### SUBMIT IN TRIPLICATE.

(Other instructions on reverse side)

Form approved. Budget Bureau No. 42-R1425

5. LEASE DESIGNATION AND SERIAL NO.4.1

### UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

Jicarilla Contract APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK 6. IF INDIAN, ALLOTTER OR TRIBE NAME 1a. TYPE OF WORK Jicarilla Apache DRILL [3] DEEPEN [ PLUG BACK b. TYPE OF WELL. WELL WELL X MULTIPLE Zone OTHER 8. FARM OR LEASE NAME 2. NAME OF OPERATOR Apache Wash 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.\*) 10. FIELD AND POOL OR WILDCAT Wildcat//chiel 890/N and 990/W Sec. 16-T22N-R3W 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA At proposed prod. zone Same 16-T22N-R3W 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE. 12. COUNTY OR PARISH | 13. STATE 17 miles NW Cuba, New Mexico Sandoval-N.M. 16. NO. OF ACRES IN LEASE LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig, unit line, if any) 17. NO. OF ACRES ASSIGNED TO THIS WELL 890' 2560 + 160,09 18. DISTANCE FROM PROPOSED LOCATION\*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT. 19. PROPOSED DEPTH 20. ROTARY OR CABLE TOOLS None 2700 Rotary 21. ELEVATIONS (Show whether DF, RT, GR, etc.) 22. APPROX. DATE WORK WILL START\* 7069 Gr. December 1, 1978 PROPOSED CASING AND CEMENTING PROGRAM SIZE OF HOLE BIZE OF CASING WEIGHT PER FOOT SETTING DEPTH QUANTITY OF CEMENT 12 1/4 8 5/8 24.0120' Circ. 7/8  $4 \cdot 1/2$ 10.50 2700' 150 Sacks Well will be mud drilled by rotary tools after setting and cementing 8 5/8" surface casing. Run electric logs at TD and set 41 casing if warranted, cementing same with 150 sacks. Sand H20 frac treat through casing performations opposite PC sand. Run 1" tubing for production string to produce as PC natural gas well. Reserve pit will be fenced on three sides before spudding and fourth side when drilling operations cease. IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give dat zone. If proposal is to drill or deepen directionally, give perdnent data on subsuitace local preventer program...if any. ons such that we come and proposed new productive ons such measured and true vertical depths. Give blowout preventer program, if any. B. S. CECLOGICAL SURVEY Operato November 6, BIGNED 1978 TITLE (This space for Federal or State office use) PERMIT NO. APPROVAL DATE APPROVED BY TITLE DATE CONDITIONS OF APPROVAL, IF ANY: oh Fran

## 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 JACK A. COLE Apache Wash 1 Unit Letter Section Township County 16 22N Sandoval Actual Footage Location of Well: North feet from the line and feet from the West line Ground Level Elev. Producing Formation Pool Dedicated Acreage: 7069 Pictured Cliffs Wildcat 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? If answer is "yes," type of consolidation Yes Yes ☐ No 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 9901 Position Operator Company Sec November 6, 1978 16 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. and/o M. S. GEOLOGICAL SURVEY

### JACK A. COLE

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

November 6, 1978

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

M. S. GEGLOGICAL SURVEY

Attention: Mr. Jerry Long

District Engineer

Reference: 12 Point Environmental Program - Jack A. Cole -

Apache Wash No. 1, 890/N and 990/W Sec. 16-T22N-R3W.

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, 3 miles south of intersection of N.M. 44 and N.M. 537, approximately 70 miles southwest of Bloomfield, New Mexico, then proceed north on existing road approximately 3 miles, turn left about ½ mile on new road to location.
- 2. Existing road to be utilized to within hamile 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 SE%, Sec. 9, T-24N-R4W, via existing roads.

United States Department of Interior November 6, 1978 Page 2

- 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 ODECO, Inc.
- 11. Following drilling, mud pits to be fenced and allowed to dry, then filled with surface soil previously evacuated.

