

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY30-043-20533
5. LEASE DESIGNATION AND SERIAL NO.

NM21454

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Alamos Canyon

9. WELL NO.

11

10. FIELD AND POOL, OR WILDCAT

Wildcat Chacra

11. SEC., T., R., M., OR B.L.K.
AND SURVEY OR AREA

Sec. 4-T21N-R6W

12. COUNTY OR PARISH 13. STATE

Sandoval

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

860/S and 820/W Sec. 4-T21N-R6W

At proposed prod. zone

Same

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

13 miles SW Counselors, N.M.

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

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

820

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.

1800

19. PROPOSED DEPTH

1900'

20. ROTARY OR CABLE TOOLS

Rotary

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

6824 Gr.

22. APPROX. DATE WORK WILL START*

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	120	Circulate
6 3/4	4 1/2	10.5	2000	Circulate

It is proposed to drill to T. D. of 2000'. Run ES-Ind logs, run 4 1/2 casing to T.D. Perforate casing opposite Chacra sand and sand-water frac treat. Run 1" tubing to 1800 and complete as Chacra natural gas well.

Gas is not dedicated to a pipeline.

See attached.

This action is subject to administrative
appeal pursuant to 30 CFR 290.

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
GENERAL REQUIREMENTS

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 Nov. 25, 1980

(This space for Federal or State office use)

PERMIT NO. AS AMENDED

APPROVAL DATE

APPROVED BY

DEC 23 1980
for JAMES F. SIMS
DISTRICT ENGINEER

TITLE

DATE

NMOCC

*See Instructions On Reverse Side

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

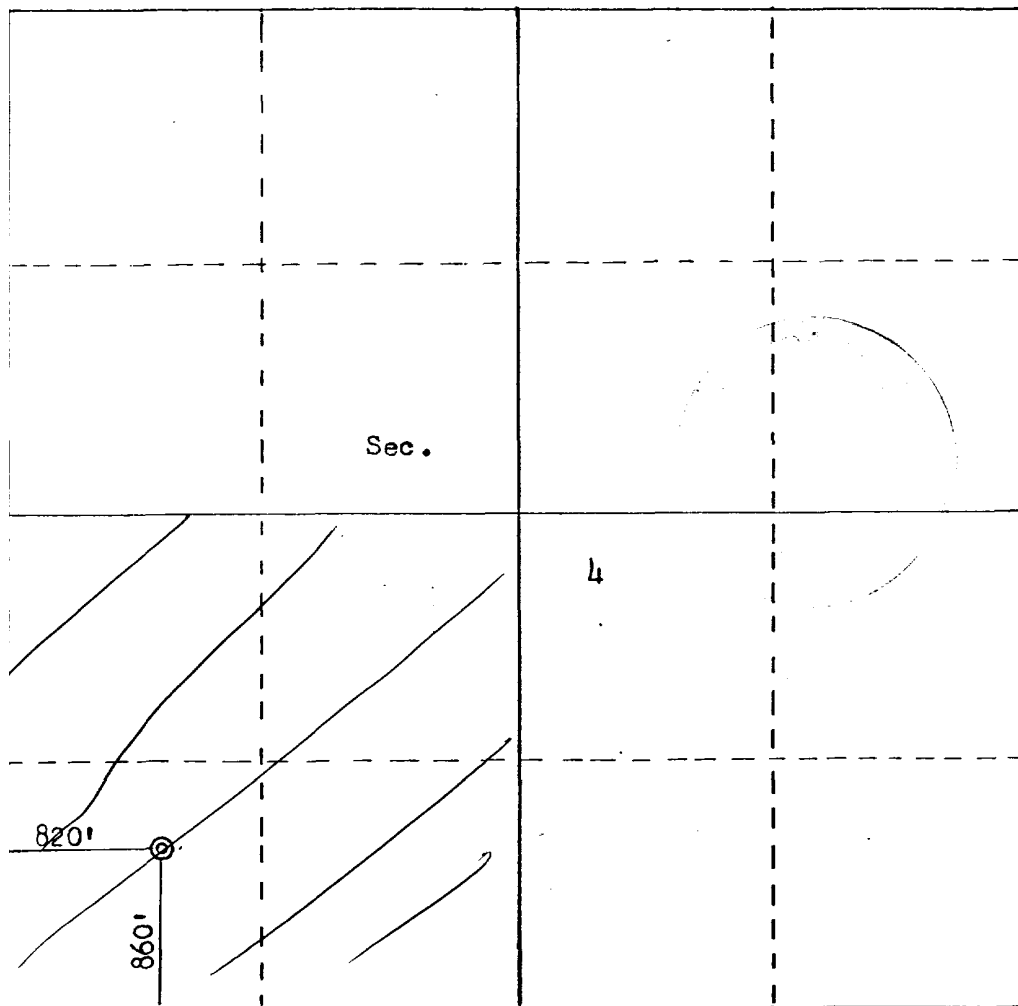
Operator JACK A. COLE		Lease ALAMOS CANYON		Well No. 11
Unit Letter M	Section 4	Township 21N	Range 6W	County Sandoval
Actual Footage Location of Well: 860 feet from the South line and 820 feet from the West line				
Ground Level Elev: 6824	Producing Formation		Pool	Dedicated Acreage: Acres

