30-045-22567

DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: SF-079511-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Archuleta

2. NAME OF OPERATOR: TENNECO OIL COMPANY

9. WELL NO: #1A

3. ADDRESS OF OPERATOR: 1860 Lincoln St., Suite 1200, Denver, Colorado 80295

10. FIELD AND POOL, OR WILDCAT: Blanco Mesa Verde

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2134'FNL and 1640'FWL
At proposed prod. zone: Unit F

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec.19, T30N, R8W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: ½ mi. NW of Archuleta, N.M. stake is 200' North of road.

12. COUNTY OR PARISH: San Juan | 13. STATE: New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 337.30

16. NO. OF ACRES IN LEASE: 337.30

17. NO. OF ACRES ASSIGNED TO THIS WELL: 342.54 W/2 of Sec.19, NW/4 of Sec. 30

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.:

19. PROPOSED DEPTH: ±5013'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5747' GL

22. APPROX. DATE WORK WILL START*: June 12, 1977

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36#	± 200'	Suff. to circulate to surface
8-3/4"	7"	23#	± 2988'	Suff. to cement to surface csg.
6-1/8"	4-1/2"	10.5#	± 2688'-5013'	Suff. to cement to 7" csg.

- The geologic name of this surface formation is (San Jose Eocene/~~Nacimiento~~)

&3 Formation Tops (Estimated)

Pictured Cliffs	±	2,488	'Possible oil or gas producer
Cliff House	±	4,213	'Possible oil or gas producer
Menefee	±	4,293	'Possible oil or gas producer
Point Lookout	±	4,668	'Possible oil or gas producer
Mancos Shale	±	4,893	'

- Run 9-5/8" OD, K-55 new casing to ±200' and circulate cement to surface. Run 7" OD, 23#, K-55 new casing to ± 2988 ' and circulate cement up through the 9-5/8" csg. Run a 4½" csg. Liner from 300 above bottom of 7" csg. to T.D. and circulate cement back to the top of 4½' csg. Casinghead will be a 10" 900 series w/a 3000 psi. rating.

- Blowout preventors: Hydraulic, double ram, 10". One set of rams will be provided for each size drill pipe in the hole. One set of blind rams at all times. Fill line will be 2", kill line will be 2", choke relief line will be 2" with variable choke.

- We will use; spud mud from 0-±200'; Gel Chemical w/low solids as needed to maintain good hole conditions from ±200'-±2988; Compressed gas from ±2988'to T.D..

- Auxiliary Equipment
  a- Kelly cock will be in use at all times.
  b. Stabbing valve to fit drill pipe will be present on floor at all times.
  c. Mud monitoring will be visual, no abnormal pressures are anticipated in this area.
  d. Rotating head will be used when drilling with gas.

- An AOF test will be taken at the completion of this well. No cores will be taken. Gamma Ray and Compensated Density logs will be run. Any other evaluation that may be necessary during the drilling of this well will be conducted as needed.

- No abnormal pressures or temperatures are anticipated. See point #5 for blowout prevention equipment.

0-The drilling of this well will take approximately eight days. The gas is contracted to Southern Union Gathering Co.

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 O. A. Rogers TITLE Div. Production Manager DATE 4-6-77

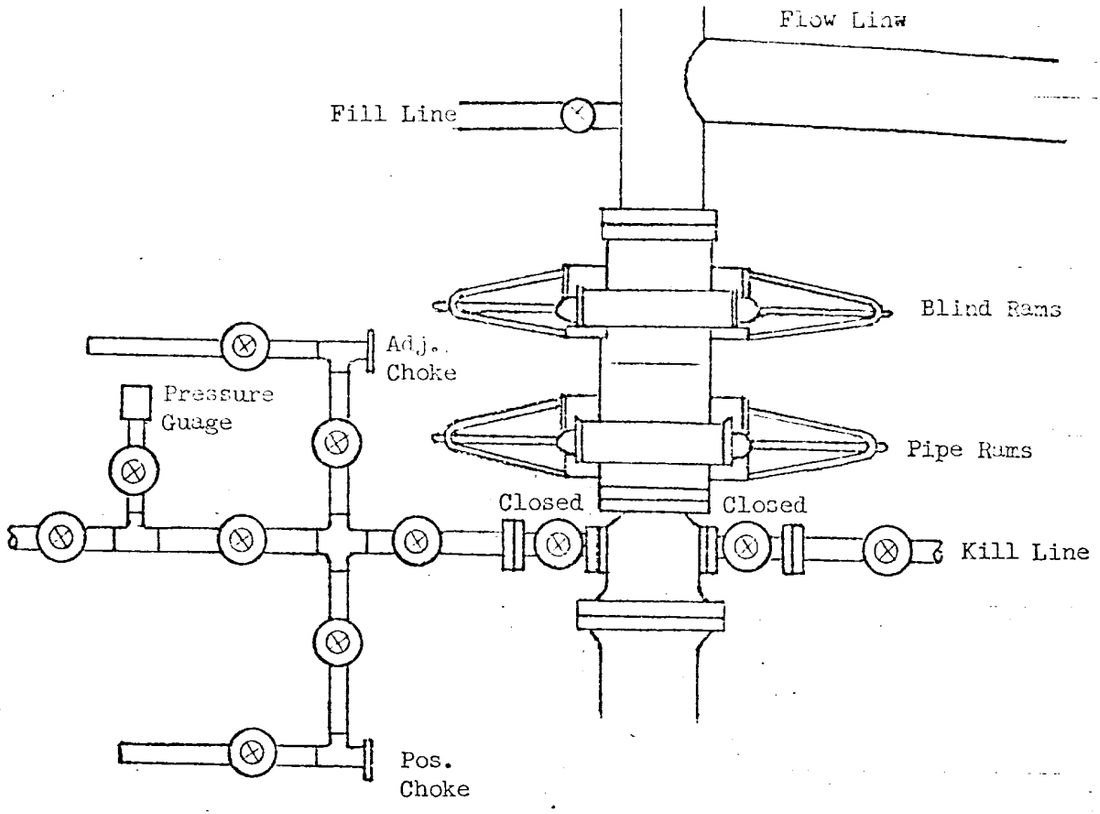
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE APR 18 1977

