

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

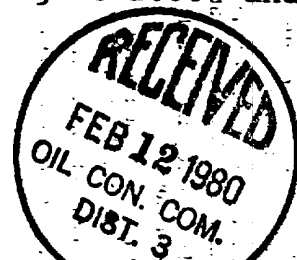
30-043-20457

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. NM36941	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			6. IF INDIAN, ALLOTTED OR TRIBE NAME	
2. NAME OF OPERATOR Jack A. Cole			7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR P. O. Box 191, Farmington, New Mexico 87401			8. FARM OR LEASE NAME Alamos Canyon	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1100/N and 1120/W Sec. 15-T21N-R6W At proposed prod. zone Same			9. WELL NO. 1	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 15 miles SW Counselors, New Mexico			10. FIELD AND POOL, OR WILDCAT Wildcat Chacra	
18. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. [Also to nearest drilg. unit line, if any] 1120 ft.		16. NO. OF ACRES IN LEASE 2040	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.) 6839 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	70	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 production 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 Jack A. Cole TITLE Operator DATE December 12, 1980
(This space for Federal or State office use)

PERMIT NO. APPROVED	APPROVAL DATE
APPROVED BY <u>James F. Sims</u>	TITLE <u>State</u>
CONDITIONS OF APPROVAL, IF ANY:	DATE
JAMES F. SIMS DISTRICT ENGINEER	JAN 8 1980

*See Instructions On Reverse Side

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

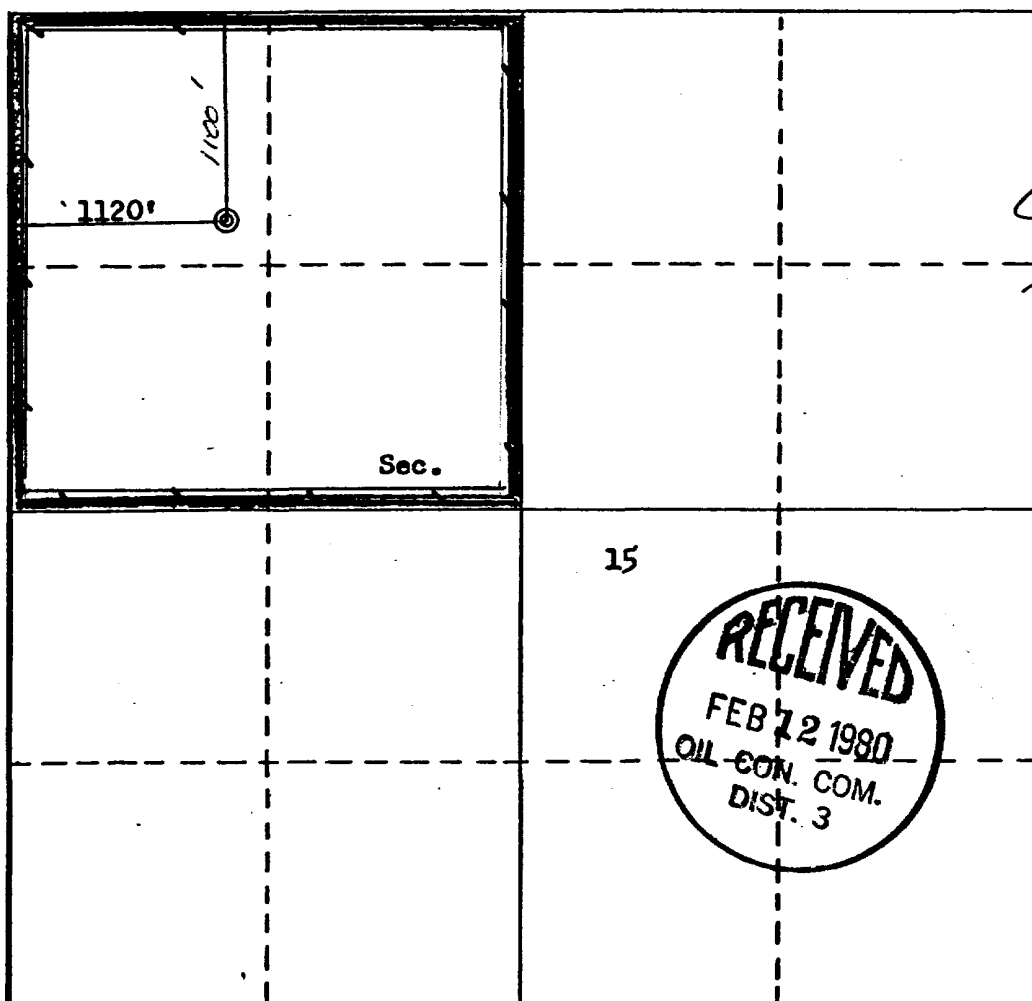
Operator JACK A. COLE			Lease ALAMOS CANYON		Well No. 1
Unit Letter D	Section 15	Township 21N	Range 6W	County Sandoval	
Actual Footage Location of Well: 1100 feet from the North line and 1120 feet from the West line					
Ground Level Elev. 6839	Producing Formation Chacra	Pool Wildcat Chacra		Dedicated Acreage: 160 ✓ Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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

December 12, 1979

Registered Professional Engineer
and/or Land Surveyor

Fred B. Kerr Jr.

