

CASE 2557: Application of law

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dition, Transcript,  
all Exhibits, Etc.

**BEFORE EXAMINER NUTTER**

OIL CONSERVATION COMMISSION

EXHIBIT NO. 2  
CASE NO. 2557

INTEREST OWNERS LIST

WEST DOLLARHIDE DEVONIAN UNIT  
LEA COUNTY, NEW MEXICO

WORKING INTEREST OWNERS

Mr. Fred J. Brotherton  
185 East Palisade Avenue  
Englewood, New Jersey

Mr. Leslie B. Gardner  
2216 Gorman  
Waco, Texas

Gulf Oil Corporation  
Post Office Box 1938  
Roswell, New Mexico

Mr. W. E. Irvin  
3700 Bellaire Drive North  
Fort Worth, Texas

Mr. Joseph D. Kennedy  
2017 Continental National Bank Building  
Fort Worth 2, Texas

Messrs. Joe D. Kennedy, Y. Q. McCammon  
and George Thompson, Jr., Trustees of  
Marilyn Maxwell Trust  
2017 Continental National Bank Building  
Fort Worth 2, Texas

Mr. Gus Layton  
1505 Oil & Gas Building  
309 West Seventh Street  
Fort Worth, Texas

Mr. E. L. Lockwood  
750 West Fifth Street  
Fort Worth, Texas

Mr. J. C. Maxwell  
2017 Continental National Bank Building  
Fort Worth 2, Texas

Mr. George A. Meihaus, Jr.  
c/o Texas Industries, Inc.  
Post Office Box 400  
Arlington, Texas

Pan American Petroleum Corporation  
Post Office Box 1410  
Fort Worth, Texas  
Atten: Mr. Bruce A. Landis, Jr.

Skelly Oil Company  
Post Office Box 1650  
Tulsa, Oklahoma  
Atten: Mr. Robert G. Hiltz

Mr. James H. Snowden  
750 West Fifth Street  
Fort Worth, Texas

Texaco Inc.  
Post Office Box 3109  
Midland, Texas

OVERRIDING ROYALTY INTEREST OWNERS

Selma E. Andrews  
c/o Trust Department  
Albuquerque National Bank  
Albuquerque, New Mexico

Albuquerque National Bank  
Testamentary Trustee of  
Frank A. Andrews, Deceased  
Albuquerque, New Mexico

M. W. Coll  
Post Office Box 919  
Roswell, New Mexico

L. E. Hults  
Sinclair Building  
Fort Worth, Texas

Helen Magruder Kolliker  
3812 Hillcrest  
El Paso, Texas

The First National Bank of Denver  
Successor Trustee Under the  
Last Will and Testament of  
Charles T. Lupton, Deceased  
c/o Trust Department  
Denver 17, Colorado

John M. Loffland, Jr.  
233 Rowan Building  
6000 Camp Bowie  
Fort Worth, Texas

The Fort Worth National Bank  
Trustee for Roy S. Magruder  
Post Office Box 2050  
Fort Worth, Texas

Roger B. Owings  
Fair Building  
Fort Worth, Texas

T. A. Pedley, Jr.  
4025 East 22nd Avenue  
Denver 7, Colorado

Gracean M. Pedley  
115 McGoodwin Avenue  
Princeton, Kentucky

Neville G. Penrose  
Fair Building  
Fort Worth, Texas

Skelly Oil Company  
Post Office Box 1801  
Dallas 21, Texas

The First National Bank of Denver  
Successor Trustee Under the Will of  
Josephine M. Smith, Deceased  
c/o Trust Department  
Denver 17, Colorado

Effie E. Valentine  
c/o The First National Bank of Denver  
Denver, Colorado  
Atten: Trust Department

ROYALTY INTEREST OWNERS

Commissioner of Public Lands  
Of The State of New Mexico  
Santa Fe, New Mexico

United States Geological Survey  
Post Office Box 8721  
Roswell, New Mexico

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Exhibit "A" (Map of Unit Area)  
Exhibit "B" (Schedule of Ownership)

UNIT AGREEMENT  
FOR THE DEVELOPMENT AND OPERATION OF THE  
WEST DOLLARHIDE-DEVONIAN UNIT  
LEA COUNTY, NEW MEXICO

NO. 14-08-0001-8188

THIS AGREEMENT, entered into as of the 26<sup>th</sup> day  
of April, 1962, by and between the parties sub-  
scribing, ratifying or consenting hereto, and herein referred  
to as "Parties hereto",

W I T N E S S E T H :

WHEREAS, the parties hereto are the owners of working,  
royalty or other oil or gas interests in the Unit Area subject  
to this Agreement; and

WHEREAS, the Commissioner of Public Lands of the  
State of New Mexico is authorized by an Act of the Legislature  
(Sec. 3, Chap. 88, Laws 1943 as amended by Sec. 1 of Chap. 162,  
Laws of 1951, Chap. 7, Art. 11, Sec. 39, N.M.S. 1953 anno) to  
consent to or approve this Agreement on behalf of the State of  
New Mexico, insofar as it covers and includes lands and mineral  
interests of the State of New Mexico; and

WHEREAS, the Commissioner of Public Lands of the  
State of New Mexico is authorized by an Act of the Legislature  
(Sec. 3, Chap. 88, Laws of 1943, as amended by Sec. 1, Chap. 162,  
Laws of 1951, Chap. 7, Art. 11, Sec. 41, N.M.S. 1953 anno) to  
amend with the approval of the lessee, any oil and gas lease em-  
bracing State lands so that the length of the term of said lease

1. *Introduction*

2. *Background*

3. *Methods*

4. *Results*

5. *Conclusion*

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$\mathcal{H}^1(\mathbb{R}^n) \subset \mathcal{H}^2(\mathbb{R}^n) \subset \mathcal{H}^3(\mathbb{R}^n) \subset \dots \subset \mathcal{H}^k(\mathbb{R}^n) \subset \mathcal{H}^{k+1}(\mathbb{R}^n) \subset \dots$

$\mathcal{H}_1 = \{ \mathbf{h}_1, \mathbf{h}_2, \dots, \mathbf{h}_M \}$ ,  $\mathcal{H}_2 = \{ \mathbf{h}_{M+1}, \mathbf{h}_{M+2}, \dots, \mathbf{h}_{M+N} \}$ ,  $\mathbf{h}_i \in \mathbb{R}^N$ ,  $\mathbf{h}_i^T \mathbf{h}_j = \delta_{ij}$ ,  $\mathbf{h}_i^T \mathbf{h}_j = 0$  for  $i \neq j$ ,  $\mathbf{h}_i^T \mathbf{h}_j = 1$  for  $i = j$ . The  $\mathbf{h}_i$  are the eigenvectors of the covariance matrix  $\mathbf{C}$  of the input data  $\mathbf{X}$ , and  $\mathbf{C} = \frac{1}{N} \mathbf{X}^T \mathbf{X}$ . The  $\mathbf{h}_i$  are the eigenvectors of the covariance matrix  $\mathbf{C}$  of the input data  $\mathbf{X}$ , and  $\mathbf{C} = \frac{1}{N} \mathbf{X}^T \mathbf{X}$ .

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SECTION 1. ENABLING ACT AND REGULATIONS. The Mineral Leasing Act of February 25, 1920, as amended, supra, and all valid pertinent regulations, including operating and unit plan regulations, heretofore issued thereunder and valid, pertinent and reasonable regulations hereafter issued thereunder are accepted and made a part of this Agreement as to Federal lands, provided such regulations are not inconsistent with the terms of this Agreement; and as to non-Federal lands, the oil and gas operating regulations in effect as of the effective date hereof governing drilling and producing operations, not inconsistent with the terms hereof or the laws of the State in which the non-Federal land is located, are hereby accepted and made a part of this Agreement.

SECTION 2. UNIT AREA AND DEFINITIONS. For the purpose of this Agreement, the following terms and expressions as used herein shall mean:

(a) "Unit Area" is defined as those lands specified in Exhibit "A" hereof, and such land is hereby designated and recognized as constituting the Unit Area; the lands described in said Exhibit "A" are described as:

LEA COUNTY, NEW MEXICO

T. 24 S., R. 38 E.,

Section 32: E/2 SE/4 and SE/4 NE/4  
Section 33: Lots 1, 2, 3, and 4, NE/4 NW/4,  
S/2 NW/4 and SW/4

T. 25 S., R. 38 E.,

Section 4: Lots 1, 2, 3 and 4, S/2 NW/4 and NW/4 SW/4  
Section 5: Lots 1, 2 and NE/4 SE/4

containing 765.25 acres, more or less.

(b) "Land Commissioner" is defined as the Commissioner of Public Lands of the State of New Mexico.

