

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-045-25124

5. LEASE DESIGNATION AND SERIAL NO.

NM-012202

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Bolack B

9. WELL NO.

8

10. FIELD AND POOL, OR WILDCAT

Basin Dakota

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

Sec 33, T28N, R8W

12. COUNTY OR PARISH 13. STATE

San Juan

New Mexico

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

Tenneco Oil Company

3. ADDRESS OF OPERATOR

P.O. Box 3249, Englewood, CO 80155

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

At surface

1020'FNL, 1690'FWL

At proposed prod. zone

same as above

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

Approx. 33 miles ESE of Blanco, NM

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

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

950'

16. NO. OF ACRES IN LEASE

935.36

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

N/320

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

19. PROPOSED DEPTH

6770'

20. ROTARY OR CABLE TOOLS

rotary

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

5879' ground

22. APPROX. DATE WORK WILL START\*

September 5, 1981

23

DRILLING OPERATIONS AUTHORIZED AND  
SUBJECT TO ODA PLANS WITH ATTACHED  
"GENERAL REQUIREMENTS"  
PROPOSED CASING AND CEMENTING PROGRAM

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

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	
12 1/4"	9 5/8" new	36#	± 250'	Circulate to surface
8 3/4"	7" new	23#	±2700'	Circulate to surface
6 1/4"	4 1/2" new	10.5#, 11.6#	±6770'	Circulate to liner top

See attached drilling procedure.

The gas is dedicated.



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

Don H. Morrison

TITLE Production Analyst

DATE July 1, 1981

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

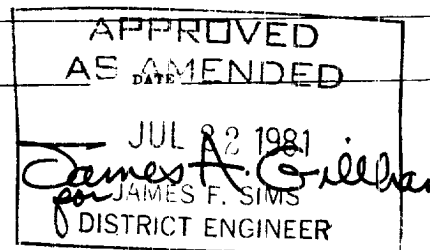
APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

NMOCC



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

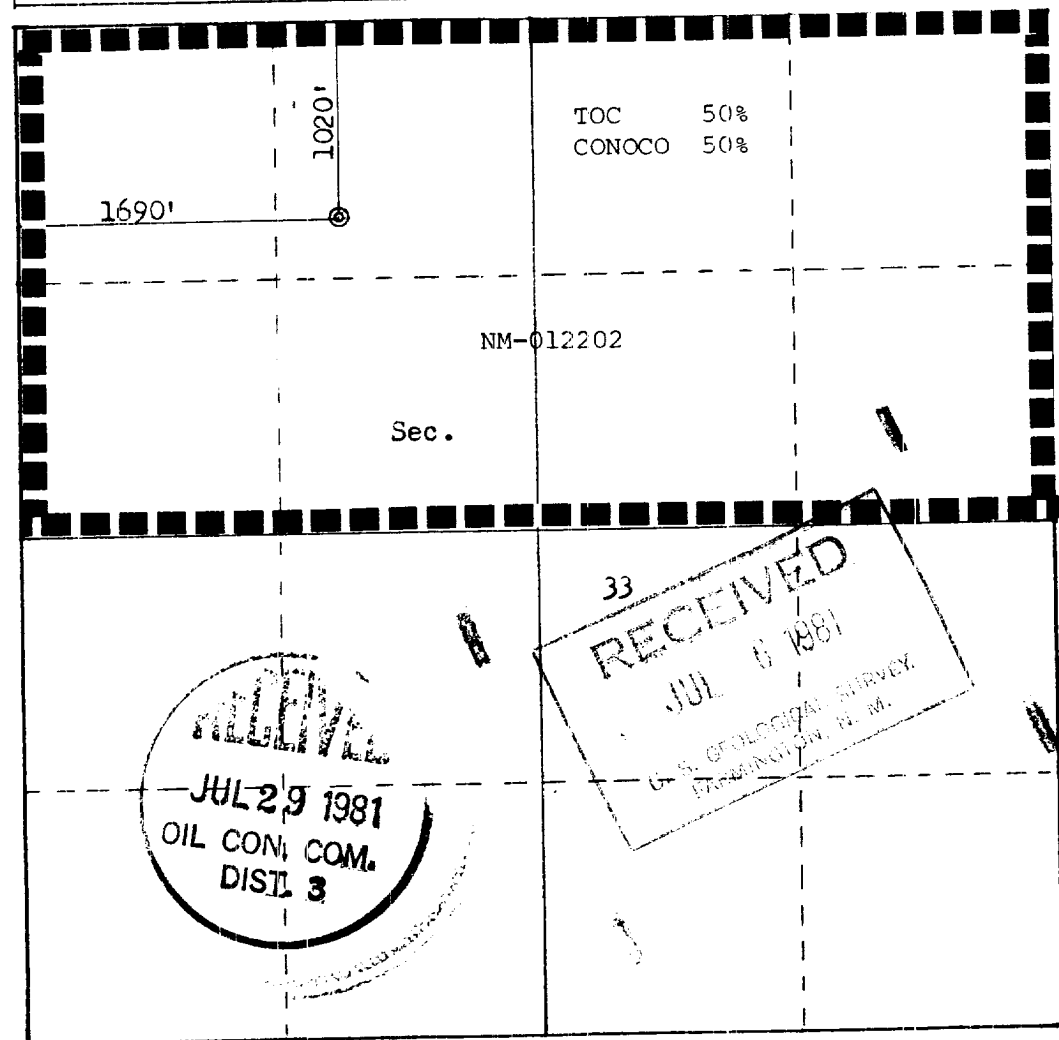
Operator TENNECO OIL COMPANY			Lease BOLACK "B"		Well No. 8
Unit Letter C	Section 33	Township 28N	Range 8W	County San Juan	
Actual Footage Location of Well: 1020 feet from the North line and 1690 feet from the West line					
Ground Level Elev: 5879'	Producing Formation DAKOTA		Pool BASIN DAKOTA	Dedicated Acreage: 320 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	Don H. Morrison
Position	Production Analyst
Company	Tenneco Oil Company
Date	July 1, 1981
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	August 6, 1981
Registered Professional Engineer and Land Surveyor	Fred B. Kerns, Jr.
Certificate No.	39501, JR.

