

GRAYBURG-JACKSON, WEST  
COOPERATIVE UNIT AGREEMENT  
EDDY COUNTY, NEW MEXICO

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JDM:lp  
5-26-66

GRAYBURG-JACKSON, WEST  
COOPERATIVE UNIT AGREEMENT  
EDDY COUNTY, NEW MEXICO

THIS AGREEMENT, made and entered into as of the 23rd day of June, 1966, by and between Tenneco Oil Company, a Delaware corporation, whose address is Fourth Floor, 201 Wall Building, Midland, Texas, hereinafter sometimes referred to as "Operator", and the other parties who have signed the original of this instrument, a counterpart thereof or other instrument agreeing to be bound by the provisions hereof.

W I T N E S S E T H , T H A T :

WHEREAS, Operator is the present owner and holder of the entire working interests and rights in, to and under the Oil and Gas Leases described in Exhibit "A" attached hereto and made a part hereof for all purposes insofar as said Oil and Gas Leases cover the lands described in said Exhibit; and

WHEREAS, the other parties hereto are lessees of record or the owners of royalty or other interests in and to the oil, gas and associated hydrocarbons which may be in, under or producible from the lands described in Exhibit "A"; and

WHEREAS, under the applicable rules and regulations of the Oil Conservation Commission of the State of New Mexico, it is necessary and desirable to form a unit consisting of Two Thousand (2000) acres, more or less, for the purposes of conducting secondary recovery operations in that portion of the Grayburg-San Andres formation underlying the lands described in Exhibit "A" which is encountered between the depths of 2200 feet and 3600 feet; and

WHEREAS, that portion of the Grayburg-San Andres formation which is described hereinabove is hereinafter sometimes referred to as "Unitized Formation"; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is hereinafter referred to as the "Commissioner"; and

WHEREAS, the Oil Conservation Commission of the State of New Mexico is hereinafter referred to as the "Commission"; and

WHEREAS, the New Mexico Statutes (Laws 1955, Ch. 259, § 1, and Laws 1961, Ch. 176, § 1) provide that, for the purpose of more properly conserving the oil and gas resources of the State of New Mexico, the Commissioner may consent to and approve the development or operation of State Lands under agreement made by lessees of State Lands jointly or severally with other lessees of State Lands and other lands; and

WHEREAS, the oil, gas and associated hydrocarbons which may be in and producible from the Unitized Formation are hereinafter referred to as "Unitized Substances"; and

WHEREAS, the parties hereto desire to combine and pool the Oil and Gas Leases described in Exhibit "A" in order to form a unit for the production of Unitized Substances from the Unitized Formation underlying the following described lands:

Township 17 South, Range 29 East, N.M.P.M.  
 Eddy County, New Mexico

Section 15: W/2 SW/4

Section 16: S/2 SW/4, SE/4

Section 21: All

Section 22: W/2 W/2, E/2 NW/4, NE/4 SW/4,  
 NW/4 NE/4

Section 27: W/2 SW/4

Section 28: All

Containing 2000 acres, more or less; and

WHEREAS, the above described lands are hereinafter referred to as the "Unit Area"; and

WHEREAS, in order to be consistent with the existing rules and regulations governing well spacing and production allowables and to prevent waste, the parties hereto desire to operate the entire Unit Area for the purpose and intention of developing Unitized Substances producible from the Unitized Formation in accordance with the terms and provisions of this agreement.

NOW, THEREFORE, in consideration of the premises and the mutual advantages offered by this agreement, it is mutually covenanted and agreed by and between the parties hereto as follows:

I.

Creation and Effect of Unit

A. Subject to the provisions of this agreement, all rights of the parties hereto in and to the Oil and Gas Leases described in Exhibit "A", insofar as said rights cover and apply to the Unitized Formation, are hereby unitized so that operations may be conducted as if the Unitized Formation had been included in a single lease executed by the other parties hereto, as Lessors, in favor of Operator, as Lessee, and as if such lease had been subject to this agreement.

B. The Unit Area shall be developed and operated for Unitized Substances extracted and producible from the Unitized Formation, as an entirety, with the understanding and agreement that the Unitized Substances produced from the Unitized Formation shall be allocated among the leaseholds comprising the Unit Area in the proportion that the acreage interest of each leasehold bears to the entire acreage interest committed hereto.

C. The commencement, completion, continued operation or production of a well or wells for Unitized Substances extracted therefrom on the Unit Area from the Unitized Formation as an entirety shall be construed and considered as the commencement, completion, continued operation and production from each lease committed hereto.

D. The amount of Unitized Substances allocated to each lease, regardless of whether it be more or less than the amount of Unitized Substances actually produced from the well or wells, if any, located on such lease shall, for all purposes and uses, be deemed to have been produced from such lease.

## II.

Rentals, Royalties and Continuation of Leases

A. Except as herein modified and changed, the Oil and Gas Leases described in Exhibit "A" shall remain in full force and effect as originally made and issued.

B. Payment of the rentals under the terms of the leases described in Exhibit "A" shall not be affected by this agreement except as provided for under the terms and provisions of said leases, the laws, rules and regulations of the State of New Mexico, or as may herein be otherwise provided.

C. The royalties payable for Unitized Substances allocated to the lands comprising the Unit Area shall be determined and paid on the basis prescribed in the respective individual leases covering the lands to which such Unitized Substances are allocated as hereinabove provided.

## III.

Operator and Operating Methods

A. Tenneco Oil Company shall be the operator of the Unit Area and all matters of operation shall be governed by the provisions of this agreement, the Oil and Gas Leases described in Exhibit "A" except as herein modified, and the laws, rules and regulations of the State of New Mexico.

B. Nothing contained herein shall prevent Operator from discontinuing or changing, in whole or in part, any method of operation which, in the opinion of Operator, is no longer in accord with good engineering, operating or production practices. Other methods of operation may be conducted or changes may be made by Operator, subject to the approval of the Commission or the Commissioner, whenever necessary, from time to time if determined by Operator to be feasible, necessary or desirable to increase the ultimate recovery of Unitized Substances.

## IV.

Development Obligation

There shall be no obligation on Operator to offset any well or wells on the separate component tracts into which the Unit Area is now or may hereafter be divided, but Operator shall not be released from its obligation to protect the Unit Area from well or wells which may be drilled offsetting said Unit Area.

## V.

Measurement, Use or Loss of Unitized Substances

A. Operator shall not be required to separately measure the Unitized Substances extracted from the separate component tracts into which the Unit Area is now or may hereafter be divided by reason of diverse ownership interests in the Unitized Substances in and under said tracts.

B. Operator may use as much of the Unitized Substances as Operator deems necessary for operations hereunder, including but not limited to the injection thereof into the Unitized Formation.

C. No royalty, overriding royalty, production or other payment shall be payable upon, or with respect to, Unitized Substances used or consumed in operations hereunder or which may otherwise be lost or consumed in the production, handling, treating, transporting or storing of Unitized Substances.

## VI.

Laws, Rules and Regulations

All production of Unitized Substances and disposal thereof shall be in conformity with allocations, allotments and quotas made and fixed by the duly authorized person or regulatory body under applicable Federal or State Statutes. The provisions of this agreement shall be subject to all applicable Federal or State laws or executive orders, rules and regulations which affect performance of any of the provisions of this agreement and Operator shall not suffer a forfeiture or be liable in damages for failure to comply with any of the provisions of this agreement if such compliance is prevented by or if such failure results from compliance with any such law, rule or regulation.

