

INFILL DRILLING FINDINGS AND WELL-SPACING WAIVER
MADE PURSUANT TO SECTION 271.305(b) OF THE
FEDERAL ENERGY REGULATORY COMMISSION REGULATIONS,
NATURAL GAS POLICY ACT OF 1978 AND OIL CONSERVATION DIVISION
ORDER NO. R-6013

I.

Operator The Petroleum Corporation of Delaware Well Name and No. Tenneco Federal Well No. 3
Location: Unit J Sec. 12 Twp. 26 South Rng. 37 East Cty. Lea

II.

THE DIVISION FINDS:

(1) That Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waiver of existing well-spacing requirements.

(2) That by Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.

(3) That the well for which a finding is sought is to be completed in the Dublin Devonian Gas Pool, and the standard spacing unit in said pool is 320 acres.

(4) That a 320 acre proration unit comprising the S/2 of Sec. 12, Twp. 26 South, Rng. 37 East, is currently dedicated to the applicant's Tenneco Federal Well No. 1 located in Unit N of said section.

(5) That this proration unit is (X) standard () nonstandard; if nonstandard, said unit was previously approved by Order No. NA.

(6) That said proration unit is not being effectively and efficiently drained by the existing well(s) on the unit.

(7) That the drilling and completion of the well for which a finding is sought should result in the production of an additional 700,000 MCF of gas from the proration unit which would not otherwise be recovered.

(8) That all the requirements of Order No. R-6013 have been complied with, and that the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.

(9) That in order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well spacing requirements for the pool.

IT IS THEREFORE ORDERED:

(1) That the applicant is hereby authorized to drill the well described in Section I above as an infill well on the existing proration unit described in Section II(4) above. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on this 24th day of March, 19 86.

cc: Bureau of Land Management - Roswell
Oil Conservation Division - Artesia

Conrad Coffield
Box 3580
Midland, Texas 79702


DIVISION DIRECTOR EXAMINER ☒

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. Box 2088
SANTA FE, NEW MEXICO
87501

Received 7/12/85
Release 3/21/86
ADMINISTRATIVE ORDER
NFL

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(4) That a 320-acre proration unit comprising the 5/2 of Sec. 12, Twp. 26 South, Rng. 37 East, is currently dedicated to the applicant's Tenneco Federal Well No. 1 located in Unit N of said section.

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(8) That all the requirements of Order No. R-6013 have been complied with, and that the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.

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DONE at Santa Fe, New Mexico, on this March day of 1986.

C.C. USBLM - Roswell
OLD Artesia

Conrad Coffield
Box 3580

Midland, TX 79702

DIVISION DIRECTOR

EXAMINER



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2088 - SANTA FE

87501

**GOVERNOR
BRUCE KING
CHAIRMAN**

LAND COMMISSIONER

ALEX J. ARMIJO

MEMBER

STATE GEOLOGIST

A. L. PORTER, JR.

SECRETARY - DIRECTOR

THE PETROLEUM CORPORATION
OF DELAWARE

Turtle Creek Centre
3811 Turtle Creek Boulevard
DALLAS, TEXAS 75219-4419

LARRY C. SHANNON
PRESIDENT

July 9, 1985

CERTIFIED MAIL/RETURN RECEIPT REQUESTED

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501
Attention: Mr. Michael Stogner

RE: Request of The Petroleum Corporation of Delaware for Special Finding that its Tenneco Federal Well No. 3, located in the NW/4SE/4 Section 12-T26S-R37E, Lea County, New Mexico, the Second Well on a 320 acre proration Unit, is Necessary to Effectively and Efficiently Drain the Reservoir

Gentlemen:

The Petroleum Corporation of Delaware ("Applicant"), in accordance with the Special Rules and Regulations for Natural Gas Policy Act Infill Findings Administrative Procedure, hereby submits in duplicate its request for a determination and special finding that the subject well is an infill well which is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by an existing well within that unit.

In support thereof, Applicant submits herewith in duplicate the following:

1. Application for Permit to Drill, Deepen or Plug Back filed with the United States Department of Interior with approval shown thereon and Especial Approval Stipulation (Rule 5).
2. State of New Mexico Form C-102 showing the 320 acre proration unit dedicated (Rule 5), which is the South Half of Section 12-T26S-R37E, Lea County, New Mexico.
3. The following information required by Rule 8 on all wells (the Tenneco Federal No. 1 and Tenneco Federal No. 3) drilled on the proration unit:

Tenneco Federal No. 1
Unit N, Section 12, T 26 S, R37E; Lea Co., New Mexico
990' FSL & 2310' FWL
Spud Date: December 2, 1971
Completion Date: Dublin (Devonian) October 27, 1983
(Recompleted)
No mechanical problems
Current production: 589 MCFD

Letter to State of New Mexico
From Larry C. Shannon
July 9, 1985
Page Two

Tenneco Federal No. 3
Unit J, Section 12, T26S, R37E; Lea Co., New Mexico
1980' FSL & 1980' FEL
Spud date: April 30, 1985
Completion date: June 24, 1985 (potential test)
No mechanical problems
Waiting on pipeline connection

4. Applicant's statement indicating why the Tenneco Federal No. 1, the first well on the proration unit, cannot effectively and efficiently drain the portion of the reservoir covered by the proration unit (Rule 8) is as follows:

Deliverability from the Tenneco Federal No. 1 has declined to 589 MCF per day at a surface pressure of 300 psig. The bottom hole pressure in the Devonian formation in said well has declined from an original pressure of 3858 psig to 1518 psig, a decline of 2340 psig. Estimated recovery from the Devonian formation in the Tenneco Federal No. 1 will be approximately 15% of estimated reserves, calculated on a volumetric basis, assigned to the Devonian formation underlying the 320 acre proration unit and cumulative production from said well is 62% of estimated ultimate recovery from the well. Further support for Applicant's conclusion was provided by the bottom hole pressure of 3661 psig obtained on a drill stem test of the Tenneco Federal No. 3 well on June 10, 1985.

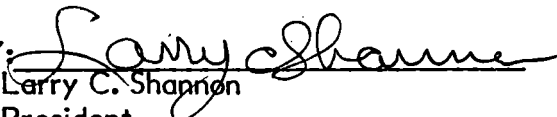
5. Formation structure map (Rule 9).
6. Cross-sections showing electric logs covering the Devonian formation in the Tenneco Federal No. 1, Tenneco Federal No. 3 and neighboring wells (Rule 9).
7. An estimate of increased ultimate recovery to be attained from the Tenneco Federal No. 3 and a narrative describing how the increase was determined (Rule 9).
8. Production statistics for the Tenneco Federal No. 1 (Rule 9).
9. Production curve for the Tenneco Federal No. 1 (Rule 9).
10. Bottom hole pressure decline curve for the Tenneco Federal No. 1 (Rule 9).
11. Data summary for the Tenneco Federal No. 3.

Letter to State of New Mexico
From Larry C. Shannon
July 9, 1985
Page Three

Attached hereto and made a part hereof as Exhibit "A" is a list of all operators of proration or spacing units offsetting the unit for which an infill finding is sought herein who, by copy of this letter transmitted by certified mail, have been contemporaneously notified of this application.

Respectfully submitted,

THE PETROLEUM CORPORATION
OF DELAWARE

BY: 
Larry C. Shannon
President

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
District I
P.O. Box 1980
Hobbs, New Mexico 88240

El Paso Natural Gas Company
P.O. Box 1492
El Paso, Texas 79978
Attention: Mr. Michael W. Wiseman



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carlsbad Resource Area Headquarters

P. O. Box 1778

Carlsbad, New Mexico 88220

IN REPLY REFER TO
17

ESPECIAL APPROVAL STIPULATION

This APD is approved subject to the requirement that, should the well be successfully (COMPLETED FOR PRODUCTION), this office must be notified when it is placed in a producing status. Such notification may be provided ORALLY IF CONFIRMED IN WRITING and MUST BE RECEIVED IN THIS OFFICE BY NO LATER THAN THE FIFTH (5th) BUSINESS DAY NEXT FOLLOWING THE DATE ON WHICH THE WELL IS PLACED ON PRODUCTION. The notification shall provide, as a minimum, the following items:

1. Operator name.
2. Well name, number, and location.
3. Date well was placed on production.
4. The lease, or communized tract, or unit participating area to which the well's production is attributable.

