION

P. O. BOX 2088

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-78

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

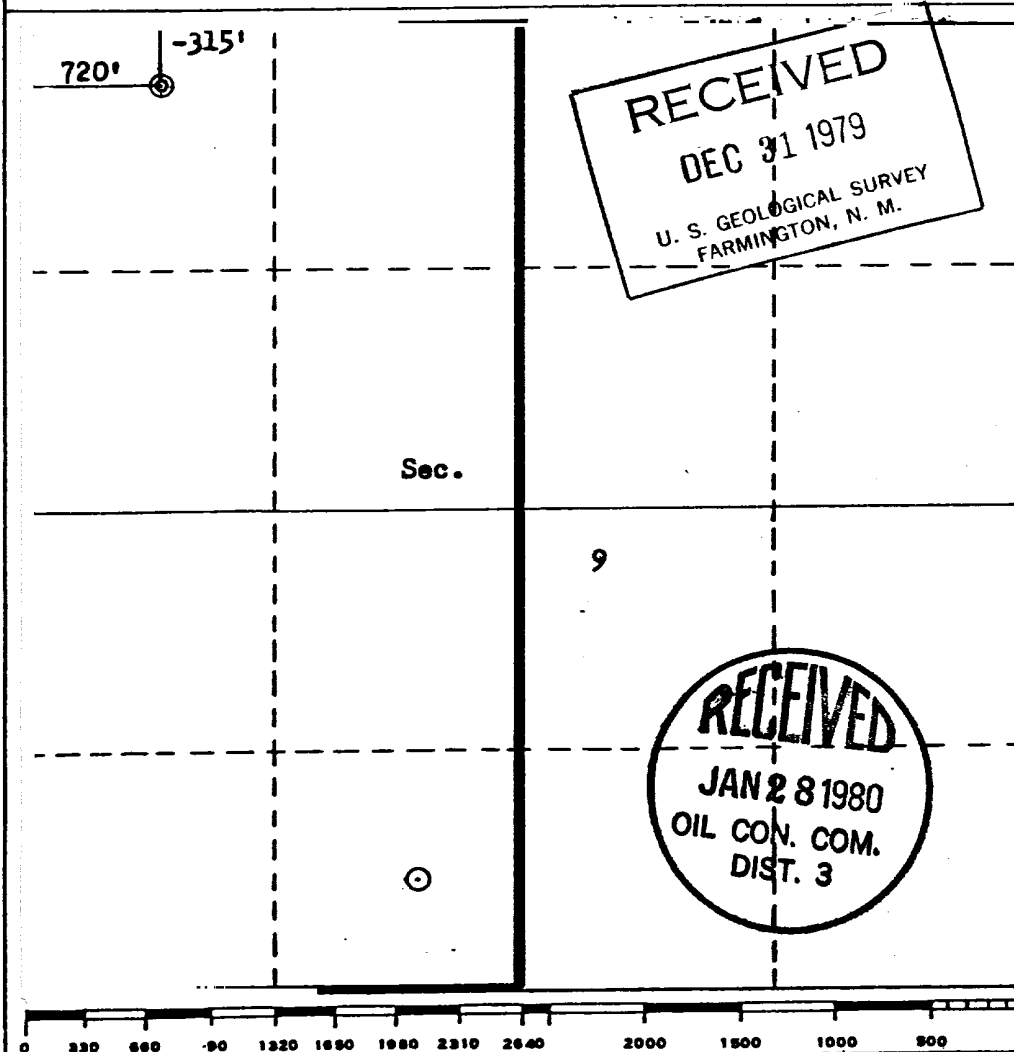
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If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

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John Alexander
Name
JOHN ALEXANDER

Position

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MESA PETROLEUM

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Date Surveyed

November 21, 1979
Registered Professional Engineer
and/or Land Surveyor

Frederic B. Ferrer, Jr.
Frederic B. Ferrer, Jr.
Certificate No. **3950**
NEW MEXICO

MESA PETROLEUM COMPANY

Formation Information and Drilling Practices

WELL:

Federal 16E

LOCATION:

315'/N and 720'/W

9-T27N-R8W

San Juan Co., NM

LEASE NUMBER:

NM 029144

1. Surface Formation

Nacimiento

2. Estimated Formation Tops

Ojo Alamo	1792	Point Lookout	5069
Pictured Cliffs	2729	Greenhorn	6949
Cliff House	4401	Dakota	7126

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

7126 Gas

4. Proposed Casing Program

0-300' ~~8 1/8" 24# 40-3/4", 40.5#~~ K-55 ST&C new casing. Cement w/ 300 sk class "B" + 2% CaCl₂

0-7310' 5 1/2", 15.5 & 17#/ft., LT&C K-55 new casing. Cement in 3 stages. Stage #1 300 sk 50-50 Pozmix w/ 2% gel and 0.6% fluid loss

stage 2 @ 5400' additive. Stage #2: 275 sk 50-50 Poz + 2% gel + 6 1/4# Gilsonite/sk preceded by 150 sk 65-35 Pozmix w/ 6% gel and 6 1/4# Gilsonite/sk.

