

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY30. 039-21895  
5. LEASE DESIGNATION AND SERIAL NO.

Contract No. 129

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Jicarilla Apache

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Apache

9. WELL NO.

121

10. FIELD AND POOL OR WILDCAT

Lindrich Gallup-  
Dakota West ext11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREASec. 13-T24N-R4W  
N.M.P.M.

12. COUNTY OR PARISH 13. STATE

Rio Arriba New Mexico

## 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

Cotton Petroleum Corporation

3. ADDRESS OF OPERATOR

2502 Lincoln Center Bldg., 1660 Lincoln St., Denver, CO. 80264

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

At surface

480' FNL, 980' FEL

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 drig. unit line, if any)

480'

16. NO. OF ACRES IN LEASE

--

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

160 acres

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

19. PROPOSED DEPTH

7700'

20. ROTARY OR CABLE TOOLS

Rotary

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

6853' GR

22. APPROX. DATE WORK WILL START\*

1-1-79

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"	24.0	300'	300 sacks
7-7/8"	4-1/2"	10.50 & 11.60	7700'	To be determined

It is proposed to drill this well with rotary tools, and drilling mud as a circulation medium, through the Dakota Formation. Possible production zones in the Gallup and Dakota Formation will be completed and downhole commingled. Production casing will be cemented in such a manner as to protect the Pictured Cliffs Formation. Fence reserve pit on 3 sides before spudding. Fence 4th side when MORT.

## Estimated Formation Tops

Pictured Cliffs	2850'	Greenhorn	7000'
Cliff House	4490'	Graneros	7055'
Gallup	6160'	Dakota	7075'

The NE/4 of Section 13 is dedicated to this well. 160 acres. The natural gas to be produced from this well is committed.

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 D. E. Wood TITLE Division Production Manager DATE 9-5-78

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

ok Brub

U. S. GEOLOGICAL SURVEY  
DENVER, COLO.

\*See Instructions On Reverse Side

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Superseded C-128  
Effective 1-1-65

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

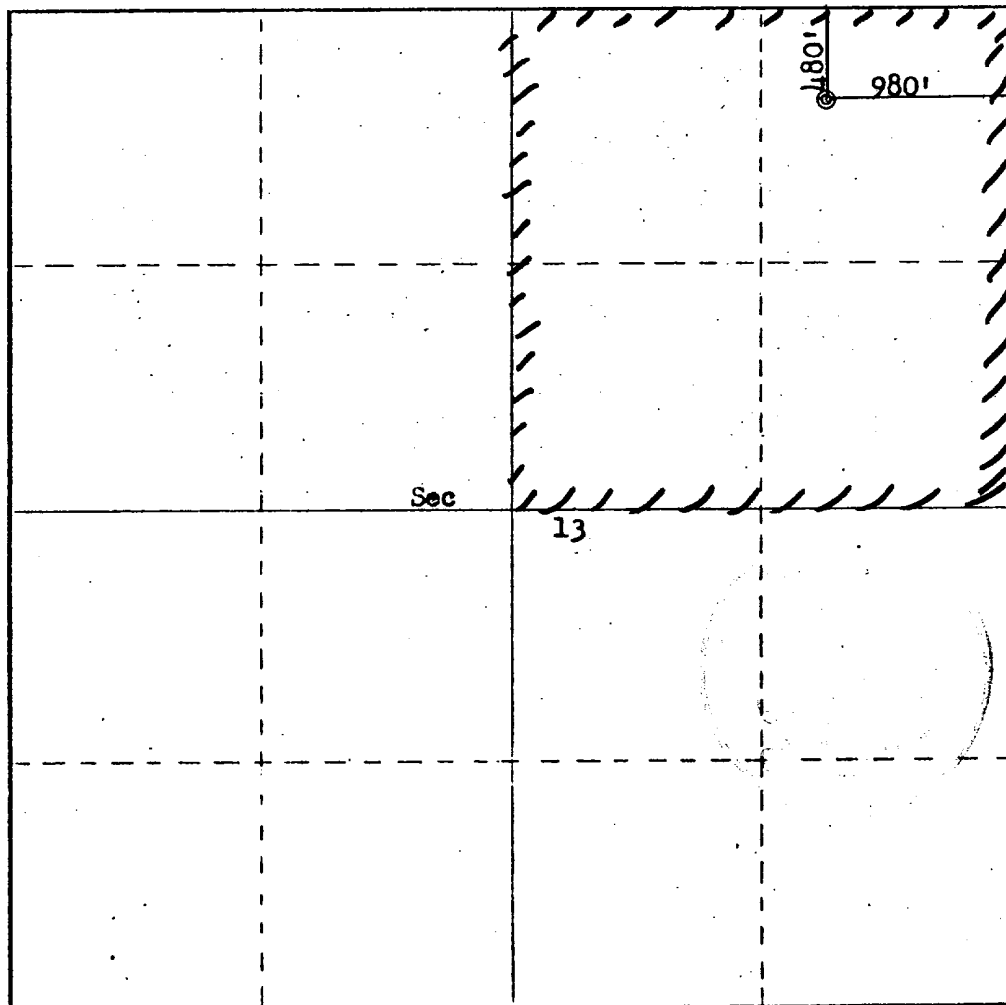
Operator <b>COTTON PETROLEUM CORPORATION</b>			Lease <b>APACHE</b>		Well No. <b>121</b>
Unit Letter <b>A</b>	Section <b>13</b>	Township <b>24N</b>	Range <b>4W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well: <b>480</b> feet from the <b>North</b> line and <b>980</b> feet from the <b>East</b> line					
Ground Level Elev. <b>6853</b>	Producing Formation <b>Dakota</b>	Pool <b>Lindrith Gallup-Dakota West</b>			Dedicated Acreage: <b>160</b> 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.