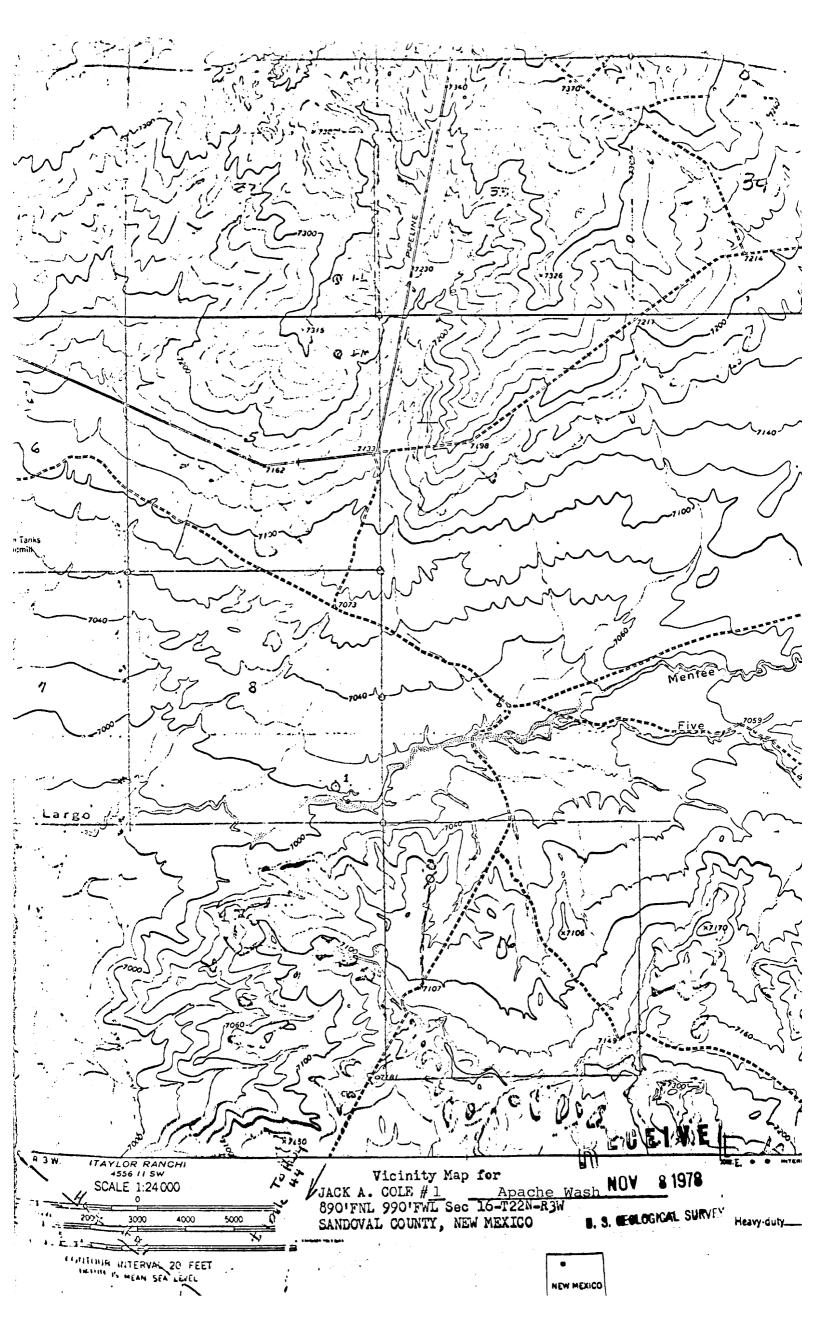
  Location, except for wellhead site and production equipment, to be restored to original condition as much as practicable.
- 12. The location is located in an area of relatively shallow mesa-butte topography, approximately eight miles south of Largo Canyon. No major rivers are in the immediate vicinity.