Certificate No.

3950

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

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 #1, 1100/N and 1120/W Sec. 15-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 1 mile 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.

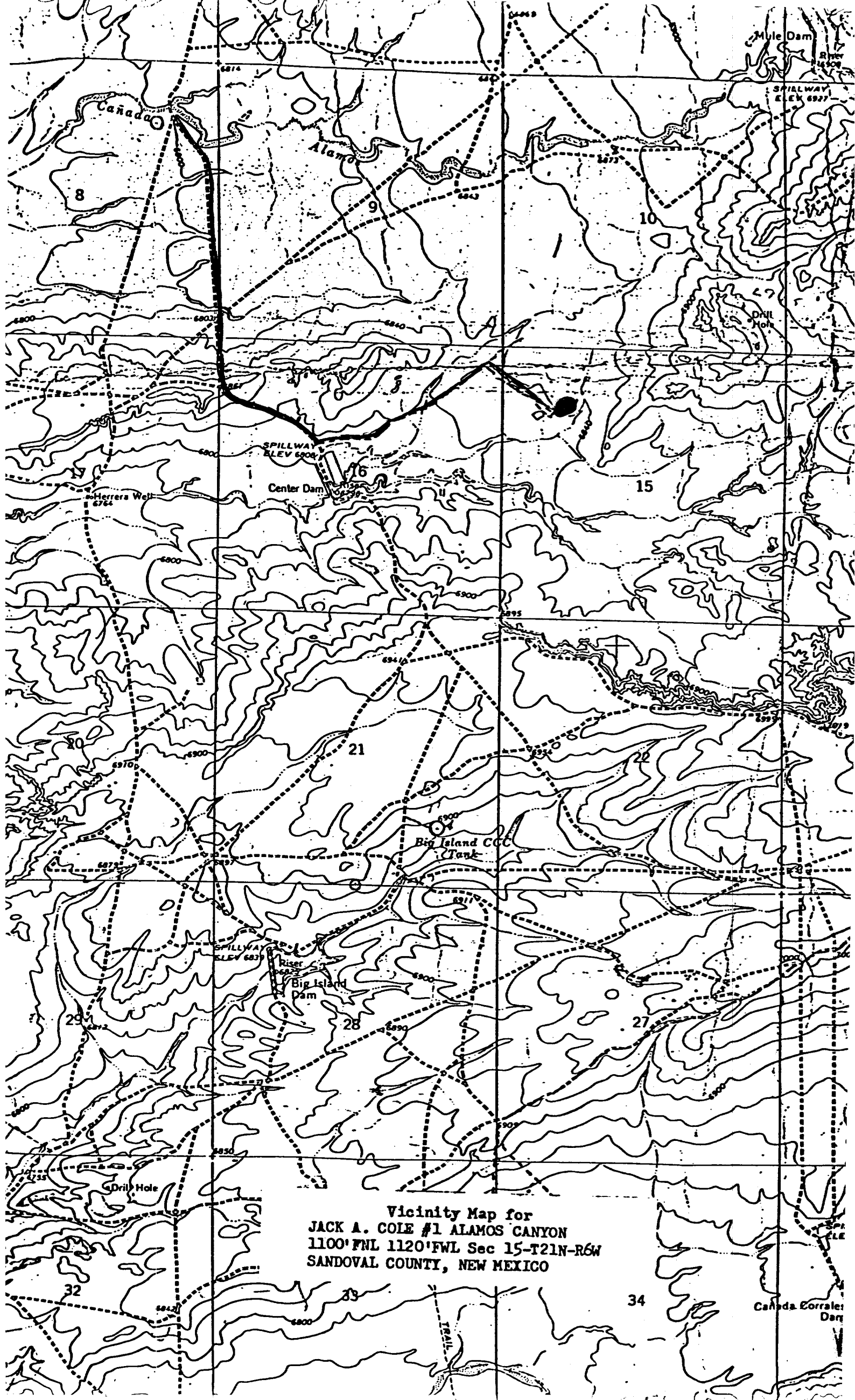
9. No airstrips are planned.
10. Location layout indicated on attached plat as furnished by Aztec Drilling Company.
11. Following drilling, mud pits to be fenced and allowed to dry, then filled with surface soil previously evacuated. Location, except for wellhead site and production equipment, to be 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