VALERO 567-4328



United States Department of the Interior *Tenneco Federal #3*

IN REPLY REFER TO

BUREAU OF LAND MANAGEMENT

Roswell District Office

SPECIAL APPROVAL STIPULATIONS

THE PETROLEUM CORPORATION OF DELAWARE

Tenneco Federal No. 3

NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 12, T. 26 S., R. 37 E.

Lea County

NM-7951

The special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the general requirements. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 and 3165.4.

☒ A. The Bureau of Land Management office is to be notified at:

☐ (505) 624-1790 Roswell
☒ (505) 887-6544 Carlsbad
☐ (505) 393-3612 Hobbs

in sufficient time for a representative to witness:

- ☒ 1. Spudding
☒ 2. Cementing
11 3/4 inch
8 7/8 inch
8 7/8 inch
☒ 3. BOP tests _____ inch

Capitan water basin

☐ B. At least one working day prior to constructing the well pad, access roads and/or related facilities, the operator or dirt contractor shall notify the authorized officer of the surface management agency. The surface management agency may be contacted at:

☐ BLM phone (505) 887-6544 Carlsbad, New Mexico
☐ BLM phone (505) 624-1790 Roswell, New Mexico

He shall also notify the surface management agency within two working days after completion of earth-moving activities.

☐ C. Roads in the area of operation of this authorization will require surfacing.

☒ D. 11 3/4" surface casing should be set in the *(~950')* Rustler Anhydrite formation and cement circulated to the surface. If surface casing is set at a lesser depth, the 8 7/8" casing must be cemented from the casing shoe to the surface or cemented to the surface through a stage tool set at least 50 feet below the top of the Rustler after cementing around the shoe with sufficient cement to fill to the base of the salt section.

☒ E. Before drilling below the 8 7/8" casing, the blowout preventer assembly will consist of a minimum of one annular type and two ram type preventers.

☒ F. Minimum required fill of cement behind the 8 7/8" casing is to *See "D" above*
(fill back to base of the salt) - 2424'

☒ G. After setting the 8 7/8" casing string and before drilling into the *Wolfcamp* formation, the blowout preventers and related control equipment failing to test satisfactorily shall be repaired or replaced. This office should be notified in sufficient time for a representative to witness the tests and shall be furnished a copy of the pressure test report.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

(FIVE MIN 5140)

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> 2. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE BORE <input type="checkbox"/> MULTIPLE BORE <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. NM-7951 6. IF INDIAN, ALLOTTEE OR TRIBE NAME 7. UNIT AGREEMENT NAME 8. FARM OR LEASE NAME Tenneco Federal 9. WELL NO. 3 10. FIELD AND POOL, OR WILDCAT Dublin Eilenburger 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 12-T26S-R37E 12. COUNTY OR PARISH 13. STATE Lea NM	
3. NAME OF OPERATOR The Petroleum Corporation of Delaware 4. ADDRESS OF OPERATOR 3303 Lee Parkway, Dallas, Texas 75219 1. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface Unit J, 1,980 Ft. FSL and 1,980 FT. PEL At proposed prod. zone SAME 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 10 Miles southeast of Jal, New Mexico			15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 1,980 Ft. 16. NO. OF ACRES IN LEASE 640 17. NO. OF ACRES ASSIGNED TO THIS WELL 320 18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 19. PROPOSED DEPTH 9,300 Ft. 20. ROTARY OR CABLE TOOLS Rotary 21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3,004.4 Ft. GL 22. APPROX. DATE WORK WILL START* As soon as possible	

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
15"	11-3/4"	42 lbs.	400'	350 sacks CIRCULATE
11"	8-5/8"	32 lbs.	3,800'	500 sacks
7-7/8"	4 1/2"	11.6 lbs.	9,300'	700 sacks

NOTE: In this case, the 8-5/8" csg would have a stage tool set at 1000' and cement would be circulated to surface.

OPTION: We might prefer to set 11-3/4" casing at 1000' and cement to surface.

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 FE Thomas TITLE Manager of Operations DATE 2/25/85
 (This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
 AREA _____ CARLSBAD RESOURCE AREA
 APPROVED BY Ron Wood (Atty) TITLE _____ DATE 3-28-85
 CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

☒ H. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before drilling into the Walcamp formation and used until production casing is run and cemented. Monitoring equipment shall consist of the following:

☒ 1. A recording pit level indicator to determine pit volume gains and losses.

☐ 2. A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.

☒ 3. A flow sensor on the flow-line to warn of any abnormal mud returns from the well.

☒ I. A kelly cock will be installed and maintained in operable condition.

☐ J. A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the Bureau of Land Management, P. O. Box 1379, Roswell, New Mexico 88201. The effective date of the agreement must be prior to any sales.

☐ K. Above ground structures, not subject to applicable safety requirements shall be painted. The paint color is to simulate:

☐ Sandstone Brown, Fed. Std. 595-20318 or 30318
☐ Sagebrush Gray, Fed. Std. 595-26357 or 36357

☐ L. A Gamma Ray-Compensated Neutron log is required from the base of the salt section to the surface with cable speed not to exceed 30 feet per minute.

☒ M. Rehabilitation

☐ At least 3 working days prior to commencing any of the following rehabilitation activities, the operator shall notify the appropriate surface managing agency, shown in part 5.

☐ 1. Upon the conclusion of drilling and completion operations when mud pits are dry they will be leveled, plastic will be removed and area reseeded with mixture No. _____ shown on last page of General Requirements.

☒ 2. Following the down-hole plugging and abandonment of all operation:

☐ a. The drill pad and _____ miles of access road shall be ripped to a minimum of 12" in depth. Ripping shall be on the contour with rips being approximately 3 feet or less apart.

☐ b. The drill site and _____ miles of access road will be reseeded with mixture No. _____ shown on the last page of the General Requirements.

☐ c. All ripped surfaces are to be protected from vehicular travel by constructing a dead-end ditch and earthen barricade at the entrance to these ripped areas. The barricade is to be constructed using spoil materials from the ditch and should be of sufficient magnitude to discourage vehicle entry.

☒ d. Private Surface: Abandonment stipulations to coincide with operator-landowner agreement. (Where no agreement exists, BLM will be requested to provide abandonment stipulations.)

☒ e. The surface location is to be cleaned and leveled.

☐ 3. Modifications in the rehabilitation stipulations made necessary by unforeseen circumstances or improvements in rehabilitation methods may be made when the Notice of Intention to Abandon is filed.

☐ N. Other:

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-4-83

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

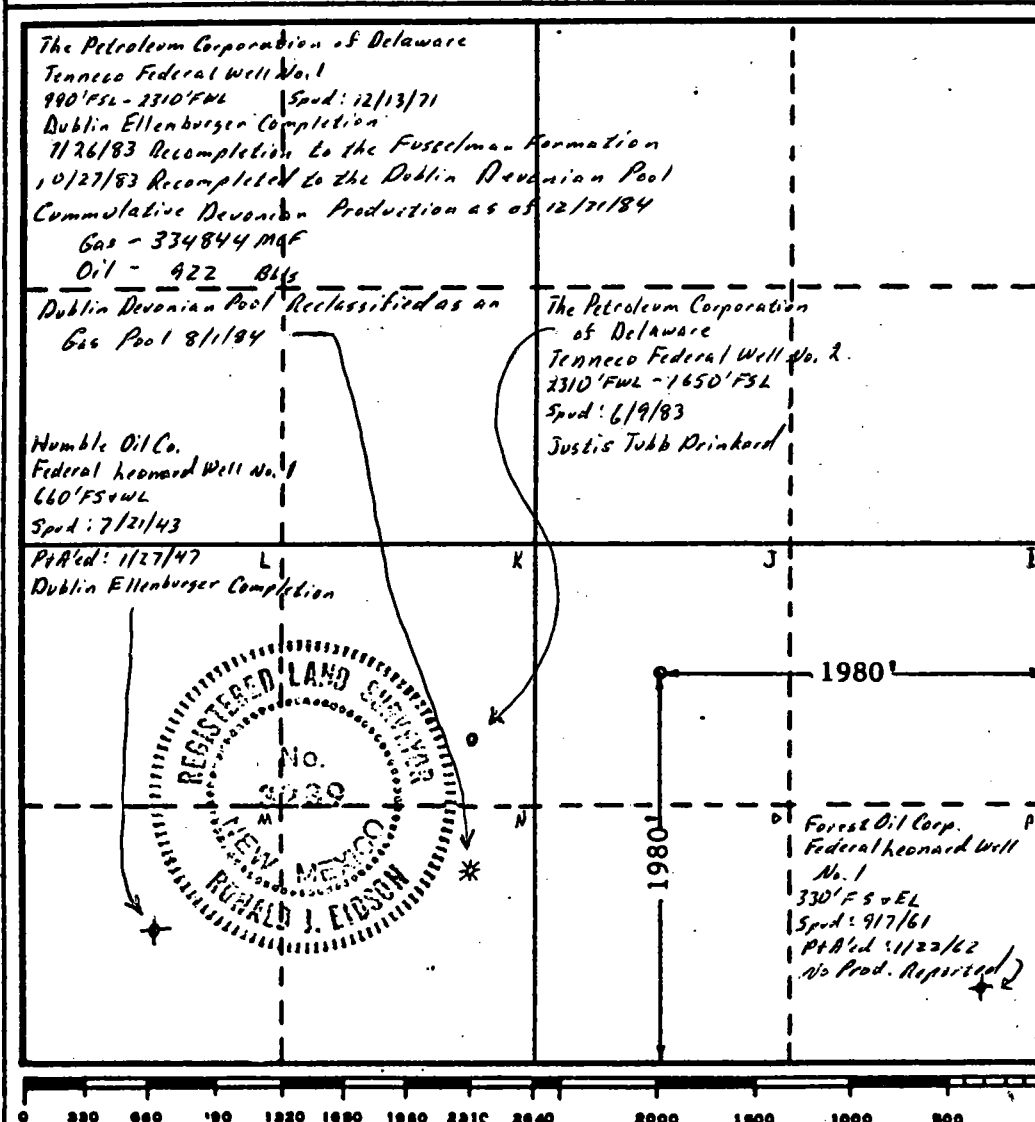
Operator Petroleum Corp. of Delaware			Lease Tenneco Fed.		Well No. 3
Unit Letter J	Section 12	Township 26 South	Range 37 East	County Lea	
Actual Footage Location of Well:					
1980 feet from the South line and		1980 feet from the East line			
Ground Level Elev. 3004.4	Producing Formation Devonian	Pool Dublin Devonian	Dedicated Acreage: 320 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.



CERTIFICATION

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

L.E. Thomas

Name
L.E. Thomas

Position
Manager of Operations

Company
The Petroleum Corporation

Date
February 27, 1985

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
2-20-85

Registered Professional Engineer and/or Land Surveyor
Ronald J. Eidson

Certificate No. **JOHN W. WEST, 576**
RONALD J. EIDSON, 3239

Re: The Petroleum Corporation of Delaware
Tenneco Federal No. 3

D. FILING REQUIREMENTS
Rule 9.b.

The volume of increased ultimate recovery expected to be obtained from the Tenneco Federal No. 3 is 700,000 mcf of gas. A narrative describing how the increase was determined follows:

The expected increase in ultimate gas recovery of 700,000 mcf attributable to the Devonian completion in Tenneco Federal No. 3 is based on bottom hole pressure and production performance exhibited by Tenneco Federal No. 1. Well No. 3 is expected to have a sustained initial production rate of 1,000 mcf per day which will decline at the rate of 40 percent per year over life.

PRODUCTION STATISTICS

PLUGGED BACK TO

OPERATOR THE PETROLEUM CORP. OF DELAWARE

FORMATION DEVONIAN

WELL TENNECO FEDERAL #1 15222

PERFORATIONS 9049 - 9159 (OA)

FIELD DUBLIN - DEVONIAN

FIRST PRODUCTION 10/27/83

COUNTY LEA DISTRICT I. HOBBS

INTEREST _____ (EXPN) _____ (RE)

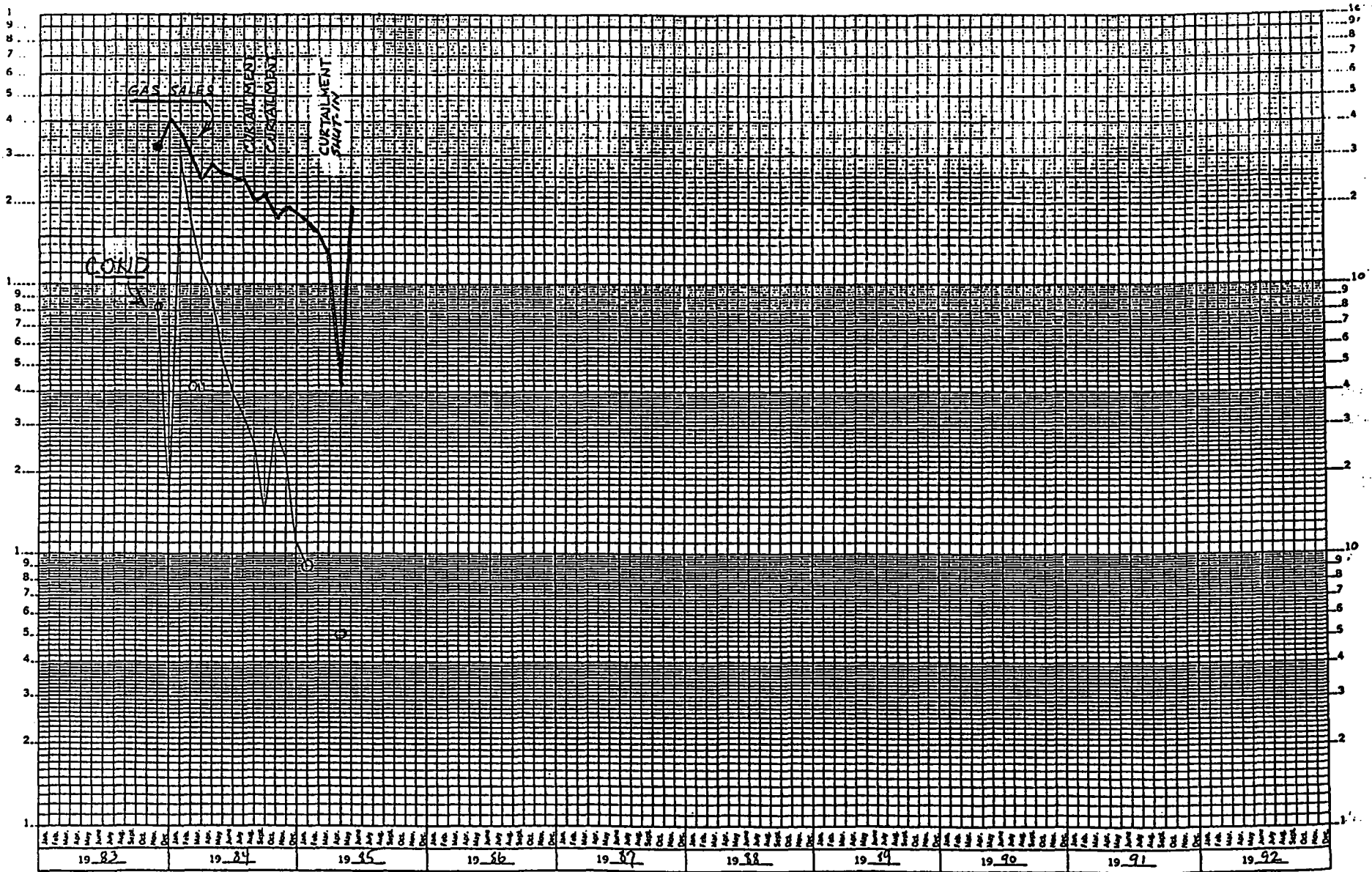
STATE NEW MEXICO

1983	OIL/COND. BBLs.	CUM. OIL/COND. BBLs.	GAS SALES 15.025 MCF	CUM. GAS MCF	RATIO MCF/B	WTR %	PRESSURE, psig.			DATE DAYS ON
							FTP	SITP	SIBH	
Jan.										
Feb.										
Mar.										
Apr.										
May										
Jun.										
Jul.										
Aug.										
Sep.										
Oct.										
Nov.	82	82	31,969	31,969	390	2.6				10/27/83
Dec.	15	97	41,716	73,685	2721	0.4				
Total	97		73,685							
1984										
Jan.	293	390	36,616	110,301	125	8.0				
Feb.	174	564	30,664	140,965	176	5.7	-0-	500psi	20	1059 MCF
Mar.	116	680	24,419	165,384	211	4.7				0 - water 3/22/84
Apr.	95	775	28,321	193,705	298	3.4				
May	53	828	25,854	219,559	488	2.0				
Jun.	41	869	25,273	244,832	616	1.6				
Jul.	33	902	24,230	269,062	734	1.4				
Aug.	25	927	20,031	289,093	801	1.2				
Sep.	14	941	21,652	310,745	1547	0.6				
Oct.	30	971	17,940	328,685	598.1	1.7				
Nov.	22	993	19,394	348,080	881.5	1.1				
Dec.	11	1,004	18,727	366,813	1702.	0.6				
Total	907		293,128							
1985										
Jan.	9	1011	17,216	384,029	1913	0.5				31
Feb.	-0-	1,011	15,835	399,864	-	-0-				28
Mar.	-0-	1,011	12,863	412,727	-	-0-				20
Apr.	5	1,016	4,277	417,004	855	1.2				6
May	-0-	1,016	19,323	436,327	-	-				31
Jun.										
Jul.										
Aug.										
Sep.										
Oct.										
Nov.										
Dec.										
Total										