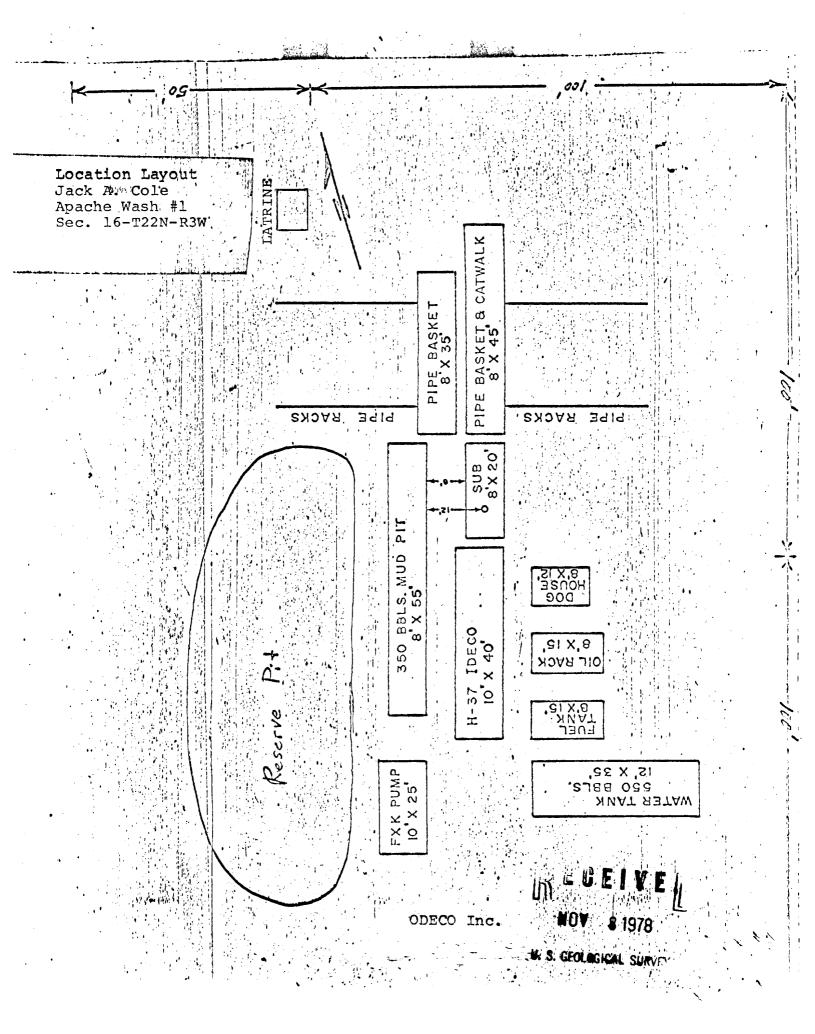
very druly yours

Jack A. Cole

JAC:njs







### JACK A. COLE PETROLEUM GEOLOGIST P.O. BOX 191

FARMINGTON, NEW MEXICO 87401 (505) 325 - 1415

JACK A. COLE APACHE WASH #1 890/N and 990/W Sec. 16-T22N-R3W Sandoval County, New Mexico

### Seven Point Well Control Program

- Surface Casing. See Application for Permit to Drill.
- 2. Spools and Flanges.
  - A. Surface Casing 10", Series 600, 1500 psi W.P.
  - Production 10", Series 600, 1500 psi W.P.
  - Tubing Head Series 600, 1500 psi W.P.
- Intermediate Casing. None
- Blowout Preventers. Production Hole - 10", 3000 psi Fill, kill and choke manifold - 5000 psi W.P.
- Additional Equipment (If Necessary)
  - Kelly Cock

  - Bit Float в. Degasser

- D. Pit Level Indicator
- E. Sub with Valve for
  - Drill Pipe
- 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.
- Drilling Fluid. 7. Low solids. Low water loss.



U. S. GEOLOGICAL SURVEY

JACK A. COLE PETROLEUM GEOLOGIST P.O. BOX 191 FARMINGTON, NEW MEXICO 87401

(505) 325 - 1415

November 6, 1978

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

Operator's Representative-Jack A. Cole-Certification:

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

(505) 325-1415 - Apache Wash #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.

Jack A. Cole

Operator's Representative

JAC:njs

U. S. GEOLOGICAL SURVEY