## VII.

Injection Rights

All parties hereto, other than Operator, do hereby grant to Operator the right to inject gas, water or other fluids or combinations thereof into the Unitized Formation in whatever amounts Operator deems expedient for operations under this agreement. Operator is also granted the right to drill or maintain injection wells on the Unit Area and to use producing or abandoned oil or gas wells for such purposes.

## VIII.

No Transfer of Title

Nothing contained herein shall be construed to result in the transfer of any title to any interest in any of the Oil and Gas Leases described in Exhibit "A", or the Unitized Substances or the Unit Area by any party hereto to any other party hereto. It is the intention hereof to provide for the cooperative operation and development of the Unit Area and for the allocation of Unitized Substances produced from the Unitized Formation as herein provided.

## IX.

Outside Substances

A. For the purposes of this agreement, Outside Substances shall mean all substances obtained from any source other than the Unitized Formation and which are injected into the Unitized Formation and which, when subsequently produced, are sold or used for purposes other than operations hereunder.

B. If any Outside Substances, consisting of natural gases, are injected into the Unitized Formation, a percentage of like substances actually recovered, as indicated by proper engineering tests, shall, with the approval of the Commissioner, be deemed to be Outside Substances until the aggregate of said percentage as above determined equals the accumulated volume of natural gases injected into the Unitized Formation.

C. If the Outside Substances which are injected are liquified petroleum gases, or other liquid hydrocarbons, as distinguished from natural gases, then, beginning one (1) year after injection of such liquified petroleum gases or other liquid hydrocarbons is commenced, a percentage of like substances actually recovered as indicated by proper production tests, or a percentage of all Unitized Substances produced as may be agreed upon by the Commissioner and Operator, shall, with the approval of the Commissioner, be deemed to be Outside Substances until the aggregate value of the aforesaid percentage equals the entire accumulative cost to Operator of such liquified petroleum gases or other liquid hydrocarbons so injected.

D. No royalty, overriding royalty, production or other payment shall be due or payable to the owner of any royalty, overriding royalty, payment out of production or other interest on any substance which is classified hereunder as an Outside Substance.

X.

Effective Date and Term of Agreement

A. This agreement shall be subject to the consent and approval of the Commissioner.

B. This agreement shall be effective as of 7:00 A.M., M.S.T., the first day of the calendar month following the date of approval of this agreement by the Commissioner and shall remain in force and effect for a period of twelve (12) months and so long thereafter as Unitized Substances are produced in paying quantities from any part of the Unit Area and so long thereafter as drilling, reworking or other operations including but not limited to secondary recovery operations are prosecuted hereunder without cessation of more than ninety (90) days and so long thereafter as Unitized Substances can be produced as aforesaid unless sooner terminated by Operator, with the approval of eighty percent (80%) of the Working Interest Owners and the Commissioner, filing a certificate of termination, showing the date of termination, with the Commissioner and in the records of Eddy County, New Mexico.

C. Operator shall file this agreement for record in Eddy County, New Mexico, together with a certificate to the effect that this agreement has become effective according to its terms and stating the effective date hereof.

XI.

Force Majeure

All obligations imposed by this agreement on Operator, except for the payment of money, shall be suspended while compliance is prevented, in whole or in part, by a strike, fire, war, civil disturbance, act of God; by Federal, State or municipal laws, by any rule, regulation, or order of a governmental agency; by inability to secure materials; or by any other cause or causes beyond reasonable control of Operator. Operator shall not be required against its will to adjust or settle any labor dispute. Neither this agreement nor any lease or other instrument subject hereto shall be terminated by reason of suspension of operations hereunder due to any one or more of the causes set forth in this Article.

XII.

Use of Surface and Water

A. The parties hereto, other than Operator, to the extent of their rights and interests, do hereby grant to Operator the right to use so much of the surface of the land within the Unit Area as may reasonably be necessary for operations hereunder.

B. Operator shall have free use of water from the Unit Area for all operations under this agreement, except water from any well, private lake, pond or irrigation ditch of any party hereto.

XIII.

Counterpart Execution

Any person or party may become a party to this agreement by signing the original of this agreement, a counterpart thereof or other instrument agreeing to be bound by the provisions hereof.

XIV.  
Headings

The headings set forth above the Articles of this agreement are for convenience only and shall in no manner be used in construing or interpreting any provision hereof.

XV.  
Covenants Run With The Land

This agreement shall be binding upon the parties hereto and shall extend to and be binding upon their heirs, executors, administrators, personal representatives, successors and assigns and shall constitute covenants running with the lands, leases and interests covered hereby.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first above written, but effective as hereinabove provided.

TENNECO OIL COMPANY

By [Signature]  
Agent and Attorney-in-Fact

DIVISION  
PROPERTY &  
REVENUE  
DISTRICT  
LANDMAN  
REW  
DISTRICT  
PRODUCTION  
SUPERVISOR  
[Signature]

FORM  
APPROVED  
[Signature]

ATTEST:

[Signature]  
Secretary

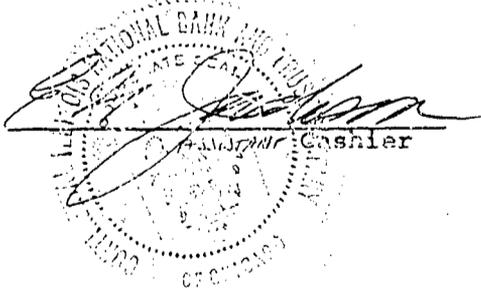
MIDWEST INVESTMENT COMPANY

By [Signature]  
President

EL PASO NATURAL GAS COMPANY

By [Signature]  
Attorney-in-Fact

ATTEST:

[Signature]  
Cashier  


CONTINENTAL ILLINOIS BANK AND TRUST COMPANY OF CHICAGO, CHICAGO, ILLINOIS

By [Signature]  
SENIOR Vice President

[Signature]  
Robert W. Garver, Trustee

ATTEST:

[Signature]  
Secretary

EDUCATIONAL FOUNDATION, INC.

By [Signature]  
President



THE STATE OF ILLINOIS X  
COUNTY OF COOK X ss

The foregoing instrument was acknowledged before me this 17th  
day of August, 1966, by Robert W. Garver, Trustee.



Janet J. Lipinski  
Notary Public in and for  
COOK County, ILLINOIS

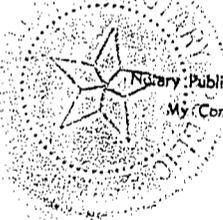
MY COMMISSION EXPIRES  
My commission expires MARCH 16, 1968.

THE STATE OF TEXAS X  
COUNTY OF HARRIS X ss

The foregoing instrument was acknowledged before me this 2nd  
day of August, 1966, by THEODORE E. SWIGART,  
President of Educational Foundation, Inc., a Delaware  
corporation, on behalf of said corporation.

Agnes T. Lacey  
Notary Public in and for  
Harris County, Texas

My commission expires June 1, 1967.