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.



Scale: 1"=1000'

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name
Operator

Position

Company
November 25, 1980

Date

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 24, 1980

Registered Professional Engineer
and Land Surveyor

Fred B. Kerr Jr.
Fred B. Kerr Jr.

Certificate No. 3950
B. KERR, JR.

ADDENDUM TO INTENT TO DRILL APPLICATION

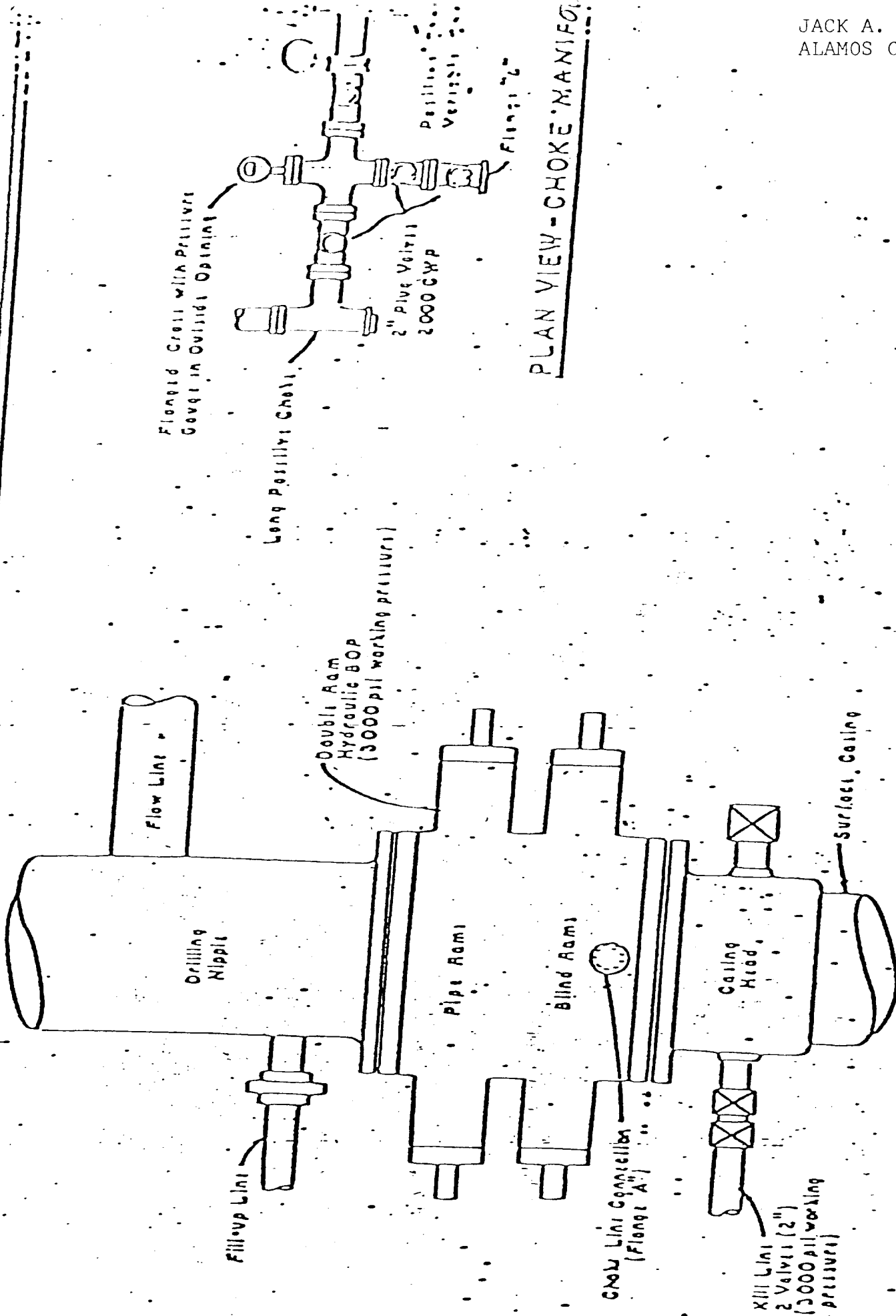
Jack A. Cole
Alamos Canyon No. 11
860/S and 820/W Sec. 4-T21N-R6W
Sandoval County, New Mexico