TENNECO OIL COMPANY  
ROCKY MOUNTAIN DIVISION  
PENTHOUSE, 720 SOUTH COLORADO BOULEVARD  
DENVER, COLORADO 80222

DRILLING PROCEDURE

DATE: October 30, 1980

LEASE: Bolack

WELL NO.: B-8

LOCATION: 1020' FNL, 1690' FWL  
Sec. 33, T28N, R8W  
San Juan County, New Mexico

FIELD: Basin Dakota

ELEVATION: 5880'

TOTAL DEPTH: 6770'

PROJECTED HORIZON: Dakota

SUBMITTED BY: George Trussell

DATE: October 30, 1980

APPROVED BY: DJ. Karbach

DATE: Nov 11-80

CC: Administration  
DSB Well File  
Field File

DRILLING, CASING AND CEMENTING PROGRAM.

1. MIRURT
2. Drill a 12¼" Hole to  $\pm$  250' with Gel-Water Mud.
3. RU and run 9 5/8" 36# K-55 ST&C casing to TD. Cement with Class B + 2% CaCl<sub>2</sub> in sufficient quantity to circulate cement to surface. WOC 12 hours.
4. Screw on 9 5/8 8rd x 11-3000 casing head, NU BOPS. Pressure test casing, lines and blinds to 1000 PSI for 30 minutes. GIH with drill pipe and test pipe rams to 1000 PSI for 30 minutes. Record all tests on IADC Report.
5. Drill out using an 8 3/4" Bit and clear water. Drill to 2700'. Mud up prior to reaching intd. TD.
6. RU and run 7" 23# K-55 ST&C casing to bottom. Cement with 50:50 Pozmix, 4% Gel; tailed with 150 sx Class B + 2% CaCl<sub>2</sub>. Circulate cement to surface. WOC 18 hours.
7. Set slips and cut-off casing. GIH with 6¼" Bit and 3½" drilling assembly. Pressure test to 1000 PSI for 30 minutes. Record tests on IADC Report.
8. RU to Gas Drill. Drill to within 5' of shoe with water, unload hole with N<sub>2</sub>. Drill a few feet of new formation and blow with gas until dusting.
9. Drill a 6¼ hole to TD with gas. Log open hole as directed by G.E. Department.
10. Run 4½" 11.6 and 10.50# K-55 ST&C as designed as a liner. Have 150' overlap inside the 7" casing. Cement with 50:50 Pozmix, 4% Gel; tailed by 100 sx of Class B. Use a fluid loss additive in the lead slurry and circ cement to liner top.
11. Circulate out excess cement, LDDP and MORT.
12. Install tree and fence reserve pit.
13. If non-productive, P & A as required by the USGS.