(c) "Commission" is defined as the Oil Conservation Commission of the State of New Mexico.

(d) "Director" is defined as the Director of the United States Geological Survey.

(e) "Secretary" is defined as the Secretary of the Interior of the United States of America.

(f) "Department" is defined as the Department of the Interior of the United States of America.

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(2) "Refined Petroleum" means all oil, gas, natural substances, sulphur contained in gas, condensate, distillate and all unseparated and emulsified fluids or liquefiable hydrocarbons within or produced from the United Kingdom.

(1) "Working Interest" is defined as the right to search for, produce and acquire oil and gas substances whether held as an incident of ownership of mineral fee simple title, under an oil and gas lease, or otherwise paid.

(n) "Royalty Interest" or "Royalty" is defined as an interest other than a Working Interest in or right to receive a portion of the Unitized Substances or the proceeds thereof and includes the royalty interest reserved by the lessor by an oil and gas lease and any overriding royalty interest, oil payment interest, net profit contracts, or any other payment or burden which does not carry with it the right to search for and produce Unitized Substances.

(p) "Unit Operating Agreement" is defined as and shall mean any agreement or agreements (whether one or more) entered into (separately or collectively) by and between the Unit Operator and the Working Interest Owners as provided in Section 9, infra, and shall be styled "Unit Operating Agreement, West Hollarkide-Devonian Unit, Lea County, New Mexico".



(q) "Unit Manager" is defined as the person or corporation appointed by the Unit Working Interest Owners to perform the duties of the Unit Operator until the selection and qualification of a successor Unit Operator as provided for in Section 8 hereof.

(r) "Paying Quantities" is defined as production of Unitized Substances in quantities sufficient to pay for the cost of producing same from wells on the Unitized Land.

(s) "Primary Phase of Operations" is defined as the status of operations during the period that Unitized Substances are produced from the Unit Area from and after the effective date of this Agreement until 7:00 o'clock a.m. the first day of the calendar month ensuing after 276,576 barrels of oil minus the gross oil production from January 1, 1961 to the effective date of this Agreement have been produced from the Unitized Formation. The Primary Phase, being predicated upon 100% commitment of the Unit Area, shall be subject to correction to coincide with the Primary Phase of the unitized portion of the reservoir in event of the non-commitment of any tract. For the purposes of this definition the Operator's Monthly Reports, Form C-115, filed with the New Mexico Oil Conservation Commission shall be deemed the controlling evidence of the production of 276,576 barrels of oil after January 1, 1961.

(t) "Secondary Phase of Operations" is defined as the status of operations for the remainder of the term of this agreement after the Primary Phase has been completed.

SECTION 3. EXHIBITS: Exhibit "A" attached hereto is a map showing the Unit Area and the boundaries and identity of tracts and leases in said Unit Area to the extent known to the Unit Operator. Exhibit "B" attached hereto is a schedule showing, to the extent known to the Unit Operator, the acreage comprising each tract, percentage ownership of each Working Interest Owner in each tract, and the percentage of participation each tract has in the Unit Area. However, nothing herein or in said schedule or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party. Exhibits "A" and "B" shall be revised by the Unit Operator whenever changes in the Unit Area render such revision necessary, and at least two copies of such revision shall be filed with the Land Commissioner, and not less than six copies thereof shall be filed with the Supervisor.

may also provide for the expansion of the Unit by the admission of additional tracts or tracts of land into the Unit, and the Unit Operator shall have the power to make such expansion of the Unit in accordance with the provisions of this Agreement. Such expansion shall be made in the following manner:

(a) The Working Interest Owner of a tract or tract, desiring to bring such tract or tracts into this Unit, shall file an application therefor with the Unit Operator requesting such admission.

(b) Unit Operator shall circulate a notice to each Working Interest Owner of the proposed expansion, setting out the basis for admission, the unit participation to be assigned to such tract or tracts, and other pertinent data. After negotiation (at Working Interest Owners' meeting or otherwise) if at least three Working Interest Owners having in the aggregate eighty percent (80%) Unit Participation have agreed to such tract or tracts being brought into the Unit, then Unit Operator shall:

(1) Prepare a notice of proposed expansion describing the contemplated changes in the boundaries of the Unit Area, the reason therefor, the basis for admission of the additional tract or tracts, the Unit Participation to be assigned thereto and the proposed effective date thereof; and

(2) Deliver copies of said notice to the Land Commissioner, the Director, each Working Interest Owner and to the lessee and lessor whose interests are affected, advising such parties that thirty (30) days will be allowed for submission to the Unit Operator of any objection to such proposed expansion; and

(3) File, upon the expiration of said thirty (30) day period as set out in (2) immediately above with the Land Commissioner and Director the following: (a) Evidence of mailing or delivering copies of said notice of expansion; (b) An application for such expansion; (c) An instrument containing the appropriate joinders in compliance with the participation requirements of Section 12, *infra*; and (d) Copy of any objections received.

The expansion shall, after due consideration of all pertinent information and approval by the Land Commissioner and the Director, become effective as of the date prescribed in the notice thereof, preferably the first day of a month subsequent to the date of notice, or on such other date as set by the Land Commissioner and the Director in the order or instrument approving such expansion.

SECTION 5. UNITIZED LAND AND UNITIZED SUBSTANCES: All land committed to this Agreement shall constitute land referred to herein as "Unitized Land" or "Land subject to this Agreement". All oil and gas in the Devonian Age Formation of the unitized land is unitized under the terms of this Agreement and herein are called "Unitized Substances". Nothing herein shall be construed to unitize, pool, or in any way affect the oil, gas and other minerals contained in or that may be produced from any formation other than the Devonian Age Formation as above described.

SECTION 6. UNIT OPERATOR: Gulf Oil Corporation is hereby initially designated the Unit Operator, and by signing this instrument as Unit Operator it agrees and consents to accept the duties and obligations of Unit Operator for the operation, development and production of Unitized Substances as herein provided. Whenever reference is made herein to the Unit Operator, such reference means the Unit Operator acting in that capacity and not as an owner of interests in Unitized Substances, and the term "Working Interest Owner" when used herein shall include or refer to the Unit Operator as the owner of a Working Interest when such an interest is owned by it.

SECTION 7. RESIGNATION OR REMOVAL OF UNIT OPERATOR: Unit Operator shall have the right to resign at any time, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate Unit Operator's rights as such for a period of six (6) months after written notice of intention to resign has been given by Unit Operator to all Working Interest Owners, the Land Commissioner and the Director, unless a new Unit Operator shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period.



or performable by it prior to the effective date of such resignation or removal.

SECTION 8. SUCCESSOR UNIT OPERATOR: Whenever the Unit Operator shall tender its resignation as Unit Operator or shall be removed as hereinabove provided, the Working Interest Owners shall select a successor Unit Operator as herein provided. Such selection shall not become effective until (a) a Unit Operator so selected shall accept in writing the duties and responsibilities of Unit Operator, and (b) the selection shall have been approved by the Land Commissioner and the Director. If no successor Unit Operator or Unit Manager is selected and qualified as herein provided, the Land Commissioner and the Director, at their election, may declare this Agreement terminated.

In selecting a successor Unit Operator the majority vote of the Working Interest Owners on the basis of Unit Participation shall prevail, provided that in the event one Working Interest Owner should own more than forty-five percent (45%) voting interest, its vote shall not be regarded as sufficient unless supported by the vote of two or more Working Interest Owners having a combined voting interest of at least six percent (6%). No Working Interest Owner who has been Unit Operator and who has been removed may vote for self-succession.

SECTION 9. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT: Costs and expenses incurred by Unit Operator in conducting unit operations hereunder shall be paid, apportioned among and borne by the Working Interest Owners in accordance with the Unit Operating Agreement. Such Unit Operating Agreement shall also provide the manner in which the Working Interest Owners shall be entitled to receive their respective proportionate and allocated share of the benefits accruing hereto in conformity with their underlying operating agreements, leases or other independent contracts and such other rights and obligations as between Unit Operator and the Working Interest Owners as may be agreed upon by the Unit Operator and the Working Interest Owners; however, no such

Unit Operating Agreement shall be deemed either to modify any of the terms and conditions of this Unit Agreement or to relieve the Unit Operator of any right or obligation established under this Agreement, and in case of any inconsistency or conflict between this Agreement and the Unit Operating Agreement, this Unit Agreement shall prevail. Two true copies of any Unit Operating Agreement executed pursuant to this Section shall be filed with the Land Commissioner and three true copies thereof shall be filed with the Supervisor, prior to approval of this Agreement.