AGNES T. LACEY  
Notary Public in and for Harris County, Texas  
My Commission Expires June 1, 1967

EXHIBIT "A"

Attached to and made a part of that certain  
Grayburg-Jackson, West, Cooperative Unit  
Agreement, Eddy County, New Mexico, dated  
the 23rd day of June, 1966.

All lands in Township 17 South, Range 29 East, N.M.P.M.  
Eddy County, New Mexico

Tract No. 1

Tenneco Lease No. 30401  
Lease Date: June 16, 1948  
Lessor: Midwest Investment Company  
Original Lessee: Leonard Oil Company  
Present Lessee of Record  
and Working Interest Owner: Tenneco Oil Company - 100%  
Recorded: Book 30 at Page 524,  
Oil and Gas Records of  
Eddy County, New Mexico  
O.R.R.I. and Percentage: Educational Foundation, Inc. \*  
Description of Lands Committed: Section 22: NW/4 NW/4  
Number of Acres: 40

Tract No. 2

Tenneco Lease No. 30,408  
Lease Date: September 10, 1931  
Lessor: The State of New Mexico  
Original Lessee: E. Ruth Piatt  
Present Lessee of Record  
and Working Interest Owner: Tenneco Oil Company - 100%  
State of New Mexico Lease No. B-255-8  
O.R.R.I. and Percentage: Educational Foundation, Inc.\*  
Description of Lands Committed: Section 15: SW/4 SW/4  
Section 16: S/2 SW/4,  
NE/4 SE/4  
Section 28: SE/4, SE/4 SW/4  
Number of Acres: 360

Tract No. 3

Tenneco Lease No. 30,409  
Lease Date: April 15, 1933  
Lessor: The State of New Mexico  
Original Lessee: Leonard and Levers, Inc.  
Present Lessee of Record  
and Working Interest Owner: Tenneco Oil Company - 100%

State of New Mexico Lease No.	B-514-7
O.R.R.I. and Percentage:	Educational Foundation, Inc.*
Description of Lands Committed:	Section 28: N/2, N/2 SW/4, SW/4 SW/4
Number of Acres:	440
<u>Tract No. 4</u>	
Tenneco Lease No.	30,411
Lease Date:	January 5, 1933
Lessor:	The State of New Mexico
Original Lessee:	Leonard & Levers, Inc.
Lessee of Record:	El Paso Natural Gas Company
Present Working Interest Owner:	Tenneco Oil Company - 100% **
State of New Mexico Lease No.:	B-1266-3
O.R.R.I. and Percentage:	Educational Foundation, Inc.*
Description of Lands Committed:	Section 22: SW/4 SW/4, N/2 SW/4, E/2 NW/4
Number of Acres:	200
<u>Tract No. 5</u>	
Tenneco Lease No.	30,411
Lease Date:	January 5, 1933
Lessor:	The State of New Mexico
Original Lessee:	Leonard & Levers, Inc.
Present Lessee of Record and Working Interest Owner:	Tenneco Oil Company - 100%
State of New Mexico Lease No.	B-1266-5
O.P.R.I. and Percentage:	Educational Foundation, Inc.*
Description of Lands Committed:	Section 21: S/2 NE/4, E/2 W/2, SE/4
Number of Acres:	400
<u>Tract No. 6</u>	
Tenneco Lease No.	30,417
Lease Date:	March 10, 1942
Lessor:	The State of New Mexico
Original Lessee:	Ed W. Owen
Present Lessee of Record and Working Interest Owner:	Tenneco Oil Company - 100%
State of New Mexico Lease No.	B-9563-5

O.R.R.I. and Percentage: Educational Foundation, Inc.\*  
Description of Lands Committed: Section 21: N/2 NE/4, W/2 W/2  
Number of Acres: 240

Tract No. 7

Tenneco Lease No. 30,418  
Lease Date: October 11, 1943  
Lessor: The State of New Mexico  
Original Lessee: D. E. Wallace  
Present Lessee of Record: El Paso Natural Gas Company  
Present Working Interest Owner: Tenneco Oil Company - 100% \*\*  
State of New Mexico Lease No. B-10714-3

O.R.R.I. and Percentage: Educational Foundation, Inc.\*  
Description of Lands Committed: Section 22: SW/4 NW/4,  
NW/4 NE/4  
Number of Acres: 80

Tract No. 8

Tenneco Lease No. 30,418  
Lease Date: October 11, 1943  
Lessor: The State of New Mexico  
Original Lessee: D. E. Wallace  
Present Lessee of Record  
and Working Interest Owner: Tenneco Oil Company - 100%  
State of New Mexico Lease No. B-10714-5

O.R.R.I. and Percentage: Educational Foundation, Inc.\*  
Description of Lands Committed: Section 15: NW/4 SW/4  
Section 16: W/2 SE/4, SE/4 SE/4  
Section 27: W/2 SW/4  
Number of Acres: 240

\* Seventy-five per cent (75%) of the oil, gas and other hydrocarbon substances producible from the Unit Area and other lands until the primary sum of \$5,500,000.00 has been paid as more particularly provided in Part I of that certain two (2) part Conveyance dated October 1, 1965, from Leonard Oil Company to Tenneco Oil Company, recorded in Book 160 at Page 23 of the Records of Eddy County, New Mexico. Said production payment was conveyed by Part II of the aforesaid Conveyance to Educational Foundation, Inc. Reference is made to said Conveyance for all purposes hereof. Educational Foundation, Inc. mortgaged its interest to Robert W. Garver, Trustee, and Continental Illinois National Bank and Trust Company of Chicago, Chicago, Illinois, by Mortgage dated October 1, 1965, recorded in Mortgage Book 230 at Page 289 of the Records of Eddy County, New Mexico.

\*\* Tenneco Oil Company is owner of entire working interest in Unitized Formation and other formations by virtue of its assignment or assignments of operating rights from the present lessee of Record or its predecessor in title to a predecessor in title of Tenneco Oil Company.

STATE OF NEW MEXICO, County of Eddy, ss. I hereby certify that this instrument was filed for record on the 4 day of Oct, 1964 at 3:46 o'clock P.M. and duly recorded in Book 170, page 109 of the Records of Oil & Gas.

Geraldine Mahaffey, County Clerk

By Louis Pate Deputy

01A-4092  
C-6111 103

CERTIFICATE OF APPROVAL

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO  
GRAYBURG-JACKSON, WEST COOPERATIVE UNIT  
EDDY COUNTY, NEW MEXICO

There having been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, the attached Agreement for the development and operation of acreage which is described within the attached Agreement, dated June 22, 1966, which has been executed, or is to be executed by parties owning and holding oil and gas leases and royalty interests in and under the property described, and upon examination of said Agreement, the Commissioner finds:

- (a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.
- (b) That under the proposed agreement, the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.
- (c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.
- (d) That such agreement is in other respects for the best interests of the state, with respect to state lands.

NOW, WHEREFORE, by virtue of the authority conferred upon me under Sections 7-11-39, 7-11-40, 7-11-41, 7-11-47, and 7-11-48, New Mexico Statutes Annotated, 1953 Compilation, I, the undersigned, Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the said Agreement, and any leases embracing lands of the State of New Mexico within the area shall be and the same are hereby amended to conform with the terms thereof, and shall remain in full force and effect according to the terms and conditions of said Agreement. This approval is subject to all of the provisions of the aforesaid statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this 28th day of SEPTEMBER, 19 66.