The Petroleum Corporation of Delaware
 TENNECO FEDERAL NO. 1
 Lea County, New Mexico

DUBLIN (DEVONIAN)

1,000 GAS, MCF/MO 10,000
 10 COND., BBL/MO 100



The Petroleum Corporation of Delaware
Tenneco Federal No. 3
Unit J, Section 12-T26S-R37E
Lea County, New Mexico

W E L L D A T A

<u>Total Depth:</u>	9300 feet
<u>Perforations:</u>	9126, 9128, 9137, 9138, 9144, 9146, 9172, 9173, 9200, 9215, 9216, 9221, 9223, 9227, 9228, 9234, 9235, 9237, 9238, 9245 and 9246 feet.
<u>Zone:</u>	Devonian
<u>Treatment:</u>	Acidized with 2000 gallons 15% HCL acid.
<u>Initial Test:</u>	1787 mcfg/d, no liquids SITP 2350 psig (6/25/85)

R E S E R V O I R D A T A

<u>Porosity:</u>	7% (Log)
<u>Water Saturation:</u>	25% (Log)
<u>Bottom Hole Pressure:</u>	3661 psig (DST)
<u>Temperature:</u>	170° F (DST)
<u>Gas Specific Gravity:</u>	0.65 (est.)
<u>Compressibility Factor:</u>	0.91 (chart)
<u>Permeability:</u>	No measurement

VACUUM-BLINEBRY POOL
Lea County, New Mexico

Order No. R-2449, April 1, 1963, Establishing Pool, as Amended by Order No. R-2469, May 1, 1963; Order No. R-2527, August 1, 1963; Order No. R-2569, October 1, 1963; Order No. R-2639, February 1, 1964.

T-17-S, R-34-E W/2, SE/4 Sec. 25; E/2 Sec. 26; Sec. 36.

VACUUM-GLORIETA POOL
Lea County, New Mexico

Order No. R-2449, April 1, 1963, Establishing Pool, as Amended by Order No. R-2485, June 1, 1963; Order No. R-2552, September 1, 1963; Order No. R-2620, January 1, 1964; Order No. R-2705, June 1, 1964; Order No. R-2760, September 1, 1964; Order No. R-2833, January 1, 1965; Order No. R-2870, March 1, 1965; Order No. R-2967, October 1, 1965; Order No. R-3166, January 1, 1967; Order No. R-7334, September 1, 1983.

T-17-S, R-34-E W/2, SE/4 Sec. 24; Sec. 25; SE/4 Sec. 26; E/2 Sec. 35; Sec. 36.

T-17-S, R-35-E W/2 Sec. 26; Secs. 27 through 33; W/2 Sec. 34.

T-18-S, R-34-E N/2 Sec. 1; NE/4 Sec. 2.

T-18-S, R-35-E N/2 Sec. 5; N/2 Sec. 6.

SOUTH DRINKARD POOL
(DRINKARD)

(Abandoned)

Lea County, New Mexico

Order No. 850, January 1, 1950, Redefining Pool.

T-23-S, R-37-E Sec. 3.

DUBLIN POOL
(ELLENBURGER)

(Abandoned)

Lea County, New Mexico

Order No. 850, January 1, 1950, Redefining Pool.

T-26-S, R-37-E Secs. 11 through 14.

DUBLIN-DEVONIAN GAS POOL
(Formerly Dublin-Devonian Pool)
Lea County, New Mexico

Order No. 850, January 1, 1950, Redefining Pool, as Amended by Order No. R-1772, September 16, 1960; Order No. R-7607, August 1, 1984.

T-26-S, R-37-E Secs. 11, 12.

T-26-S, R-38-E SW/4 Sec. 7.

INBE-WOLFCAMP POOL
Lea County, New Mexico

Order No. R-2469, May 1, 1963, Establishing Pool.

Pool abolished by Order No. R-3295, September 1, 1967.

TEAS-BONE SPRINGS POOL
Lea County, New Mexico

Order No. R-2469, May 1, 1963, Establishing Pool.

T-20-S, R-33-E NW/4 Sec. 14.

EK-YATES-SEVEN RIVERS-QUEEN POOL
Lea County, New Mexico

Order No. R-606, March 16, 1955, Establishing Pool, as Amended by Order No. R-631, May 12, 1955; Order No. R-675, August 17, 1955; Order No. R-713, November 10, 1955; Order No. R-738, January 9, 1956; Order No. R-842, July 9, 1956; Order No. R-914, November 13, 1956; Order No. R-982, April 23, 1957; Order No. R-1008, May 26, 1957; Order No. R-2469, May 1, 1963; Order No. R-2527, August 1, 1963; Order No. R-2620, January 1, 1964; Order No. R-4014, September 1, 1970; Order No. R-4646, November 1, 1973; Order No. R-4743, April 1, 1974; Order No. R-7009, July 1, 1982; Order No. R-7763, January 1, 1985.

T-17-S, R-33-E SE/4 Sec. 36.

T-18-S, R-33-E E/2 Sec. 1; NE/4 Sec. 12; S/2 NW/4, S/2 Sec. 13; S/2, NW/4, S/2 NE/4 Sec. 14; N/2 Sec. 23; Sec. 24; NE/4 Sec. 25.

T-18-S, R-34-E W/2, SE/4 Sec. 6; Sec. 7; NW/4, S/2 Sec. 8; SW/4 Sec. 9; NW/4 Sec. 16; W/2, N/2 NE/4 Sec. 17; Secs. 18, 19; W/2 Sec. 20; N/2 Sec. 30.

EAST EK-QUEEN POOL
Lea County, New Mexico

Order No. R-1118, January 28, 1958, Establishing Pool, as Amended by Order No. R-1772, September 16, 1960; Order No. R-1824, November 21, 1960; Order No. R-1942, May 1, 1961; Order No. R-3411, June 1, 1968; Order No. R-3631, January 1, 1969; Order No. R-4499, April 1, 1973; Order No. R-4540, June 1, 1973; Order No. R-5063, July 1, 1975; Order No. R-7248, April 1, 1983.

T-18-S, R-34-E S/2 SE/4 Sec. 21; S/2 NW/4, SW/4, E/2 Sec. 22; NW/4 Sec. 23; NW/4 Sec. 27; E/2, NW/4 Sec. 28.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 8284
Order No. R-7607

THE APPLICATION OF THE OIL CONSERVATION
DIVISION UPON ITS OWN MOTION FOR AN ORDER
RECLASSIFYING, CONTRACTING, AND EXTENDING
CERTAIN POOLS IN CHAVES, LEA, AND
ROOSEVELT COUNTIES, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8 a.m. on July 25, 1984,
at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 27th day of July, 1984, the Division
Director, having considered the testimony, the record, and the
recommendations of the Examiner, and being fully advised in the
premises,

FINDS:

(1) That due public notice having been given as required
by law, the Division has jurisdiction of this cause and the
subject matter thereof.

(2) That there is need for the reclassification of the
Dublin-Devonian Oil Pool in Lea County, New Mexico, to the
Dublin-Devonian Gas Pool since the only producing well in
the pool is classified as a gas well, and the other two wells
which produced from this pool have been plugged. Further,
there is need for the contraction of the horizontal limits
of said Dublin-Devonian Gas Pool by the deletion of non-
productive acreage.