<u>Casing Program</u>					
<u>Interval</u>	<u>Length</u>	<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Coupling</u>
0-250	250'	9 5/8	36#	K-55	STC
0-2700	2700'	7	23#	K-55	STC
		4 1/2	11.6#	K-55	STC
2550-6770	4220'	4 1/2	10.5#	K-55	STC

### MUD PROGRAM

0-250 Spud mud.  
250-2700 Low solid, fresh water mud. (Water and Benex.) Mud up prior to running casing.  
2700-TD Gas.

### EVALUATION

Cores and DST's: None.

#### Deviation Surveys:

1. Survey surface hole at 100' intervals. Maximum allowable deviation at 500' is 1-1/2°.
2. From surface to total depth, deviation surveys must be taken every 500' or each trip, whichever is first. This may entail running the TOTCO on wire-line. Record each survey on the IADC Drilling Report Sheet. Maximum allowable change in deviation is 1° per 100'. Maximum deviation allowable is 5°.

Samples: As requested by Wellsite Geological Engineer.

Logs: 1. GR/IND FDC-GR-Cal TD to MV

### BLOWOUT EQUIPMENT

11" - 3000 BOP with rotating head to comply with TOC requirements as shown in BOE arrangement, Figure C. Preventers must be checked for operation every 24 hours with each check recorded on the IADC Drilling Report Sheet.

## REPORTS

Drilling Reports for the past 24 hours will include depth, footage, time distribution, activity breakdown, mud properties, bit record, bottom hole assembly, daily and cumulative mud cost, deviation surveys, and other pertinent information to be called into Division Office by 7:30 A.M. Monday thru Friday.

TENNECO OIL COMPANY  
P.O. BOX 3249  
ENGLEWOOD, COLORADO 80155  
PHONE: 303-740-4800

### Office Directory

Don S. Barnes	740-4814
John W. Owen	740-4810
Tom Dunning	740-4813
Jack Magill	740-4802
Dale Kardash	740-4809

In case of emergency or after hours call the following in the preferred order.

- |     |                             |          |        |
|-----|-----------------------------|----------|--------|
| (1) | Don S. Barnes               | 740-4814 | Office |
|     | Division Drilling Engineer  | 936-0704 | Home   |
| (2) | John W. Owen                | 740-4810 | Office |
|     | Project Drilling Engineer   | 795-0221 | Home   |
| (3) | Mike Lacey                  | 797-2651 | Home   |
|     | Division Production Manager |          |        |

