

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

6162 South Willow Drive  
P.O. Box 3249  
Englewood, Colorado 80155  
(303) 740-4800



Western Rocky Mountain Division

May 30, 1984



New Mexico Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87501

RE: Hardship Status - Dawson Fed #1  
Section 26, T27N, R8W  
San Juan County, New Mexico

Gentlemen:

*Case 8245*

Tenneco Oil requests that the referenced well be classified as a hardship gas well. Underground waste will occur due to shut-in because of a build up in liquid in the wellbore requiring the well to be swabbed to return it to production. The build up of liquids in the wellbore also causes the water saturation of the pay zones near the wellbore to increase, thereby lowering the relative permeability of gas in the wellbore. This low relative permeability, whether permanent or temporary, will restrict the flow of gas.

In order to rectify the water problem this well currently has an intermitter installed that unloads the produced liquids (water) to the low pressure side of the separator. This method has been successful in keeping the wellbore unloaded and flowing freely. The use of dewatering devices has been considered but rejected. These are:

- (1) Plunger lift due to shut-in bottom hole pressure being very close to the line pressure.
- (2) Undersize tubing - the minimum flow rates necessary to unload the produced water, as calculated by the methods proposed by Turner are listed below:

2-3/8"	(1.995" ID)	- 697 MCFD
1-1/4"	(1.380" ID)	- 333 MCFD
1"	(1.049" ID)	- 193 MCFD

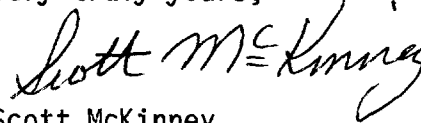
Since the well has a deliverability of approximately 100 MCFD none of the above tubing sizes would enable the well to unload its produced water. It would not be advisable to use smaller tubing than 1" at these depths.

When this well is shut-in for a period of time it has to be swabbed to return it to production. Normal swab time is usually two to three days, at a cost of approximately \$2,500.00, which is more than the gross monthly revenue generated by this well. If Tenneco abandoned this well due to failure to obtain hardship gas well classification, the quantity of gas reserves which would be lost would be 308 MCF. This well is in a prorated pool which is currently under produced 3029 MCF as of May 1984 production book.

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If you have any questions concerning the application for hardship gas well status, please contact Mark Owens, Production Engineer at 303/740-4840.

Very truly yours,

A handwritten signature in cursive script that reads "Scott McKinney". The signature is written in dark ink and is positioned above the printed name and title.

Scott McKinney  
Senior Regulatory Analyst

SMc:gj  
Attachment

cc: Mark Owen

APPLICATION FOR CLASSIFICATION AS HARDSHIP GAS WELL

Operator Tenneco Oil Company Contact Party Scott McKinney  
Address P.O. Box 3249, Englewood, CO 80155 Phone No. 303/740-4800  
Lease Dawson Fed Well No. #1 UT D Sec. 26 TWP 27N RGE .8W  
Pool Name Blanco Mesaverde Minimum Rate Requested \_\_\_\_\_  
Transporter Name El Paso Natural Gas Purchaser (if different) \_\_\_\_\_

Are you seeking emergency "hardship" classification for this well? X yes \_\_\_\_\_ no

Applicant must provide the following information to support his contention that the subject well qualifies as a hardship gas well.

Provide a statement of the problem that leads the applicant to believe that "underground waste" will occur if the subject well is shut-in or is curtailed below its ability to produce. (The definition of underground waste is shown on the reverse side of this form)