APPROVED BY _____ TITLE _____ DATE U.S. GEOLOGICAL SURVEY

CONDITIONS OF APPROVAL, IF ANY: Olaf

RECEIVED
APR 13 1977
OIL CON. COM.
DIST. 3



All valves 2"

All BOPs, flanges, spools, valves, & lines must be series 900 or 3000 psi working press.

Choke manifold must be at ground level and extended out from under substructure.

TENNECO OIL COMPANY

REQUIRED MINIMUM BLOWOUT PREVENTOR

HOOKUP

Denver, Colorado

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACERAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No
TENNECO OIL COMPANY	ARCHULETA	1-A

Unit Letter	Section	Township	Range	County
F	19	30 NORTH	8 WEST	SAN JUAN

Actual Footage Location of Well: 2134 feet from the NORTH line and 1641 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage
5747	Blanco Mesa Verde	Blanco Mesa Verde	337.30 Acres

1. Outline the acerage dedicated to the subject well by colored pencil or hachure marks on the plat below. W/2 of Sec.19 NW/4 of Sec.30

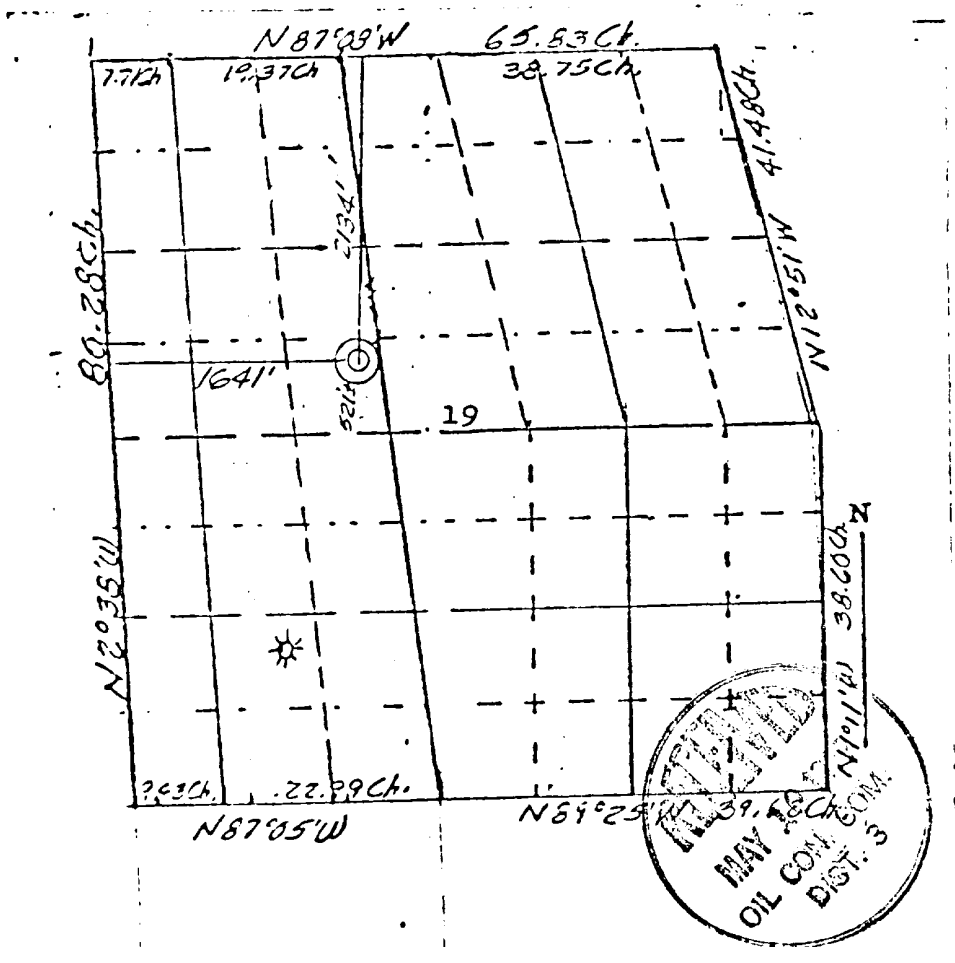
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty),

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?

(X) Yes ( ) No If answer is "yes," type of consolidation Communitization

If answer is "no," list the owners and tract descriptions which have actually 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 Ted F Drake

Position Production Analyst

Company Tenneco Oil Company

Date April 12, 1977

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.

