

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. Contract No. 127		
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache		
2. NAME OF OPERATOR COTTON PETROLEUM CORPORATION			7. UNIT AGREEMENT NAME		
3. ADDRESS OF OPERATOR 2502 Lincoln Center Bldg., 1660 Lincoln, Denver, Colo. 80264			8. FARM OR LEASE NAME Apache		
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 2100'FNL, 660 FEL, Sec. 10 At proposed prod. zone			9. WELL NO. 108		
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*			10. FIELD AND FOOT OF THE LEASE Lincoln Gallup Dakota West Ext ✓		
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 10-T24N-R4W N.M.P.M.		
16. NO. OF ACRES IN LEASE -			12. COUNTY OR PARISH 13. STATE Rio Arriba New Mexico		
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. 7700'		
19. PROPOSED DEPTH 7700'			20. ROTARY OR CABLE TOOLS Rotary		
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6762'GR			22. APPROX. DATE WORK WILL START* 6-15-78		

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

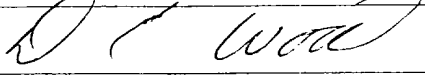
It is proposed to drill this well with rotary tools, and drilling mud as a circulation medium, through the Dakota Formation. Possible production zones in the Gallup and Dakota Formation will be completed and downhole commingled. Production casing will be cemented in such a manner as to protect the Pictured Cliffs Formation.

Estimated Formation Tops

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

The NE/4 of Section 10 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.  Division Production Manager May 4, 1978
SIGNED D. E. Wood TITLE _____ DATE _____
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY: _____

ok Brink

*See Instructions On Reverse Side

U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

RECEIVED

MAY 8 1978

**NEW MEXICO OIL CONSERVATION COMMISSION
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.

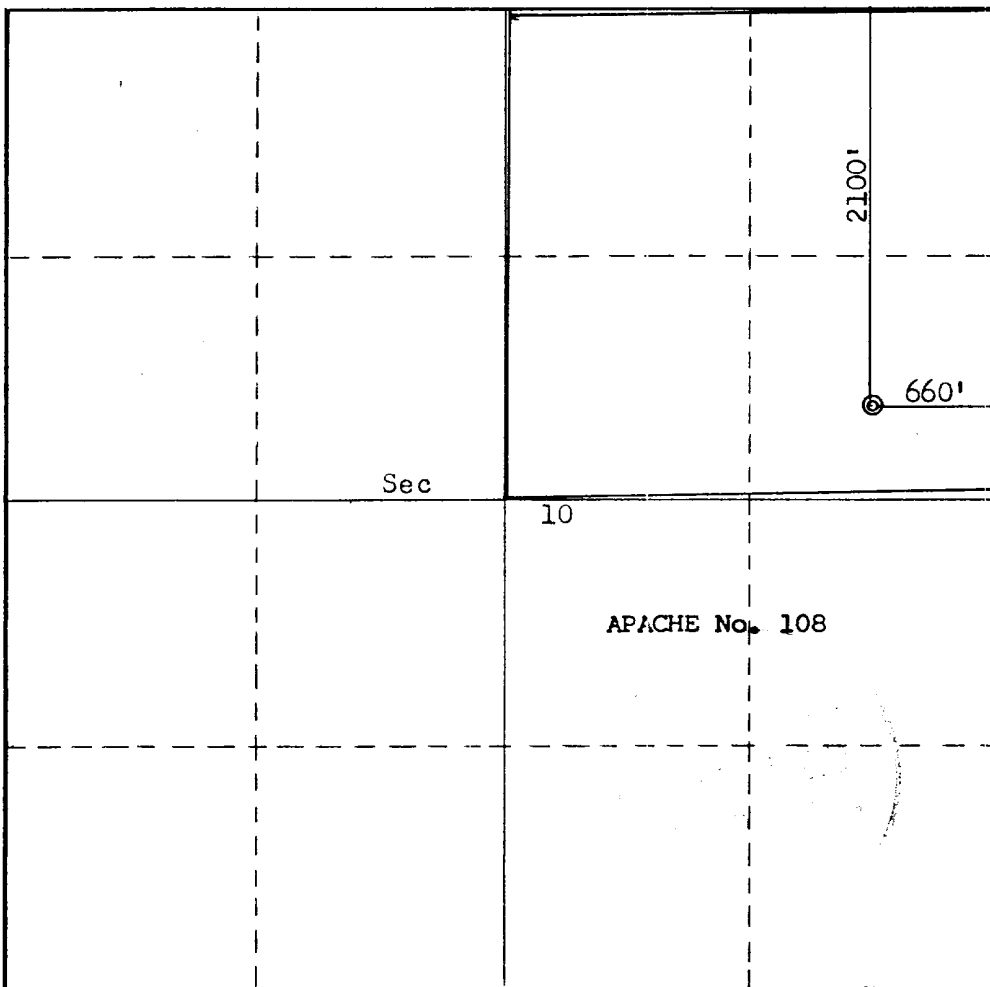
Operator COTTON PETROLEUM CORPORATION			Lease Apache		Well No. 108
Unit Letter H	Section 10	Township 24N	Range 4W	County Rio Arriba	
Actual Footage Location of Well: 2100 feet from the North line and 660 feet from the East line					
Ground Level Elev. 6762	Producing Formation Dakota		Pool Lindrith Gallup-Dakota West		Dedicated Acreage: 160 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

