

EXHIBIT "D"

TABLE NO. 1

SAN JUAN 30-5 UNIT DAKOTA GAS PRODUCTION

RIO ARRIADA COUNTY, NEW MEXICO

Gas Volumes in MCF @ 14.73 psia & 60°F

UNIT FIELD NO.	LOCATION	CUM PROD to 1/1/75	1975 MONTHLY PRODUCTION												YEAR TO DATE 12/1/75	PROD TO 12/1/75
			JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER			

#57-1 \* Sec 12, T30N, R5W, (Part of) 33025 12710 10350 7340 8666 6073 5507 6644 6446 5411 7230 7387 83762 117687

\* Communitized drilling block includes 68.63 unit acres. (See Exhibit "B")

NORTHWEST PIPELINE CORPORATION

January 19, 1977

ONE PARK CENTRAL, SUITE 1487  
DENVER, COLORADO 80202  
303-623-9303

Mr. Carl C. Traywick  
Assistant Oil and Gas Supervisor  
United States Geological Survey  
Post Office Drawer 1857  
Roswell, New Mexico 88201

Commissioner of Public Lands  
State of New Mexico  
Attention: Mr. Ray D. Graham  
Post Office Box 1148  
Santa Fe, New Mexico 87501

Oil Conservation Commission  
State of New Mexico  
Attention: Mr. Joe Ramey  
Post Office Box 2088  
Santa Fe, New Mexico 87501

Accepted for Record

Purposes On FEB-02 1977

Assistant

*Carl C. Traywick*  
Area Oil and Gas Supervisor  
U. S. Geological Survey

Gentlemen:

Re: San Juan 30-5 Unit #14-08-001-346  
Twenty-Sixth Expanded Participating Area  
Mesaverde Formation  
Effective January 1, 1976

Twenty-Seventh Expanded Participating Area  
Mesaverde Formation  
Effective February 1, 1976

Enclosed are corrected Page 8 for Schedule XXVII to the Twenty-Sixth Expanded Participating Area of the Mesaverde Formation and Pages 6 and 9 for Schedule XXVIII to the Twenty-Seventh Expanded Participating Area. Effective October 1, 1976, Northwest Pipeline Corporation acquired the Mesaverde rights from Amoco Production under Tracts 17-D-1 and 23-A.

Very truly yours,

*Betty R. Burnett*

Betty R. Burnett  
Supervisor of Contracts and Units

BRB:cak  
Enclosures

cc: Working Interest Owners  
and

Mr. J. F. Kouns, Jr.  
Amoco Production Company

Working Interest Owners

Amoco Production Company  
Attention: Mr. T. M. Curtis  
Security Life Building  
Denver, CO 80202

Crown Central Petroleum Corporation  
Attention: Mr. O. I. Halbert III  
Exploration Manager  
Suite 1002, Wilco Building  
Midland, TX 79701

General American Oil Company of Texas  
Attention: Mr. L. E. Dooley  
Meadows Building  
Dallas, TX 75206

Phillips Petroleum Company  
Attention: Mr. N. N. Beckner  
Security Life Building  
Denver, CO 80202

El Paso Natural Gas Company  
Attention: Mr. James R. Permenter  
P. O. Box 1492  
El Paso, TX 79978

Lt. Col. Langdon Dewey Harrison,  
Trustee for Mrs. Omega E. Quinn  
7311 Montgomery, N. E.  
Albuquerque, NM 87109

Skelly Oil Company  
Attention: Mr. Dave Mullen  
1860 Lincoln Street  
Denver, CO 80203

Coastline Petroleum Co., Inc.  
Suite 142  
8204 Elmbrook Drive  
Dallas, Texas 75247