*Donald B. Gray*  
COMMISSIONER OF PUBLIC LANDS  
of the State of New Mexico

fully Ratified  
copy

RECEIVED  
APR 3 9 51 AM '68  
STATE LAND OFFICE  
SANTA FE, N.M.

FIRST AMENDMENT  
TO  
GRAYBURG-JACKSON, WEST  
COOPERATIVE UNIT AGREEMENT  
EDDY COUNTY, NEW MEXICO

THIS FIRST AMENDMENT to the Grayburg-Jackson, West Cooperative Unit Agreement, Eddy County, New Mexico, made and entered into as of the 1<sup>st</sup> day of March, 1968, by and between Tenneco Oil Company, a Delaware corporation, whose address is Ninth Floor, Wilco Building, Midland, Texas 79701, hereinafter sometimes referred to as "Operator", and the other parties who have signed the original of this instrument, a counterpart thereof or other instruments agreeing to be bound by the provisions hereof:

W I T N E S S E T H, that:

WHEREAS, the Grayburg-Jackson, West Cooperative Unit Agreement, Eddy County, New Mexico, hereinafter sometimes referred to as the "Unit Agreement" was made and entered into as of the 23rd day of June, 1966, was approved by the New Mexico Oil Conservation Commission (hereinafter sometimes referred to as the "Commission") on October 4, 1966, in Case No. 3468, Order No. R-3127, was approved by the Commissioner of Public Lands of the State of New Mexico (hereinafter sometimes referred to as the "Commissioner") on September 28, 1966, and was recorded in the Office of the Eddy County Clerk, New Mexico in Book 170 at page 109, to all of which reference is hereby made and the Unit Agreement is incorporated herein by reference; and,

WHEREAS, the parties hereto desire to expand "the Unit Area" (defined in the Unit Agreement) to cover and embrace certain additional lands located in Eddy County, New Mexico, and as so amended to ratify and confirm the Unit Agreement;

NOW, THEREFORE, in consideration of the premises and the mutual advantages of this Agreement, and for valuable consideration paid, it is mutually covenanted and agreed by and between the parties hereto as follows:

1. Unit Area: The Unit Area covered and embraced in the Unit Agreement, effective as of the date first hereinabove written, shall be and is:

Township 17 South, Range 29 East, N.M.P.M.

Section 15:  $W\frac{1}{2}SW\frac{1}{4}$   
Section 16: All  
Section 21: All  
Section 22:  $W\frac{1}{2}W\frac{1}{2}$ ,  $E\frac{1}{2}NW\frac{1}{4}$ ,  $NE\frac{1}{4}SW\frac{1}{4}$ ,  $NW\frac{1}{4}NE\frac{1}{4}$   
Section 27:  $W\frac{1}{2}SW\frac{1}{4}$   
Section 28: All

containing 2,400 acres, more or less.

2. Tract 2 of Exhibit "A" to the Unit Agreement is amended to cover and embrace the following described lands:

Township 17 South, Range 29 East, N.M.P.M.

Section 15: SW $\frac{1}{4}$ SW $\frac{1}{4}$   
Section 16: NW $\frac{1}{4}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$ SW $\frac{1}{4}$ , NE $\frac{1}{4}$ SE $\frac{1}{4}$ , NW $\frac{1}{4}$ SW $\frac{1}{4}$   
Section 28: SE $\frac{1}{4}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$

containing 440 acres, more or less.

3. Tract 8 of Exhibit "A" to the Unit Agreement is amended to cover and embrace the following described lands:

Township 17 South, Range 29 East, N.M.P.M.

Section 15: NW $\frac{1}{4}$ SW $\frac{1}{4}$   
Section 16: NE $\frac{1}{4}$ , NE $\frac{1}{4}$ NW $\frac{1}{4}$ , SW $\frac{1}{4}$ NW $\frac{1}{4}$ ,  
W $\frac{1}{2}$ SE $\frac{1}{4}$ , SE $\frac{1}{4}$ SE $\frac{1}{4}$   
Section 27: W $\frac{1}{2}$ SW $\frac{1}{4}$

containing 480 acres, more or less.

4. There is added to Exhibit "A" to the Unit Agreement the following tracts:

Tract No. 9:

Tenneco Lease No. 30466

Lease Date: December 17, 1963

Lessor: The State of New Mexico

Original Lessee: Leonard Oil Company

Present Lessee  
of Record and  
Working Interest

Owner: Tenneco Oil Company -- 100%

State of New  
Mexico Lease No.: K-3790

O.R.R.I. and  
Percentage: Robert J. Leonard \*\*\*

Description of  
Lands Committed: Section 16: SE $\frac{1}{4}$ NW $\frac{1}{4}$

No. of Acres: 40

\*\*\*--3/32 of 8/8 of all oil, gas, casinghead gas and other minerals which may be produced, saved and marketed from the Unit Area , and other lands, until the primary sum of Three Million Dollars (\$3,000,000.00) has been paid, as more particularly described in an Assignment, dated October 1, 1965, from Leonard Oil Company to Tenneco Oil Company, recorded in Book 160 at page 67 of the Records of the Eddy County Clerk, New Mexico. Said production payment was conveyed by Leonard Oil Company to Robert J. Leonard, Patrick J. Leonard and Timothy T. Leonard by an Assignment and Conveyance dated January 7, 1966, recorded in Book 163 at page 149 of said Records. Section 3 of said Assignment provides in part: "Tenneco shall have the right, and is hereby authorized by Leonard to unitize all or any tract of land described in Exhibit B (the land covered by Tract No. 9) with adjacent lands, leasehold or other interests when, in the reasonable judgment of Tenneco, it is necessary or advisable to do so in order to facilitate the orderly development of the properties affected thereby, whether as an incident to primary production, secondary production or additional production, pressure maintenance, waterflooding or otherwise. Any such Unit so formed shall be in such size and area as shall, in the reasonable judgment of Tenneco, be deemed expedient or advisable under the circumstances, and the production produced from such Unit so formed shall be allocated among the separate owned tracts or interests comprising the Unit in the proportion provided for by such Unit Agreement. Any Unit so formed may relate to one or more zones or horizons, and any Unit formed for a particular zone or horizon need not conform in area to any other Unit relating to a different zone or horizon, and a Unit formed for the production of oil need not conform in area with any Unit for the production of gas . . .".

Tract No. 10:

Tenneco Lease No. 30798  
Lease Date: July 10, 1933  
Lessor: The State of New Mexico  
Original Lessee: Snowden & McSweeney Co.

Present Lessee of Record: Sinclair Oil & Gas Company

Working Interest Owner: Tenneco Oil Company -- 100% \*\*  
down to 3100' subsurface

State of New Mexico Lease No.: B-2023

O.R.R.I. and Percentage: Sinclair Oil & Gas Company -- 1/16 of 8/8

Description of Lands Committed: Section 16: NE $\frac{1}{4}$ SW $\frac{1}{4}$

No. of Acres: 40

As hereby amended, the Unit Agreement is in all respects ratified and confirmed in accordance with the terms and provisions thereof.

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the day and year first above written, effective as hereinabove provided.