May 4, 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

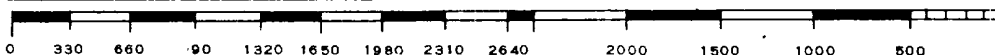
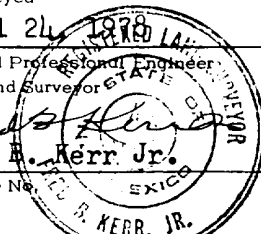
April 24, 1978

Registered Professional Engineer and/or Land Surveyor

Fred A. Kerr Jr.
Fred A. Kerr Jr.

Certificate No.

3950



COLEMAN DRILLING CO.

P. O. BOX 1915

FARMINGTON, N. M. 87401

PHONE 505 / 325-6892

APR 21 1978

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

COLEMAN DRILLING CO.

WELL NAME: _____

LOCATION : _____

9-5/8" Drilling Nipple / " 7 "Circulating Line

B.O.P. Bld Rams 10 "x 3000 W.P.

B.O.P. D.P. Rams 10 "x 3000 W.P.

Not Required

Hyd. Valve - " - - W.P. (Omit)

Check Valve 2 "x 3000 W.P.

Valve 2 " 3000 W.P.

Valve 2 " 3000 W.P.

Valve 2 " 3000 W.P.

2 "Line

MANIFOLD LINE
3000 W.P.
(See Exhibit "B")

KILL LINE MANIFOLD

Spool 10 "x 3000 W.P.

Ground Level

WELL HEAD B.O.P.

3000 # W.P.

☒ Hydraulic

COTTON PETROLEUM CORPORATION
APACHE NO. 108

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

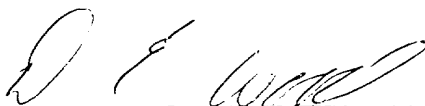
on natural drainages; all earthen pits will be so constructed as to prevent leakage from occurring.