4 April, 1977
Date Surveyed

James P. Leese
Registered Professional Engineer and/or Land Surveyor

James P. Leese
1463
Certificate No

REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR STATE OF NEW MEXICO NO. 1463

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	Lease	Well No.
Tenneco Oil Company	Archuleta	1A

Unit Letter	Section	Township	Range	County
F	19	30 North	8 West	San Juan

Actual Footage Location of Well: 2134 feet from the North line and 1641 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
5747'	Blanco Mesa Verde	Blanco Mesa Verde	342.54 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. W/2 of Sec.19 NW/4 of Sec.30

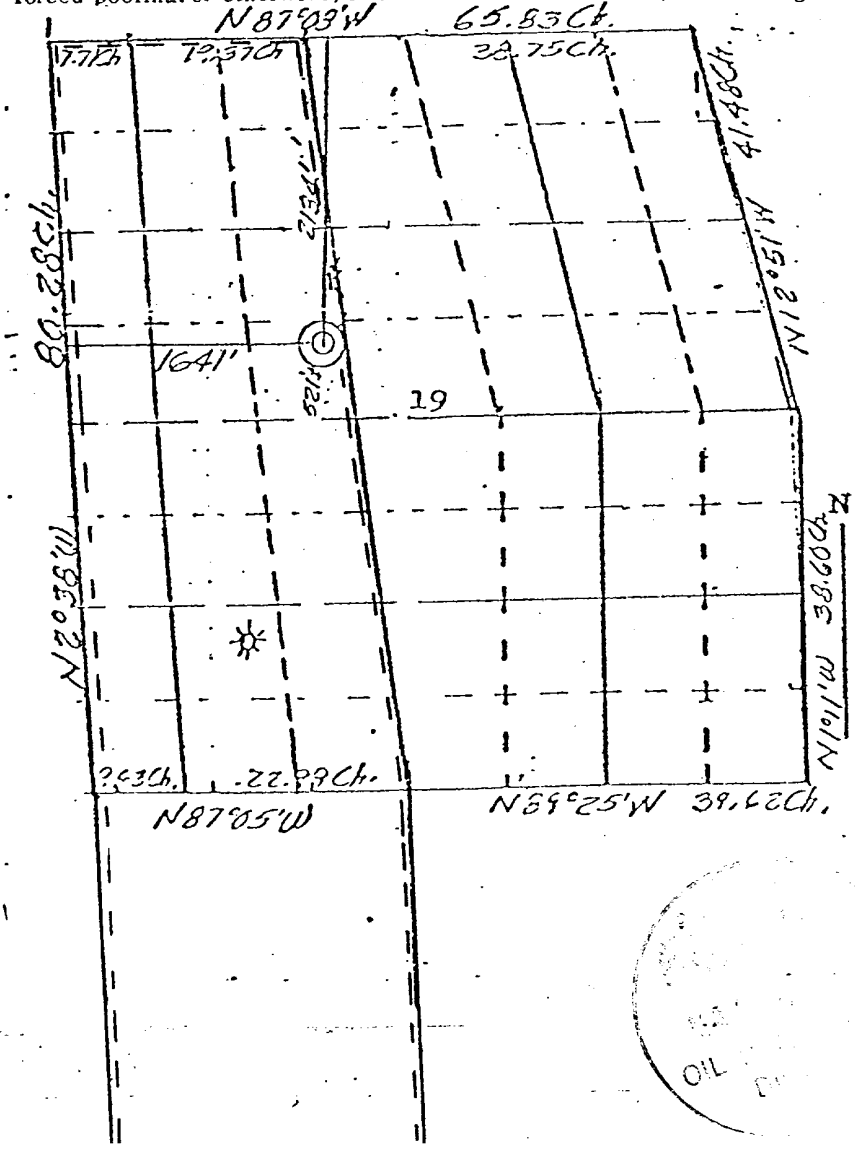
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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?

[X] Yes [ ] No If answer is "yes," type of consolidation Communitization

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 Commis-



CERTIFICATION

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

Name: Ted F Dooley

Position: Production Analyst

Company: Tenneco Oil Company

Date: May 2, 1977

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

Registered Professional Engineer and/or Land Surveyor

Certificate No.

1. Existing Roads:
   a. See surveyors plat for actual staking.
   b. The well site is located approximately ½ mile NW of Archuleta, N.M.
   c. See Exhibit "B" for access roads.
   d. Not applicable.
   e. See Exhibit "B" for one mile radius road map.
   f. Plan to construct 100 ' of 14' wide road to well site. We will construct water bars where necessary, and slope road through all arroyos.

2. Planned Access Roads:
   a. See Exhibit "B".
   b. Width=14'
   c. No turnouts.
   d. Drainage=Water bars will be constructed where required to prevent erosion.
   e. Road will be cut into any arroyos and sloped across the bottom to maintain normal drainage. Cuts or fills will be kept to a minimum.
   f. No gates or cattle guards are needed.
   g. Road is center line flagged.

3. Location of Existing Wells.
   a. See Exhibits "B" and "C" for well locations.

4. Location of Existing and/or Proposed Facilities.
   a. See Exhibit "B" and "C". Lines are buried.
   b. This is expected to be a dry gas well. If condensate is encountered, a 300 bbl steel tank painted green to match the surrounding area, will be set on a gravel base near the well as shown on Exhibit "A". A dirt bank will be erected around t tank to contain any spills. The possible spill area will be fenced.
   c. If well is productive, pits will be backfilled, leveled and reseeded as soon as practical to original contours.

5. Location and type of Water Supply
   a. Water will be hauled from the San Juan River, or El Paso water wells.
   b. Trucks will be used to haul water.
   c. No water well will be drilled.

