

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY30-043-20455  
5. LEASE DESIGNATION AND SERIAL NO.

NM21454

6. IF INDIAN, ALLOTTED OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Alamos Canyon

9. WELL NO.

4

10. FIELD AND POOL, OR WILDCAT

Wildcat Chacra

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

Sec. 21-21N-6W

12. COUNTY OR PARISH

Sandoval

13. STATE

N. M.

## 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

Jack A. Cole

3. ADDRESS OF OPERATOR

P. O. Box 191, Farmington, New Mexico 87401

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

At surface

1110/S and 1120/E Sec. 21-T21N-R6W

At proposed prod. zone

Same

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

17 miles SW Counselors, New Mexico

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drig. unit line, if any)

1110 ft.

16. NO. OF ACRES IN LEASE

1040

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION\*

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

None

19. PROPOSED DEPTH

2200

20. ROTARY OR CABLE TOOLS

Rotary

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

6889 Gr.

22. APPROX. DATE WORK WILL START\*

February 1, 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	24.0	75	Circulate
6 3/4	4 1/2	10.5	2200	100 sacks

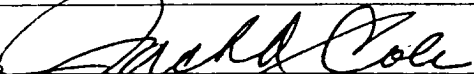
It is proposed to drill to TD of 2200'. Run ES-Ind and GR-Density logs, run 4 1/2" casing to TD. Perforate casing opposite Chacra sand and sand-water frac treat down casing; run 1" tubing to 2000' and complete as Chacra natural gas well.

Gas is not dedicated to pipeline.

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



TITLE

Operator

DATE December 12, 1979

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

DEC 28 1979

U. S. GEOLOGICAL SURVEY  
DIIRANCN 0010

## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2048  
SANTA FE, NEW MEXICO 87501Form C-107  
Revised 10-1-78

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

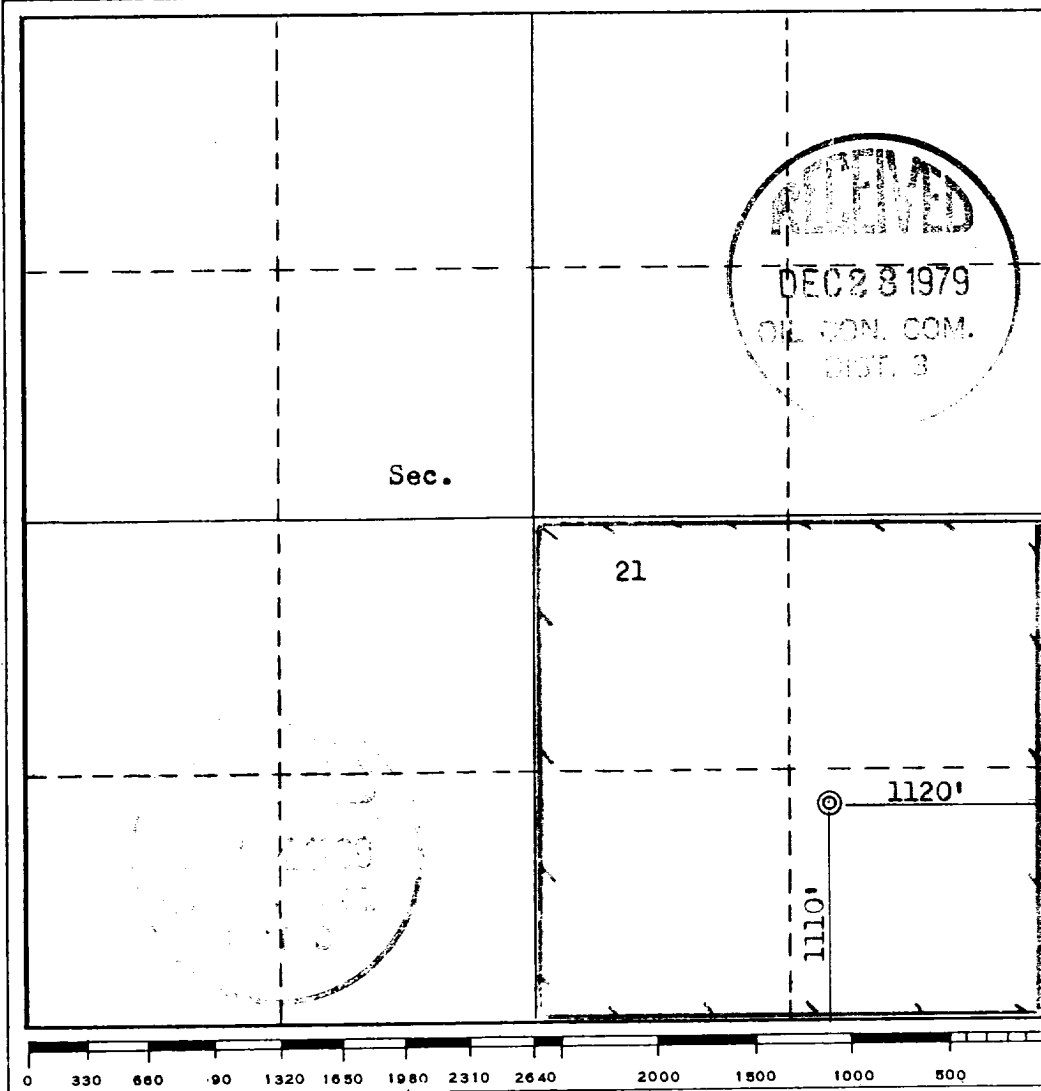
Operator <b>JACK A. COLE</b>			Lease <b>ALAMOS CANYON</b>			Well No. <b>4</b>		
Unit Letter <b>P</b>	Section <b>21</b>	Township <b>21N</b>	Range <b>6W</b>	County <b>Sandoval</b>				
Actual Footage Location of Well: <b>1110</b> feet from the <b>South</b> line and <b>1120</b> feet from the <b>East</b> line								
Ground Level Elev. <b>6889</b>		Producing Formation <b>Chacra</b>		Pool <b>Wildcat</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.