*D. E. Wood*  
Name  
**D. E. Wood**

Position  
**Division Production Manager**

Company  
**Cotton Petroleum Corporation**

Date  
**September 5, 1978**

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

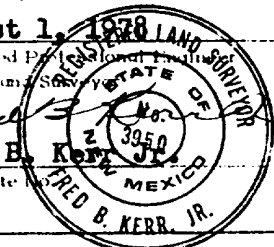
**August 1, 1978**

Registered Professional Engineer and/or Land Surveyor

*Fred B. Kerr, Jr.*  
**Fred B. Kerr, Jr.**

Certificate No. **3950**

**3950**



0 330 660 990 1320 1650 1980 2310 2640 2000 1800 1000 800 0

COTTON PETROLEUM CORPORATION  
APACHE NO. 121

Multi-Point Surface Use Plan

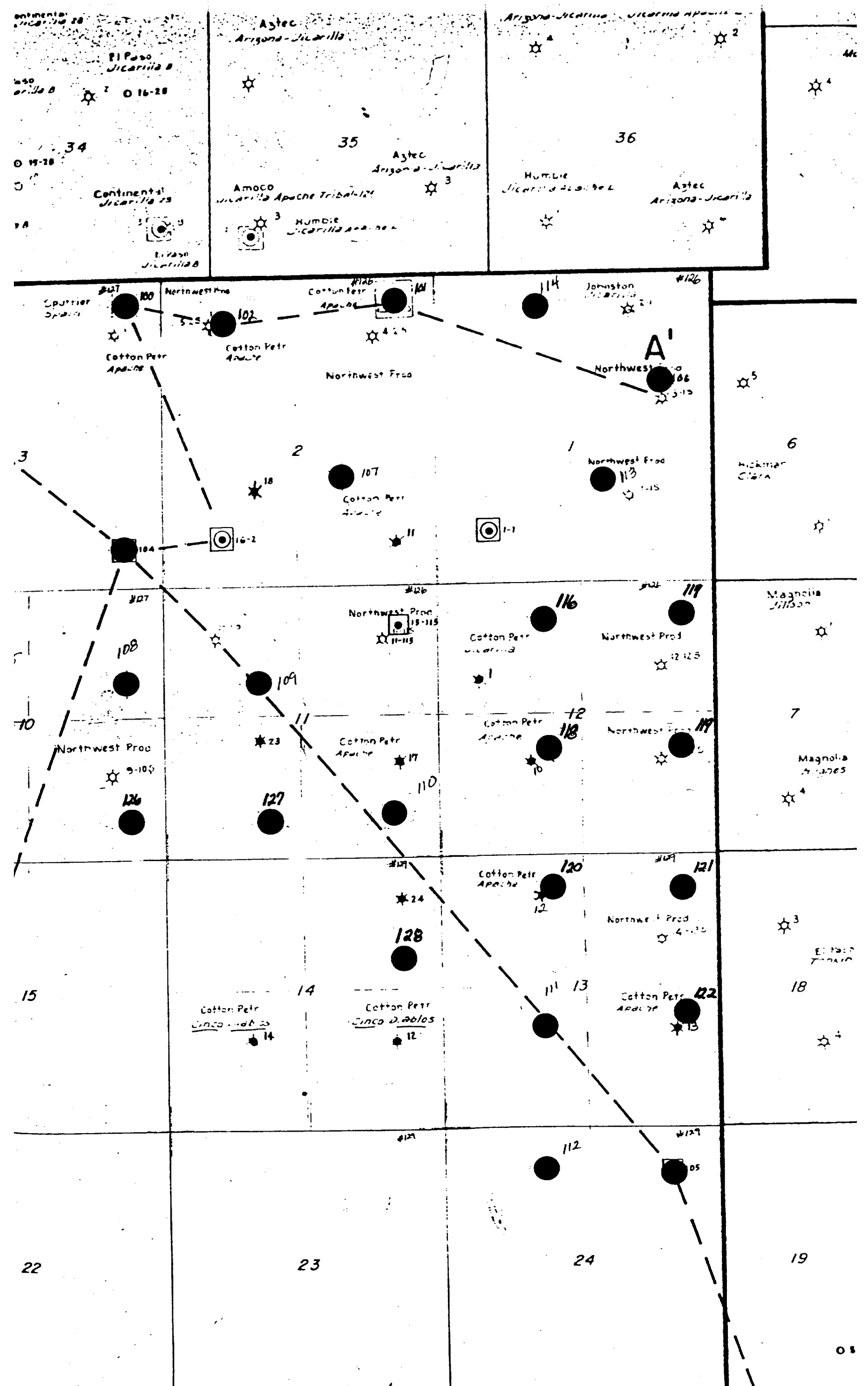
1. Existing Road - Please refer to Map No. 1 which shows the existing roads. New roads which will be required have been marked on this map. All existing and new roads will be properly maintained during the duration of this project.
2. Planned Access Roads - Please refer to Map No. 1. The grade of the access roads will be consistent with that of the local terrain. The road surface will not exceed twenty feet (20') in width. Upon completion of the project, the access road will be adequately drained to control soil erosion. Drainage facilities may include ditches, water bars, culverts or any other measure deemed necessary by trained Company personnel to insure proper drainage. Gates and/or cattleguards will be installed if necessary.
3. Location of Existing Wells - Please refer to Attachment No. 2.
4. Location of Tank Batteries - Production facilities will be installed on location.
5. Location and Type of Water Supply - Water for the proposed project will be obtained from a water hole located at Largo Wash, SW/4, Sec. 9, T24N, R4W.
6. Source of Construction Materials - No additional materials will be required to build either the access road or the proposed location.
7. Methods of Handling Waste Materials - All garbage and trash materials will be put into a burn pit shown on Attachment No. 3. When clean-up operations are begun on the proposed project, the burn pit with its refuse will be buried to a depth of at least three feet (3'). If large amounts of liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying any of these materials into the watershed. No earthen pit will be located

on natural drainages; all earthen pits will be so constructed as to prevent leakage from occurring.