ESTIMATED FORMATION TOPS

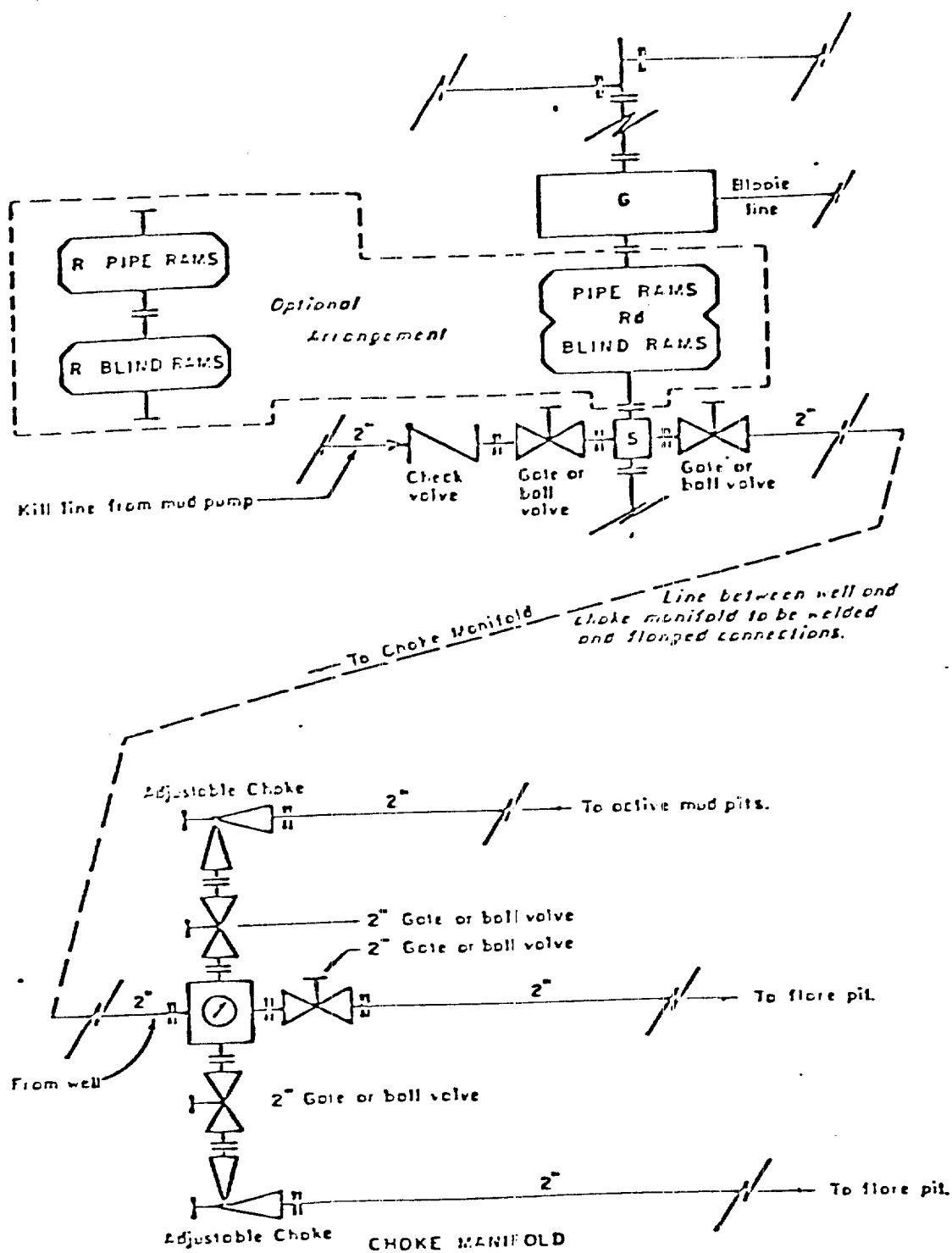
Ojo	1030'	Water
Fruitland	1910'	Gas
Pictured Cliffs	2106'	Gas
Lewis	2200'	
Cliff House	3851'	Gas
Menefee	3885'	Gas
Point Lookout	4450'	Gas
Mancos	4629'	
Gallup	5623'	Gas
Greenhorn	6375'	
Dakota	6473'	Gas
T.D.	6770'	

TENNECO OIL COMPANY - 10 POINT PLAN

1. The geological name of the surface formation: Nacimiento
- 2 & 3. Estimated Formation Tops:  
  
(See Attached Drilling Procedure)
4. Proposed Casing Program:  
  
(See Attached Drilling Procedure)
5. Blowout Preventors:  
Hydraulic double ram. One set of rams will be provided 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". BOP's, drills and tests will be recorded in the driller's log. BOP will be tested every 24 hours and recorded in IADC Log.
6. Mud Program: (Sufficient quantity of mud and weight material will be available on location).  
  
(See Attached Drilling Procedure.)
7. 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.
  - d. Floats at bits.
  - e. Drill string safety valve(s) to fit all pipe in drill string will be maintained on the rig floor while drilling operations are in progress.
8. Coring, Logging, and Testing Program:  
  
(See Attached Drilling Procedure)
9. No abnormal pressures, temperatures or potential hazards such as H<sub>2</sub>S are expected to be encountered.
10. The drilling of this well will start approximately ( Sept. '81 ) and continue for 10 to 12 days.

Your office will be notified of spudding in sufficient time to witness cementing operations. Immediate notice will be given on blowouts, fires, spills, and accidents involving life threatening injuries or loss of life. Prior approval will be obtained before appreciably changing drilling program or commencing plugging operations, plug back work, casing repair work or corrective cementing operations.





All equipment to be 3,000 psi working pressure except as noted.