1. A schematic diagram of the blowout prevention equipment is enclosed. The BOP's will be hydraulically tested to the full working pressure after nipping up and after any use under pressure. Pipe rams will be operationally checked each 24 hour period as will blind rams each time pipe is pulled out of hole. Such checks of BOP equipment will be noted on daily drilling reports.

Accessories to the BOP will include floor safety valve, and choke manifold with pressure rating equivalent to the BOP stack.

2. All casing and tubing strings will be new. The 8 5/8" surface casing will be 24.0 lb/ft, K-55 8 round ST&C. The 4 1/2" casing will be K-55 8 round ST&C.
3. The type of cement to be used is as follows:
8 5/8" surface casing: Circulate 100 sacks of Class B, 2% CaCl₂.
4 1/2" production casing: 150 sacks 50-50 pozmix, 2% gel to raise to surface.
4. The surface formation is Tertiary Wasatch-San Jose.
5. The estimated tops of geologic markers:

Ojo Alamo Sand	410
Fruitland Shale	610
Pictured Cliffs Sand	930
Lewis Shale	1110
Chacra Sand	1360
Mesaverde Sand	1710
6. Anticipated water zones:
Ojo Alamo Sand
Pictured Cliffs Sand
Mesaverde Sand
7. Anticipated gas bearing zone:
Chacra Sand
8. To protect the Ojo Alamo aquifer it is proposed to cement the production string from TD to the surface.



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

November 25, 1980

United States Department of Interior
Geological Survey
P. O. Box 959
Farmington, New Mexico 87401

Reference: 13 Point Environmental Program - Jack A. Cole -
Alamos Canyon #11, 860/S and 820/W Sec. 4-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 $\frac{1}{4}$ 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, Chapman water hole at Lybrook.
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/plc

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

November 25, 1980

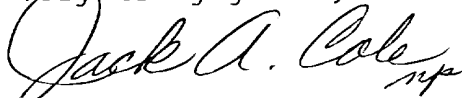
United States Geological Survey
P. O. Box 959
Farmington, New Mexico 87401

Certification: Operator's Representative-Jack A. Cole,
P. O. Box 191, Farmington, New Mexico
(505) 325-1415 - Alamos Canyon #11

Gentlemen:

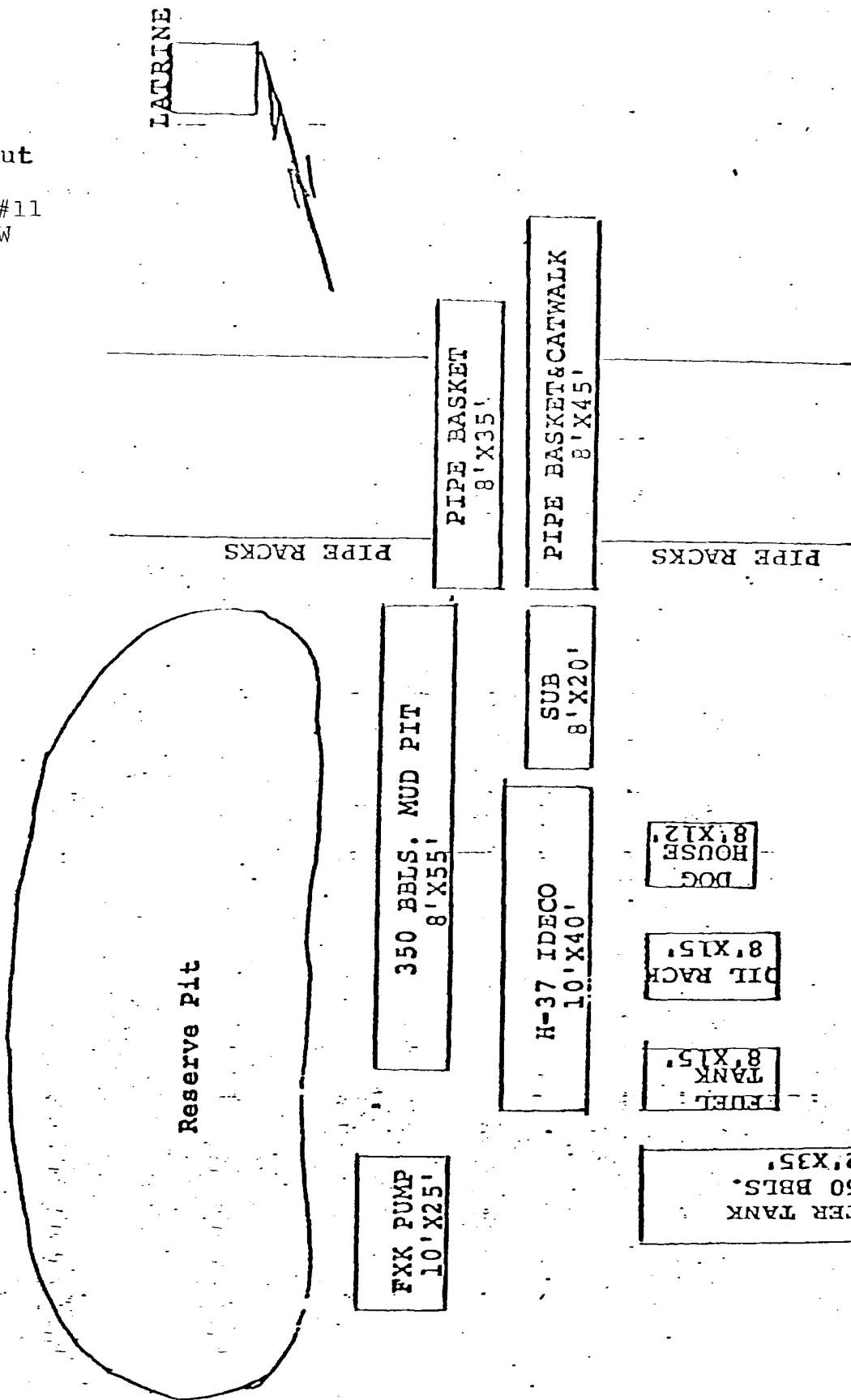
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drilling site and access routes; that I am familiar with the conditions that presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated 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 that reads "Jack A. Cole". The signature is written in dark ink and is positioned above the printed name and title.