## SCHEDULE XXVIII

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	OWNERSHIP	DRILLING BLOCK	PERCENTAGE	PERCENTAGE COMMITTED	PRESENT AC PARTICIPATION
-347-36	T-30-N, R-5-W Sec. 32: NW/4	160.00		TRACT 17-B			
			Royalty; Working Interest; Northwest Pipeline Corp.; ORRI;		12.50% 82.50% 5.00% 100.00%	12.50% 82.50% 5.00% 100.00%	1.142219
			TOTAL				
				TRACT 17-C			
-347-37	T-30-N, R-5-W Sec. 32: NE/4	160.00					
			Royalty; Working Interest; Northwest Pipeline Corp.; ORRI;		12.50% 85.50% 2.00% 100.00%	12.50% 85.50% 2.00% 100.00%	1.142219
			TOTAL				
				TRACT 17-D			
-347-40	T-30-N, R-5-W Sec. 16: S/2 NW/4	80.00					
			Royalty; Working Interest; Northwest Pipeline Corp.; ORRI;		12.50% 82.50% 5.00% 100.00%	12.50% 82.50% 5.00% 100.00%	0.571110
			TOTAL				
				TRACT 17 D-1			
-347-17	T-30-N, R-5-W Sec. 36: NW/4	160.00					
			Royalty; Working Interest; Northwest Pipeline Corp.* ORRI;		12.50% 82.50% 5.00% 100.00%	12.50% 82.50% 5.00% 100.00%	1.142219
			TOTAL				

\*Corrected Effective

October 1, 1976

SCHEDULE XXVII

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	OWNERSHIP	DRILLING BLOCK	PERCENTAGE	PERCENTAGE COMMITTED	PRESENT ACTUAL PARTICIPATION
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TRACT 22

Fee T-30-N, R-5-W 160.00

Royalty; 12.50% 12.50% 1.188084%  
Working Interest:  
Northwest Pipeline Corp.; 87.50% 87.50%  
ORRI; .00% .00%

TOTAL 100.00% 100.00%

TRACT 23

Fee T-30-N, R-5-W 80.00

Royalty; 12.50% 12.50% 0.594042%  
Working Interest:  
Northwest Pipeline Corp.; 87.50% 87.50%  
ORRI; .00% .00%

TOTAL 100.00% 100.00%

TRACT 23-A

Fee T-30-N, R-5-W 80.00

Royalty; 12.50% 12.50% 0.594042%  
Working Interest:  
Northwest Pipeline Corp.;\* 87.50% 87.50%  
ORRI; .00% .00%

TOTAL 100.00% 100.00%

TRACT 24

Fee T-30-N, R-5-W

Sec. 26: W/2 SW/4 160.00  
          & SE/4 SW/4  
Sec. 27: NE/4 SE/4

Royalty; 12.50% 12.50% 1.188084%  
Working Interest:  
Northwest Pipeline Corp.; 87.50% 87.50%  
ORRI; .00% .00%

100.00%

100.00%

\*Corrected Effective

SCHEDULE XXVIII

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	OWNERSHIP	DRILLING BLOCK	PERCENTAGE	PERCENTAGE COMMITTED	PRESENT AC PARTICIPA
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Fee T-30-N, R-5-W  
Sec. 28: E/2 NE/4 80.00

Royalty; 12.50% 12.50% 0.571110  
Working Interest:  
Northwest Pipeline Corp.; \* 87.50%  
ORRI; .00%  
TOTAL 100.00% 100.00%

TRACT 23-A

TRACT 24

Fee T-30-N, R-5-W  
Sec. 26: W/2 SW/4 160.00  
Sec. 27: NE/4 SE/4

Royalty; 12.50% 12.50% 1.142219  
Working Interest:  
Northwest Pipeline Corp.; 87.50%  
ORRI; .00%  
TOTAL 100.00% 100.00%

TRACT 25

Fee T-30-N, R-5-W  
Sec. 8: S/2 SW/4 156.00  
Sec. 17: N/2 NW/4  
(Except 4.00 acres)

Royalty; 12.50% 12.50% 1.113664  
Working Interest:  
Northwest Pipeline Corp.; 87.50%  
ORRI; .00%  
TOTAL 100.00% 100.00%

TRACT 25-A

Fee T-30-N, R-5-W  
Sec. 17: A Tract 4.00  
of Land 1200'  
long by 450'  
wide lying in  
the NW/4 of Sec. 17

Royalty; 12.50% 12.50% 0.028555  
Working Interest:  
Northwest Pipeline Corp.; 87.50%  
ORRI; .00%  
TOTAL 100.00% 100.00%

\*Corrected Effective



# United States Department of the Interior

GEOLOGICAL SURVEY  
P. O. Drawer 1857  
Roswell, New Mexico 88201

October 15, 1976

Northwest Pipeline Corporation  
Attention: Ms. Betty Burnett  
One Park Central, Suite 1487  
Denver, Colorado 80202

Dear Ms. Burnett:

This is in confirmation of our telephone conversations of October 12 and 13, 1976, at which time we discussed your application for certain revisions to the San Juan 30-5 unit, Dakota participating area, effective January 1, 1974, July 1, 1975 and August 1, 1975.