- Rd Double ram type preventer with two sets of rams.
- R Single ram type preventer with one set of rams.
- S Drilling spool with side outlet connections for choke and kill lines.
- G Rotating head 150 psi working pressure minimum

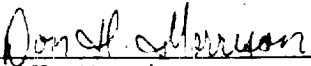
#### ARRANGEMENT C

TENNECO OIL COMPANY  
ROCKY MOUNTAIN DIVISION  
REQUIRED MINIMUM  
BLOWOUT PREVENTER AND  
CHOKE MANIFOLD

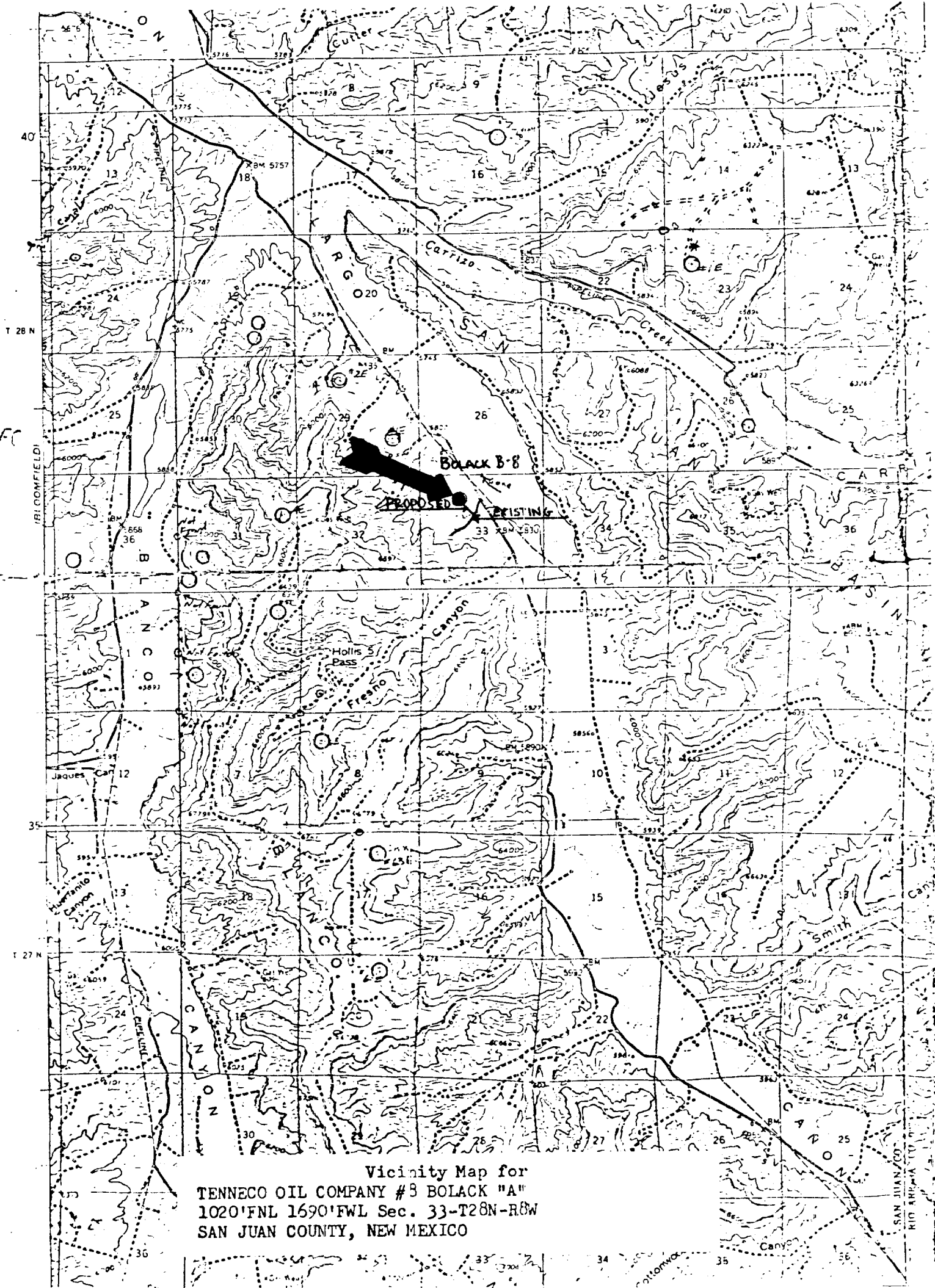
J. MAGILL 10-26-70 EVI

1. Existing Road - Please refer to Map No. 1 which shows the existing roads. New roads which will be required have been marked on this map. All existing and new roads will be properly maintained during the duration of this project.
2. Planned Access Roads - Please refer to Map No. 1. The grade of the access roads will be consistent with that of the local terrain. The road surface will not exceed twenty feet (20') in width. Upon completion of the project, the access road will be adequately drained to control soil erosion. Drainage facilities may include ditches, water bars, culverts or any other measure deemed necessary by trained Company personnel to insure proper drainage. Gates and/or cattleguards will be installed if necessary.
3. Location of Existing Wells - Please refer to Map No. 2.
4. Location of Tank Batteries, Production Facilities, and Production Gathering and Service Lines - Please refer to Maps No. 1 and No. 2. Map No. 2 shows the existing roads and new proposed access roads. All known production facilities are shown on these two maps.
5. Location and Type of Water Supply - Water for the proposed project will be obtained from a private source.
6. Source of Construction Materials - No additional materials will be required to build either the access road or the proposed location.