8. Ancillary Facilities - No camps or airstrips will be associated with this project.
9. Wellsite Layout - Please refer to Attachment No. 3.
10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be left in such a condition that will enable reseeding operation to be carried out. The reseeding operation will be performed during the time period set forth by the regulatory body. The location production equipment will be painted.
11. Other Information - The terrain is high sandstone ledges and sagebrush flats with pinon and cedar growing. Cattle graze the proposed project site.
12. Operator's Representatives -  
Howard Davis  
Farmington, New Mexico  
Phone: (505) 325-2409 (Office)  
(505) 327-6443 (Home)  
Steve Zamets  
Denver, Colorado  
Phone: (303) 861-9202 (Office)  
(303) 451-7115 (Home)  
D. E. Wood  
Denver, Colorado  
Phone: (303) 861-9202 (Office)  
(303) 770-2177 (Home)
13. Certification - 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 this 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 Cotton Petroleum Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

  
\_\_\_\_\_  
D. E. Wood, Division Production Manager





COLEMAN DRILLING CO.

P. O. BOX 1915

FARMINGTON, N. M. 87401

PHONE 505 / 325-6892

DRILLING RIG INVENTORY

RIG # 2

RATED DEPTH CAPACITY 8,000 FEET WITH 4 1/2" DRILL PIPE

DERRICK: 127' LEE C. MOORE W/440,000 HOOK LOAD CAPACITY

SUBSTRUCTURE: LEE C. MOORE - 13' K.B.

DRAWWORKS: H-40 D IDECO

ENGINES: 2 EACH V-8 DETROIT DIESEL

MUD PUMPS: IDECO MM600 W/CATERPILLER D-379TA  
555 MAX. HP AT 1100 RPM  
500 INT. HP AT 1100 RPM  
420 CONT. HP AT 1100 RPM

AUXILIARY MUD PUMP  
GARDNER-DENVER F X Z  
W/343TAC CATERPILLER

DESILTER: PIONEER 8 CONE CAPACITY 400 GPM

MUD TANK: 1 EACH 500 BBL. (42 GAL PER BBL.) WORKING CAPACITY

WATER STORAGE: 1 EACH 480 BBL. (42 GAL PER BBL.)