It is suggested that in the absence of geological information to the contrary that you resubmit the subject application in the following manner:

1. Your application for approval of the initial participating area for the Dakota formation, which embraces the W $\frac{1}{2}$  sec. 8, T. 30N., R. 5W., N.M.P.M., effective January 1, 1974, and approved by this office on July 12, 1974, will remain unchanged.

2. Your proposed amended initial revision, which embraces Lots 1, 2 and the SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 30N., R. 5W., for a total of 68.63 acres, should be the initial participating area Dakota "A", effective the date of completion of the Coastline Petroleum No. 1-57 Schalk well, located NE $\frac{1}{4}$  sec. 12, T. 30N., R. 5W.

3. It appears that your proposed first expanded participating area Dakota formation revision, which embraces the N $\frac{1}{2}$  sec. 7, T. 30N., R. 5W., should be revised to include the SE $\frac{1}{4}$  of sec. 7, inasmuch as the geology submitted with the subject application suggests that this quarter section would be subject to drainage. The effective date of July 1, 1975, will remain unchanged.

4. It further appears that your proposed second Dakota participating area revision, which embraces the W $\frac{1}{2}$  sec. 17, T. 30N., R. 5W., should be revised to include the E $\frac{1}{2}$  sec. 18, T. 30N., R. 5W., as the geology submitted with the subject application, suggests that this one-half section would also be subject to drainage. The effective date of August 1, 1975 will remain unchanged.

In regard to your subject application, would like to inform you that the Absolute Open Flow potential of 2468 MCFGD for unit well No. 47 (Dakota) may be in error, as our records indicate an A.O.F. of 1671 MCFGD for this well.

All material submitted by you in regard to the subject application is hereby returned.

Thank you for your cooperation.

Sincerely yours,

Orig. Signed - CARL C. TRAYWICK  
Assistant Area Oil & Gas Supervisor

**CARL C. TRAYWICK**  
Assistant Area Oil and Gas Supervisor

cc:

NMOCC, Santa Fe ← ~~11/11~~ This Copy for  
Com. Pub. Lands, Santa Fe

RLindau:mk



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**OIL CONSERVATION COMMISSION**  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

July 27, 1976

Northwest Pipeline Corporation  
One Park Central, Suite 1437  
Denver, Colorado 80202

Attention: Mr. John W. Shepardson

Re: Amended Initial, First and  
Second Expanded Dakota  
Participating Area, San Juan  
30-5 Unit, Rio Arriba County,  
New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the application for the Amended Initial, the First Expansion, and the Second Expansion of the Participating Area, Dakota Formation, for the San Juan 30-5 Unit, Rio Arriba County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Two approved copies of the application are returned herewith.

Very truly yours,

JOE D. RAMEY  
Secretary-Director

JDR/JEK/og

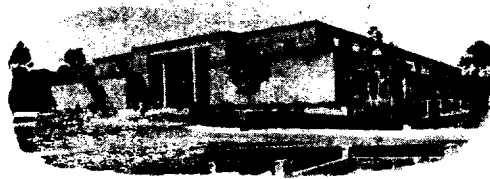
cc: United States Geological Survey  
Roswell, New Mexico

Commissioner of Public Lands  
Santa Fe, New Mexico



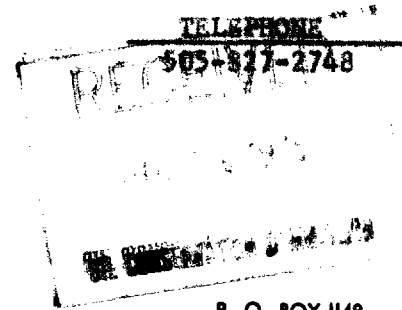
PHIL R. LUCERO  
COMMISSIONER

# State of New Mexico



## Commissioner of Public Lands

July 19, 1976



P. O. BOX 1148  
SANTA FE, NEW MEXICO 87501

Northwest Pipeline Corporation  
One Park Central  
Suite 1487  
Denver, Colorado 80202