2900' @ Stage #3: 275 sk 65-35 Pozmix + 12% gel.

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
300-7310	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: Intermed.: IES, FDC/CNL, Caliper, GR Liner: GR-Induction, FDC, Caliper

Coring: None planned

Testing: None planned

9. Abnormal Temperatures, Pressures, or potential Hazards

None expected.

10. Starting Date

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



SHAFFER TOOL WORKS

ATTACHMENT TO POINT 5
6" 650 SERIES API

SHAFFER 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

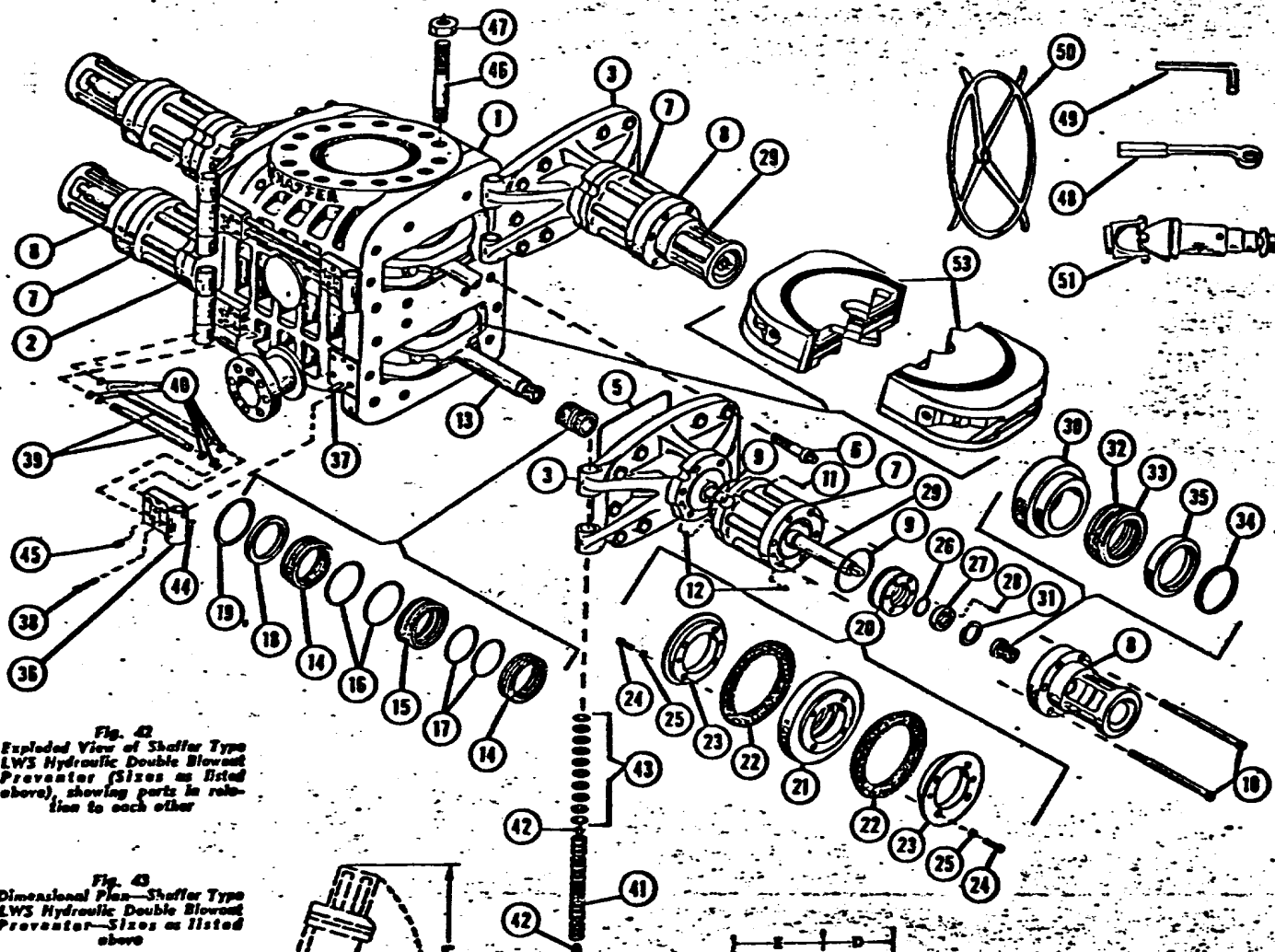


Fig. 42
Exploded View of Shaffer Type LWS Hydraulic Double Blowout Preventer (Sizes as listed above), showing parts in relation to each other