(3) That there is need for certain extensions to the
Siete-San Andres Pool and the North Tom-Tom San Andres Pool,
both in Chaves County, New Mexico, and the Baum-Upper
Pennsylvanian Pool, the Cruz-Delaware Pool, the South Double
A-Abo Pool, the EK-Bone Spring Pool, the Eunice Monument-
Grayburg-San Andres Pool, the Foster-San Andres Pool, the
Gladiola-Devonian Pool, the Hobbs-Drinkard Pool, the South

King-Devonian Pool, the South Leonard-Queen Pool, the Northeast Lovington-Pennsylvanian Pool, the Mescalero Escarpe-Bone Spring Pool, the West Pearl-San Andres Pool, the South Salt Lake-Atoka Gas Pool, the Scharb-Bone Spring Pool, the Wantz-Granite Wash Pool, and the North Williams-Pennsylvanian Pool, all in Lea County, New Mexico, and the South Peterson-Fusselman Pool in Roosevelt County, New Mexico.

IT IS THEREFORE ORDERED:

(a) That the Dublin-Devonian Oil Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby reclassified as a gas pool, and the horizontal limits of said Dublin-Devonian Gas Pool are hereby contracted by the deletion of the following described area:

TOWNSHIP 26 SOUTH, RANGE 37 EAST, NMPM

Section 13: All

Section 14: All

(b) That the Baum-Upper Pennsylvanian Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 13 SOUTH, RANGE 32 EAST, NMPM

Section 23: NW/4

(c) That the Cruz-Delaware Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 23 SOUTH, RANGE 33 EAST, NMPM

Section 17: SW/4

Section 18: SW/4

(d) That the South Double A-Abo Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 17 SOUTH, RANGE 36 EAST, NMPM

Section 30: S/2

(e) That the EK-Bone Spring Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 18 SOUTH, RANGE 33 EAST, NMPM

Section 25: SE/4

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM

Section 29: SW/4

(f) That the Eunice Monument-Grayburg-San Andres Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 18 SOUTH, RANGE 37 EAST, NMPM
Section 32: SE/4

TOWNSHIP 19 SOUTH, RANGE 37 EAST, NMPM
Section 5: E/2

(g) That the Foster-San Andres Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 18 SOUTH, RANGE 39 EAST, NMPM
Section 31: SE/4

(h) That the Gladiola-Devonian Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 11 SOUTH, RANGE 37 EAST, NMPM
Section 36: NE/4

TOWNSHIP 11 SOUTH, RANGE 38 EAST, NMPM
Section 31: NW/4

(i) That the Hobbs-Drinkard Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 18 SOUTH, RANGE 38 EAST, NMPM
Section 30: SE/4

(j) That the South King-Devonian Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 14 SOUTH, RANGE 37 EAST, NMPM
Section 12: NW/4

(k) That the South Leonard-Queen Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 26 SOUTH, RANGE 38 EAST, NMPM
Section 18: NW/4

(l) That the Northeast Lovington-Pennsylvanian Pool in

Case No. 8284
Order No. R-7607

Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 16 SOUTH, RANGE 37 EAST, NMPM
Section 21: SW/4

(m) That the Mescalero Escarpe-Bone Spring Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 18 SOUTH, RANGE 33 EAST, NMPM
Section 12: SW/4

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM
Section 7: SW/4

(n) That the West Pearl-San Andres Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 19 SOUTH, RANGE 35 EAST, NMPM
Section 29: SE/4

(o) That the South Peterson-Fusselman Pool in Roosevelt County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 6 SOUTH, RANGE 33 EAST, NMPM
Section 1: Lots 3 and 4
Section 2: Lots 1, 2, 3, and 4
Section 3: Lots 1 and 2
Section 10: NE/4

(p) That the South Salt Lake-Atoka Gas Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 21 SOUTH, RANGE 32 EAST, NMPM
Section 5: Lots 1, 2, 3, 4, 5, 6, 7,
and 8

(q) That the Scharb-Bone Spring Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 19 SOUTH, RANGE 35 EAST, NMPM
Section 8: S/2
Section 17: N/2 and SE/4

(r) That the Siete-San Andres Pool in Chaves County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 8 SOUTH, RANGE 31 EAST, NMPM

Section 17: NW/4

Section 18: NE/4

(s) That the North Tom-Tom San Andres Pool in Chaves County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 7 SOUTH, RANGE 31 EAST, NMPM

Section 16: SW/4

Section 17: SE/4

(t) That the Wantz-Abo Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM

Section 3: Lots 11, 12, 13, and 14

(u) That the North Williams-Pennsylvanian Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 13 SOUTH, RANGE 32 EAST, NMPM

Section 9: E/2

Section 10: NW/4

Section 16: NE/4

IT IS FURTHER ORDERED:

(1) That pursuant to Section 70-2-18, NMSA 1978, contained in Chapter 271, Laws of 1969, any well, which by virtue of any of the above pool extensions, is subject to pool rules providing for spacing or proration units larger than the one which is presently dedicated thereto, shall have 60 days from the effective date of this order in which to file new Forms C-102 dedicating a standard unit for the pool to said well, or to obtain a non-standard unit approved by the Division. Pending such compliance, the well shall receive a maximum allowable in the same proportion to a standard allowable for the pool that the acreage dedicated to the well bears to a standard unit for the pool. Failure to file Form C-102 dedicating a standard unit to the well or to obtain a non-standard unit approved by the Division within said 60-day period shall subject the well to cancellation of allowable.

Case No. 8284
Order No. R-7607

(2) That the effective date of this order and all re-classifications, contractions, and extensions included herein shall be August 1, 1984.

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY
Director

S E A L

fd/

HINKLE, COX, EATON, COFFIELD & HENSLEY

LEWIS C. COX*
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CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.*
STUART D. SHANOR*
C. D. MARTIN
PAUL J. KELLY, JR.*
OWEN M. LOPEZ*
DOUGLAS L. LUNSFORD*
PAUL M. BOHANNON
T. CALDER EZZELL, JR.*
WILLIAM B. BURFORD
RICHARD E. OLSON*
RICHARD A. SIMMS*
DEBORAH NORWOOD
JAMES H. ISBELL
RICHARD R. WILFONG
STEVEN D. ARNOLD
JAMES J. WECHSLER*
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JEFFREY D. HEWITT
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THOMAS M. HNASKO*
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(505) 622-6510

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SANTA FE, NEW MEXICO 87504
(505) 982-4554

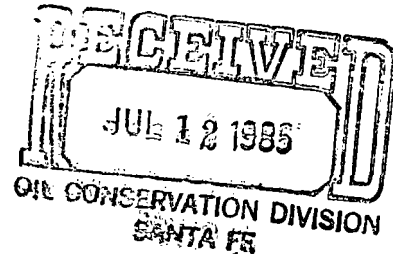
JEFFREY L. BOWMAN

OF COUNSEL
CLARENCE E. HINKLE
ROY C. SNODGRASS, JR.
O. M. CALHOUN
MACK EASLEY
GORDON L. LLEWELLYN

W. E. BONDURANT, JR. (1913-1973)
ROBERT A. STONE (1905-1981)

*NOT LICENSED IN TEXAS

July 10, 1985



Mr. Michael Stogner
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Petroleum Corporation of
Delaware Request for Special
Finding on Tenneco Federal
Well #3 - Infill Well

Dear Mike:

Transmitted you will find The Petroleum Corporation of Delaware letter of July 9 in duplicate with enclosures relative to the above referenced matter.

I believe that all the information which is necessary for your purposes in considering administratively the request by The Petroleum Corporation is transmitted herewith. However, if you find anything on which you have any questions, please feel free to contact either me or Robert C. Murray at The Petroleum Corporation's office in Dallas. Mr. Murray's telephone number is (214) 528-5461. My Midland telephone number is shown on the letterhead above.

I do know that The Petroleum Corporation is extremely anxious to have this matter resolved as quickly as possible and I therefore respectfully request the matter be given whatever expeditious handling you can afford.

Page - 2 -

Thank you.