7. Methods of Handling Waste Materials - All garbage and trash materials will be put into a burn pit shown on the attached Location Plat No. 1. When clean-up operations are begun on the proposed project, the burn pit with its refuse will be buried to a depth of at least three feet (3'). A latrine, the location of which is also shown on Plat No. 1. will be provided for human waste. If large amounts of liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying any of these materials into the watershed. No earthen pit will be located on natural drainage; all earthen pits will be so constructed as to prevent leakage from occurring.

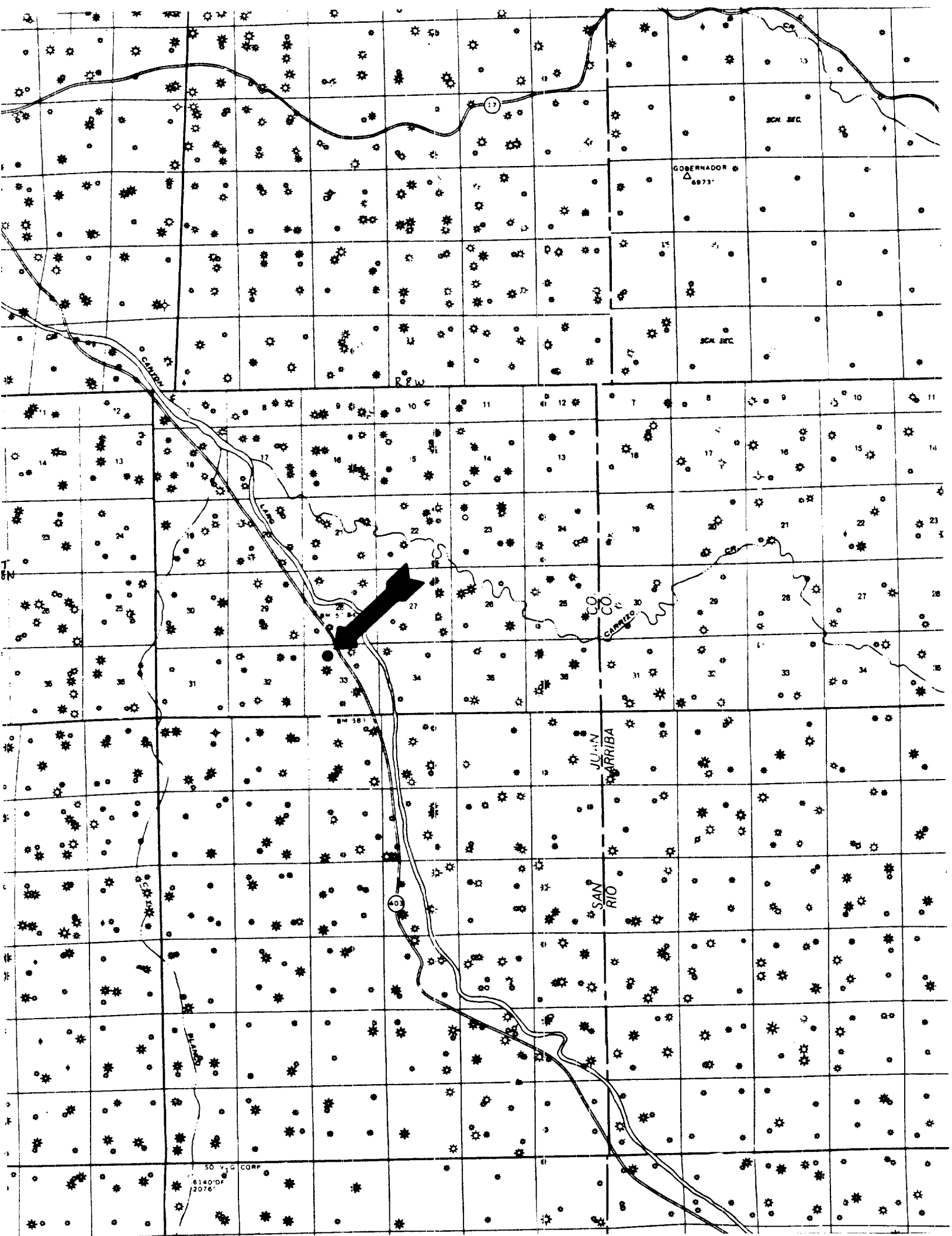
8. Ancillary Facilities - No camps or airstrips will be associated with this project.
9. Wellsite Layout - Please refer to the attached Plat No. 1.
10. Plans for Restoration of the Surface - After completion of the proposed project the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operation will be performed during the time period set forth by the regulatory body. The location production equipment will be painted as designated by the responsible government agency.
11. Other Information - Broken pediment slope and terrace top with northeasterly drainage, alluvial surface deposits and sandstone outcrops. Sandy soil. Vegetation: pinon, juniper, snakeweed, rabbit-brush, serviceberry, narrowleaf yucca, prickly pear cactus, alkali sacaton, indian ricegrass, brome, indian paintbrush.
12. Operator's Representative - See drilling prognosis.
13. Certification - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements mad 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 Tenneco Oil Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