Name  
**Jack A. Cole**

Position  
**Operator**

Company

Date  
**December 12, 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

**December 12, 1979**

Registered Professional Engineer  
and/or Land Surveyor

**Fred B. Kerr Jr.**

Certification No.  
**3950**

JACK A. COLE  
PETROLEUM GEOLOGIST  
P.O. BOX 191  
FARMINGTON, NEW MEXICO 87401  
(505) 325 - 1415

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December 12, 1979

United States Department of Interior  
Geological Survey-Durango District  
P. O. Box 1809  
Durango, Colorado 81301

Reference: 13 Point Environmental Program - Jack A. Cole -  
Alamos Canyon #4, 1110/S and 1120/E Sec. 21-T21N-R6W,  
Sandoval County, New Mexico

Gentlemen:

In compliance with governmental requirements, I hereby respectfully submit the following environmental data to accompany the application for permit to drill the above referenced test well.

1. Access to location from N.M. Highway 44, turn right at Counselors, New Mexico, on main road. Travel south approximately 12 miles and turn left approximately 3 miles, all on existing roads.
2. Existing road to be utilized to within 300' of drillsite from which point a minimum width graded access road to be prepared to drillsite.
3. Well location as shown on attached survey plat and map.
4. Lateral road to well location as described in Item 2.
5. If gas production established, adequate production facilities to be installed immediately west of wellsite to accommodate a pipeline connection.
6. Water will be trucked to location from nearest source, a water hole located in NW $\frac{1}{4}$ , Sec. 16-T21N-R6W via existing roads.
7. A reserve pit will be utilized for waste disposal. Trash will be buried 4 feet below surface.
8. No camps are planned.