Re: San Juan 30-5 Unit  
Rio Arriba County, New Mexico  
APPLICATION FOR APPROVAL OF THE  
AMENDED INITIAL EXPANDED  
PARTICIPATING AREA  
DAKOTA FORMATION  
Effective January 1, 1974

APPLICATION FOR APPROVAL OF THE  
FIRST EXPANDED PARTICIPATING AREA  
Dakota Formation  
Effective July 1, 1975

APPLICATION FOR APPROVAL OF THE  
SECOND EXPANDED PARTICIPATING AREA  
Dakota Formation  
Effective August 1, 1975

ATTENTION: Mr. John W. Shepardson

Gentlemen:

The Commissioner of Public Lands has this date approved the Amended Initial Expanded Participating Area, First Expanded Participating Area and the Second Expanded Participating Area, Dakota Formation, for the San Juan 30-5 Unit, Rio Arriba County, New Mexico. This approval is subject to like approval by the United States Geological Survey and the New Mexico Oil Conservation Commission.

Enclosed is one approved copy for your files.

Very truly yours,

PHIL R. LUCERO  
COMMISSIONER OF PUBLIC LANDS

BY:  
RAY D. GRAHAM, Director  
Oil and Gas Division

PRL/RDG/s

Northwest Pipeline Corporation  
July 19, 1976  
Page 2.

cc: United States Geological Survey

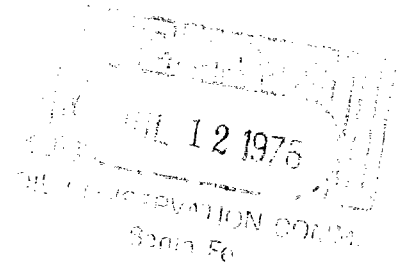
New Mexico Oil Conservation Commission ✓

Northwest Pipeline Corporation



ONE PARK CENTRAL  
SUITE 1487  
DENVER, COLORADO 80202  
303-623-9303

July 8, 1976



Mr. Carl C. Traywick  
Acting Area Oil and Gas Supervisor  
United States Geological Survey  
Post Office Drawer 1857  
Roswell, New Mexico 88201

Commissioner of Public Lands  
State of New Mexico  
Attention: Mr. Ray D. Graham  
Post Office Box 1148  
Santa Fe, New Mexico 87501

Oil Conservation Commission  
State of New Mexico  
Attention: Mr. Joe Ramey  
Post Office Box 2088  
Santa Fe, New Mexico 87501

Re: San Juan 30-5 Unit #14-08-001-436  
Rio Arriba County, New Mexico  
APPLICATION FOR APPROVAL OF THE  
AMENDED INITIAL EXPANDED  
PARTICIPATING AREA  
Dakota Formation  
Effective January 1, 1974

APPLICATION FOR APPROVAL OF THE  
FIRST EXPANDED PARTICIPATING AREA  
Dakota Formation  
Effective July 1, 1975

APPLICATION FOR APPROVAL OF THE  
SECOND EXPANDED PARTICIPATING AREA  
Dakota Formation  
Effective August 1, 1975

Gentlemen:

Pursuant to the provisions of Section 11 (b) of the San Juan 30-5 Unit Agreement #14-08-001-436, approved November 7, 1952, Northwest Pipeline Corporation, as Unit Operator, hereby respectfully requests approval of the Amended Initial, First, and Second Expanded Participating Areas for the Dakota formation, to wit:

AMENDED INITIAL EXPANDED PARTICIPATING AREA -- Effective  
January 1, 1974

<u>Description of Lands</u>	<u>Acres</u>
Township 30 North, Range 5 West, N.M.P.M.	388.63
Section 8: W/2	
Section 12: Lots 1,2 & SW/4 NE/4	

The 68.63 acres in Section 12 was farmed out by El Paso Natural Gas Company to Coastline Petroleum Company, Inc., and was communitized with the balance of the N/2 of Section 12, Township 30 North, Range 5 West, which lies outside of the present San Juan 30-5 Unit boundaries.