6. Source of Construction Materials
   a. No construction materials will be used. Surface soil will be stockpiled.
   b. We will not be getting any construction materials from Federal or Indian lands.
   c. No construction materials will be used.
   d. No access roads for construction materials will be needed.

7. Methods for Handling Waste Disposal
   a. Cuttings will be disposed of in the reserve pit.
   b&c Drilling fluids and produced water will be collected in the reserve pit and hauled away to an approved disposal system or a separate disposal application will be submitted. Any produced oil will be run to the tank (see 4:8)
   d&e All detrimental waste will be hauled away, burned or buried with a minimum cover of 24" of dirt.
   f. After the rig moves out, See 4:C. If unproductive, a dry hole marker will be installed and all pits will be filled, leveled and entire location reseeded to your specifications. Roads will be leveled and reseeded.

8. Ancillary Facilities
   a. No camps or airstrips will be needed in the drilling of this well.

9. Well Site Layout.
   a. See Exhibit "A".
   b. Pits will be unlined.

10. Plans for Restoration of Surface.
   a. See 4:C and 7:A-F
   b. BLM SEEDING REQUIREMENTS IN THE FARMINGTON RESOURCE AREA

We will use seed mixture (XX , 2). A disc-type drill set for 8"-10" rows with two boxes for various seed sizes will used. The seed will drilled on the contour not less than ½" deep or more than 1" deep, followed by a drag, packer, or roller to compact and cover the seed adequately. Where slopes are to steep for contour drilling, a "cyclone" hand seeder or similar broadcast seeder will be used. Seed will then be covered by whatever means are practical. The following species in lbs. pure-live-seed per acre will used:

SEED MIXTURE 1	SPECIES	SEED MIXTURE 2
2-½ lbs.	Smooth Brome (Bromus inermis)	
1 lb.	Nomad Alfalfa (Medicago sitiva)	
½ lb.	Fourwing Saltbush (devinged) (Atriplex conescens)	½ lb.
2-½ lbs.	Crested Wheatgrass (Agropyron desertorum)	3-½ lbs.
	Sand Dropseed (Sporobolus cryptandrus)	½ lb.
	Winterfat (Eurotia lanata)	½ lb.
	Alkali Sacaton (Sporobolus airoides)	½ lb.

c. Prior to rig release, pits will be fenced and so maintained until clean up.
d. If any oil is on the pit, it will be removed or flagged.
e. Rehabilitation operations will be done during the best weather conditions to promote regrowth in area. All seeding will take place between July 1 and Sept.

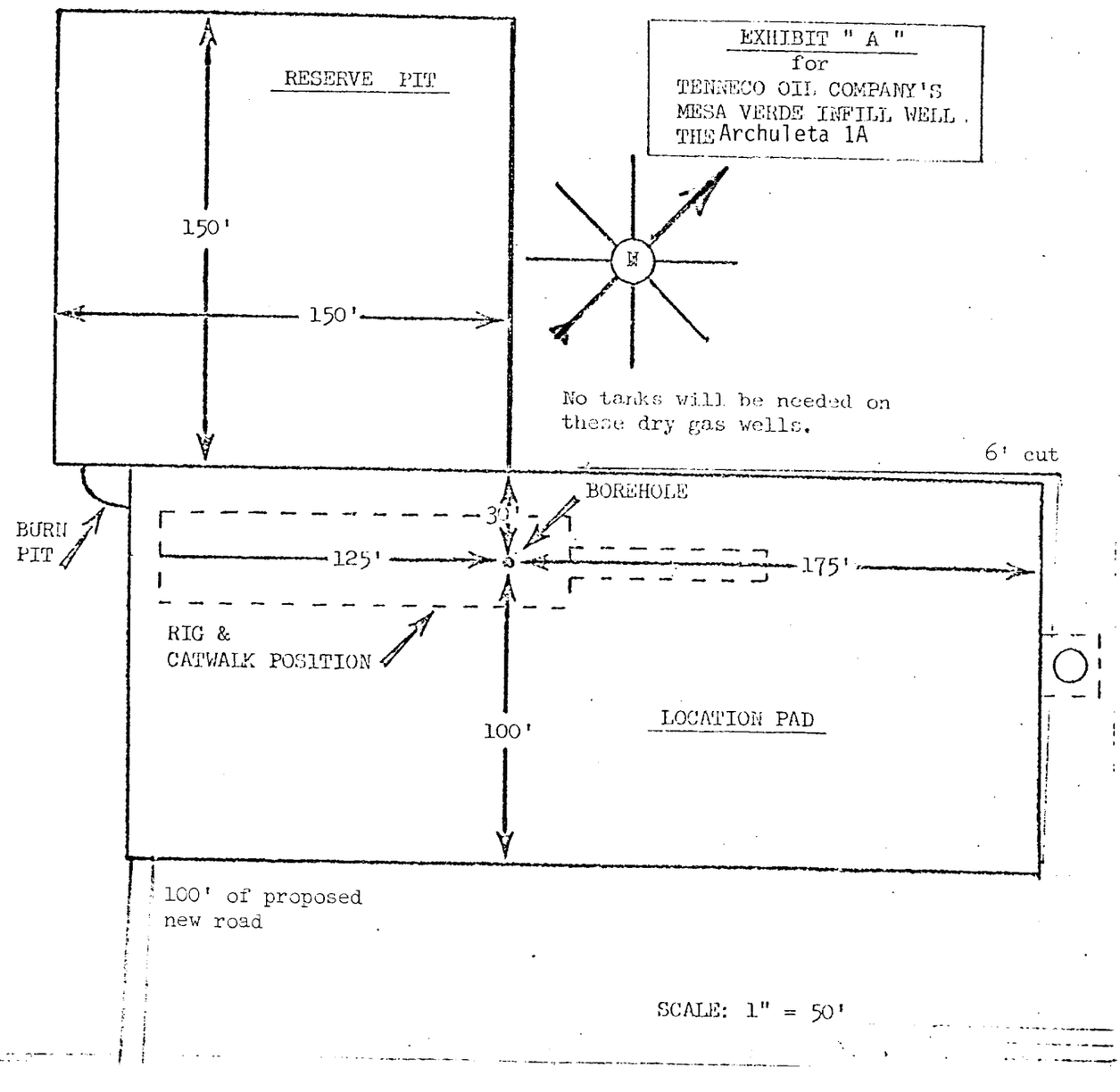
11. Other information.
a. Site is located at the base of a big cliff W/sand for soil The vegetation is predominately Juniper with almost no grass.
b. The surface possibly used by wildlife.
c. No open water, occupied dwellings, archaeological, historical or cultural sites will be disturbed by this location.