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: (Cotton Petroleum Corporation)

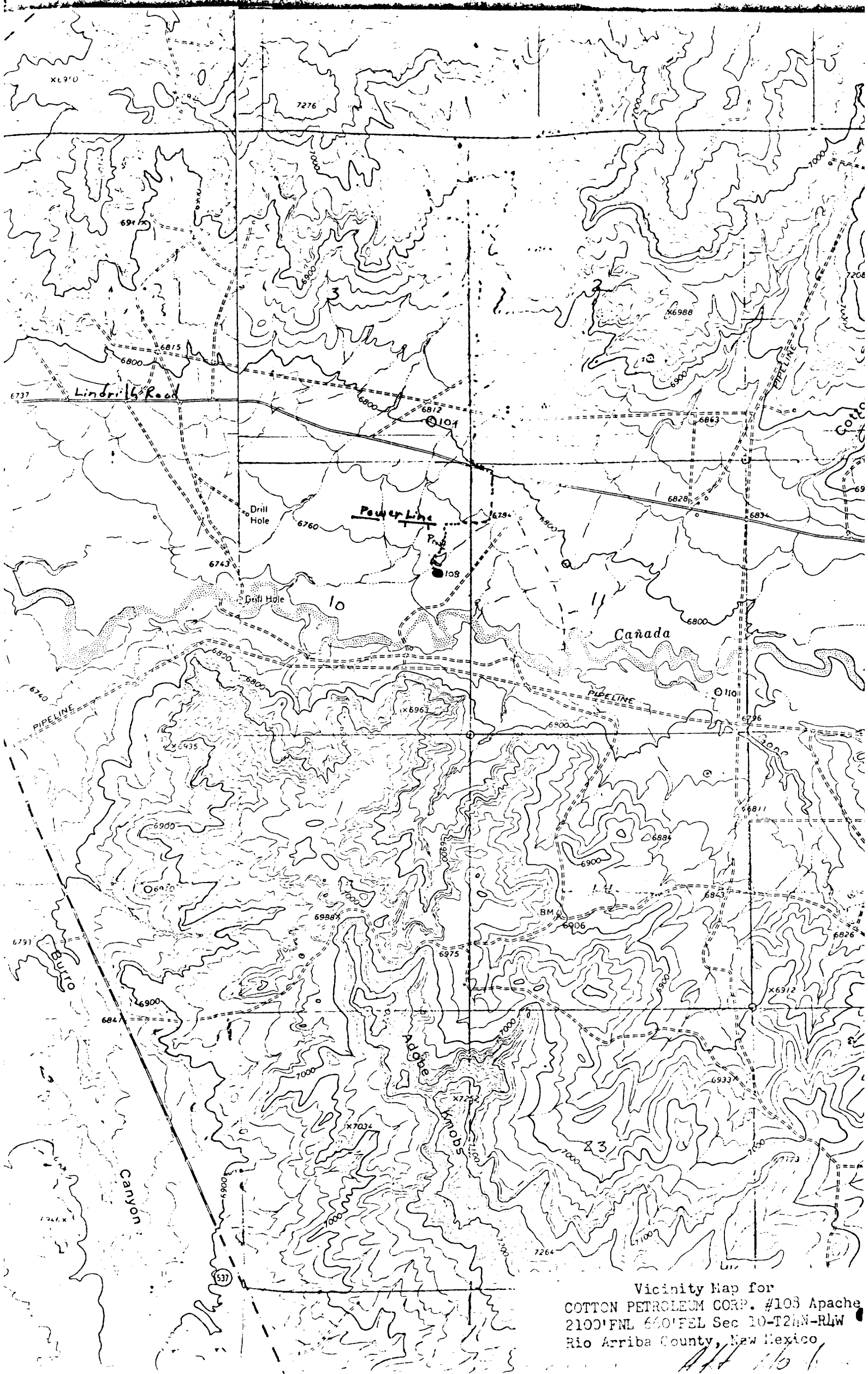
Walsh Engineering
Farmington, New Mexico
Phone: (505) 325-8203