TENNECO OIL COMPANY

By *J.P. Roach*  
Agent and Attorney-in-Fact

ATTEST:

*James B. Akeley*  
Secretary

MIDWEST INVESTMENT COMPANY

By *Ruth S. Messman*  
President

EL PASO NATURAL GAS COMPANY

By \_\_\_\_\_  
Attorney-in-Fact

ATTEST:

\_\_\_\_\_  
Cashier

CONTINENTAL ILLINOIS NATIONAL BANK AND TRUST COMPANY OF CHICAGO,  
CHICAGO, ILLINOIS

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Robert W. Garver, Trustee

Present Lessee of Record: Sinclair Oil & Gas Company

Working Interest Owner: Tenneco Oil Company -- 100% \*\*  
down to 3100' subsurface

State of New Mexico Lease No.: B-2023

O.R.R.I. and Percentage: Sinclair Oil & Gas Company -- 1/16 of 8/8

Description of Lands Committed: Section 16: NE $\frac{1}{4}$ SW $\frac{1}{4}$

No. of Acres: 40

As hereby amended, the Unit Agreement is in all respects ratified and confirmed in accordance with the terms and provisions thereof.

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the day and year first above written, effective as hereinabove provided.

TENNECO OIL COMPANY

By *J. R. Paul* a77  
Agent and Attorney-in-Fact

ATTEST:

MIDWEST INVESTMENT COMPANY

\_\_\_\_\_  
Secretary

By \_\_\_\_\_  
President

EL PASO NATURAL GAS COMPANY

By *Tom Smith* a88  
Attorney-in-Fact

ATTEST:

CONTINENTAL ILLINOIS NATIONAL BANK AND TRUST COMPANY OF CHICAGO,  
CHICAGO, ILLINOIS

\_\_\_\_\_  
Cashier

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Robert W. Garver, Trustee

Present Lessee of Record: Sinclair Oil & Gas Company

Working Interest Owner: Tenneco Oil Company -- 100% \*\*  
down to 3100' subsurface

State of New Mexico Lease No.: B-2023

O.R.R.I. and Percentage: Sinclair Oil & Gas Company -- 1/16 of 8/8.

Description of Lands Committed: Section 16: NE $\frac{1}{4}$ SW $\frac{1}{4}$

No. of Acres: 40

As hereby amended, the Unit Agreement is in all respects ratified and confirmed in accordance with the terms and provisions thereof.

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the day and year first above written, effective as hereinabove provided.

TENNECO OIL COMPANY

By \_\_\_\_\_  
Agent and Attorney-in-Fact

ATTEST:

MIDWEST INVESTMENT COMPANY

By \_\_\_\_\_  
President

EL PASO NATURAL GAS COMPANY

By \_\_\_\_\_  
Attorney-in-Fact

ATTEST:

CONTINENTAL ILLINOIS NATIONAL BANK AND TRUST COMPANY OF CHICAGO,  
CHICAGO, ILLINOIS

\_\_\_\_\_  
Assistant Cashier

By John A. Redd  
Vice-President

Robert W. Garver  
Robert W. Garver, Trustee

ATTEST:

*George H. Thompson*  
Secretary

EDUCATIONAL FOUNDATION, INC.

By *Wm. E. Sawyer*  
President

SINCLAIR OIL & GAS COMPANY

By \_\_\_\_\_

ATTYEST:

EDUCATIONAL FOUNDATION, INC.

\_\_\_\_\_  
Secretary

By \_\_\_\_\_  
President

WITNESSES:

*R. H. Brown*  
1917

APPROVED	
FORM	<i>W</i>
SUBSTANCE	<i>W</i>
FORM	<i>W</i>

SINCLAIR OIL & GAS COMPANY

By *O. S. Brown*

STATE OF TEXAS )  
 ) ss.  
COUNTY OF MIDLAND )

The foregoing instrument was acknowledged before me this 18th day of January, 1968 by J. P. Roach, Agent and Attorney-in-Fact of Tenneco Oil Company, a Delaware corporation, on behalf of said corporation.

Joanne Osmin  
Notary Public

My Commission Expires  
June 1, 1969.

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF CHAVES )

The foregoing instrument was acknowledged before me this 23 day of January, 1968 by Ruth S. Mossman, President of Midwest Investment Company, a New Mexico corporation, on behalf of said corporation.

E. Bernard Johnston  
Notary Public

My Commission Expires:  
June 11, 1970

STATE OF TEXAS )  
 ) ss.  
COUNTY OF EL PASO )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of January, 1968 by \_\_\_\_\_, Attorney-in-Fact of El Paso Natural Gas Company, a Delaware corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public

My Commission Expires  
June 1, 1969.

STATE OF ILLINOIS )  
 ) ss.  
COUNTY OF COOK )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of January, 1968 by \_\_\_\_\_, Vice President of Continental Illinois National Bank and Trust Company of Chicago, Chicago, Illinois, a National banking institution, on behalf of said institution.

\_\_\_\_\_  
Notary Public

My Commission Expires:  
\_\_\_\_\_

STATE OF TEXAS )  
 ) ss.  
COUNTY OF MIDLAND )

The foregoing instrument was acknowledged before me this 18th day of January, 1968 by J.P. Radon, Agent and Attorney-in-Fact of Tannego Oil Company, a Delaware corporation, on behalf of said corporation.

Jeanne Ozburn  
Notary Public

My Commission Expires  
June 1, 1969.

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF CRAVES )

The foregoing instrument was acknowledged before me this \_\_\_ day of January, 1968 by \_\_\_\_\_, President of Midwest Investment Company, a New Mexico corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public

My Commission Expires:  
\_\_\_\_\_

STATE OF TEXAS )  
 ) ss.  
COUNTY OF EL PASO )

The foregoing instrument was acknowledged before me this 14th day of January, 1968 by \_\_\_\_\_, Attorney-in-Fact of El Paso Natural Gas Company, a Delaware corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public

My Commission Expires  
June 1, 1969.

STATE OF ILLINOIS )  
 ) ss.  
COUNTY OF COOK )

The foregoing instrument was acknowledged before me this \_\_\_ day of January, 1968 by \_\_\_\_\_, Vice President of Continental Illinois National Bank and Trust Company of Chicago, Chicago, Illinois, a National banking institution, on behalf of said institution.

\_\_\_\_\_  
Notary Public

My Commission Expires:  
\_\_\_\_\_

STATE OF TEXAS            )  
                                  ) ss.  
COUNTY OF MIDLAND        )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of January, 1968 by \_\_\_\_\_, Agent and Attorney-in-Fact of Tenneco Oil Company, a Delaware corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public

My Commission Expires  
June 1, 1969.

STATE OF NEW MEXICO    )  
                                  ) ss.  
COUNTY OF CHAVES        )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of January, 1968 by \_\_\_\_\_, President of Midwest Investment Company, a New Mexico corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public

My Commission Expires:  
\_\_\_\_\_

STATE OF TEXAS            )  
                                  ) ss.  
COUNTY OF EL PASO        )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of January, 1968 by \_\_\_\_\_, Attorney-in-Fact of El Paso Natural Gas Company, a Delaware corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public

My Commission Expires  
June 1, 1969.