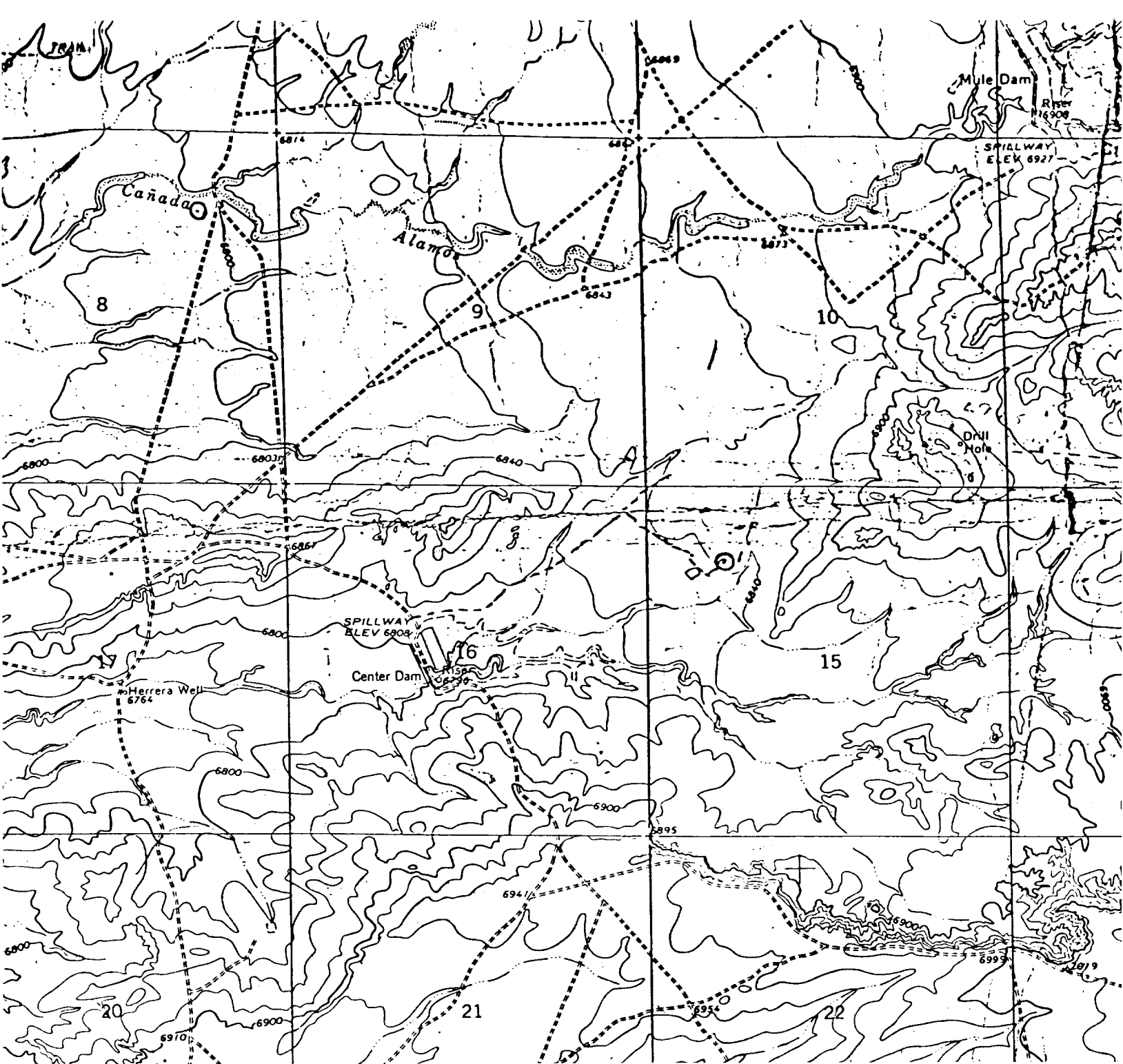
9. No airstrips are planned.
10. Location layout indicated on attached plat as furnished by Aztec Drilling Company.
11. Following drilling, mud pits to be fenced and allowed to dry, then filled with surface soil previously evacuated. Location, except for wellhead site and production equipment, to be restored to original condition as much as practicable.
12. The location is located in an area of relatively flat topography. No major rivers are in the immediate vicinity.
13. Three sides of reserve pit shall be fenced during drilling operations and the fourth side to be fenced after rig moves.