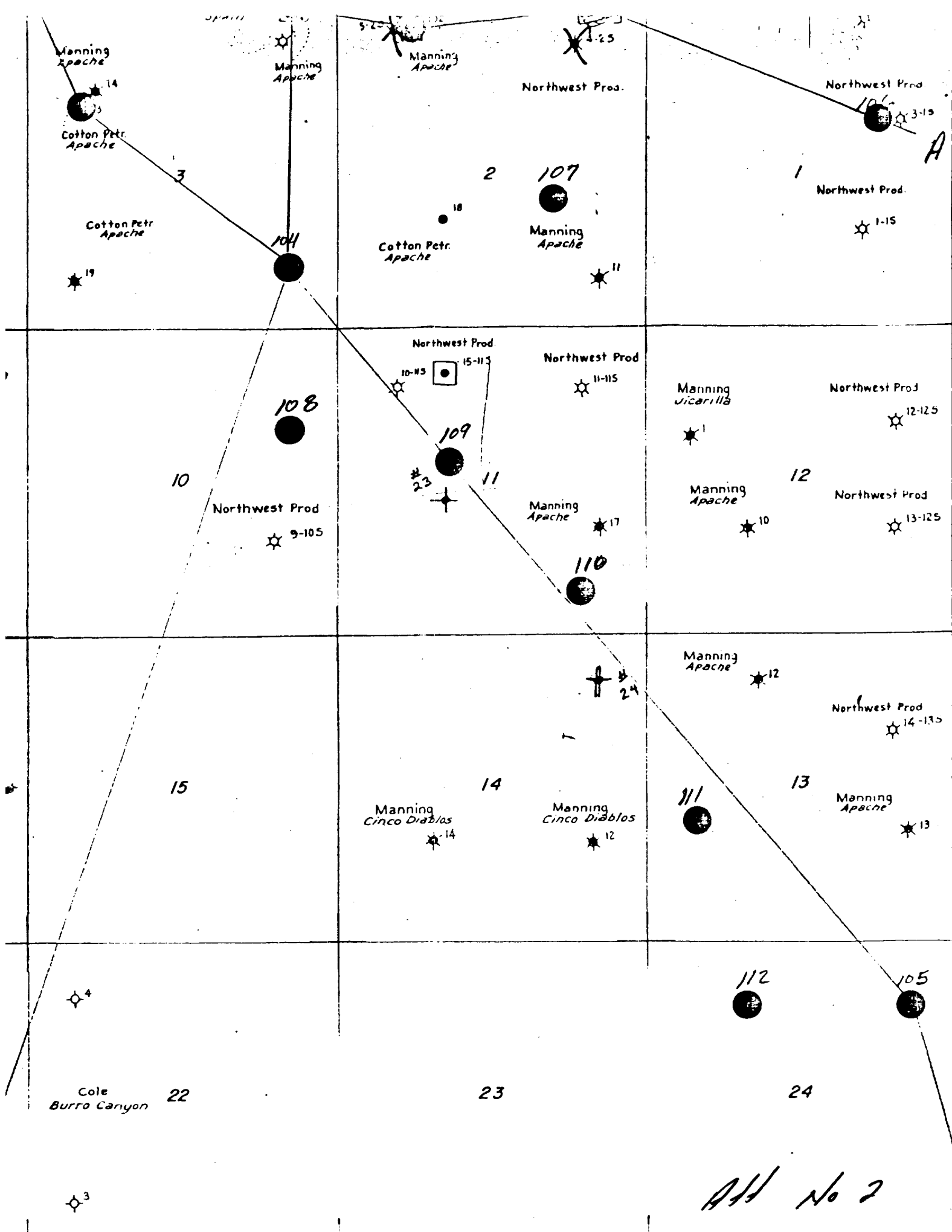
D. E. Wood
Denver, Colorado
Phone: (303) 861-9202 (Office)
(303) 770-2177 (Home)
13. Certification - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements 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 sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