This proposed Amended Initial Revision of the Total Participating Area for the Dakota formation is predicated upon the determination by Northwest Pipeline Corporation, as Unit Operator, that the following San Juan 30-5 Unit Dakota well which was completed outside the limits of the existing Dakota Participating Area, is capable of producing unitized substances in paying quantities from the Dakota formation. This well is as follows:

The Coastline Petroleum's #1-57 Schalk well is located 790' from the North Line and 1650' from the West Line of Section 12, Township 30 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. The well is situated in a communitized drilling block in the N/2 of Section 12, which includes 68.63 acres of unit land. The well was spudded on March 31, 1973, and reached the total depth of 8222' on July 19, 1973. The Dakota Producing Interval was perforated with two shots per foot as follows: 8010'-8024', 8056'-8066', 8080'-8114', 8141'-8162', and 8176'-8190'. The perforations were hydraulically fractured with a mixture of 200,000 gallons of water and 100,000 pounds of sand. The well was flowed for four (4) hours on a back pressure test January 17, 1974. The Absolute Open Flow potential was 5147 MCF/Day with a SIPT of 2922 psia and a SIPC of 2947 psia. On the basis of this well, Lots 1 and 2 and the SW/4 NE/4 of Section 12 are recommended for inclusion in the Amended Initial Dakota Participating Area.

The Initial Participating Area for the Dakota formation of the San Juan 30-5 Unit, effective January 1, 1974, was a result of the San Juan 30-5 Unit well #37 located 1630' from the South Line and 1670' from the West Line of Section 8, Township 30 North, Range 5 West.

FIRST EXPANDED PARTICIPATING AREA -- Effective July 1, 1975

<u>Description of Lands</u>	<u>Acres</u>
<u>Township 30 North, Range 5 West, N.M.P.M.</u> <u>Section 7: N/2</u>	320.00

This proposed First Revision of the Total Participating Area for the Dakota formation is predicated upon the determination by Northwest Pipeline Corporation, as Unit Operator, that the following San Juan 30-5 Unit Dakota well which was completed outside the limits of the existing Dakota Participating Area, is capable of producing unitized substances in paying quantities from the Dakota formation. This well is as follows:

The Northwest Pipeline Corporation's San Juan 30-5 Unit well #39 is located 1830' from the North Line and 1700' from the East Line of Section 7, Township 30 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. The well was spudded July 4, 1975, and reached the total depth of 7860' on July 16, 1975. The Dakota Producing Interval was perforated as follows: 7697'-7714', 7740'-7748', 7766'-7784', and 7812'-7822'. The perforated intervals were treated with 500 gallons of a 7 1/2% hydrochloric acid solution, then hydraulically fractured with 46,000 pounds of sand and 70,000 gallons of water. The Absolute Open Flow potential of 1703 MCF/Day was established on July 30, 1975. The seven (7) day shut-in pressures were 2754 psia on the tubing and 2761 psia on the casing.

SECOND EXPANDED PARTICIPATING AREA -- Effective August 1, 1975

<u>Description of Lands</u>	<u>Acres</u>
<u>Township 30 North, Range 5 West, N.M.P.M.</u> <u>Section 17: W/2</u>	320.00

This proposed Second Revision of the Total Participating Area for the Dakota formation is predicated upon the determination by Northwest Pipeline Corporation, as Unit Operator, that the following San Juan 30-5 Unit Dakota well which was completed outside the limits of the existing Dakota Participating Area, is capable of producing unitized substances in paying quantities from the Dakota formation. This well is as follows:

The Northwest Pipeline Corporation's San Juan 30-5 Unit well #47 is located 1450' from the South Line and 970' from the West Line of Section 17, Township 30 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. The well was spudded on July 20, 1975, and reached the total depth of 7945' on July 31, 1975. The Dakota Producing Interval was perforated with one shot per foot as follows: 7808', 7816', 7846', 7862', 7878', 7886', 7914', and 7924'. The perforated intervals were treated with 800 gallons of a 7 1/2% hydrochloric acid solution, then hydraulically fractured with 43,000 pounds of sand and 30,000 gallons of water. The Absolute Open Flow potential of 2468 MCF/Day was established on August 19, 1975. The seven (7) day shut-in pressures were 2643 psia on the tubing and 2645 psia on the casing.