STATE OF ILLINOIS        )  
                                  ) ss.  
COUNTY OF COOK            )

The foregoing instrument was acknowledged before me this 31 day of January, 1968 by JOHN L. REDDING, Vice President of Continental Illinois National Bank and Trust Company of Chicago, Chicago, Illinois, a National banking institution, on behalf of said institution.

*Jeanette J. Zupinski*  
\_\_\_\_\_  
Notary Public

My Commission Expires:

\_\_\_\_\_  
MY COMMISSION EXPIRES  
MARCH 16, 1968







PATRICK H. LYONS  
COMMISSIONER

*State of New Mexico*  
*Commissioner of Public Lands*

310 OLD SANTA FE TRAIL  
P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE  
Phone (505) 827-5760  
Fax (505) 827-5766  
www.nmstatelands.org

September 27, 2006

Miller Stratvert P.A.  
P. O. Box 1986  
Santa Fe, NM 87504-1986

Attention: Mr. J. Scott Hall

Re: Final Approval  
Second Expansion Effective December 1, 2005  
Mack Energy Corporation  
Expansion of the Vertical Limits of the Unitized Formation for the  
Grayburg-Jackson West Cooperative Unit Agreement  
Lea County, New Mexico

Dear Mr. Hall:

We are in receipt of your letter of September 22, 2006 and ratifications requesting final approval of the second amendment to the Grayburg-Jackson West Cooperative Unit Agreement. The second amendment extends the vertical limits of the unitized formation to include all formations from the top of the Seven Rivers formation to the base of the Glorieta-Yeso (Paddock) formation.

The Commissioner of Public Lands hereby grants final approval to your request for the second amendment to the Grayburg-Jackson West Cooperative Unit Agreement. The effective date of the second amendment is December 1, 2005.

Your \$180.00 filing fee has been received.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.  
COMMISSIONER OF PUBLIC LANDS

A handwritten signature in black ink, appearing to read "Jami Bailey".

BY:  
JAMI BAILEY, Director  
Oil, Gas and Minerals Division  
(505) 827-5744  
RP/JB/pm

pc: Reader File,  
NMOCD - Attn: Mr. Roy Johnson

RECEIVED

SEP 29 2006

MILLER STRATVERT, P.A.

-State Land Office Beneficiaries -

Carrie Tingley Hospital • Charitable Penal & Reform • Common Schools • Eastern NM University • Rio Grande Improvement • Miners' Hospital of NM • NM Boys School • NM Highlands University • NM Institute of Mining & Technology • New Mexico Military Institute • NM School for the Deaf • NM School for the Visually Handicapped • NM State Hospital • New Mexico State University • Northern NM Community College • Penitentiary of New Mexico • Public Buildings at Capital • State Park Commission • University of New Mexico • UNM Saline Lands • Water Reservoirs • Western New Mexico University

**SECOND AMENDMENT  
TO  
GRAYBURG-JACKSON WEST  
COOPERATIVE UNIT AGREEMENT  
EDDY COUNTY, NEW MEXICO**

On June 23, 1966, the parties to this Second Amendment, or their predecessors in interest, (the "Owners"), entered into a Unit Agreement (the "Agreement") affecting all Leases and interests included within the Unit, which are described in the Agreement, a counterpart of which is recorded in Volume 170, page 109, of the official records of the County Clerk, Eddy County, New Mexico. The Agreement was subsequently amended by the Owners pursuant to that 1<sup>st</sup> Amendment dated March 1, 1968 to include additional lands. The Unit is now comprised of the following lands:

Township 17 South, Range 29 East, NMPM

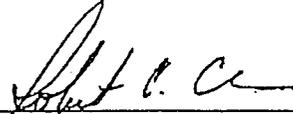
Section 15: W1/2SW1/4  
Section 16: All  
Section 21: All  
Section 22: W1/2W1/2, E1/2NW1/4,  
NE1/4SW1/4, NW1/4NE1/4  
Section 27: W1/2SW1/4  
Section 28: All

Owners, by unanimous consent, desire to amend the Unit Agreement. For adequate consideration and the mutual benefits to be derived by the Owners, being all parties (or their successors) to the Agreement, as amended by the 1<sup>st</sup> Amendment thereof, hereby amend the fourth and fifth unnumbered paragraphs of the first page of the Agreement (Volume 170, page 111), to the extent they refer to and define the Unitized Formation, as follows:

*The Unitized Formation extends to and includes all formations from the top of the Seven Rivers formation to the base of the Glorieta-Yeso (Paddock) formation, being those depths from 1,116' to 4,636' below the Kelly Bushing as shown on the Schlumberger Platform Express Three Detector Litho-Density Compensated Neutron/HNGS Log of the Diamondbacks State No. 1 Well located 2,040' from the north line and 2,140' from the east line of Section 28, Township 17 South, Range 29 East, Eddy County, New Mexico. All other terms and provisions of the Agreement referring to the Unitized Formation, either directly or indirectly, are amended to conform herewith.*

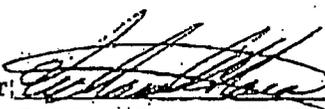
This Amendment is executed by all Owners as of the date of the acknowledgment of their signatures, but is deemed effective, for all purposes, as of December 1, 2005, the Effective Date. It may be executed in multiple counterparts, which, when taken together, shall be deemed one and the same instrument. As required in the Agreement, it shall become effective, as of the stated Effective Date, when all Owners have signed this Amendment or a counterpart of it.

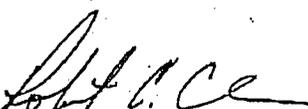
CHASE OIL CORPORATION

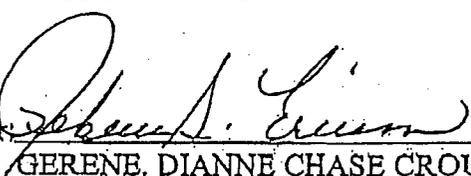
By:   
Robert C. Chase  
Title: President

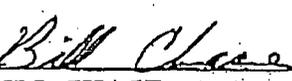
BUCKHORN ENTERPRISES CORPORATION

By:   
J. Thomas Brewer  
Title: President

Owner:   
RICHARD LANCE CHASE

Owner:   
ROBERT CHASE

Owner:   
GERENE, DIANNE CHASE CROUCH  
By: Rebecca S. Ericson  
Attorney in Fact

Owner:   
BILL CHASE

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF EDDY )

The foregoing instrument was acknowledged before me this 15<sup>th</sup> day of December, 2005, by Robert C. Chase, President of CHASE OIL CORPORATION, a New Mexico corporation, on behalf of said corporation.

Staci D. Sanders

Notary Public in and for the State of New Mexico

Printed Name: Staci D. Sanders

Commission Expires: 2/15/09



OFFICIAL SEAL  
STACI D. SANDERS  
NOTARY PUBLIC - STATE OF NEW MEXICO  
My commission expires: 2-15-09

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF EDDY )

The foregoing instrument was acknowledged before me this 19<sup>th</sup> day of December, 2005, by J. Thomas Brewer, President of BUCKHORN ENTERPRISES CORPORATION, a New Mexico corporation, on behalf of said corporation.