12- Operator's Representative.
a. Field personnel who can be contacted concerning compliance of this Surface Use Plan are as follows: Darrell Brown, 1860 Lincoln, Suite 1200, Denver, Colorado 80295
Office=303-292-9920 ext. 254 Home=303-771-8297

13- Certification.
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions as they actually exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the proposed work performed by Tenneco Oil Company and its contractors and sub-contractors will conform to this plan.

3-16-77
Date

M. E. Brown
D.E. Brown
Division Drilling Engineer



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
1000 RIO BRAZOS RD. - AZTEC
87410

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

April 22, 1977

Mr. Ted Drake
Tenneco Oil Company
Suite 1200
Lincoln Tower Bldg.
Denver, Colorado 80295

Re: Form C-102

Dear Ted:

Please file in duplicate form C-102 for Tenneco's Archuleta #1A and Florance #27A wells.

Outline the dedicated acreage as per instruction one.

The acreage currently assigned to the Archuleta #1 is 342.54 acres, being the w/2 Section 19 and NW/4 Section 30.

These plats for acreage dedication only do not need the surveyor's certification.

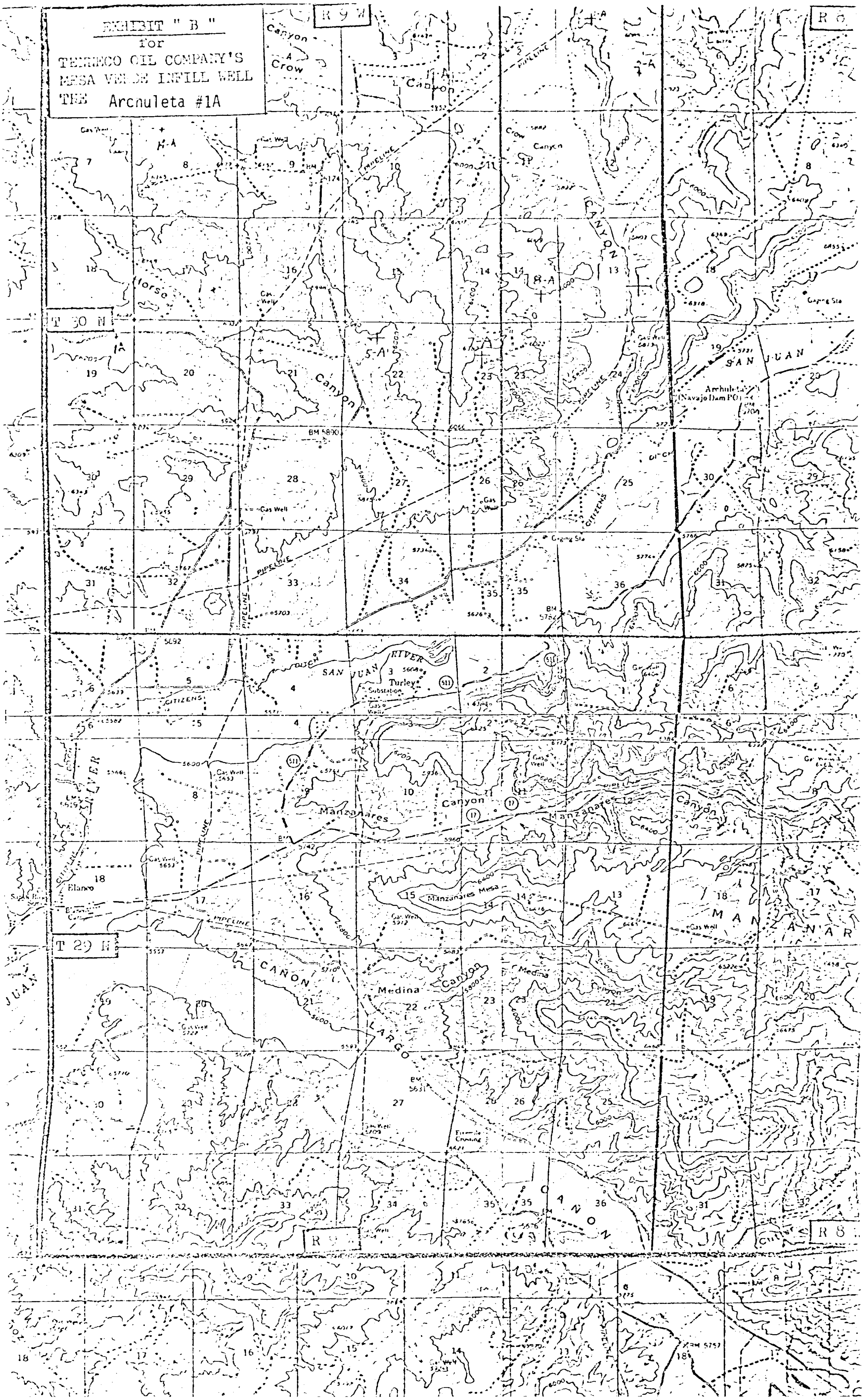
If there are questions, please call.