SECTION 10. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR:

Except as otherwise specifically provided herein, the exclusive right, privilege and duty of exercising any and all rights of the parties hereto which are necessary or convenient for prospecting for, producing, storing, allocating and distributing the Unitized Substances are hereby delegated to and shall be exercised by the Unit Operator as herein provided. Acceptable evidence of title to said rights shall be deposited with said Unit Operator, and together with this Agreement, shall constitute and define the rights, privileges and obligations of Unit Operator. Nothing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement, it being understood that under this Agreement the Unit Operator, in its capacity as Unit Operator, shall exercise the rights of possession and use vested in the parties hereto only for the purposes herein specified.

SECTION 11. PLAN OF OPERATIONS. It is recognized and agreed by the parties hereto that all of the land subject to this Agreement is reasonably proved to be productive of Unitized Substances in paying quantities and that the object and purpose of this Agreement is to formulate and to put into effect a secondary recovery project in order to effect additional recovery of Unitized Substances, prevent waste and conserve natural resources. The parties hereto agree that the Unit Operator may, subject to the consent and approval of a plan of operation by the Working Interest

Owners, the Supervisor, and the Land Commissioner, inject into the Unitized Formation, through any well or wells completed therein, brine, water, air, gas, oil and any one or more other substances or combination of substances whether produced from the Unit Area or not, and that the location of input wells and the rates of injection therein and the rate of production shall be governed by standards of good geologic and petroleum engineering practices and conservation methods. Subject to like approval the Plan of Operation may be revised as conditions may warrant.

The initial plan of operation shall be filed with the Supervisor and the Land Commissioner concurrently with the filing of this Unit Agreement for final approval. Said initial plan of operation and all revisions thereof shall be as complete and adequate as the Supervisor and the Land Commissioner may determine to be necessary for timely operation consistent herewith. Reasonable diligence shall be exercised in complying with the obligations of the approved plan of operation.

SECTION 12. TRACT PARTICIPATION: In Exhibit "B" attached hereto, there are listed and numbered the various tracts within the Unit Area and set forth opposite each tract are figures which represent the percentage of participation allocated to each tract in the Unit Area during the Primary and Secondary Phases of Operations, respectively, as those terms are defined herein.

The percentage of participation of each tract during the Primary Phase of operations shall be based upon the summation of two factors to be weighed as follows, to-wit:

(1) 50 times the ratio of primary reserve from the tract to the total primary reserves from all tracts of unitized land. Primary reserves as used herein are those which were estimated as of January 1, 1961 at 276,576 barrels as to all tracts in the Unit Area.

(2) 50 times the ratio of the rate of production from the tract to the rate of production from all tracts of unitized land. The rate of production as used herein is obtained by measuring the gross oil production from the period July 1, 1960 to January 1, 1961 as shown on the pertinent Operator's Monthly Reports, Form C-115, on file with the New Mexico Oil Conservation Commission.

The percentage of participation in the Unit Area during the Secondary Phase of operations shall be based upon the ratio of the cumulative primary recovery from the tracts in the Unit Area to the ultimate primary recovery from all tracts in the Unit Area. Ultimate primary recovery as used herein is the sum of the accumulated oil production through December 31, 1960 as shown on the pertinent Operators Monthly Reports, Form O-115, on file with the New Mexico Oil Conservation Commission and the 276,576 barrels of estimated remaining primary oil on January 1, 1961 on all tracts in the Unit Area.

After said remaining primary oil has been produced, effective as of 7:00 o'clock a.m. the first day of the following calendar month the tract participations shall be in accordance with the Secondary Phase allocations.

SECTION 13. TRACTS QUALIFIED FOR PARTICIPATION: On and after the effective date hereof the tracts within the Unit Area which shall be entitled to participation in the production of Unitized Substances therefrom shall be those tracts within the Unit Area and more particularly described in said Exhibit "B" that are qualified as follows:

(a) Each and all of those tracts as to which Working Interest Owners owning 100% of the Working Interest in said tract and Royalty Owners owning 100% of the Royalty Interest in said tract have subscribed, ratified or consented to this Agreement; and

(b) Each and all of those tracts as to which Working Interest Owners owning not less than 95% of the Working Interest therein and Royalty Owners owning not less than 75% of the Royalty Interest therein have executed this Agreement, and in which the Working Interest Owners in said tract who have executed this Agreement have agreed to indemnify and hold harmless all other parties hereto, in a manner satisfactory to 85% of the Working Interest Owners qualified under (a), against any and all claims and demands that may be made by the nonjoining Working Interest Owners or Royalty Owners, or both, on account of the commitment and joinder of such tract to the Unit Agreement, and operation thereof under such conditions on the basis herein provided, and as to which 85% of the Working Interest Owners qualified under (a), exclusive of the Working Interest Owner submitting such tract, have approved the commitment of such tract to this Unit Agreement.

If, on the effective date of this Agreement, there is any tract or tracts which have not been effectively committed to or made subject to this Agreement by qualifying as above provided,



then such tract or tracts shall not be entitled to participate hereunder. Unit Operator shall, when submitting this Agreement for final approval by the Land Commissioner and the Director, file therewith a schedule of those tracts which have been committed and made subject to this Agreement and are entitled to participate in the production from the Unit Area hereunder. Said schedule shall set forth opposite each such committed tract the lease number or assignment number, the owner of record of the lease, and the percentage participation of such tract which shall be computed according to the participation formula set out in Section 12 (Tract Participation) above. This schedule of participation shall be a part of Exhibit "B" and upon approval thereof by the Land Commissioner and the Director shall become a part of this Agreement and shall govern the allocation of production of Unitized Substances until a new schedule is filed and approved by the Land Commissioner and the Director.

SECTION 14. ALLOCATION OF UNITIZED SUBSTANCES: All Unitized Substances produced and saved (less, save and except any part of such Unitized Substances used in conformity with good operating practices on unitized land for drilling, operating, camp, and other production or development purposes and for pressure maintenance or unavoidable loss) shall be apportioned among and allocated to the committed tracts within the Unit Area in accordance with the respective tract participation effective hereunder during the respective periods such Unitized Substances were produced, as set forth in the schedule of participation in Exhibit "B". The amount of Unitized Substances so allocated to each tract, and only that amount, (regardless of whether it be more or less than the amount of the actual production of Unitized Substances from the well or wells, if any, on such tract) shall, for all intents, uses and purposes, be deemed to have been produced from such tract.

The Unitized Substances allocated to each tract shall be distributed among, or accounted for, to the parties executing, consenting to or ratifying this Agreement entitled to share in the production from such tract in the same manner, in the same proportions, and upon the same conditions, as they would have participated and shared in the production from such tracts, or in the proceeds thereof, had this Agreement not been entered into; and with the same legal force and effect.

No tract committed to this Agreement and qualified for participation as above provided shall be subsequently excluded from participation hereunder on account of depletion of Unitized Substances, and nothing herein contained shall be construed as requiring any retroactive adjustment for production obtained prior to the effective date of the joinder of any tract.

If the Working Interest and the Royalty Interest in any tract are divided with respect to separate parcels or portions of such tract and owned severally by different persons, the percentage participation assigned to such tract shall, in the absence of a recordable instrument executed by all owners and furnished to Unit Operator fixing the divisions of ownership, be divided among such parcels or portions in proportion to the number of surface acres in each.

The Unitized Substances allocated to each tract shall be delivered in kind to the respective Working Interest Owners and parties entitled thereto by virtue of the ownership of oil and gas rights therein or by purchase from such owners. Each Working Interest Owner and the parties entitled thereto shall have the continuing right to receive such production in kind at a common point within the Unit Area and to sell or dispose of the same as it sees fit. Each such party shall have the right to construct, maintain and operate all necessary facilities for that purpose on unitized land, provided the same are so constructed, maintained and operated as not to interfere with operations carried on pursuant hereto. Subject to Section 15 hereof, any extra expenditure

incurred by Unit Operator by reason of the delivery in kind of any portion of the Unitized Substances shall be borne by the party receiving the same in kind. In the event any party hereto shall fail to take or otherwise adequately dispose of its proportionate share of the production from the Unit Area currently as and when produced, then so long as such conditions continue, Unit Operator, for the account and at the expense of such party and in order to avoid curtailing the operation of the Unit Area, may sell or otherwise dispose of such production to itself or others on a day-to-day basis at not less than the prevailing market price in the area for like production, and the account of such party shall be charged therewith as having received such production. The net proceeds, if any, of the Unitized Substances so disposed of by Unit Operator shall be paid to the party entitled thereto. Notwithstanding the foregoing, Unit Operator shall not make a sale into interstate commerce of any other party's share of gas production without first giving such other party sixty (60) days notice of such intended sale.