Very truly yours,

HINKLE, COX, EATON,
COFFIELD & HENSLEY



Conrad E. Coffield

CEC:cl
Enclosures

copy: Mr. Robert C. Murray
The Petroleum Corporation of Delaware
Turtle Creek Centre
3811 Turtle Creek Boulevard
Dallas, Texas 75219-4419

THE PETROLEUM CORPORATION
OF DELAWARE

Turtle Creek Centre
3811 Turtle Creek Boulevard
DALLAS, TEXAS 75219-4419

LARRY C. SHANNON
PRESIDENT

July 9, 1985

CERTIFIED MAIL/RETURN RECEIPT REQUESTED

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501
Attention: Mr. Michael Stogner

RE: Request of The Petroleum Corporation of Delaware for Special Finding that its Tenneco Federal Well No. 3, located in the NW/4SE/4 Section 12-T26S-R37E, Lea County, New Mexico, the Second Well on a 320 acre proration Unit, is Necessary to Effectively and Efficiently Drain the Reservoir

Gentlemen:

The Petroleum Corporation of Delaware ("Applicant"), in accordance with the Special Rules and Regulations for Natural Gas Policy Act Infill Findings Administrative Procedure, hereby submits in duplicate its request for a determination and special finding that the subject well is an infill well which is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by an existing well within that unit.

In support thereof, Applicant submits herewith in duplicate the following:

1. Application for Permit to Drill, Deepen or Plug Back filed with the United States Department of Interior with approval shown thereon and Especial Approval Stipulation (Rule 5).
2. State of New Mexico Form C-102 showing the 320 acre proration unit dedicated (Rule 5), which is the South Half of Section 12-T26S-R37E, Lea County, New Mexico.
3. The following information required by Rule 8 on all wells (the Tenneco Federal No. 1 and Tenneco Federal No. 3) drilled on the proration unit:

Tenneco Federal No. 1
Unit N, Section 12, T 26 S, R37E; Lea Co., New Mexico
990' FSL & 2310' FWL
Spud Date: December 2, 1971
Completion Date: Dublin (Devonian) October 27, 1983
(Recompleted)
No mechanical problems
Current production: 589 MCFD

Letter to State of New Mexico
From Larry C. Shannon
July 9, 1985
Page Two

Tenneco Federal No. 3
Unit J, Section 12, T26S, R37E; Lea Co., New Mexico
1980' FSL & 1980' FEL
Spud date: April 30, 1985
Completion date: June 24, 1985 (potential test)
No mechanical problems
Waiting on pipeline connection

4. Applicant's statement indicating why the Tenneco Federal No. 1, the first well on the proration unit, cannot effectively and efficiently drain the portion of the reservoir covered by the proration unit (Rule 8) is as follows:

Deliverability from the Tenneco Federal No. 1 has declined to 589 MCF per day at a surface pressure of 300 psig. The bottom hole pressure in the Devonian formation in said well has declined from an original pressure of 3858 psig to 1518 psig, a decline of 2340 psig. Estimated recovery from the Devonian formation in the Tenneco Federal No. 1 will be approximately 15% of estimated reserves, calculated on a volumetric basis, assigned to the Devonian formation underlying the 320 acre proration unit and cumulative production from said well is 62% of estimated ultimate recovery from the well. Further support for Applicant's conclusion was provided by the bottom hole pressure of 3661 psig obtained on a drill stem test of the Tenneco Federal No. 3 well on June 10, 1985.

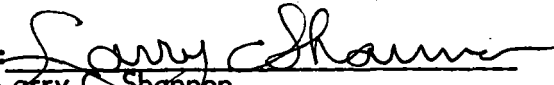
5. Formation structure map (Rule 9).
6. Cross-sections showing electric logs covering the Devonian formation in the Tenneco Federal No. 1, Tenneco Federal No. 3 and neighboring wells (Rule 9).
7. An estimate of increased ultimate recovery to be attained from the Tenneco Federal No. 3 and a narrative describing how the increase was determined (Rule 9).
8. Production statistics for the Tenneco Federal No. 1 (Rule 9).
9. Production curve for the Tenneco Federal No. 1 (Rule 9).
10. Bottom hole pressure decline curve for the Tenneco Federal No. 1 (Rule 9).
11. Data summary for the Tenneco Federal No. 3.

Letter to State of New Mexico
From Larry C. Shannon
July 9, 1985
Page Three

Attached hereto and made a part hereof as Exhibit "A" is a list of all operators of proration or spacing units offsetting the unit for which an infill finding is sought herein who, by copy of this letter transmitted by certified mail, have been contemporaneously notified of this application.

Respectfully submitted,

THE PETROLEUM CORPORATION
OF DELAWARE

BY: 
Larry C. Shannon
President

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
District I
P.O. Box 1980
Hobbs, New Mexico 88240

El Paso Natural Gas Company
P.O. Box 1492
El Paso, Texas 79978
Attention: Mr. Michael W. Wiseman



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carlsbad Resource Area Headquarters

P. O. Box 1778

Carlsbad, New Mexico 88220

IN REPLY REFER TO
18

ESPECIAL APPROVAL STIPULATION

This APD is approved subject to the requirement that, should the well be successfully (COMPLETED FOR PRODUCTION), this office must be notified when it is placed in a producing status. Such notification may be provided ORALLY IF CONFIRMED IN WRITING and MUST BE RECEIVED IN THIS OFFICE BY NO LATER THAN THE FIFTH (5th) BUSINESS DAY NEXT FOLLOWING THE DATE ON WHICH THE WELL IS PLACED ON PRODUCTION. The notification shall provide, as a minimum, the following items:

1. Operator name.
2. Well name, number, and location.
3. Date well was placed on production.
4. The lease, or communized tract, or unit participating area to which the well's production is attributable.

VALERO 563-4328



United States Department of the Interior *Tenneco Federal #3* IN REPLY REFER TO

BUREAU OF LAND MANAGEMENT

Roswell District Office

SPECIAL APPROVAL STIPULATIONS

THE PETROLEUM CORPORATION OF DELAWARE
Tenneco Federal No. 3
NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 12, T. 26 S., R. 37 E.
Lea County
NM-7951

The special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the general requirements. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 and 3165.4.

☒ A. The Bureau of Land Management office is to be notified at:

☐ (505) 624-1790 Roswell
☒ (505) 887-6544 Carlsbad
☐ (505) 393-3612 Hobbs

in sufficient time for a representative to witness:

- ☒ 1. Spudding
☒ 2. Cementing
11 3/4 inch
8 7/8 inch
8 7/8 inch
☒ 3. BOP tests _____ inch

Capitan water basin

☐ B. At least one working day prior to constructing the well pad, access roads and/or related facilities, the operator or dirt contractor shall notify the authorized officer of the surface management agency. The surface management agency may be contacted at:

☐ BLM phone (505) 887-6544 Carlsbad, New Mexico
☐ BLM phone (505) 624-1790 Roswell, New Mexico

He shall also notify the surface management agency within two working days after completion of earth-moving activities.

☐ C. Roads in the area of operation of this authorization will require surfacing.

☒ D. 11 3/4" surface casing should be set in the (2950') Rustler Anhydrite formation and cement circulated to the surface. If surface casing is set at a lesser depth, the 8 7/8" casing must be cemented from the casing shoe to the surface or cemented to the surface through a stage tool set at least 50 feet below the top of the Rustler after cementing around the shoe with sufficient cement to fill to the base of the salt section.

☒ E. Before drilling below the 8 7/8" casing, the blowout preventer assembly will consist of a minimum of one annular type and two ram type preventers.