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

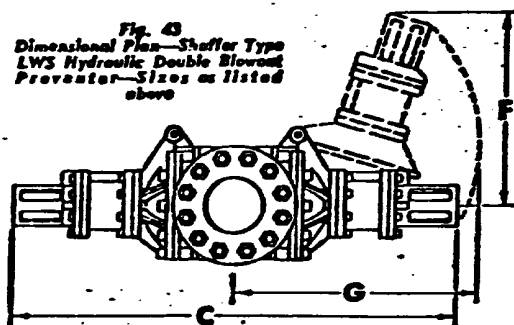
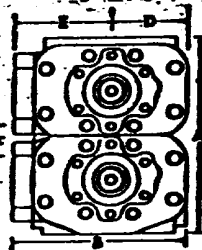


Fig. 44
Dimensional End Elevation—Shaffer Type LWS Hydraulic Double Blowout Preventer—Sizes as listed above



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

Size	Max. Serv. Press. Rating psi	Test Press. 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 Ram	U.S. Gals. Fluid To Open Ram
					Studded Flange		Height													
							Single		Double											
Single	Double	Studded Flange	Ball Flange	Studded Flange	Ball Flange	Width	Length	Center To Front	Center To Rear	Door Open To Change Rams	Door Open To Change Rams	Closing Rate	Opening Rate							
8"	3,000	6,000	8"	7"	---	3,900	---	---	29 1/2"	41 1/2"	25 1/2"	79 1/2"	11 1/4"	14 1/4"	24"	48"	1.5 to 1	1.50 to 1	2.75	2.5
10"	5,000	10,000	10"	9"	---	3,900	---	---	29 1/2"	41 1/2"	25 1/2"	79 1/2"	11 1/4"	14 1/4"	24"	48"	1.5 to 1	1.50 to 1	2.75	2.5
12"	6,000	10,000	12 1/4"	10 1/2"	5,800	7,000	34 1/2"	34 1/2"	30"	50 1/2"	25 1/2"	89 1/2"	12 1/4"	18"	24"	48"	1.5 to 1	1.50 to 1	3.25	2.5
13 5/8"	3,000	6,000	13 5/8"	10 1/2"	---	6,300	---	---	30"	47 1/2"	25 1/2"	82 1/2"	12 1/4"	18 1/2"	24"	48"	1.5 to 1	1.50 to 1	3.25	2.5
16"	5,000	10,000	16 1/2"	12 1/2"	6,800	9,700	34 1/2"	34 1/2"	30"	49 1/2"	25 1/2"	82 1/2"	14 1/4"	18 1/2"	24"	48"	1.5 to 1	1.5 to 1	3.25	2.5
18"	3,000	6,000	18 1/2"	12 1/2"	---	8,500	---	---	30"	51 1/2"	25 1/2"	106 1/2"	16 1/2"	20 1/2"	24"	48"	1.5 to 1	1.50 to 1	2.5	2.5

MESA PETROLEUM COMPANY

Surface Use Plan

WELL:

Federal 16E

LOCATION:

315'/N and 720'/W

S.9-T27N-R8W

San Juan Co., NM

LEASE NUMBER

NM 029144

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 lease road.

2. Planned Access Road

The access road will be approximately 1/2 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 5%. No fences or cattleguards will be crossed.

3. Location of Existing Wells

All wells (water, oil, gas, disposal, drilling) are shown and so labeled on the 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 various water holes in Largo Canyon. 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 otherwise be 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 wellsite 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 approx. former contour. The access road will be plowed and leveled. Both site and road will have topsoil replaced and 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 mile west of Largo Canyon. 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