Any party receiving in kind or separately disposing of all or any part of the Unitized Substances allocated to any tract, or receiving the proceeds therefrom if the same is sold or purchased by Unit Operator, shall be responsible for the payment of all Royalty on the lease or leases and tracts contributed by it and received into the Unit, and each such party shall hold each other party hereto harmless against all claims, demands and causes of action for such Royalty on the lease or leases and tracts contributed by it to the Unit Area.

If, after the effective date of this Agreement, there is any tract or tracts that are subsequently committed hereto, as provided in Section 4 (Expansion) hereof, or any tract or tracts within the Unit Area not committed hereto as of the effective date hereof but which are subsequently committed hereto under the provisions of Section 30 (Nonjoinder and Subsequent

considered, or if any other method of allocation is provided for in the contract, such method shall govern. The parties hereto agree that the substance produced from any tract owned by a Royalty Owner who is a party to this agreement shall be allocated to such Royalty Owner, which allocation shall be made by the Unit Operator and distributed to the Working Interest Owners, the Land Commissioner, and the Director to show the new percentage participation of all and then a revised operating contract; and the revised exhibit "B", upon approval by the Land Commissioner and the Director, shall govern all the allocation of production from and after the effective date thereof until a new schedule is filed and approved by the Land Commissioner and the Director.

SECTION 14. ROYALTY SETTLEMENT: The State of New Mexico and the United States of America and all Royalty Owners who, under an existing contract, are entitled to take in kind a share of the substances produced from any tract unitized hereunder, shall continue to be entitled to such right to take in kind their share of the Unitized Substances allocated to such tract, and Unit Operator shall make deliveries of such Royalty share taken in kind in conformity with the applicable contracts, laws and regulations. Settlement for Royalty Interest not taken in kind shall be made by Working Interest Owners responsible therefor under existing contracts, laws and regulations, on or before the last day of each month for Unitized Substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any Royalty due under their leases, except that such Royalty shall be computed in accordance with the terms of this Unit Agreement.

If gas obtained from lands not subject to this agreement is introduced into the Unitized Reservoir, for use in enhancing, stimulation of production or increasing oilfield recovery, in conformity with a plan approved pursuant to Section 11 of the Oil Conservation Act, then the gas so used shall apportionably diminish the total

from any cause, may be withdrawn from the Unitized Formation, royalty free as to dry gas but not as to the products extracted therefrom; provided that such right of withdrawal shall terminate as of the effective date of termination of the Unit Agreement.

All royalty due the State of New Mexico and the United States of America and the other Royalty Owners hereunder shall be computed and paid on the basis of all Unitized Substances allocated to the respective tract or tracts committed hereto, in lieu of actual production from such tract or tracts.

Each Royalty Owner (other than the State of New Mexico and the United States of America) that executes this Agreement represents and warrants that it is the owner of a Royalty Interest in a tract or tracts within the Unit Area as its interest appears in Exhibit "B" attached hereto. If any Royalty Interest in a tract or tracts should be lost by title failure or otherwise in whole or in part, during the term of this Agreement, then the Royalty Interest of the party representing himself to be the owner thereof shall be reduced proportionately and the interest of all parties shall be adjusted accordingly.

SECTION 16. RENTAL SETTLEMENT: Rentals or minimum royalties due on leases committed hereto shall be paid by Working Interest Owners responsible therefor under existing contracts, laws and regulations, provided that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum royalty in lieu thereof, due under their leases. Rental for lands of the State of New Mexico subject to this Agreement shall be paid at the rate specified in the respective leases from the State of New Mexico. Rental or minimum royalty for lands of the United States of America subject to this Agreement shall be paid at the rate specified in the respective leases from the United States of America,

shall be made or withheld, as waived, accepted, or refused by law or by approval of the Secretary or his duly authorized representative.

SECTION 17. CONSERVATION: Operations hereunder and production of Unitized Substances shall be conducted to provide for the most economical and efficient recovery of said substances without waste, as defined by or pursuant to Federal and State laws and regulations.

SECTION 18. DRAINAGE: The Unit Operator shall take appropriate and adequate measures to prevent drainage of Unitized Substances from unitized land by wells on land not subject to this Agreement.

SECTION 19. LEASES AND CONTRACTS CONFORMED AND EXTENDED: The terms, conditions and provisions of all leases, subleases and other contracts relating to exploration, drilling, development or operation for oil or gas on lands committed to this Agreement are hereby expressly modified and amended to the extent necessary to make the same conform to the provisions hereof, but otherwise to remain in full force and effect, and the parties hereto hereby consent that the Secretary and the Land Commissioner, respectively, shall and by their approval hereof, or by the approval hereof by their duly authorized representatives, do hereby establish, alter, change or revoke the drilling, producing, rental, minimum royalty and royalty requirements of Federal and State leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this Agreement.

Without limiting the generality of the foregoing, all leases, subleases and contracts are particularly modified in accordance with the following:

(a) The development and operation of lands subject to this Agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each and every part or separately owned tract subject to this Agreement, regardless of whether there is any development

of any particular part or tract of the Unit Area, notwithstanding anything to the contrary in any lease, operating agreement or other contract by and between the parties hereto, or their respective predecessors in interest, or any of them.

(b) Drilling, producing or secondary recovery operations performed hereunder upon any tract of unitized lands shall be accepted and deemed to be performed upon and for the benefit of each and every tract of unitized land, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on land therein embraced.

(c) Suspension of drilling or producing operations on all unitized lands pursuant to direction or consent of the Land Commissioner and the Supervisor or their duly authorized representatives, shall be deemed to constitute such suspension pursuant to such direction or consent as to each and every tract of unitized lands.

(d) Each lease, sublease, or contract relating to the exploration, drilling, development or operation for oil and gas which by its terms might expire prior to the termination of this Agreement, is hereby extended beyond any such term so provided therein, so that it shall be continued in full force and effect for and during the term of this Agreement.

(e) Termination of this Agreement shall not affect any lease which, pursuant to the terms thereof or any applicable laws, shall continue in force and effect thereafter.

(f) Any lease embracing lands of the State of New Mexico, which is made subject to this Agreement, shall continue in force beyond the term provided therein as to the lands committed hereto until the termination hereof.

(g) Any lease embracing lands of the State of New Mexico having only a portion of its land committed hereto, shall be segregated as to that portion committed and that not committed, and the terms of such lease shall apply separately to such segregated portions commencing as of the effective date hereof. Provided, however, that notwithstanding any of the provisions of this Agreement to the contrary, such lease shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease if oil or gas is, or has heretofore been discovered in paying quantities on some part of the lands embraced in such lease committed to this Agreement or, so long as a portion of the Unitized Substances produced from the Unit Area is, under the terms of this Agreement, allocated to the portion of the lands covered by such lease committed to this Agreement, or, at any time during the term hereof, as to any lease that is then valid and subsisting and upon which the lessee or the Unit Operator is then engaged in bona fide drilling, reworking, or secondary recovery operations on any part of the lands embraced in such lease, then the same as to all lands embraced therein shall remain in full force and effect so long as such operations are diligently prosecuted, and if they result in the production of oil or gas, said lease shall continue in full force and effect as to all of the lands embraced therein, so long thereafter as oil or gas in paying quantities is being produced from any portion of said lands.

(h) The segregation of any Federal lease committed to this Agreement is governed by the following provision in the fourth paragraph of Section 17 (j) of the Mineral Leasing Act, as amended by the

Any (Federal) lease hereafter hereinafter created by any such (unit) plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be considered two separate leases as to the lands covered and the lands not covered as of the effective date of unitization provided, however, that any such lease as to the non-unitized portion shall continue in force and effect for the term thereof but for not less than two years from the date of such segregation and so long thereafter as oil or gas is produced in paying quantities."

SECTION 20. MATHEMATICAL ERRORS: It is hereby agreed by all parties to this Agreement that Unit Operator is empowered to correct any mathematical errors which might exist in the pertinent exhibits to this Agreement upon approval of the Land Commissioner and the Supervisor.

SECTION 21. COVENANTS RUN WITH LAND: The covenants herein shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in interest until this Agreement terminates, and any grant, transfer or conveyance of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee or other successor in interest. No assignment or transfer of any Working Interest subject hereto shall be binding upon Unit Operator until the first day of the calendar month after Unit Operator is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument of transfer; and no assignment or transfer of any Royalty Interest subject hereto shall be binding upon the Working Interest Owner responsible therefor until the first day of the calendar month after said Working Interest Owner is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument of transfer.