In support of this application, the following listed Exhibits are made a part hereof:

EXHIBIT "A"

Ownership maps reflecting the boundaries of the Unit and the proposed Amended Initial, First, and Second Expansions of the Participating Area of the Dakota formation within the San Juan 30-5 Unit.

EXHIBIT "B"

Geological Reports on the Amended Initial, First, and Second Expansions of the Participating Area of the Dakota formation within the San Juan 30-5 Unit.

EXHIBIT "C"

Figure No. 1: San Juan 30-5 Dakota Structure Map.  
Figure No. 2: San Juan 30-5 Dakota Isopach Map.

EXHIBIT "D"

Table No. 1: Schedule of San Juan 30-5 Unit Dakota production.


Attached hereto are Schedules I, II, and III showing the proposed Amended Initial, First, and Second Expanded Participating Areas for the Dakota formation in the San Juan 30-5 Unit Area. These Schedules describe the Participating Area, show the percentage of unitized substances allocated to each unitized tract, and the percentage of ownership in the tracts.

Acting Area Oil and Gas Supervisor  
Commissioner of Public Lands  
Oil Conservation Commission  
July 8, 1976  
Page 5

If the Amended Initial, First, and Second Expanded Participating Areas of the Dakota formation meet with your approval, please indicate such approval in the space provided on the attached sheet and return an approved copy hereof for our files.

Copies of this letter and the Schedules are being sent to the working interest owners shown on the attached sheet.

Very truly yours,

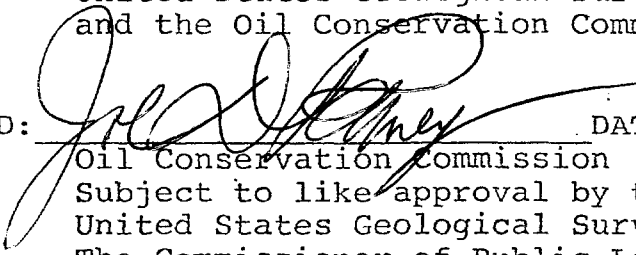
  
John W. Shepardson  
Land Manager

BRB:cak  
Enclosures  
cc: Working Interest Owners



APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
Area Oil and Gas Supervisor  
United States Geological Survey  
Subject to like approval by the  
Commissioner of Public Lands and  
the Oil Conservation Commission

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
Commissioner of Public Lands  
Subject to like approval by the  
United States Geological Survey  
and the Oil Conservation Commission

APPROVED:  DATE: July 27, 1976  
Oil Conservation Commission  
Subject to like approval by the  
United States Geological Survey and  
The Commissioner of Public Lands

The foregoing approvals are for the San Juan 30-5 Unit  
#14-08-001-436, Rio Arriba County, New Mexico, Amended  
Initial, First, and Second Expansions of the Dakota  
Participating Area.

SAN JUAN 30-5 UNIT

Working Interest Owners

Amoco Production Company  
Attention: Mr. T. M. Curtis  
Security Life Building  
Denver, CO 80202

Crown Central Petroleum Corporation  
Attention: Mr. O. I. Halbert III  
Exploration Manager  
Suite 1002, Wilco Building  
Midland, TX 79701

General American Oil Company of Texas  
Attention: Mr. L. E. Dooley  
Meadows Building  
Dallas, TX 75206

Phillips Petroleum Company  
Attention: Mr. N. N. Beckner  
Security Life Building  
Denver, CO 80202

El Paso Natural Gas Company  
Attention: Mr. James R. Permenter  
P. O. Box 1492  
El Paso, TX 79978

Lt. Col. Langdon Dewey Harrison,  
Trustee for Mrs. Omega E. Quinn  
7311 Montgomery, N. E.  
Albuquerque, NM 87109

Skelly Oil Company  
Attention: Mr. Dave Mullen  
1860 Lincoln Street  
Denver, CO 80203

Coastline Petroleum Co., Inc.  
Suite 142  
8204 Elmbrook Drive  
Dallas, Texas 75247