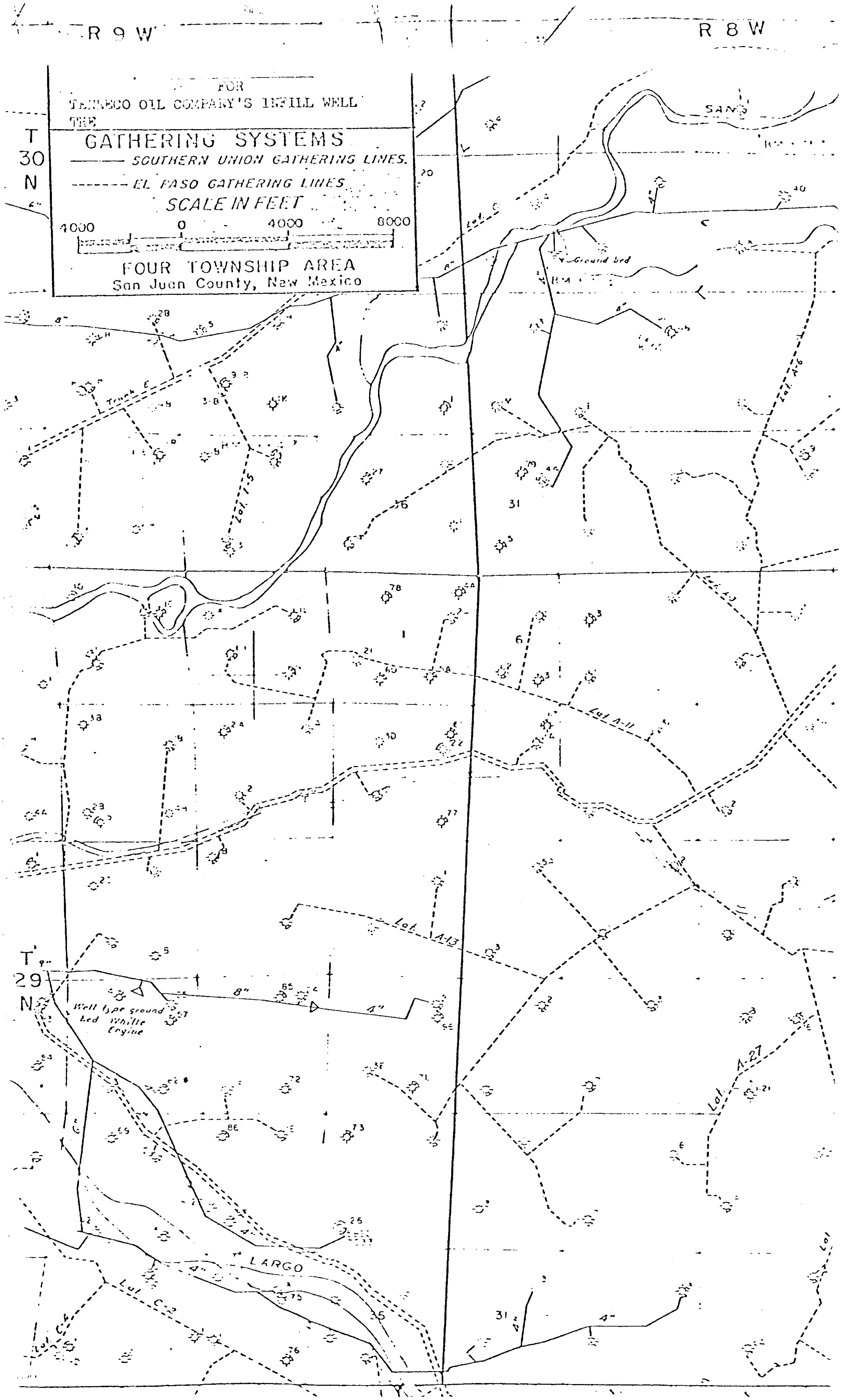
Yours very truly,

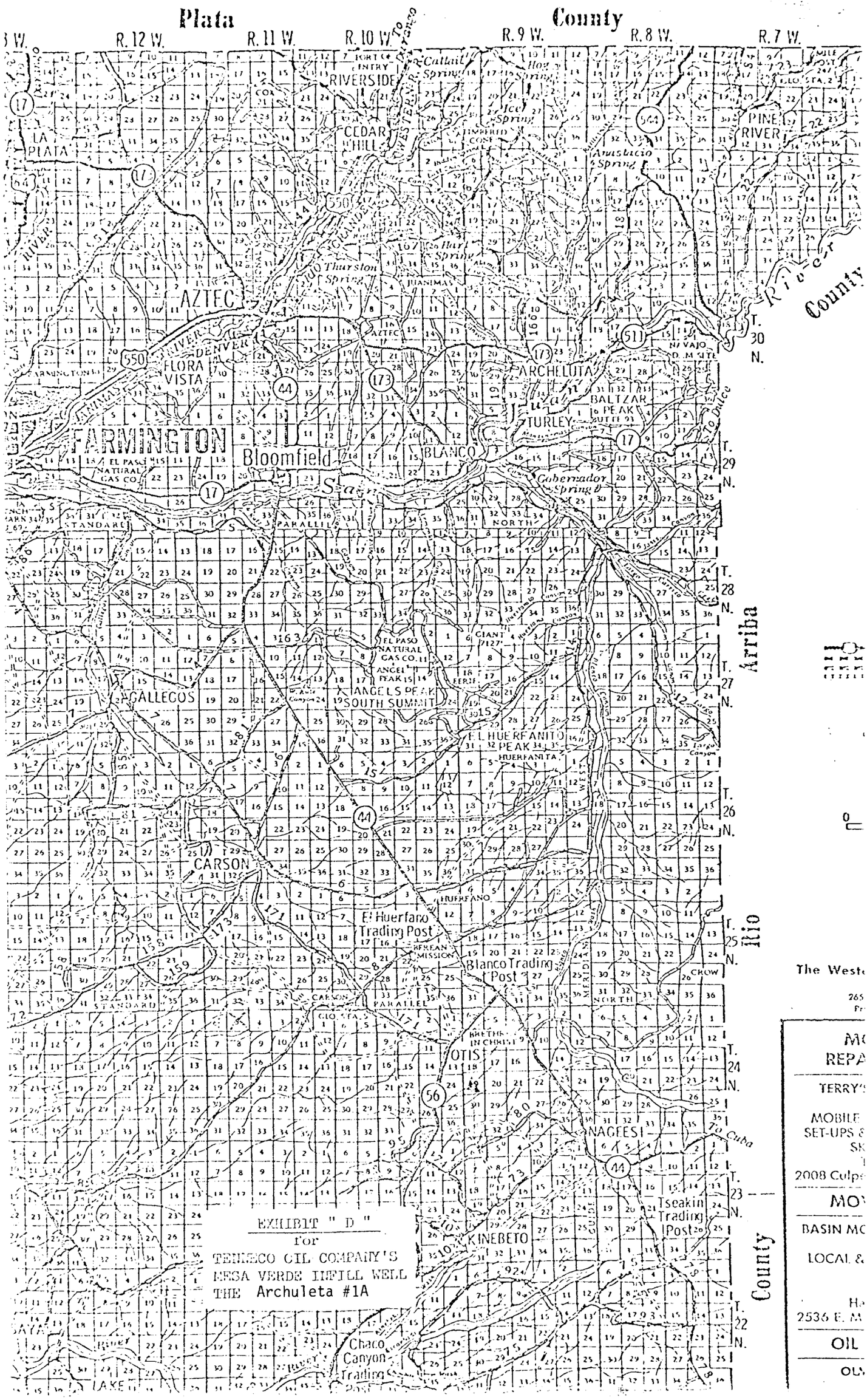
A. R. Kendrick
Supervisor, District #3

ARK:mc

EXHIBIT " B "
for
TENNECO OIL COMPANY'S
MESA VERDE INFILL WELL
THE Arcnuleta #1A




R 9 W
R 8 W
FOR
TENNECO OIL COMPANY'S INFILL WELL
THE
GATHERING SYSTEMS
SOUTHERN UNION GATHERING LINES.
EL PASO GATHERING LINES
SCALE IN FEET
4000
0
4000
8000
FOUR TOWNSHIP AREA
San Juan County, New Mexico
T
30
N
T
29
N
SAN
Ground bed
Lat. A-6
Lat. A-3
Lat. A-11
Lat. A-13
Lat. A-27
Lat. C-2
Well type ground bed Whitle Engine
LARGO


Plata
County
R. 12 W.
R. 11 W.
R. 10 W.
R. 9 W.
R. 8 W.
R. 7 W.
LA PLATA
RIVERSIDE
CEDAR HILL
PINE RIVER
AZTEC
FLORA VISTA
FARMINGTON
Bloomfield
ARCHULETA
BALTZAR PEAK
TURLEY
BLANCO
GALLEGOS
ANGELS PEAK
SOUTH SUMMIT
EL HUERFANITO PEAK
CARSON
El Huerfano Trading Post
Blanco Trading Post
OTIS
NAGEEZI
Tseakin Trading Post
KINEBETO
Chaco Canyon Trading
T. 30 N.
T. 29 N.
T. 28 N.
T. 27 N.
T. 26 N.
T. 25 N.
T. 24 N.
T. 23 N.
T. 22 N.
Arriba
Rio
County
EXHIBIT " D "
for
TENNECO OIL COMPANY'S
MESA VERDE INFILL WELL
THE Archuleta #1A

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

To All Operators:

Effective July 1, 1976, to comply with NTL-6, all operators drilling upon federally supervised lands shall provide the following information on or with Form 9-331C, "Application for Permit to Drill, Deepen, or Plug Back:

1. The geologic name of the surface formation.
2. The estimated tops of important geologic markers.
3. The estimated depths at which anticipated water, oil, gas, or other mineral-bearing formations are expected to be encountered.
4. The proposed casing program, including the size, grade, and weight-per-foot of each string and whether new or used.
5. The lessee's or operator's minimum specifications for pressure control equipment which is to be used, a schematic diagram thereof showing sizes, pressure ratings (or API series), and the testing procedures and testing frequency.
6. The type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling and the quantities and types of mud and weighting material to be maintained.
7. The auxiliary equipment to be used, such as (1) kelly cocks, (2) floats at the bit, (3) monitoring equipment on the mud system, (4) a sub on the floor with a full opening valve to be stabbed into drill pipe when the kelly is not in the string.
8. The testing, logging, and coring programs to be followed with provision made for required flexibility.
9. Any anticipated abnormal pressures or temperatures expected to be encountered or potential hazards such as hydrogen sulfide gas, along with plans for mitigating such hazards.
10. The anticipated starting date and duration of the operations.