Staci D. Sanders

Notary Public in and for the State of New Mexico

Printed Name: Staci D. Sanders

Commission Expires: 2/15/09



OFFICIAL SEAL  
STACI D. SANDERS  
NOTARY PUBLIC - STATE OF NEW MEXICO  
My commission expires: 2-15-09

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF EDDY )

This instrument was acknowledged before me on this 15<sup>th</sup> day of December 2005 by RICHARD LANCE CHASE.

Staci D. Sanders

Notary Public in and for the State of New Mexico

Printed Name: Staci D. Sanders

Commission Expires: 2/15/09



OFFICIAL SEAL  
STACI D. SANDERS  
NOTARY PUBLIC - STATE OF NEW MEXICO  
My commission expires: 2-15-09

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF EDDY )

This instrument was acknowledged before me on this 15<sup>th</sup> day of December, 2005 by ROBERT CHASE.



OFFICIAL SEAL  
STACI D. SANDERS  
NOTARY PUBLIC - STATE OF NEW MEXICO  
My commission expires: 2/15/09

Staci D. Sanders  
Notary Public in and for the State of New Mexico  
Printed Name: Staci D. Sanders  
Commission Expires: 2/15/09

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF EDDY )

This instrument was acknowledged before me on this 15<sup>th</sup> day of December, 2005 by Rebecca S. Ericson, Attorney in Fact for GERENE DIANE CHASE CROUCH.



OFFICIAL SEAL  
STACI D. SANDERS  
NOTARY PUBLIC - STATE OF NEW MEXICO  
My commission expires: 2/15/09

Staci D. Sanders  
Notary Public in and for the State of New Mexico  
Printed Name: Staci D. Sanders  
Commission Expires: 2/15/09

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF EDDY )

This instrument was acknowledged before me on this 16<sup>th</sup> day of December, 2005 by BILL CHASE.



OFFICIAL SEAL  
STACI D. SANDERS  
NOTARY PUBLIC - STATE OF NEW MEXICO  
My commission expires: 2-15-09

Staci D. Sanders  
Notary Public in and for the State of New Mexico  
Printed Name: Staci D. Sanders  
Commission Expires: 2/15/09

RATIFICATION OF SECOND AMENDMENT  
TO GRAYBURG-JACKSON WEST  
COOPERATIVE UNIT AGREEMENT  
EDDY COUNTY, NEW MEXICO

RECEIVED  
DEC 15 2005

Grayburg-Jackson West Cooperative Unit Agreement  
Eddy County, New Mexico  
Effective Date: June 23, 1966: Approved: October 4, 1966  
Filed of Record: Book 170/Page 109, Eddy County Clerk's Office  
1<sup>st</sup> Amendment: March 1, 1968

The undersigned (and each of them if there is more than one party signing this Ratification), is a Working Interest Owner, Royalty Owner, or Owner within the meaning of the Unit Agreement creating the Unit referenced above (the "Agreement") and as amended by the First Amendment dated March 1, 1968. The undersigned desires to ratify, adopt, and become bound by the Second Amendment to the Unit Agreement to the extent of the undersigned's interest in oil and gas leases, mineral, royalty, and/or leasehold interests, and lands included in the Unit.

For the consideration and purposes stated in the Second Amendment to the Unit Agreement, the undersigned adopts, ratifies, and confirms the Second Amendment to the Unit Agreement. All of the terms and provisions of the Second Amendment to the Unit Agreement are incorporated into this Ratification, by reference, for all purposes. This Ratification shall have the same effect as if the undersigned had executed, acknowledged, and delivered the original or a counterpart of the Second Amendment to the Unit Agreement.

The undersigned has received and read a complete copy of the Second Amendment to the Unit Agreement before signing this Ratification. No representations have been made to the undersigned other than those contained in the Second Amendment to the Unit Agreement.

The undersigned execute this Ratification and unconditionally deliver it as of the date set opposite the undersigned's signature, agreeing that this Ratification shall be effective as to the undersigned's interest in the Unit as of the Effective Date of the Second Amendment to the Unit Agreement.

MOSSMAN-MIDWEST COMPANY

Date: 12/14/05

Margaret R. Barbour  
Margaret R. Barbour, President Vice President



RATIFICATION OF SECOND AMENDMENT  
TO GRAYBURG-JACKSON WEST  
COOPERATIVE UNIT AGREEMENT  
EDDY COUNTY, NEW MEXICO

Grayburg-Jackson West Cooperative Unit Agreement  
Eddy County, New Mexico  
Effective Date: June 23, 1966: Approved: October 4, 1966  
Filed of Record: Book 170/Page 109, Eddy County Clerk's Office  
1<sup>st</sup> Amendment: March 1, 1968

The undersigned (and each of them if there is more than one party signing this Ratification), is a Working Interest Owner, Royalty Owner, or Owner within the meaning of the Unit Agreement creating the Unit referenced above (the "Agreement") and as amended by the First Amendment dated March 1, 1968. The undersigned desires to ratify, adopt, and become bound by the Second Amendment to the Unit Agreement to the extent of the undersigned's interest in oil and gas leases, mineral, royalty, and/or leasehold interests, and lands included in the Unit.

For the consideration and purposes stated in the Second Amendment to the Unit Agreement, the undersigned adopts, ratifies, and confirms the Second Amendment to the Unit Agreement. All of the terms and provisions of the Second Amendment to the Unit Agreement are incorporated into this Ratification, by reference, for all purposes. This Ratification shall have the same effect as if the undersigned had executed, acknowledged, and delivered the original or a counterpart of the Second Amendment to the Unit Agreement.

The undersigned has received and read a complete copy of the Second Amendment to the Unit Agreement before signing this Ratification. No representations have been made to the undersigned other than those contained in the Second Amendment to the Unit Agreement.

The undersigned execute this Ratification and unconditionally deliver it as of the date set opposite the undersigned's signature, agreeing that this Ratification shall be effective as to the undersigned's interest in the Unit as of the Effective Date of the Second Amendment to the Unit Agreement.

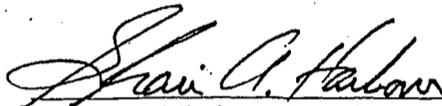
COG OIL & GAS LP  
By: COG Operating LLC, its general partner

Date: April 10, 2006

  
\_\_\_\_\_  
David M. Thomas, III  
Vice President of Exploration and Land 

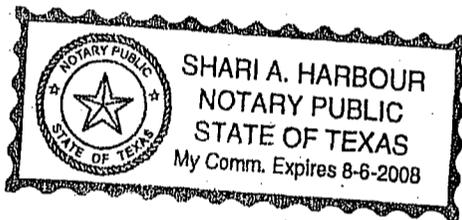
STATE OF TEXAS       §  
                                  §  
COUNTY OF MIDLAND   §

The foregoing instrument was acknowledged before me this 10<sup>th</sup> day of April 2006, by David M. Thomas, III, Vice President of Exploration and Land of COG Operating LLC, general partner of COG Oil & Gas LP.