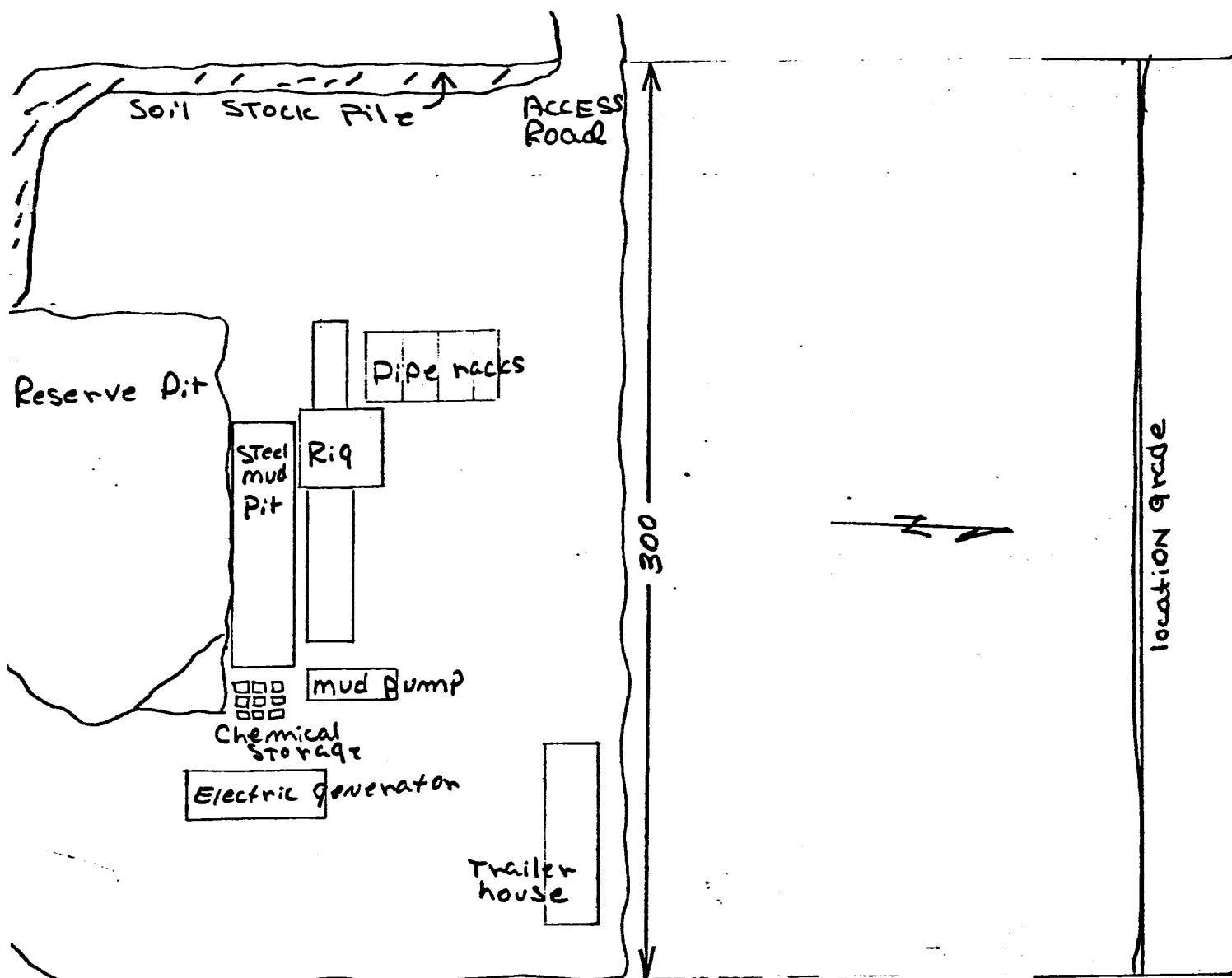
Phone: 505-327-4020

13. I hereby certify that I or persons under my direct supervision, have inspected the proposed 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.

12-26-79
DATE

John Alexander
JOHN ALEXANDER

JA:cp



horizontal scale: 1"=50'

Vertical scale: 1"=10'

MESA Petroleum CO.
Federal # 16E
315'N & 720'W
9-27N-8W
SAN JUAN CO, N.M

WELL Site PLAN

location grade

3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 —:— 505/327-4020

FARMINGTON, NEW MEXICO 87401

January 14, 1980

U.S.G.S.
Box 959
Farmington, NM 87401

Attn: James F. Sims
District Oil & Gas Supervisor

RE: Mesa Petroleum
Federal 16E
NW/4 NW/4
9-T27N, R8W

Dear Sirs:

Reference your letter of 01/10/80 concerning
the subject well:

Surface casing is to be 8 5/8" 24# K-55.

Stage tools will be placed under the Mesa Verde
formation (approximately 5400') and under the Pictured
Cliffs formation (approximately 2900').

The original well in this unit is located at
330'/S and 990'/W. The C-102 has been corrected
accordingly.

Sincerely,



John Alexander
Agent for Mesa Petroleum

JA:cp