SECTION 22. EFFECTIVE DATE AND TERM: This Agreement shall become binding upon each party who executes or ratifies it as of the date of execution or ratification by such party and shall



become effective as of 7:00 o'clock a.m. of the first day of the calendar month next following:

(a) The execution or ratification of this Agreement and the Unit Operating Agreement by Working Interest Owners owning a combined Primary Phase Unit Participation of at least 95 percent, and the execution or ratification of the Agreement by Royalty Owners owning a combined interest of at least 75 percent of the Royalty Interest, in said Unit Area; and

(b) The approval of this Agreement by the Land Commissioner, the Secretary or his duly authorized representative, and the Commission; and

(c) The filing of at least one counterpart of this Agreement for record in the office of the County Clerk of Lea County, New Mexico, by the Unit Operator; and provided, further, that if (a), (b) and (c) above are not accomplished on or before July 1, 1962, this Agreement shall ipso facto terminate on said date (hereinafter called "termination date") and thereafter be of no further force or effect, unless prior thereto this Agreement has been executed or ratified by Working Interest Owners owning a combined Primary Phase Unit Participation of at least 90 percent, and the Working Interest Owners owning a combined unit participation of at least 90 percent committed to this Agreement have decided to extend said termination date for a period not to exceed six months (hereinafter called "extended termination date"). If said termination date is so extended and (a), (b) and (c) are not accomplished on or before said extended termination date, this Agreement shall ipso facto terminate on said extended termination date and thereafter be of no further force or effect.

Unit Operator shall, within thirty (30) days after the effective date of this Agreement, file for record in the office where a counterpart of this Agreement is recorded, a certificate to the effect that this Agreement has become effective according to its terms and stating further the effective date.

The term of this Agreement shall be for and during the time that Unitized Substances are produced in paying quantities from the Unit Area and so long thereafter as drilling, reworking or other operations (including secondary recovery operations) are prosecuted thereon without cessation of more than ninety (90) consecutive days, unless sooner terminated by Working Interest Owners in the manner hereinafter provided.

This Agreement may be terminated with the approval of the Land Commissioner and the Director by Working Interest Owners

owning Royalty Owners shall be terminated when the Royalty Owners' interest in the Unit ceases to be profitable and operations are abandoned. The Royalty Owners shall be entitled to the interest of production of any such production until it is given to the Royalty Owners by the parties hereto.

Upon termination of this Agreement, the further development and operation of the Unit even as a Unit shall be abandoned, Unit operations shall cease, and thereafter the parties hereto shall be governed by the terms and provisions of the leases and contracts affecting the separate tracts just as if this Agreement had never been entered into.

If not otherwise covered by the leases utilized under this Agreement, Royalty Owners hereby grant Working Interest Owners a period of six months after termination of this Agreement in which to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit operations.

SECTION 23. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION: All production and the disposal thereof shall be in conformity with allocations and quotas made or fixed by any duly authorized person or regulatory body under any Federal or State statute. The Director is hereby vested with authority to alter or modify from time to time, in his discretion, the rate of prospecting and development and within the limits made or fixed by the Commission to alter or modify the quantity and rate of production under this Agreement, such authority being hereby limited to alteration or modification in the public interest, the purpose thereof and the public interest to be served thereby to be stated in the order of alteration or modification; provided, further, that no such alteration or modification shall be effective as to any land of the State of New Mexico as to the rate of prospecting and

development in the absence of the specific written approval thereof by the Land Commissioner and as to any lands of the State of New Mexico or privately-owned lands subject to this Agreement as to the quantity and rate of production in the absence of specific written approval thereof by the Commission.

Powers in this Section vested in the Director shall only be exercised after notice to Unit Operator and opportunity for hearing to be held not less than fifteen days from notice, and thereafter subject to administrative appeal before becoming final.

SECTION 24. NONDISCRIMINATION: In connection with the performance of work under this agreement, the Unit Operator agrees to comply with all of the provisions of section 301 (1) to (7) inclusive, of Executive Order 10925 (26 F.R. 1977), which are hereby incorporated by reference in this agreement.

SECTION 25. APPEARANCES: Unit Operator shall have the right to appear for or on behalf of any and all interests affected hereby before the Land Commissioner, the Department, and the Commission, and to appeal from any order issued under the rules and regulations of the Land Commissioner, the Department, or the Commission, or to apply for relief from any of said rules and regulations or in any proceedings relative to operations before the Land Commissioner, the Department, or the Commission, or any other legally constituted authority; provided, however, that any other interested party shall also have the right at his or its own expense to be heard in any such proceeding.

SECTION 26. NOTICES: All notices, demands, objections or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given if made in writing and personally delivered to the party or parties or sent by postpaid certified mail, addressed to such party or parties at their respective addresses set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party or parties may have furnished in writing to the party sending the notice, demand or statement.

SECTION 27. NO WAIVER OF CERTAIN RIGHTS: Nothing in this Agreement contained shall be construed as a waiver by any

party hereto of the right to waive or a constitutional right or defense as to the validity or enforceability of any law of the State whereby unitized lands are located, or rules or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive.

SECTION 28. UNAVOIDABLE DELAY: All obligations under this Agreement requiring the Unit Operator to commence or continue secondary recovery operations or to operate on or produce Unitized Substances from any of the lands covered by this Agreement shall be suspended while, but only so long as the Unit Operator despite the exercise of due care and diligence, is prevented from complying with such obligations, in whole or in part, by strikes, acts of God, Federal, State or municipal law or agency, unavoidable accident, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not.

SECTION 29. LOSS OF TITLE: In the event title to any tract of unitized land shall fail so as to render the tract inoperable under this Agreement and the true owner cannot be induced to join this Unit Agreement, such tract shall be automatically regarded as not committed hereto and there shall be such re-adjustment of future costs and benefits as may be required on account of the loss of such title. In the event of a dispute as to title as to any Royalty, Working Interest or other interest subject thereto, payment or delivery on account thereof may be withheld without liability or interest until the dispute is finally settled; provided, that as to State or Federal land or leases, no

of the ...  
Director ...  
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missioner, and ...  
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are granted by appropriate ...  
Interest Owner in order for the interest of such ...  
to be regarded as effectively committed. Joiner to the Unit Agree-  
ment by a Working Interest Owner, at any time, must be accompanied  
by appropriate ...  
such interest to be regarded as effectively committed to this Unit  
Agreement.

Any oil or gas interest in the Devonian Age Formation not  
committed hereto prior to execution of this Agreement to the Land  
Commissioner and the Director for final approval may thereafter be  
committed hereto upon compliance with the applicable provisions of  
this Section and of Section 13 (Leases qualified for Unit Partici-  
pation) hereof, at any time up to the effective date hereof and for  
a period to and including six months thereafter, on the same basis  
of participation as provided in said Section 13, by the owner or  
owners thereof subscribing, ratifying, or consenting in writing to  
this Agreement as a ... Working Interest, by the

owner of such interest subscribing also to the Unit Operating Agreement.

It is understood and agreed, however, that from and after six months from the effective date hereof the right of subsequent joinder as provided in this Section shall be subject to such requirements or approvals and on such basis as may be agreed upon by 90 percent Unit Participation. Such joinder by a proposed Working Interest Owner must be evidenced by his execution or ratification of this Agreement and the Unit Operating Agreement. Such joinder by a proposed Royalty Owner must be evidenced by his execution, ratification or consent of this Agreement and must be consented to in writing by the Working Interest Owner responsible for the payment of any benefits that may accrue hereunder in behalf of such proposed Royalty Owner. Except as may be otherwise herein provided, subsequent joinder to this Agreement shall be effective at 7:00 o'clock a.m. as of the first day of the month following the filing with the Land Commissioner and the Supervisor of duly executed counterparts of any and all documents necessary to establish effective commitment of any tract or interest to this Agreement, unless objection to such joinder by the Land Commissioner or the Director is duly made within sixty (60) days after such filing.

SECTION 31. COUNTERPARTS: This Agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties and may be ratified or consented to by separate instrument in writing specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document, and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above described Unit Area.

SECTION 32. TAXES: Each party hereto shall, for its own account, render and pay its share of any taxes levied against or measured by the amount or value of the Unitized Substances produced from the unitized land; provided, however, that if it is required or if it be determined that the Unit Operator or the several Working Interest Owners must pay or advance said taxes for the account of the parties hereto, it is hereby expressly agreed that the parties so paying or advancing said taxes shall be reimbursed therefor by the parties hereto, including Royalty Owners, who may be responsible for the taxes on their respective allocated share of said Unitized Substances. No such taxes shall be charged to the United States or to the State of New Mexico, nor to any lessor who has a contract with a lessee which requires his lessee to pay such taxes.