☒ F. Minimum required fill of cement behind the 8 7/8" casing is to See "D" above
(tie back to base of the salt) - 2424'

☒ G. After setting the 8 7/8" casing string and before drilling into the Hollcamp formation, the blowout preventers and related control equipment failing to test satisfactorily shall be repaired or replaced. This office should be notified in sufficient time for a representative to witness the tests and shall be furnished a copy of the pressure test report.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

(Reverse side)

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			8. LEASE DESIGNATION AND SERIAL NO. NM-7951		
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE BORE <input type="checkbox"/> MULTIPLE BORE <input type="checkbox"/>			9. IF INDIAN, ALLOTTEE OR TRIBE NAME		
2. NAME OF OPERATOR The Petroleum Corporation of Delaware			7. UNIT AGREEMENT NAME		
3. ADDRESS OF OPERATOR 3303 Lee Parkway, Dallas, Texas 75219			8. FARM OR LEASE NAME Tenneco Federal		
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface Unit J, 1,980 Ft. FSL and 1,980 FT. PEL At proposed prod. zone SAME			9. WELL NO. 3		
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 10 Miles southeast of Jal, New Mexico			10. FIELD AND POOL, OR WILDCAT Dublin Ellenburger		
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any) 1,980 Ft.			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 12-T26S-R37E		
16. NO. OF ACRES IN LEASE 640			12. COUNTY OR PARISH Lea		
17. NO. OF ACRES ASSIGNED TO THIS WELL 320			13. STATE NM		
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR ABANDONED, ON THIS LEASE, FT. 9,300 Ft.			20. ROTARY OR CABLE TOOLS Rotary		
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3,004.4 Ft. GL			22. APPROX. DATE WORK WILL START As soon as possible		

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
15"	11-3/4"	42 lbs.	400'	350 sacks CIRCULATE
11"	8-5/8"	32 lbs.	3,800'	500 sacks
7-7/8"	4 1/2"	11.6 lbs.	9,300'	700 sacks

NOTE: In this case, the 8-5/8" csg would have a stage tool set at 1000' and cement would be circulated to surface.

OPTION: We might prefer to set 11-3/4" casing at 1000' and cement to surface.

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 FE Thomas TITLE Manager of Operations DATE 2/25/85

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
AREA _____
APPROVED BY Don Walsh (Acting) TITLE _____ DATE 3-28-85
CONDITIONS OF APPROVAL, IF ANY: _____
CARLSBAD RESOURCE AREA

*See Instructions On Reverse Side

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

☒ H. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before drilling into the Walcamp formation and used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- ☒ 1. A recording pit level indicator to determine pit volume gains and losses.
- ☐ 2. A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.
- ☒ 3. A flow sensor on the flow-line to warn of any abnormal mud returns from the well.
- ☒ I. A kelly cock will be installed and maintained in operable condition.
- ☐ J. A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the Bureau of Land Management, P. O. Box 1379, Roswell, New Mexico 88201. The effective date of the agreement must be prior to any sales.
- ☐ K. Above ground structures, not subject to applicable safety requirements shall be painted. The paint color is to simulate:
 - ☐ Sandstone Brown, Fed. Std. 595-20318 or 30318
 - ☐ Sagebrush Gray, Fed. Std. 595-26357 or 36357
- ☐ L. A Gamma Ray-Compensated Neutron log is required from the base of the salt section to the surface with cable speed not to exceed 30 feet per minute.

☒ M. Rehabilitation

☐ At least 3 working days prior to commencing any of the following rehabilitation activities, the operator shall notify the appropriate surface managing agency, shown in part 5.

☐ 1. Upon the conclusion of drilling and completion operations when mud pits are dry they will be leveled, plastic will be removed and area reseeded with mixture No. _____ shown on last page of General Requirements.

☒ 2. Following the down-hole plugging and abandonment of all operation:

☐ a. The drill pad and _____ miles of access road shall be ripped to a minimum of 12" in depth. Ripping shall be on the contour with rips being approximately 3 feet or less apart.

☐ b. The drill site and _____ miles of access road will be reseeded with mixture No. _____ shown on the last page of the General Requirements.

☐ c. All ripped surfaces are to be protected from vehicular travel by constructing a dead-end ditch and earthen barricade at the entrance to these ripped areas. The barricade is to be constructed using spoil materials from the ditch and should be of sufficient magnitude to discourage vehicle entry.

☒ d. Private Surface: Abandonment stipulations to coincide with operator-landowner agreement. (Where no agreement exists, BLM will be requested to provide abandonment stipulations.)

☒ e. The surface location is to be cleaned and leveled.

☐ 3. Modifications in the rehabilitation stipulations made necessary by unforeseen circumstances or improvements in rehabilitation methods may be made when the Notice of Intention to Abandon is filed.

☐ N. Other:

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-83

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

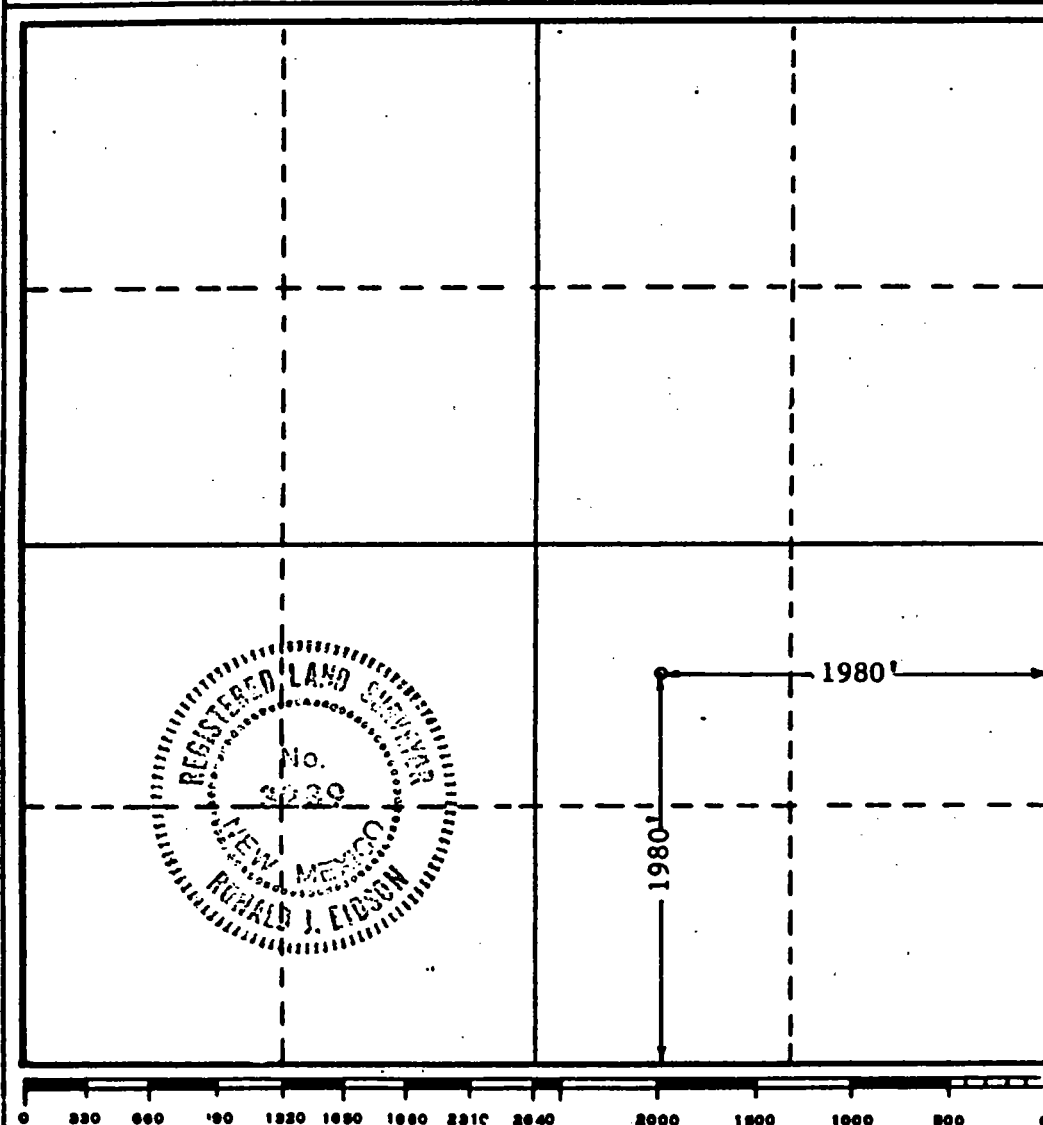
Operator Petroleum Corp. of Delaware			Lease Tenneco Fed.		Well No. 3
Unit Letter J	Section 12	Township 26 South	Range 37 East	County Lea	
Actual Footage Location of Well:					
1980 feet from the South line and		1980 feet from the East line			
Ground Level Elev. 3004.4	Producing Formation Devonian	Pool Dublin Devonian		Dedicated Acreage: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.