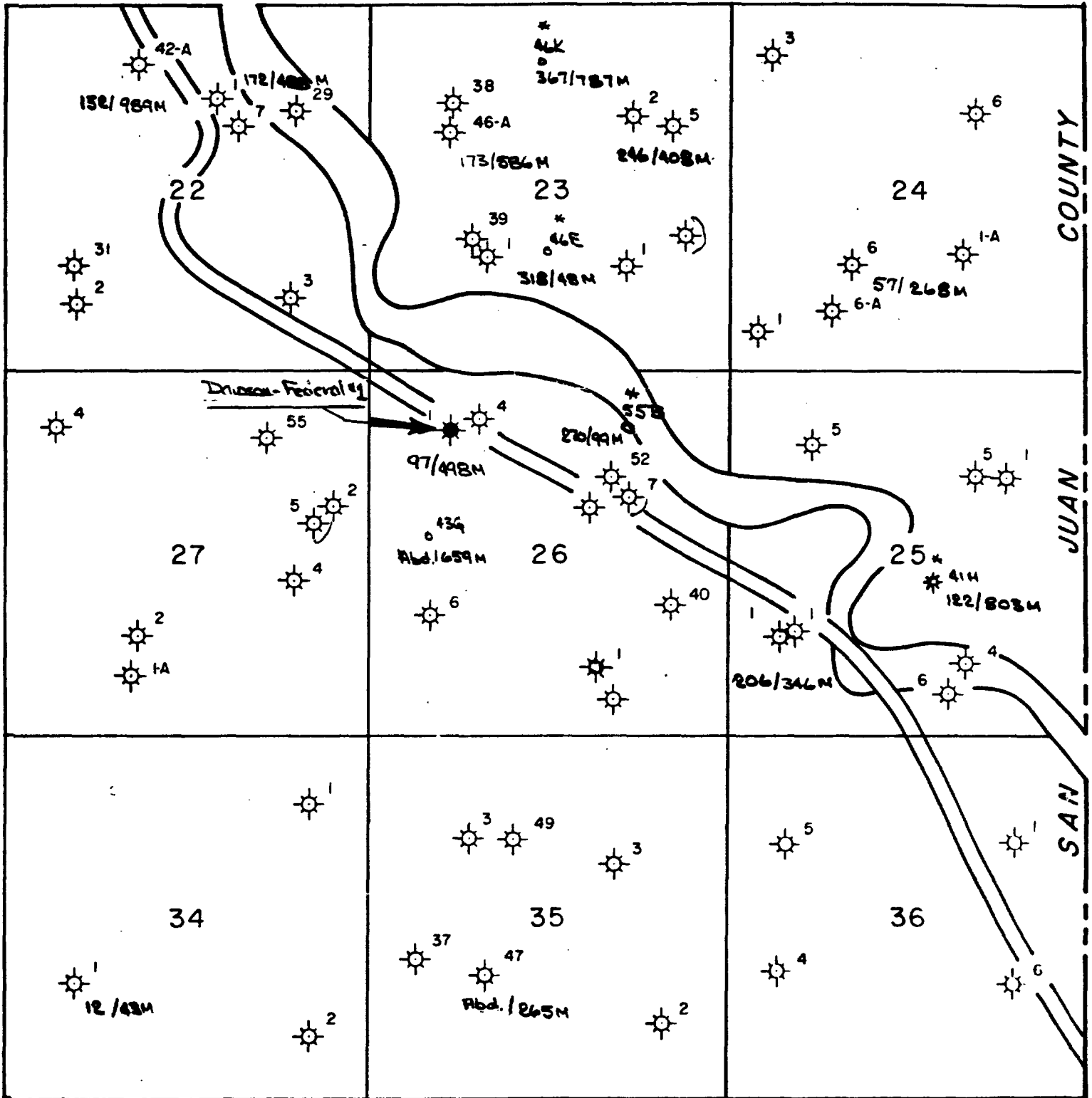
2) Document that you as applicant have done all you reasonably and economically can do to eliminate or prevent the problem(s) leading to this application.

- a) Well history. Explain fully all attempts made to rectify the problem. If no attempts have been made, explain reasons for failure to do so.
- b) Mechanical condition of the well (provide wellbore sketch). Explain fully mechanical attempts to rectify the problem, including but not limited to:
  - i) the use of "smallbore" tubing; ii) other de-watering devices, such as plunger lift, rod pumping units, etc.