SECTION 33. CONFLICT OF SUPERVISION: Neither the Unit Operator nor the Working Interest Owners, nor any of them, shall be subject to any forfeiture, termination or expiration of any rights hereunder or under any leases or contracts subject hereto, or to any penalty or liability on account of delay or failure in whole or in part to comply with any applicable provisions thereof to the extent that the said Unit Operator or the Working Interest Owners, or any of them, are hindered, delayed or prevented from complying therewith by reason of failure of the Unit Operator to obtain, in the exercise of due diligence, the concurrence of proper representatives of the United States and proper representatives of the State of New Mexico in and about any matters or things concerning which it is required herein that such concurrence be obtained. The parties hereto, including the Commission, agree that all powers and authority vested in the Commission in and by any provisions of this Agreement are vested in the Commission and shall be exercised by it pursuant to the provisions of the laws of the State of New Mexico and subject in any case to appeal or judicial review as may now or hereafter be provided by the laws of the State of New Mexico.





IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed and have set opposite their respective names the date of execution.

GULF OIL CORPORATION

Law	<i>AM</i>
Comptr.	
Exp.	
Prod.	

ATTEST:

*W. C. Vician*  
Assistant Secretary

By *E. O. Mortlock*  
Attorney-in-Fact

Date: MAR 9 1962

UNIT OPERATOR AND WORKING INTEREST OWNER

THE STATE OF NEW MEXICO

COUNTY OF CHAVES

The foregoing instrument was acknowledged before me this 12<sup>th</sup> day of June, 1962, by W. A. SHELLSHEAR E. O. MORTLOCK Attorney-in-Fact for GULF OIL CORPORATION, a Pennsylvania corporation, on behalf of said corporation.

*L. B. Parker*  
Notary Public

My Commission Expires:  
10-8-65

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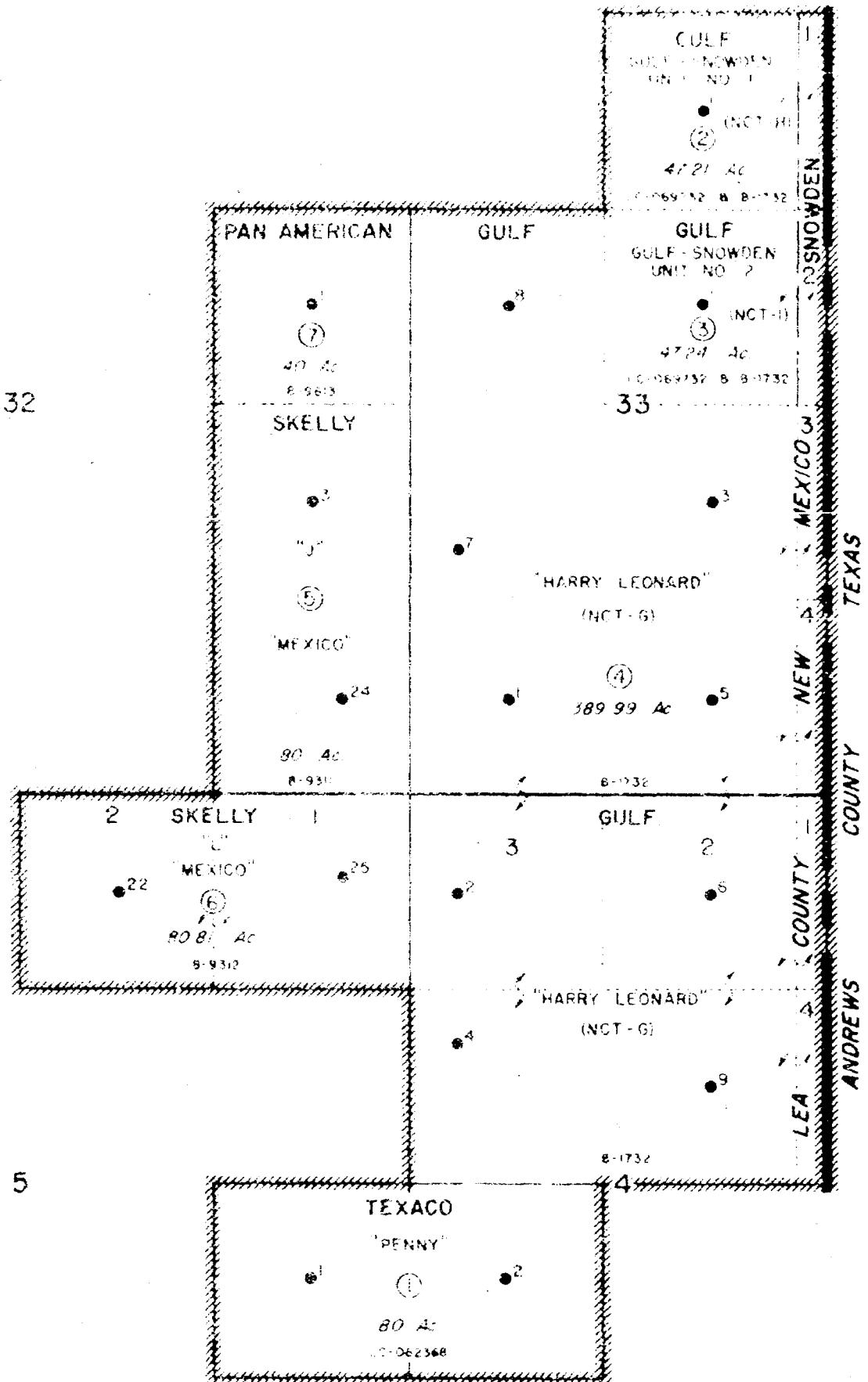


EXHIBIT A

WEST DOLLARHIDE DEVONIAN UNIT  
LEA COUNTY, NEW MEXICO

Unit Area Boundary

(2) Tract Number

**EXHIBIT "p"**  
**WEST DOLLARIDE - DEVONIAN UNIT**  
**LEA COUNTY, NEW MEXICO**

TRACT NO.	DESCRIPTION OF LAND	NO. OF ACRES	UNIT NO. LEASE AND/OR ASSIGN. NO.	BASIC ROYALTY	LESSEE OF RECORD	OVERRIDING ROYALTY	WORKING INTEREST	PER CENT PARTICIPATION	
						OWNER AND AMOUNT	OWNER AND AMOUNT	OF TRACT IN UNIT PRIMARY	SECONDARY
1	NW/4 SW/4 Sec. 4 and NE/4 SE/4 Sec. 5, T-25-S, R-38-E	80	LC-062368	12.5%	Texaco Inc.	John M. Loffland, Jr. 0.12500%	Texaco Inc. 100.00000%	5.2108242	8.3227041
						Selma E. Andrews 0.26853%			
						Albuquerque Nat'l. Bank, Testamentary Trustee of Frank A. Andrews, Deceased 0.23147%			
						Shelly Oil Company 0.62500%			
						M. W. Coll 0.05859%			
						Roger B. Owings 0.12500%			
						Neville G. Penrose 0.12500%			
						Effie E. Valentine 0.00781%			
						The First Nat'l Bank of Denver, Successor Trustee Under the Last Will and Testa- ment of Charles T. Lupton, Deceased 0.06250%			
						T. A. Pedley, Jr. 0.01563%			
						The First Nat'l Bank of Denver, Successor Trustee Under the Will of Josephine M. Smith, Deceased 0.21484%			
						Gracian M. Pedley 0.01563%			