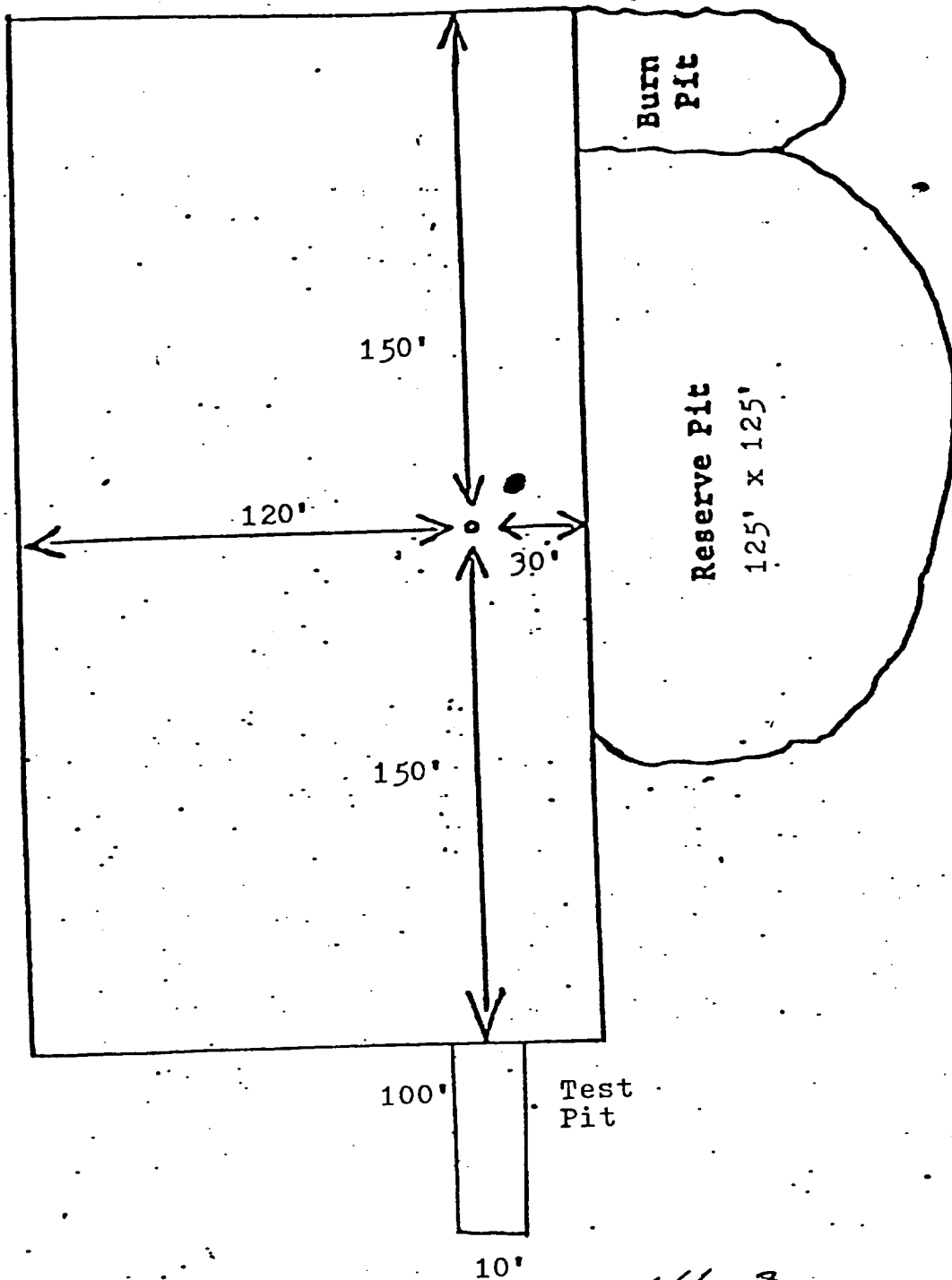
May 4, 1978



D. E. Wood, Division Production Manager







APP 3

COTTON PETROLEUM CORPORATION
APACHE NO. 108
2100 FNL, 660 FEL, Sec. 10-T24N-R4W
Rio Arriba County, New Mexico

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.