Present historical data which demonstrates conditions that can lead to waste. Such data should include: —

- a) Permanent loss of productivity after shut-in periods (i.e., formation damage).
  - b) Frequency of swabbing required after the well is shut-in or curtailed.
  - c) Length of time swabbing is required to return well to production after being shut-in.
  - d) Actual cost figures showing inability to continue operations without special relief
- 4) If failure to obtain a hardship gas well classification would result in premature abandonment, calculate the quantity of gas reserves which would be lost
  - 5) Show the minimum sustainable producing rate of the subject well. This rate can be determined by:
    - a) Minimum flow or "log off" test; and/or
    - b) Documentation of well production history (producing rates and pressures, as well as gas/water ratio, both before and after shut-in periods due to the well dying, and other appropriate production data).
  - 6) Attach a plat and/or map showing the proration unit dedicated to the well and the ownership of all offsetting acreage.
  - 7) Submit any other appropriate data which will support the need for a hardship classification.
  - 8) If the well is in a prorated pool, please show its current under- or over-produced status.
  - 9) Attach a signed statement certifying that all information submitted with this application is true and correct to the best of your knowledge; that one copy of the application has been submitted to the appropriate Division district office (give the name) and that notice of the application has been given to the transporter/purchaser and all offset operators.

R 8 W