TRACT NO.	DESCRIPTION OF LAND	NO. OF ACRES	UNIT NO. LEASE AND/OR ASSIGN. NO.	BASIC ROYALTY	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND AMOUNT	WORKING INTEREST OWNER AND AMOUNT	PER CENT PARTICIPATION OF TRACT IN UNIT	
								PRIMARY	SECONDARY
2	(A) Lot 1 +	7.21	LC-069752	12.5%	Fred J. Brotherton Leslie B. Gardner George A. Meinaus, Jr. James H. Snowden Gus Layton E. L. Lockwood W. E. Irvin	L. E. Hulst *** 0.4176% The Fort Worth Nat'l Bank, Trustee for Roy S. Magruder 0.3818% Helen Magruder Kolliker 0.3818%	Gulf Oil Corp. 34.7278% Fred J. Brotherton 1.9090% Leslie B. Gardner 1.9090% George A. Meinaus, Jr. 0.9545% The First Nat'l Bank of Fort Worth, Accounts of: James H. Snowden 3.8181% Gus Layton 3.8181% E. L. Lockwood 1.9090% W. E. Irvin 0.9545%	14.906843 0.3222309 0.3222309 0.3222309 0.1611175 0.3222309 0.644472 0.644472 0.3222309 0.644472 16.8795535	0.3222309 0.3222309 0.3222309 0.3222309 0.3222309 0.3222309 0.3222309 0.3222309 0.3222309 0.3222309 0.3222309
3	(a) Lot 2 +-	7.24	LC-069752	12.5%	Fred J. Brotherton Leslie B. Gardner George A. Meinaus, Jr. James H. Snowden Gus Layton E. L. Lockwood W. E. Irvin	L. E. Hulst *** 0.4191% The Fort Worth Nat'l Bank, Trustee for Roy S. Magruder 0.3831% Helen Magruder Kolliker 0.3832%	Gulf Oil Corp. 34.6741% Fred J. Brotherton 1.9157% Leslie B. Gardner 1.9157% George A. Meinaus, Jr. 0.9579% The First Nat'l Bank of Fort Worth, Accounts of: James H. Snowden 3.8315% Gus Layton 3.8315% E. L. Lockwood 1.9157% W. E. Irvin 0.9579%	9.325204 0.215513 0.215513 0.215513 0.107755 0.431287 0.431287 0.431287 0.215513 0.107755 11.24986	0.215513 0.215513 0.215513 0.215513 0.215513 0.215513 0.215513 0.215513 0.215513 0.215513 0.215513
4	SW/4 NW/4, Lots 3, 4 & SW/4 Sec. 33, T-24-S, R-38-E, and Lots 1, 2, 3 & 4 & S/2 NW/4 Sec. 34, T-25-S, R-38-E	389.99	B-1732	12.5%	Gulf Oil Corp.	None	Gulf Oil Corp. 100.0000%	23.8894215	23.8894215

Lot 1 & NE/4 NW/4 Sec. 33, T-24-S, R-38-E communitized by Agreement dated April 11, 1952, Unit No. 14-08-001-931.  
 Lot 2 & SE/4 NW/4 Sec. 33, T-24-S, R-38-E communitized by Agreement dated April 11, 1952, Unit No. 14-08-001-932.  
 Production Payment to be retired upon the receipt of \$14,450.

TRACT NO.	DESCRIPTION OF LAND	NO. OF ACRES	UNIT NO. LEASE AND/OR ASSIGN. NO.	BASIC ROYALTY	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND AMOUNT	WORKING INTEREST OWNER AND AMOUNT	PER CENT PARTICIPATION OF TRACT IN UNIT	
								PRIMARY	SECONDARY
5	E/2 SE/4 Sec. 32 T-24-S, R-38-E	80	B-9311	12.5%	Skelly Oil Company	None	Skelly Oil Co. 50.00000%	5.8766799	3.1552963
							Joe D. Kennedy, Y.Q. McCammon and George Thompson, Jr., Trustees of Marilyn Maxwell Trust		
							5.00000%	0.5876680	0.3155296
							Texaco Inc.		
							25.00000%	2.9383399	1.5776481
							J. C. Maxwell		
							17.50000%	2.0568379	1.1043537
							Joseph D. Kennedy		
							2.50000%	0.2938340	0.1577648
								<u>11.7533597</u>	<u>6.3105925</u>
6	Lots 1 and 2, Sec. 5, T-25-S, R-38-E	80.81	B-9312	12.5%	Skelly Oil Company	None	Skelly Oil Co. 50.00000%	14.1133232	6.3715711
							Joe D. Kennedy, Y.Q. McCammon and George Thompson, Jr., Trustees of Marilyn Maxwell Trust		
							5.00000%		
							Texaco Inc.	1.4113323	0.6371571
							25.00000%	7.0566616	3.1857855
							J. C. Maxwell		
							17.50000%	4.9396631	2.2300499
							Joseph D. Kennedy		
							2.50000%	0.7056661	0.3185786
								<u>28.2266415</u>	<u>12.7431622</u>
7	SE/4 NE/4 Sec. 32, T-24-S, R-38-E	40	B-9613	12.5%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. 100.00000%	2.7913055	6.4014755
TOTALS								100.0000000	100.0000000
					Federal Lands	94.45 Acres	12.342% of Unit Area		
					State Lands	670.80 Acres	87.658% of Unit Area		
					Privately Owned Lands	None			
						<u>765.25 Acres</u>	<u>100.000% of Unit Area</u>		

WORKING INTEREST OWNERS JOINDER

IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT

WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and

WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

EXECUTED this 3 day of April, 1962.

ATTEST: (corporation)

THE STATE OF New Jersey X  
COUNTY OF Bergen X

The foregoing instrument was acknowledged before me this 3rd day of April, 1962, by Husband and Wife.

My Commission Expires:  
NOTARY PUBLIC OF NEW JERSEY  
Commission Expires June 12, 1964

Edgar Broseman  
Notary Public

THE STATE OF \_\_\_\_\_ X  
COUNTY OF \_\_\_\_\_ X

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 196\_\_, by \_\_\_\_\_, \_\_\_\_\_, a \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission Expires:

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

WORKING INTEREST OWNERS JOINDER

IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT

WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and

WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

EXECUTED this 4<sup>th</sup> day of April, 1962.

Leslie B. Gardner

ATTEST: (corporation)

Antoinette W. Gardner

THE STATE OF Texas X  
COUNTY OF McLennan X

The foregoing instrument was acknowledged before me this 4<sup>th</sup> day of April, 1962, by Leslie B. Gardner and wife Antoinette W. Gardner.

My Commission Expires:  
June 1, 1963

Quida Bowers (Quida Bowers)  
Notary Public

THE STATE OF \_\_\_\_\_ X  
COUNTY OF \_\_\_\_\_ X

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 196\_\_, by \_\_\_\_\_, \_\_\_\_\_ for \_\_\_\_\_, a \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission Expires:

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

WORKING INTEREST OWNERS JOINDER

IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT

WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and

WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

EXECUTED this 4th day of April, 1962.

ATTEST: (corporation)

Mrs. W. E. Irvin  
W. E. Irvin

THE STATE OF TEXAS X  
COUNTY OF TARRANT X

The foregoing instrument was acknowledged before me this 4th day of April, 1962, by W. E. Irvin and Mrs. W. E. Irvin, husband and wife.

My Commission Expires:  
June 1, 1963

Ethel F. Sebastian  
Notary Public  
Ethel F. Sebastian

THE STATE OF \_\_\_\_\_ X  
COUNTY OF \_\_\_\_\_ X

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 196\_\_, by \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, a \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission Expires:

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



WORKING INTEREST OWNERS JOINDER

IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT

WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and

WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

EXECUTED this 9th day of April, 1962.

WITNESS:

~~XXXXXXXXXXXXXXXXXXXX~~

Glenna M. Briganer

Joseph D. Kennedy  
Patricia M. Kennedy

THE STATE OF TEXAS )  
 )  
COUNTY OF TARRANT )

The foregoing instrument was acknowledged before me this 9th day of April, 1962, by Joseph D. Kennedy and wife, Patricia M. Kennedy.

My Commission Expires:  
June 1, 1963

Margaret E. Monnig  
Notary Public  
MARGARET E. MONNIG, Notary Public  
in and for Tarrant County, Texas

THE STATE OF \_\_\_\_\_ )  
 )  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 196\_\_, by \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ for \_\_\_\_\_, a \_\_\_\_\_ corporation, on behalf of said corporation.

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

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

WORKING INTEREST OWNERS JOINDER

IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT

WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and

WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

EXECUTED this 14th day of March, 1962.

ATTEST: (corporation)

Joe B. Kennedy  
Joe B. Kennedy  
Y. Q. McCann  
Y. Q. McCann  
George Thompson, Jr.  
George Thompson, Jr.,  
Trustees of Marilyn Maxwell Trust

THE STATE OF TEXAS X  
COUNTY OF TARRANT X

The foregoing instrument was acknowledged before me this 14th day of March, 1962, by Joe B. Kennedy, Y. Q. McCann and George Thompson, Jr.,  
Trustees of Marilyn Maxwell Trust

My Commission Expires:  
June 1, 1963

Margaret E. Monnig  
Notary Public  
MARGARET E. MONNIG, Notary Public  
in and for Tarrant County, Texas

THE STATE OF \_\_\_\_\_ X  
COUNTY OF \_\_\_\_\_ X

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 196\_\_, by \_\_\_\_\_, \_\_\_\_\_  
for \_\_\_\_\_, a \_\_\_\_\_ corporation,  
on behalf of said corporation.

My Commission Expires:

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

WORKING INTEREST OWNERS JOINDER

IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT

WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and

WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

EXECUTED this 23rd day of April, 1962.

ATTEST: (corporation)

THE STATE OF TEXAS )  
 )  
COUNTY OF TARRANT )

The foregoing instrument was acknowledged before me this 23rd day of April, 1962, by Gus Layton and Delyte Layton.