Northern Rocky Mountain Area
Checksheet for NTL-6
Multipoint Requirements to Accompany APD

1. Existing Roads - a legible map showing:
   A. Proposed well site as staked. (Actual staking should include two each 200-feet directional reference stakes.)
   B. Route and distance from nearest town or locatable reference point to where well access route leaves main road.
   C. Access road(s) to location color-coded or labeled.
   D. If exploratory well, all existing roads within a 3-mile radius (including type of surface, conditions, etc.).
   E. If development well, all existing roads within a 1-mile radius of well site.
   F. Plans for improvement and/or maintenance of existing roads.

2. Planned Access Roads
   Map showing all necessary access roads to be constructed or reconstructed, showing:
   (1) Width
   (2) Maximum grades
   (3) Turnouts
   (4) Drainage design
   (5) Location and size of culverts and brief description of any major cuts and fills
   (6) Surfacing material
   (7) Gates, cattleguards, or fence cuts
   (8) (New or reconstructed roads are to be center-line flagged at time of [illegible] staking.)

3. Location of Existing Wells
   Two-mile radius map if exploratory, or 1-mile radius map if development well, showing and identifying existing:
   (1) Water wells
   (2) Abandoned wells
   (3) Temporarily abandoned wells
   (4) Disposal wells
   (5) Drilling wells
   (6) Producing wells
   (7) Shut-in wells
   (8) Injection wells
   (9) Monitoring or observation wells for other resources

4. Location of Existing and/or Proposed Facilities
   A. Within 1-mile radius of location show the following existing facilities owned or controlled by lessee/operator:
      (1) Tank batteries
      (2) Production facilities
      (3) Oil gathering lines
      (4) Gas gathering lines
      (5) Injection lines
      (6) Disposal lines
      (Indicate if any of the above lines are buried.)
   B. If new facilities are contemplated, in the event of production, show:
      (1) Proposed location and attendant lines by flagging if off of well pad
      (2) Dimensions of facilities
      (3) Construction methods and materials
      (4) Protective measures and devices to protect livestock and wildlife
   C. Plan for rehabilitation of disturbed areas no longer needed for operations after construction completed.

5. Location and Type of Water Supply
   A. Show location and type of water supply either on map or by written description.
   B. State method of transporting water, and show any roads or pipelines needed.
   C. If water well is to be drilled on lease, so state. (No APD for water well necessary, however, unless it will penetrate potential hydrocarbon horizons.)

6. Source of Construction Materials
   A. Show information either on map or by written description.
   B. Identify if from Federal or Indian land.
   C. Describe where materials, such as sand, gravel, stone, and soil material, are to be obtained and used.
   D. Show any needed access roads crossing Federal or Indian lands under item 2.

7. Methods for Handling Waste Disposal
   Describe methods and location of proposed containment and disposal of waste material, including:
   (1) Cuttings
   (2) Drilling fluids
   (3) Produced fluids (oil, water)
   (4) Sewage
   (5) Garbage and other waste material (Trash pits should be fenced with small mesh wire to prevent wind scattering trash before being burned or buried.)
   (6) Statement regarding proper cleanup of well site area when rig moves out

8. Ancillary Facilities
   Identify all proposed camps and airstrips on a map as to their location, area required, and construction methods. (Camp center and airstrip center lines to be staked on the ground.)

9. Well Site Layout
   A plat (not less than 1" = 50') showing:
   (1) Cross sections of drill pad with cuts and fills
   (2) Location of mud tanks, reserve, burn and trash pits, pipe racks, living facilities, and soil material stockpiles
   (3) Rig orientation, parking areas, and access roads
   (4) Statement as to whether pits are to be lined or unlined. (Approval as used in this section means field approval of location. All necessary staking of facilities may be done at time of field inspection. A registered surveyor is not mandatory for such operations.)

10. Plans for Restoration of Surface
    State restoration program upon completion of operations, including:
    (1) Backfilling, leveling, contouring, and waste disposal; segregation of spoils materials as needed
    (2) Revegetation and rehabilitation - including access roads (normally per BLM recommendations)
    (3) Prior to rig release, pits will be fenced and so maintained until cleanup
    (4) If oil on pit, remove oil or install overhead flagging
    (5) Timetable for commencement and completion of rehabilitation operations

11. Other Information
    General description of:
    (1) Topography, soil characteristics, geologic features, flora and funa
    (2) Other surface-use activities and surface ownership of all involved lands
    (3) Proximity of water, occupied dwellings, archeological, historical or cultural sites

12. Lessee's or operator's representative. Include the name, address, and phone number of the lessee's or operator's field representative who is responsible for assuring compliance with the approved surface use and operations plan.

13. Certification. The following statement is to be incorporated in the plan and must be signed by the lessee's or operator's field representative who is identified in item No. 12 of the plan:

    I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions as they actually exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the proposed work performed by _____ and its contractors and sub-contractors will conform to this plan.

    _____ Date

    _____ Name and Title