# SAN JUAN BASIN

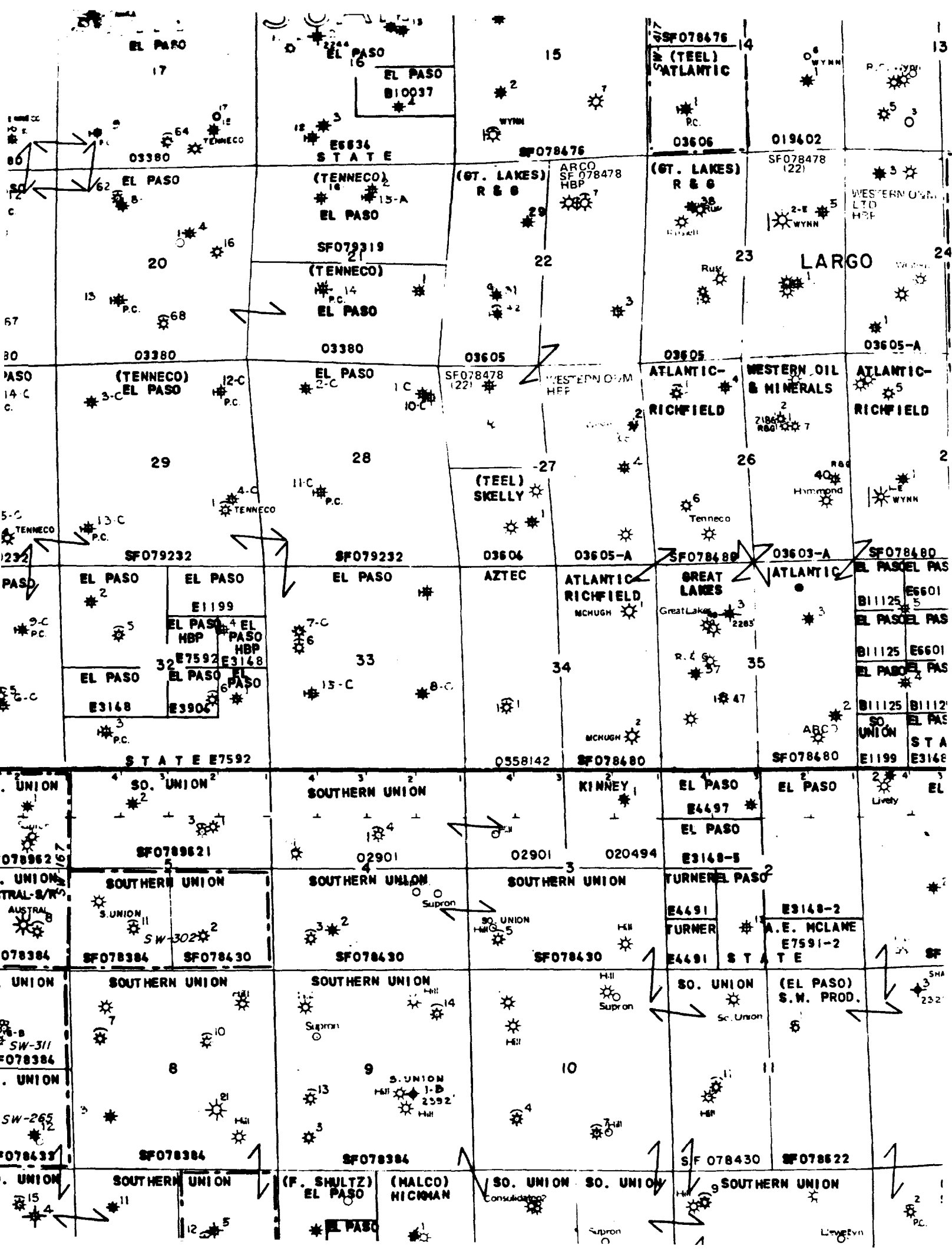
SAN JUAN COUNTY, NEW MEXICO

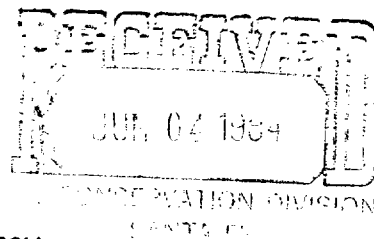
## OFFSET OPERATORS

Western Oil & Minerals  
P.O. Drawer 1228  
Farmington, NM 87499

AAA Operating Co, Inc.  
Interfirst 11, Suite 3345  
Dallas Tx 75270

R&G Drilling Co  
P.O. Drawer 419  
Farmington, NM 87499





2859W

LEASE Dawson Federal

WELL NO. 1

8-5/8 "OD, 20 & 24 LB, J-55 CSG.W/ 250 SX

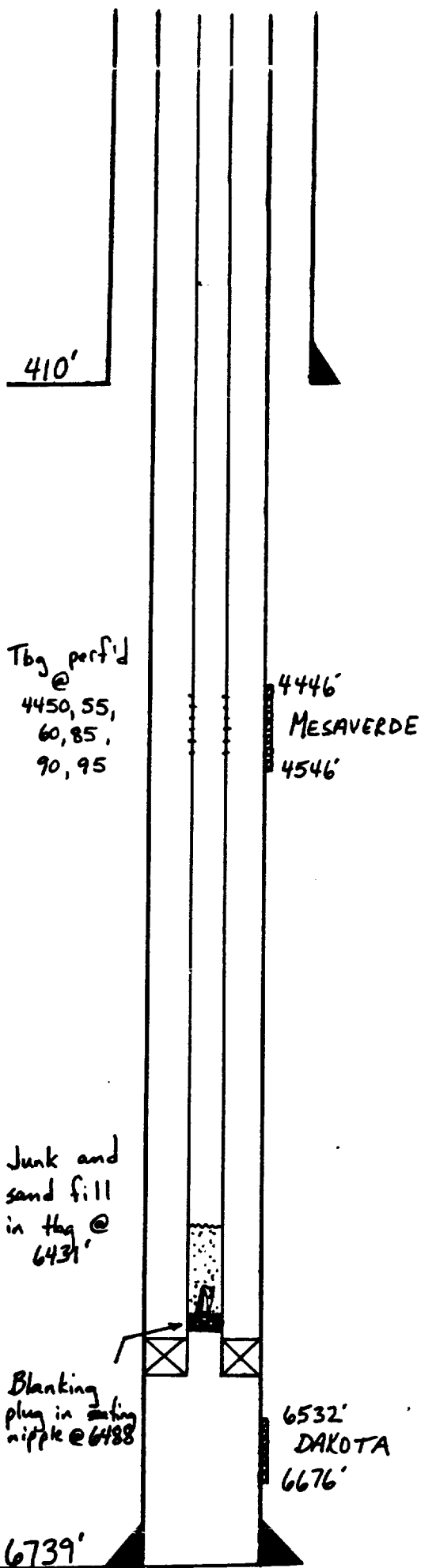
TOC @ surface

4-1/2 "OD, 10.5 LB, J-55 CSG.W/150/135/210 SX

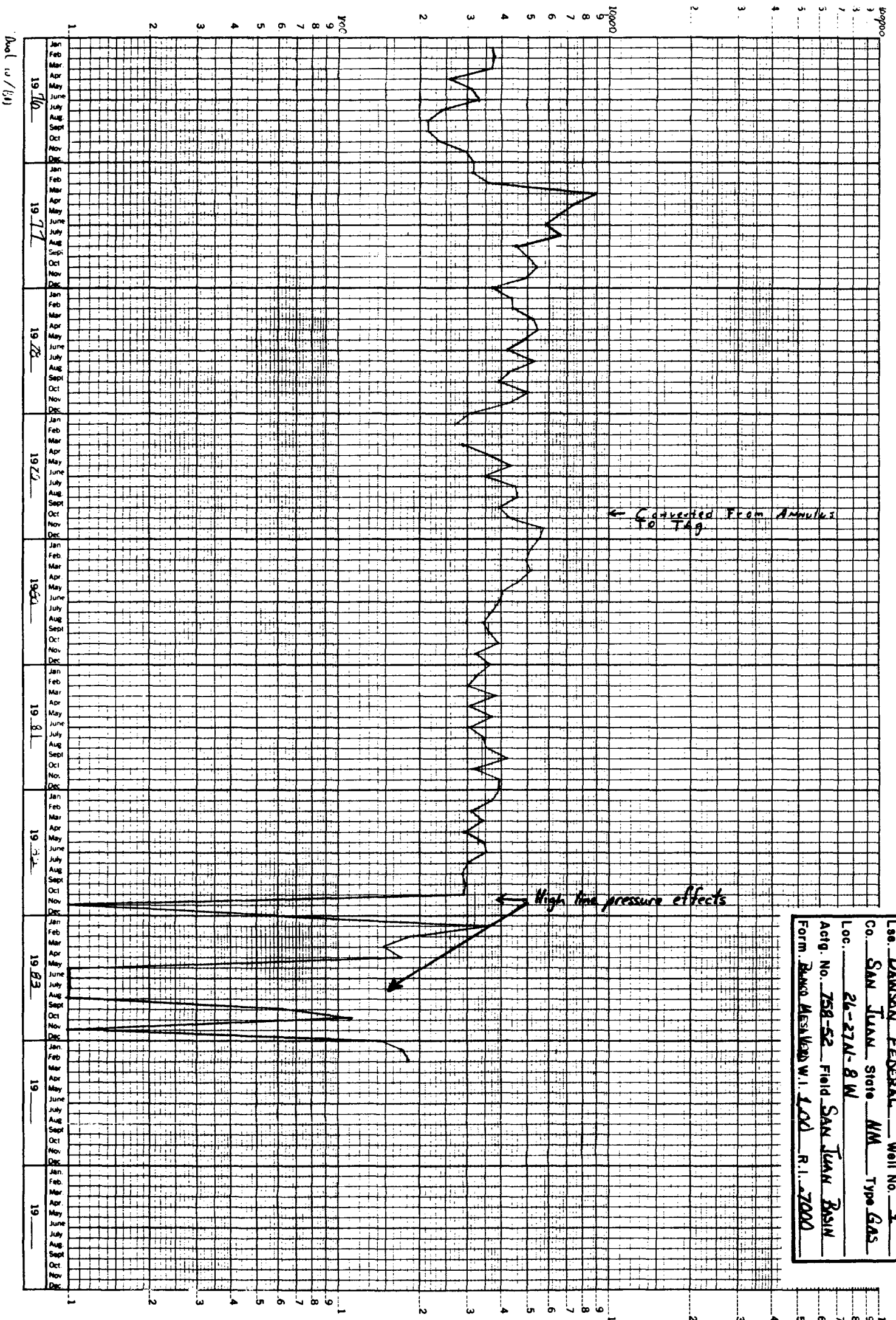
DV'S @ 3180' & 4652'

2-3/8 "OD, 4.7 LB, J-55 tbq.W/ Model 'D'

@ 6501'



MCF OF GAS PRODUCED



TENNECO OIL COMPANY Company Operated  
Lse. DAWSON FEDERAL Well No. 4  
Co. SAN JUAN State NM Type Gas  
Loc. 26-27N-8W  
Acq. No. 758-52 Field SAN JUAN BASIN  
Form. BARRO MESQUERO W.I. 1.00 R.I. 7000