  
\_\_\_\_\_  
Notary Public in and for the State of Texas

My Commission Expires:

9-6-08



**THIRD AMENDMENT  
TO  
GRAYBURG-JACKSON WEST  
COOPERATIVE UNIT AGREEMENT  
EDDY COUNTY, NEW MEXICO**

On June 23, 1966, the parties to this Third Amendment, or their predecessors in interest, (the "Owners"), entered into a Unit Agreement (the "Agreement") affecting all Leases and interests included within the Unit, which are described in the Agreement, a counterpart of which is recorded in Volume 170, page 109, of the official records of the County Clerk, Eddy County, New Mexico. The Agreement was subsequently amended by the Owners pursuant to that First Amendment dated March 1, 1968 to include additional lands. The Unit is now comprised of the following lands:

Township 17 South, Range 29 East, NMPM

Section 15: W1/2SW1/4  
Section 16: All  
Section 21: All  
Section 22: W1/2W1/2, E1/2NW1/4,  
NE1/4SW1/4, NW1/4NE1/4  
Section 27: W1/2SW1/4  
Section 28: All

The Agreement was amended again by the Owners pursuant to that Second Amendment dated December 1, 2005 to extend the vertical limits of the Unitized Formation to include all formations from the top of the Seven Rivers formation to the base of the Glorieta-Yeso (Paddock) formation as defined therein.

Owners, by unanimous consent, desire to again amend the Unit Agreement to extend the defined vertical limits of the Unitized Formation to include a deeper formation. For adequate consideration and the mutual benefits to be derived by the Owners, being all parties (or their successors) to the Agreement, as amended, hereby amend the fourth and fifth unnumbered paragraphs of the first page of the Agreement (Volume 170, page 111), and the third unnumbered paragraph of the Second Amendment (Volume \_\_\_, page \_\_\_), to the extent they refer to and define the Unitized Formation, as follows:

*The Unitized Formation extends to and includes all formations from the top of the Seven Rivers formation to the top of the Abo formation. All other terms and provisions of the Agreement referring to the Unitized Formation, either directly or indirectly, are amended to conform herewith.*

This Amendment is executed by all Owners as of the date of the acknowledgment of their signatures, but is deemed effective, for all purposes, as of November 1, 2006, the Effective Date. It may be executed in multiple counterparts, which, when taken together, shall be deemed one

and the same instrument. As required in the Agreement, it shall become effective, as of the stated Effective Date, when all Owners have signed this Amendment or a counterpart of it.

COG OIL & GAS LP  
By COG OPERATING LLC, General Partner

By: [Signature]  
David W. Copeland, Vice President  
and General Counsel

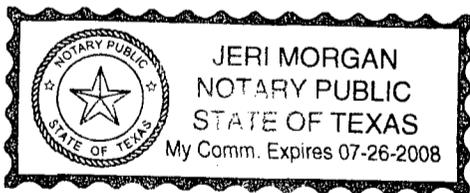
MOSSMAN-MIDWEST COMPANY

By: \_\_\_\_\_

Title: \_\_\_\_\_

STATE OF TEXAS            )  
  ) ss.  
COUNTY OF MIDLAND    )

The foregoing instrument was acknowledged before me this 19<sup>th</sup> day of December, 2006, by David W. Copeland, Vice President and General Counsel of COG Oil & Gas LP, a Texas limited partnership, on behalf of said limited partnership.



[Signature]  
Notary Public in and for the State of Texas

Printed Name: Jeri Morgan

Commission Expires: 7-26-08

STATE OF NEW MEXICO    )  
  ) ss.  
COUNTY OF \_\_\_\_\_)

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2006, by \_\_\_\_\_, (name and title of officer), of MOSSMAN-MIDWEST COMPANY.

\_\_\_\_\_  
Notary Public in and for the State of New Mexico

Printed Name: \_\_\_\_\_

Commission Expires: \_\_\_\_\_

**THIRD AMENDMENT  
TO  
GRAYBURG-JACKSON WEST  
COOPERATIVE UNIT AGREEMENT  
EDDY COUNTY, NEW MEXICO**

On June 23, 1966, the parties to this Third Amendment, or their predecessors in interest, (the "Owners"), entered into a Unit Agreement (the "Agreement") affecting all Leases and interests included within the Unit, which are described in the Agreement, a counterpart of which is recorded in Volume 170, page 109, of the official records of the County Clerk, Eddy County, New Mexico. The Agreement was subsequently amended by the Owners pursuant to that First Amendment dated March 1, 1968 to include additional lands. The Unit is now comprised of the following lands:

Township 17 South, Range 29 East, NMPM

Section 15: W1/2SW1/4  
Section 16: All  
Section 21: All  
Section 22: W1/2W1/2, E1/2NW1/4,  
NE1/4SW1/4, NW1/4NE1/4  
Section 27: W1/2SW1/4  
Section 28: All

The Agreement was amended again by the Owners pursuant to that Second Amendment dated December 1, 2005 to extend the vertical limits of the Unitized Formation to include all formations from the top of the Seven Rivers formation to the base of the Glorieta-Yeso (Paddock) formation as defined therein.

Owners, by unanimous consent, desire to again amend the Unit Agreement to extend the defined vertical limits of the Unitized Formation to include a deeper formation. For adequate consideration and the mutual benefits to be derived by the Owners, being all parties (or their successors) to the Agreement, as amended, hereby amend the fourth and fifth unnumbered paragraphs of the first page of the Agreement (Volume 170, page 111), and the third unnumbered paragraph of the Second Amendment (Volume \_\_\_, page \_\_\_), to the extent they refer to and define the Unitized Formation, as follows:

*The Unitized Formation extends to and includes all formations from the top of the Seven Rivers formation to the top of the Abo formation. All other terms and provisions of the Agreement referring to the Unitized Formation, either directly or indirectly, are amended to conform herewith.*

This Amendment is executed by all Owners as of the date of the acknowledgment of their signatures, but is deemed effective, for all purposes, as of November 1, 2006, the Effective Date. It may be executed in multiple counterparts, which, when taken together, shall be deemed one

and the same instrument. As required in the Agreement, it shall become effective, as of the stated Effective Date, when all Owners have signed this Amendment or a counterpart of it.

COG OIL & GAS LP  
By COG OPERATING LLC, General Partner

By: [Signature]  
David W. Copeland, Vice President  
and General Counsel

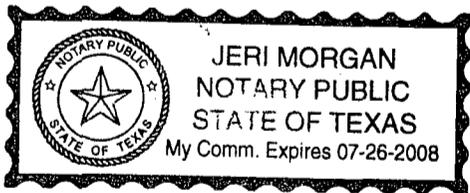
MOSSMAN-MIDWEST COMPANY

By: \_\_\_\_\_

Title: \_\_\_\_\_

STATE OF TEXAS            )  
  ) ss.  
COUNTY OF MIDLAND    )

The foregoing instrument was acknowledged before me this 19<sup>th</sup> day of December, 2006, by David W. Copeland, Vice President and General Counsel of COG Oil & Gas LP, a Texas limited partnership, on behalf of said limited partnership.



[Signature]  
Notary Public in and for the State of Texas

Printed Name: Jeri Morgan

Commission Expires: 7-26-08

STATE OF NEW MEXICO    )  
  ) ss.  
COUNTY OF \_\_\_\_\_)

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2006, by \_\_\_\_\_, (name and title of officer), of MOSSMAN-MIDWEST COMPANY.

\_\_\_\_\_  
Notary Public in and for the State of New Mexico

Printed Name: \_\_\_\_\_

Commission Expires: \_\_\_\_\_