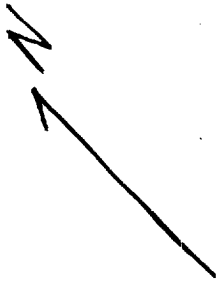
  
\_\_\_\_\_  
Don H. Morrison  
Production Analyst

115 EC  
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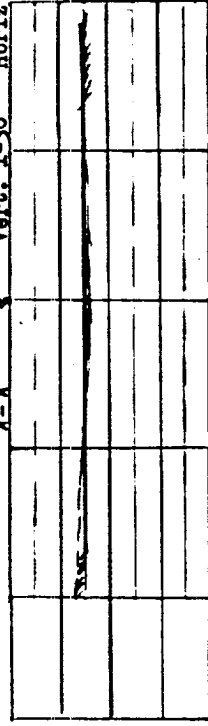
Vicinity Map for  
TENNECO OIL COMPANY #8 BOLACK "A"  
1020'FNL 1690'FWL Sec. 33-T28N-R8W  
SAN JUAN COUNTY, NEW MEXICO



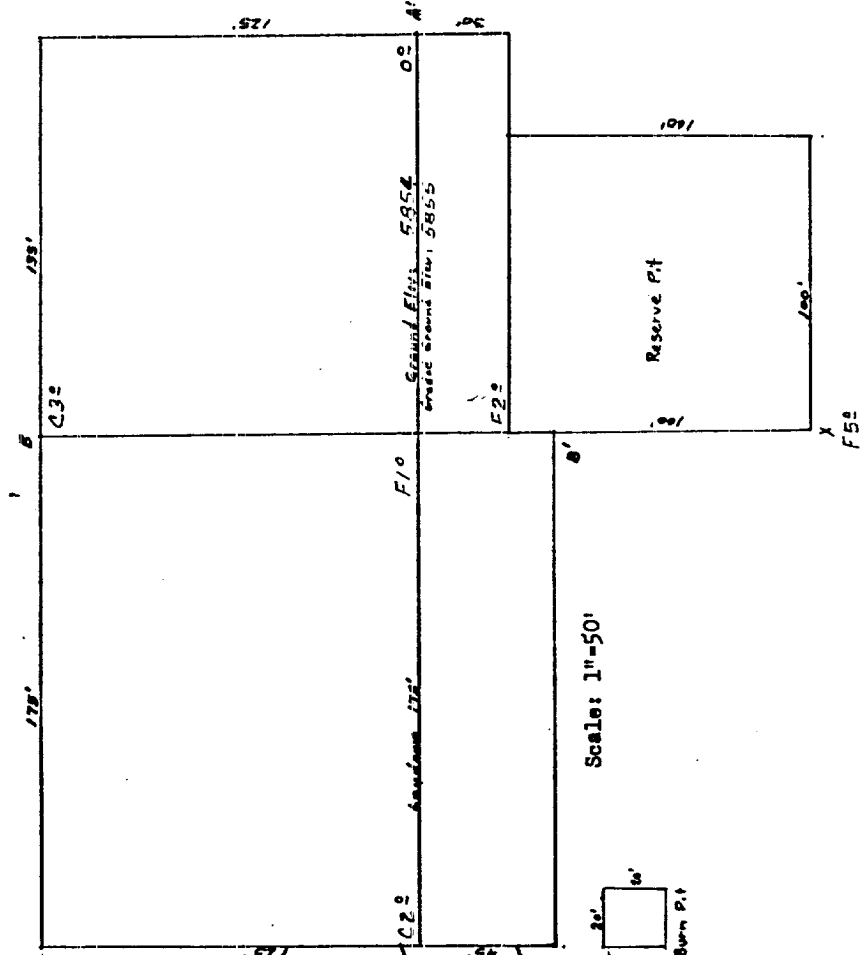
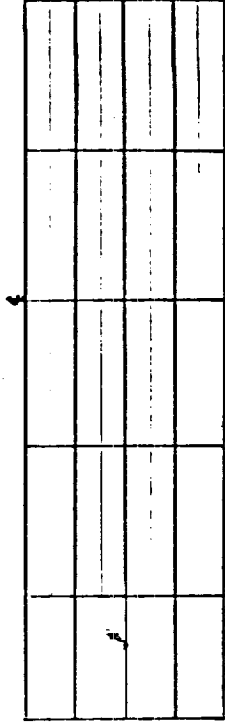
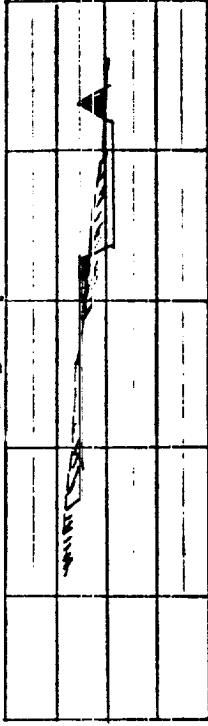


Profile Map for  
 TENNECO OIL COMPANY #8 BOLACK "B"  
 1020'FWL 1690'FWL Sec. 33-T28N-R6W  
 SAN JUAN COUNTY, NEW MEXICO

A-A'      Vert. 1-30      Horiz 1-100



B-B'      4



Date: April 6, 1981

**Tenneco Oil**  
**Exploration and Production**  
A Tenneco Company



Rocky Mountain Division

P.O. Box 3249  
Englewood, Colorado 80155  
(303) 740-4800

Delivery Address:  
6061 South Willow Drive  
Englewood, Colorado

July 1, 1981

U. S. Geological Survey  
P.O. Box 959  
Farmington, NM 87401

Re: Bolack B-8, 1020'FNL, 1690'FWL,  
Sec 33, T28N, R8W,  
San Juan County, NM

Gentlemen:

Pursuant to Notice to Lessees and Operators (NTL-6) Part VI page 14, a written agreement between the lessee or operator and the surface owner is not necessary if a letter from the lessee or the operator setting forth the surface owner's rehabilitation requirements is furnished.

A settlement with the private surface owner has been reached. The surface owner's rehabilitation requirements are for the restoration of all disturbed lands to be carried out according to U.S.G.S. and B.L.M. recommendations. If there are any subsequent reasonable requests of the surface owner, full consideration will be given to the preferences of the landowner.

I trust this letter, in full compliance with NTL-6 Part VI, will allow the application to drill these wells to be approved without delay.

Yours very truly,

TENNECO OIL COMPANY

A handwritten signature in cursive script that reads "Don H. Morrison".

Don H. Morrison  
Production Analyst

DHM/lo