CERTIFICATION

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

L.E. Thomas

Name
L.E. Thomas

Position
Manager of Operations

Company
The Petroleum Corporation

Date
February 27, 1985

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
2-20-85

Registered Professional Engineer and/or Land Surveyor
Ronald J. Eidson

Certificate No. **JOHN W. WEST, 576**
RONALD J. EIDSON, 3239

Re: The Petroleum Corporation of Delaware
Tenneco Federal No. 3

D. FILING REQUIREMENTS
Rule 9.b.

The volume of increased ultimate recovery expected to be obtained from the Tenneco Federal No. 3 is 700,000 mcf of gas. A narrative describing how the increase was determined follows:

The expected increase in ultimate gas recovery of 700,000 mcf attributable to the Devonian completion in Tenneco Federal No. 3 is based on bottom hole pressure and production performance exhibited by Tenneco Federal No. 1. Well No. 3 is expected to have a sustained initial production rate of 1,000 mcf per day which will decline at the rate of 40 percent per year over life.

PRODUCTION STATISTICS

PLUGGED BACK TO

OPERATOR THE PETROLEUM CORP. OF DELAWARE

FORMATION DEVONIAN

WELL TENNECO FEDERAL #1 15222

PERFORATIONS 9049 - 9159 (OA)

FIELD DUBLIN - DEVONIAN

FIRST PRODUCTION 10/27/83

COUNTY LEA DISTRICT I. HOBBS

INTEREST _____ (EXPN) _____ (RE)

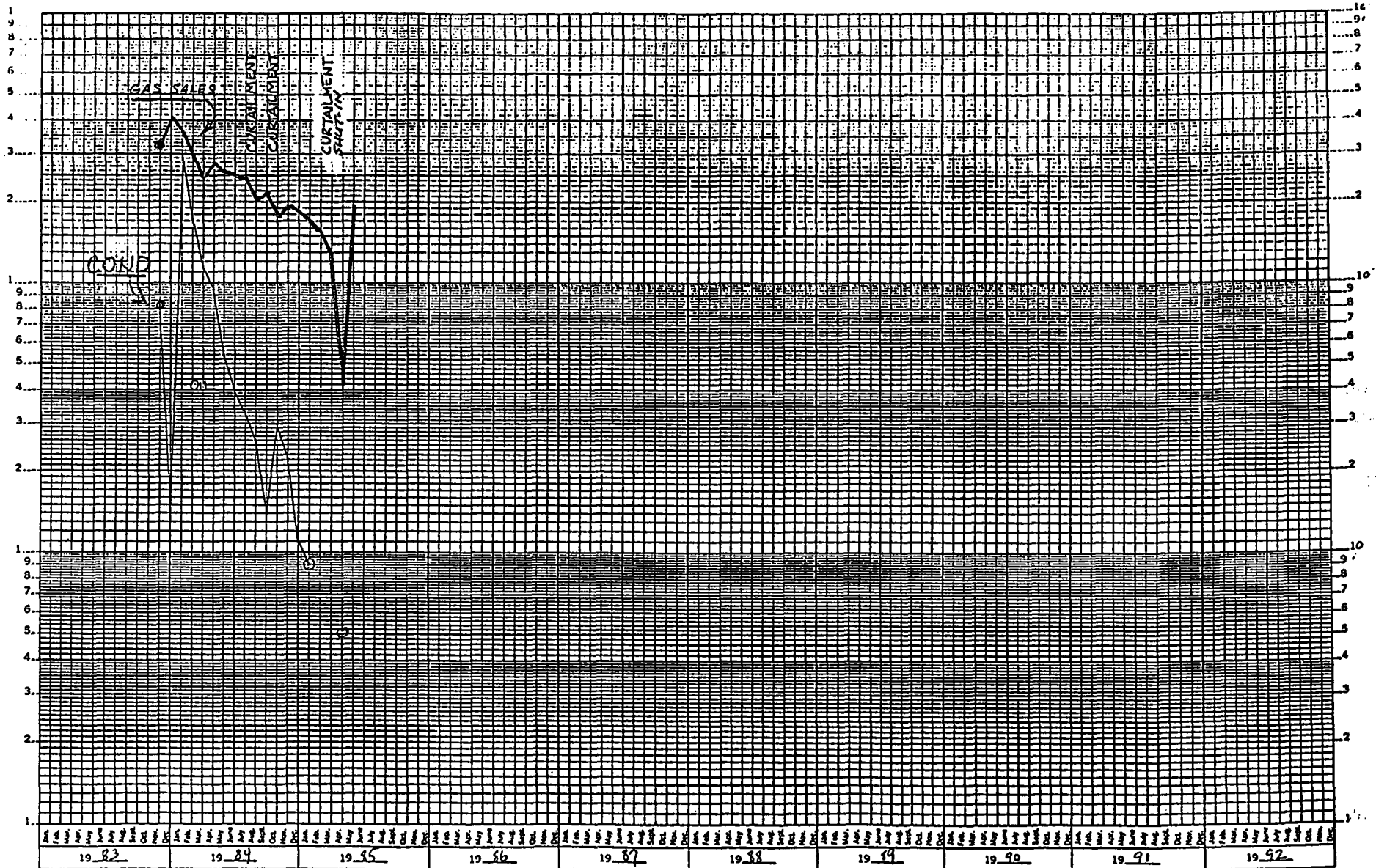
STATE NEW MEXICO

1983	OIL/COND. BBLs.	CUM. OIL/COND. BBLs.	GAS SALES 15.025 MCF	CUM. GAS MCF	RATIO MCF/B. 8/MM	WTR %	PRESSURE; psig.			DATE DAYS ON
							FTP	SITP	SIBH	
Jan.										
Feb.										
Mar.										
Apr.										
May										
Jun.										
Jul.										
Aug.										
Sep.										
Oct.										
Nov.	82	82	31,969	31,969	390 Plugged back to Devonian	2.6				10/27/83
Dec.	15	97	41,716	73,685	2781 0.4					
Total	97		73,685							
1984										
Jan.	293	390	36,616	110,301	125 8.0					
Feb.	174	564	30,664	140,965	176 5.7	-0-	500pi	20	10.60	1059 MCF
Mar.	116	680	24,419	165,384	211 4.7			0 - water		3/22/84
Apr.	95	775	28,321	193,705	298 3.4					
May	53	828	25,854	219,559	488 2.0					
Jun.	111	869	25,273	244,832	616.4 1.6					
Jul.	33	902	24,230	269,062	734.2 1.4					
Aug.	25	927	20,036	289,098	801.4 1.2					
Sep.	14	941	21,652	310,750	1547 0.6					
Oct.	30	971	17,940	328,692	598.1 1.7					
Nov.	22	993	19,394	348,086	881.5 1.1					
Dec.	11	1,004	18,727	366,813	1702. 0.6					
Total	907		293,128							
1985										
Jan.	9	1011	17,216	384,029	1913 0.5					31
Feb.	-0-	1,011	15,835	399,864	- -0-					28
Mar.	-0-	1,011	12,863	412,727	- -0-					20
Apr.	5	1,016	4,277	417,004	855 1.2					6
May	-0-	1,016	19,323	436,327	- -					31
Jun.										
Jul.										
Aug.										
Sep.										
Oct.										
Nov.										
Dec.										
Total										

The Petroleum Corporation of Delaware
TENNECO FEDERAL NO. 1
Lea County, New Mexico

DUBLIN (DEVONIAN)

1,000 GAS, MCF/MO 10,000
10 COND., BBL/MO 100



The Petroleum Corporation of Delaware
Tenneco Federal No. 3
Unit J, Section 12-T26S-R37E
Lea County, New Mexico

WELL DATA

<u>Total Depth:</u>	9300 feet
<u>Perforations:</u>	9126, 9128, 9137, 9138, 9144, 9146, 9172, 9173, 9200, 9215, 9216, 9221, 9223, 9227, 9228, 9234, 9235, 9237, 9238, 9245 and 9246 feet.
<u>Zone:</u>	Devonian
<u>Treatment:</u>	Acidized with 2000 gallons 15% HCL acid.
<u>Initial Test:</u>	1787 mcf/d, no liquids SITP 2350 psig (6/25/85)

RESERVOIR DATA

<u>Porosity:</u>	7% (Log)
<u>Water Saturation:</u>	25% (Log)
<u>Bottom Hole Pressure:</u>	3661 psig (DST)
<u>Temperature:</u>	170° F (DST)
<u>Gas Specific Gravity:</u>	0.65 (est.)
<u>Compressibility Factor:</u>	0.91 (chart)
<u>Permeability:</u>	No measurement