GENERATORS: 1 EACH 90 KW AC AND 1 EACH 30 KW AC

ROTARY TABLE: 23" IDECO

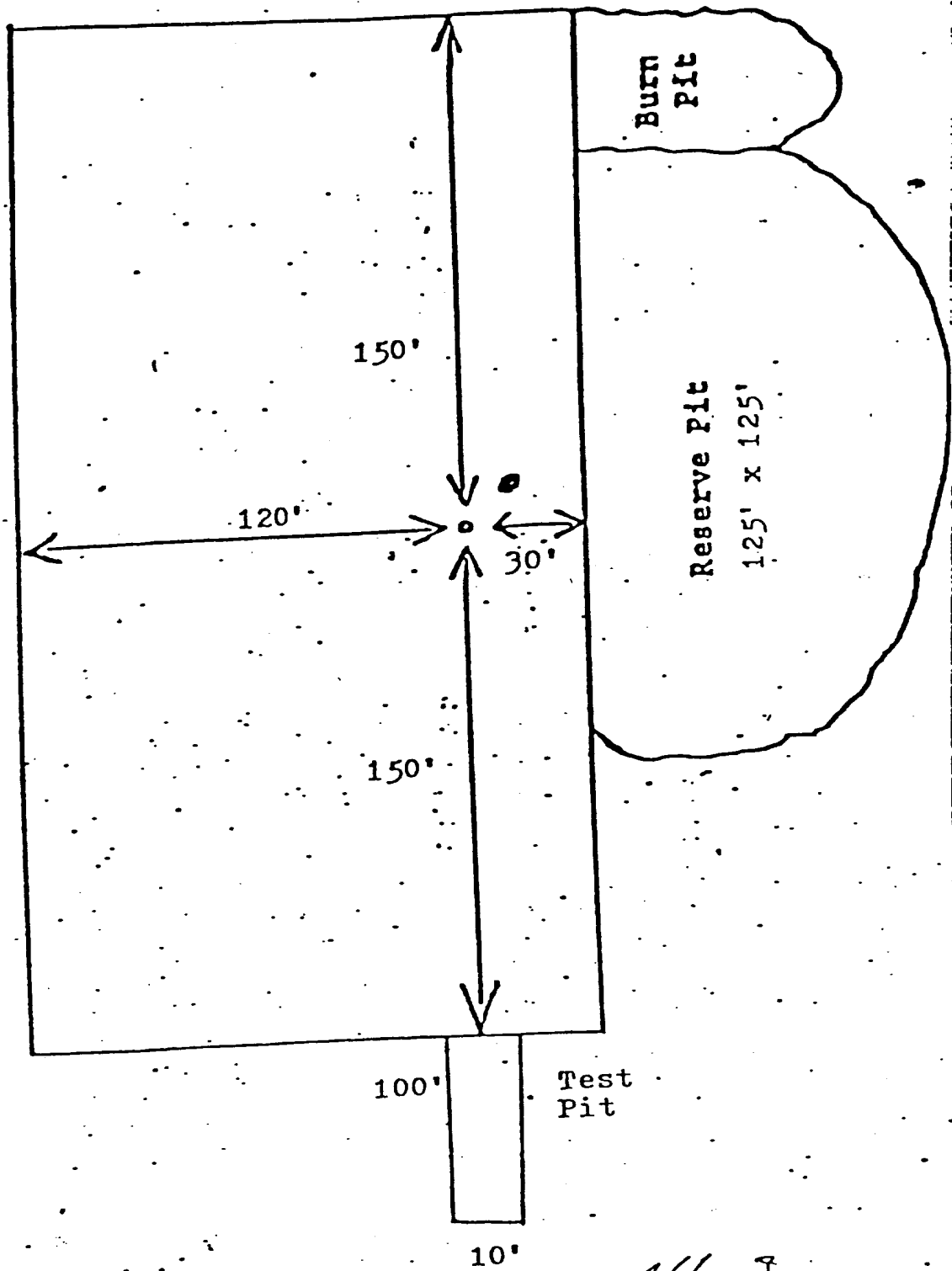
TRAVELING BLOCK: NATIONAL 430 - 150 TONS W/COMB. HOOK