Vicinity Map for
JACK A. COLE #1 ALAMOS CANYON
1100' FNL 1120' FWL Sec 15-T21N-R6W
SANDOVAL COUNTY, NEW MEXICO

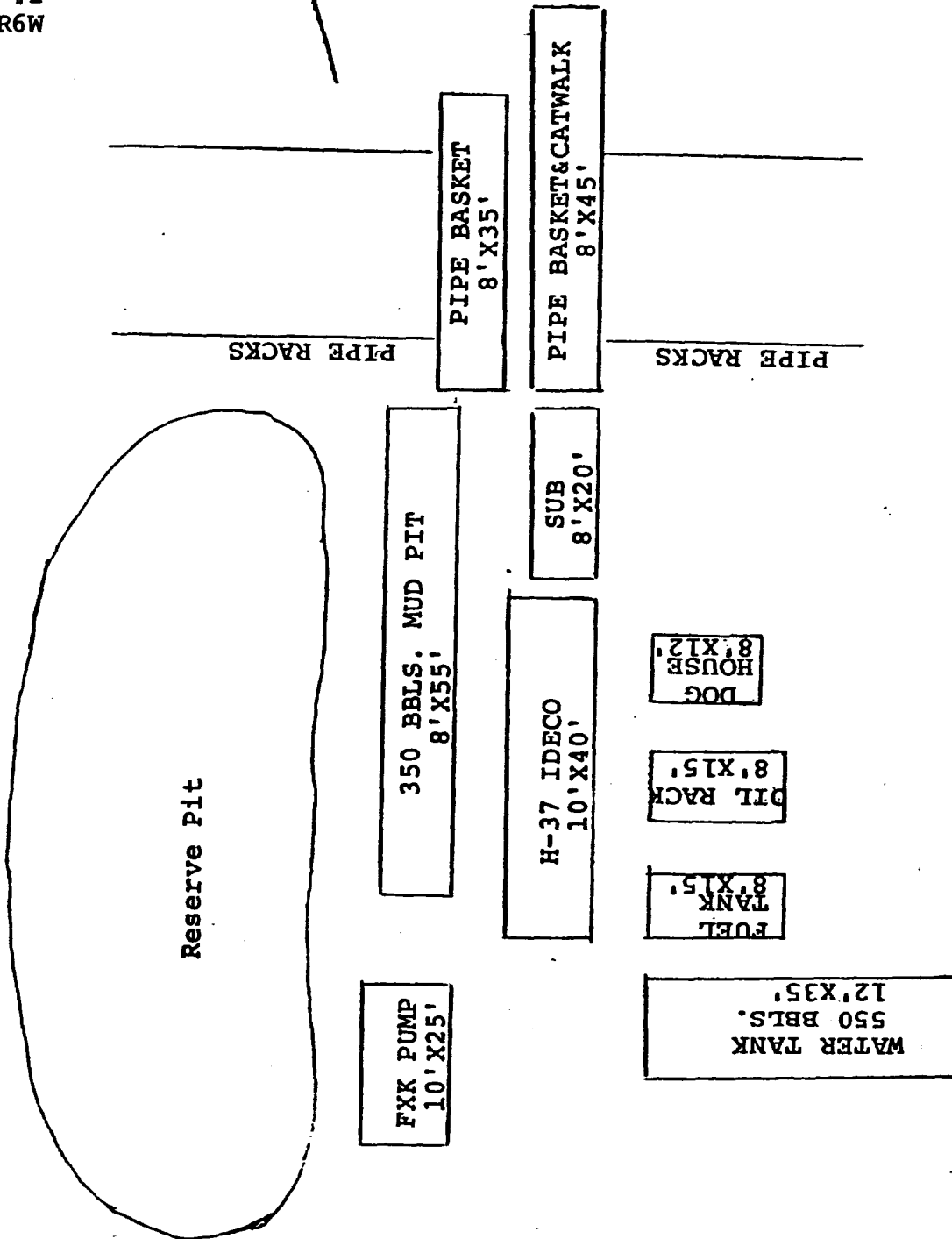
JACK A. COLE
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(505) 325 - 1415

JACK A. COLE
ALAMOS CANYON #1
1100/N and 1120/W Sec. 15-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 #1
 Sec. 15-T21N-R6W



Aztec Well Service
 Rig No. 1

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

December 12, 1979

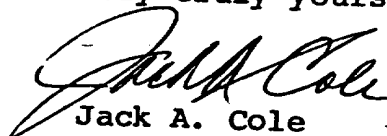
United States Geological Survey
P. O. Box 1809
Durango, Colorado

Certification: Operator's Representative-Jack A. Cole,
P. O. Box 191, Farmington, New Mexico
(505) 325-1415 - Alamos Canyon #1

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,



Jack A. Cole
Operator's Representative