Jack A. Cole
Operator's Representative

Location Layout
 Jack A. Cole
 ALAMOS CANYON #11
 Sec. 4-T21N-R6W



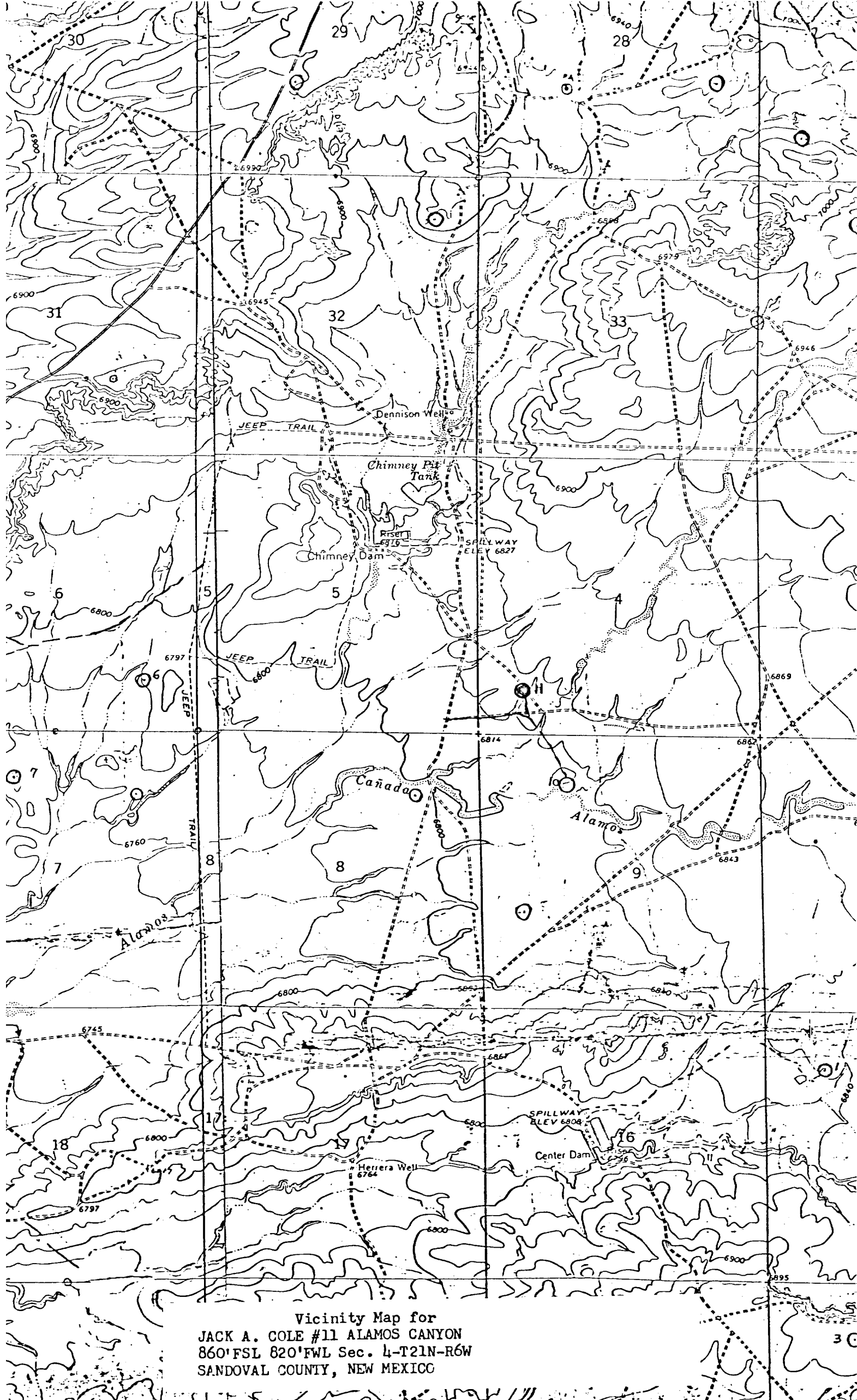
Aztec Well Service
 Rig No. 1

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

JACK A. COLE
ALAMOS CANYON #11
860/S and 820/W Sec. 4-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.



Vicinity Map for
JACK A. COLE #11 ALAMOS CANYON
860'FSL 820'FWL Sec. 4-T21N-R6W
SANDOVAL COUNTY, NEW MEXICO