SWIVEL: OILWELL PC 225

BLOW OUT PREVENTER: 10" SHAFFER LWS 3000 WP HYDRAULIC

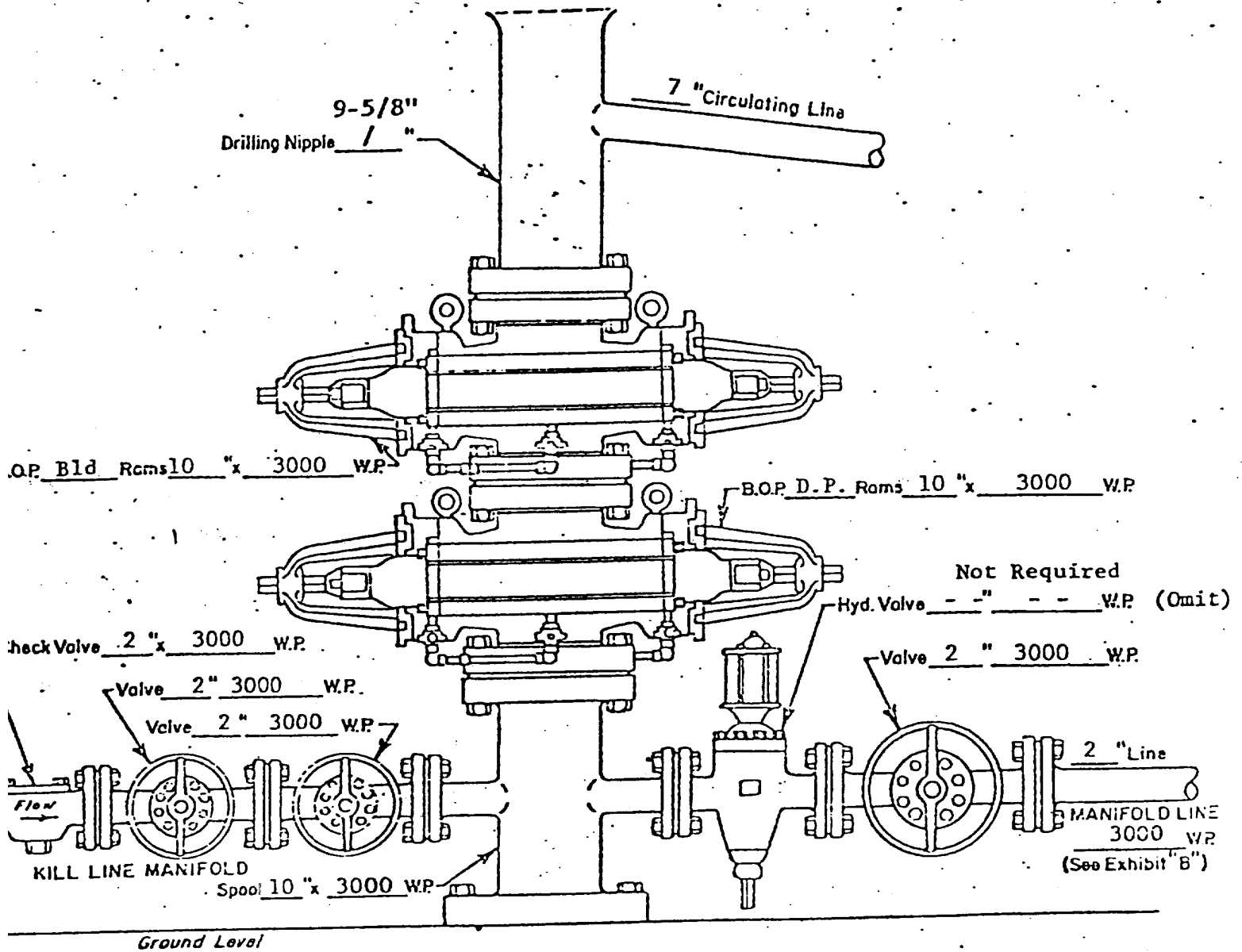
SPECIAL: CROWN-O-MATIC  
SATELITE AUTOMATIC DRILLER  
TONG TORQUE GAUGE  
RATE OF PENETRATION RECORDER  
SHALE SHAKER  
TRAILER HOUSE  
TWO-WAY RADIO

JUNE 1977





WELL NAME: Apache No. 121  
LOCATION : 480' FNL, 980' FEL  
Sec. 13-T24N-R4W  
Rio Arriba Co., N.M.



WELL HEAD B.O.P.  
3000 W.P.

☒ Hydraulic

COTTON PETROLEUM CORPORATION  
APACHE NO. 121  
480' FNL, 980' FEL  
Sec. 13-T24N-R4W  
Rio Arriba Co., N.M.

**Seven Point Well Control Program**

1. Surface Casing.  
See Application for Permit to Drill.
2. Spools and Flanges.
  - A. Surface Casing - 10", Series 900, 3000 psi W.P.
  - B. Production, 10", Series 900, 3000 psi W.P.
  - C. Tubing Head - Series 900, 3000 psi. W.P.
3. Intermediate Casing.  
None
4. Blowout Preventers  
Production Hole - 10", 3000 psi  
Fill, kill and choke manifold - 5000 psi. W.P.
5. Additional Equipment (If necessary)
  - A. Kelly Cock
  - B. Bit Float
  - C. Degasser
  - D. Pit Level Indicator
  - E. Sub with Valve for  
drill pipe.
6. Anticipated Bottom Hole Pressure.  
3100 psi. Current mud program is for 9.2 lb./gal mud with hydrostatic head of 3600 psi at 7390 feet. Mud weight will be increased if necessary for higher pressures.
7. Drilling Fluid.  
Oil Base Mud.