Very truly yours,



Jack A. Cole

JAC:njs



JACK A. COLE  
PETROLEUM GEOLOGIST  
P.O. BOX 191  
FARMINGTON, NEW MEXICO 87401  
(505) 325 - 1415

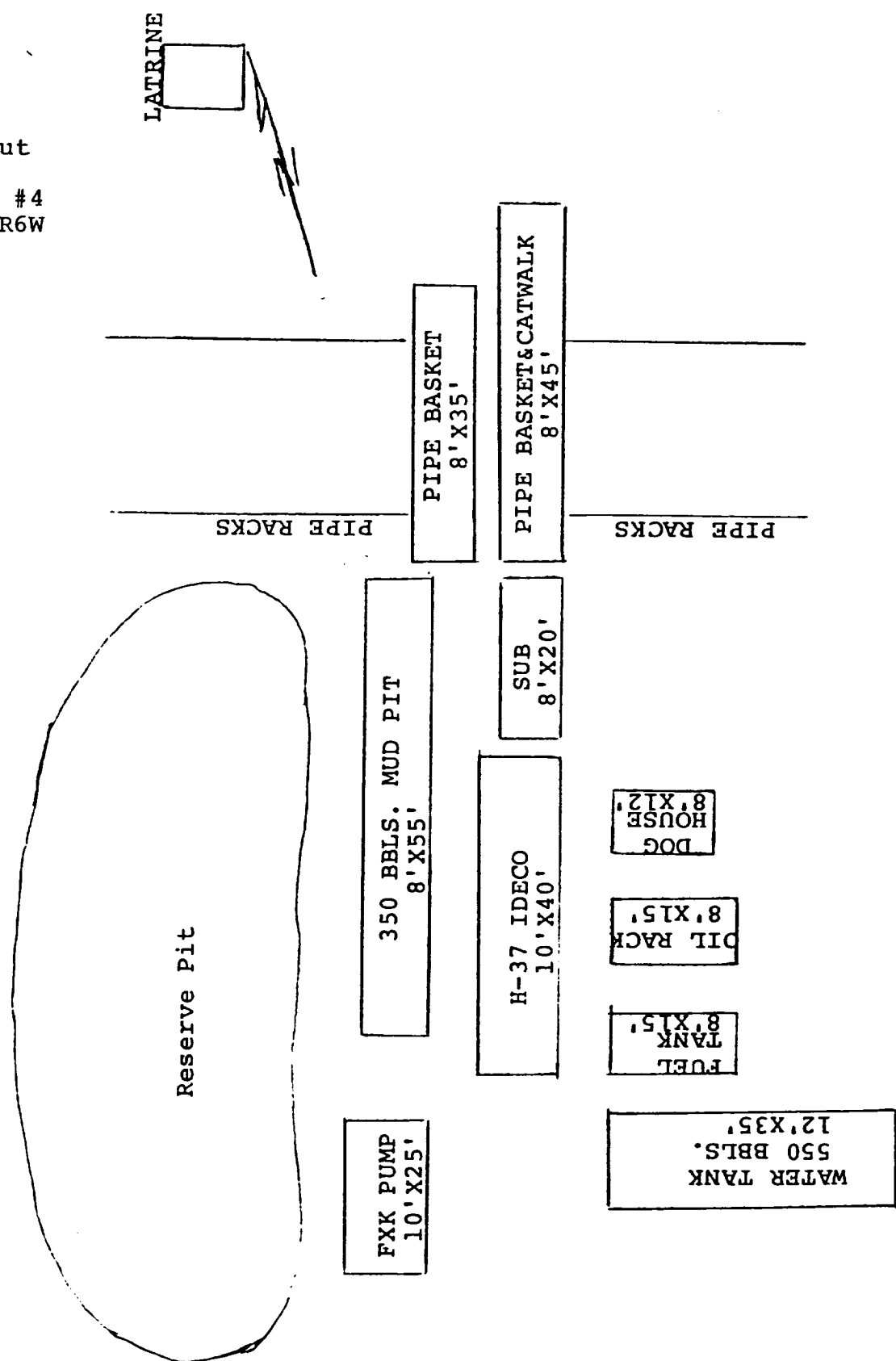
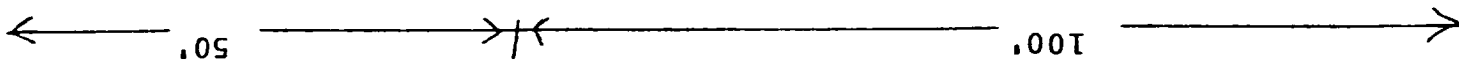
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JACK A. COLE  
ALAMOS CANYON #4  
1110/S and 1120/E Sec. 21-T21N-R6W  
Sandoval County, New Mexico

Seven Point Well Control Program

1. Surface Casing.  
See Application for Permit to Drill.
2. Spools and Flanges.
  - A. Surface Casing - 10", Series 600, 1500 psi W.P.
  - B. Production, 10", Series 600, 1500 psi W.P.
  - C. Tubing Head - Series 600, 1500 psi W.P.
3. Intermediate Casing.  
None
4. Blowout Preventers.  
Production Hole - 10", 300 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.  
1000 psi. Current mud program is for 9.2 lb./gal. mud with hydrostatic head of 1500 psi at 3000 feet. Mud weight will be increased if necessary for higher pressures.
7. Drilling Fluid.  
Low solids. Low water loss.

Location Layout  
 Jack A. Cole  
 Alamos Canyon #4  
 Sec. 21-T21N-R6W



Aztec Well Service  
 Rig No. 1

JACK A. COLE  
PETROLEUM GEOLOGIST  
P.O. BOX 191  
FARMINGTON, NEW MEXICO 87401  
(505) 325 - 1415

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December 12, 1979

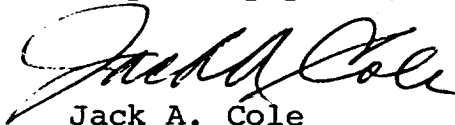
United States Geological Survey  
P. O. Box 1809  
Durango, Colorado

Certification: Operator's Representative-Jack A. Cole,  
P. O. Box 191, Farmington, New Mexico  
(505) 325-1415 - Alamos Canyon #4

Gentlemen:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drilling site and access routes; that I am familiar with the conditions that 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 Jack A. Cole, and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Jack A. Cole".

Jack A. Cole  
Operator's Representative