My Commission Expires:  
June 30, 1963

Helen Holcomb  
Notary Public  
HELEN HOLCOMB

THE STATE OF \_\_\_\_\_ )  
 )  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 196\_\_, by \_\_\_\_\_, \_\_\_\_\_ for \_\_\_\_\_, a \_\_\_\_\_ corporation, on behalf of said corporation.

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

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

WORKING INTEREST OWNERS JOINDER

IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT

WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and


WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

EXECUTED this 26th day of April, 1962.

ATTEST: (corporation)

  
Elmer L. Lockwood

THE STATE OF Texas )  
COUNTY OF Tarrant )

The foregoing instrument was acknowledged before me this 26th day of April, 1962, by Elmer L. Lockwood and Florence Lockwood.

My Commission Expires:  
June 1, 1963

  
Notary Public  
Ethel F. Sebastian

THE STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 196\_\_, by \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ for \_\_\_\_\_, a \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission Expires:

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

WORKING INTEREST OWNERS JOINDER  
IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT  
WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and

WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

EXECUTED this 13<sup>th</sup> day of April, 1962.

ATTEST: (corporation)

J. C. Martell  
J. C. Martell, a married man dealing in his sole and separate property.

THE STATE OF Texas X  
COUNTY OF Tarrant X

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of April, 1962, by J. C. Martell, a married man dealing in his sole and separate property.

My Commission Expires:  
June 1, 1963

Glenna M. Briggance  
Notary Public

THE STATE OF \_\_\_\_\_ X  
COUNTY OF \_\_\_\_\_ X

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 196\_\_, by \_\_\_\_\_, a \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission Expires:

Notary Public

WORKING INTEREST OWNERS JOINDER

IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT

WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and

WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

EXECUTED this 4th day of April, 1962.

ATTEST: (corporation)

George A. Meihaus, Jr.  
Margaret S. Meihaus

THE STATE OF TEXAS X  
COUNTY OF TARRANT X

The foregoing instrument was acknowledged before me this 4th day of April, 1962, by George A. Meihaus, Jr. and Margaret S. Meihaus, husband and wife.

My Commission Expires:

June 1, 1963

James H. Brown  
Notary Public

THE STATE OF \_\_\_\_\_ X  
COUNTY OF \_\_\_\_\_ X

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 196\_\_, by \_\_\_\_\_, a \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission Expires:

\_\_\_\_\_

Notary Public

WORKING INTEREST OWNERS JOINDER

IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT

WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and

WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

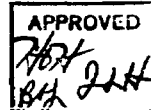
EXECUTED this 26<sup>th</sup> day of April, 1962.

PAN AMERICAN PETROLEUM CORPORATION

ATTEST: (corporation)

C. F. Bedford

ATTORNEY-IN-FACT



CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS  
COUNTY OF TARRANT

BEFORE ME, the undersigned authority, on this day personally appeared C. F. BEDFORD, known to me to be the person who executed the foregoing instrument as ATTORNEY-IN-FACT of PAN AMERICAN PETROLEUM CORPORATION, and acknowledged to me that he executed the same for the purposes and consideration therein expressed; as the act and deed of said corporation and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 26<sup>th</sup> day of

April, 1962.

Ada Belle Zartman Ada Belle Zartman  
NOTARY PUBLIC in and for  
TARRANT County, TEXAS

WORKING INTEREST OWNERS JOINDER

IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT

WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and

WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

EXECUTED this 26 day of April, 1962

Approved as to  
Form 100

SKELLY OIL COMPANY

ATTEST: (corporation)

P. P. Proctor  
Assistant Secretary

E. L. Blockader  
Vice President

THE STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 1962, by \_\_\_\_\_.

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

Notary Public

THE STATE OF Oklahoma  
COUNTY OF LeFlore

The foregoing instrument was acknowledged before me this 26 day of April, 1962, by E. L. Blockader, Vice President for Skelly Oil Company, a Delaware corporation, on behalf of said corporation.

My Commission Expires: July 23, 1964

Notary Public



WORKING INTEREST OWNERS JOINDER

IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT

WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and

WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

EXECUTED this 2<sup>nd</sup> day of April, 1962

ATTEST: (corporation)

\_\_\_\_\_  
James H. Snowden  
\_\_\_\_\_  
Frances G. Snowden

THE STATE OF Texas X  
COUNTY OF Tarrant X

The foregoing instrument was acknowledged before me this 2<sup>nd</sup> day of April, 1962, by James H. Snowden and Frances G. Snowden, husband & wife.

My Commission Expires:

June 1, 1963

\_\_\_\_\_  
Ethel F. Sebastian  
Notary Public

THE STATE OF \_\_\_\_\_ X  
COUNTY OF \_\_\_\_\_ X

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 196\_\_, by \_\_\_\_\_, \_\_\_\_\_ for \_\_\_\_\_, a \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission Expires:

\_\_\_\_\_

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

WORKING INTEREST OWNERS JOINDER

IN UNIT AGREEMENT AND UNIT OPERATING AGREEMENT

WEST DOLLARHIDE DEVONIAN UNIT, LEA COUNTY, NEW MEXICO

WHEREAS, the undersigned has received a counterpart of an instrument entitled "Unit Agreement for the Development and Operation of the West Dollarhide Devonian Unit, Lea County, New Mexico", and a counterpart of an instrument entitled, "Unit Operating Agreement, West Dollarhide Devonian Unit, Lea County, New Mexico", both of which were executed by Gulf Oil Corporation as the Unit Operator and as a working interest owner, to provide for conducting secondary recovery operations with respect to the Devonian formation underlying lands in Lea County, New Mexico; and

WHEREAS, said Unit Agreement and Unit Operating Agreement each provide for counterpart execution and for execution by ratification or consent in separate instruments specifically referring thereto; and

WHEREAS, the undersigned working interest owner, whose interests are defined in said instruments and exhibits thereto, desires to execute said Unit Agreement and Unit Operating Agreement by ratification and consent.

NOW, THEREFORE, in consideration of the premises, and of the mutual advantages to be secured by all who become parties to said instruments, the undersigned working interest owner does by these presents ratify and consent to all terms and provisions of the aforesaid Unit Agreement and Unit Operating Agreement.

EXECUTED this 13th day of April, 1962.

APPROVED AS TO  
Terms AK  
Form AK  
Accg. AK  
ATTEST: (corporation)

**TEXACO Inc.**

By: B. L. Francis  
**Attorney-in-Fact**

P. O. Box 3109

Midland, Texas

THE STATE OF \_\_\_\_\_ X  
COUNTY OF \_\_\_\_\_ X

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 1962, by \_\_\_\_\_.

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

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

THE STATE OF TEXAS X  
COUNTY OF MIDLAND X

The foregoing instrument was acknowledged before me this 13th day of April, 1962, by B. L. Francis, **Attorney-in-Fact** for TEXACO Inc., a Delaware corporation, on behalf of said corporation.

My Commission Expires: June 1, 1963

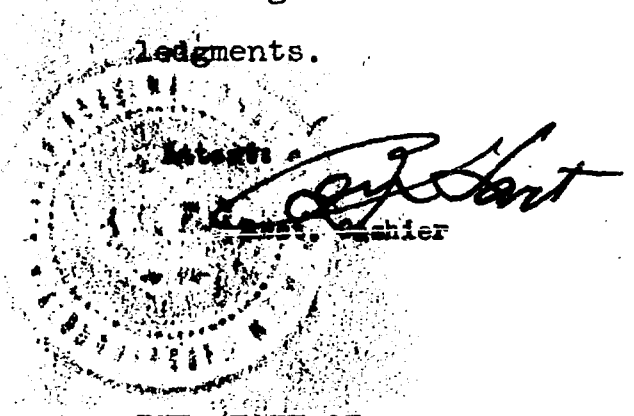
Anthony Longo  
Notary Public

CONSENT AND RATIFICATION OF  
WEST DOLLARHIDE DEVONIAN UNIT AGREEMENT  
EMBRACING LANDS IN LEA COUNTY, NEW MEXICO

The undersigned (whether one or more) hereby acknowledge receipt of a copy of the Unit Agreement for the development and operation of the West Dollarhide Devonian Unit Area embracing lands in Lea County, New Mexico, which said Agreement is dated the 20 day of April, 1962, and acknowledge that they have read the same and are familiar with the terms and conditions thereof.

The undersigned also being the owners of royalty, overriding royalty or production payment interests in the lands or minerals embraced in said Unit Area, do hereby commit all of their said interests to the West Dollarhide Devonian Unit Agreement and do hereby consent thereto and ratify and agree to be bound by all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

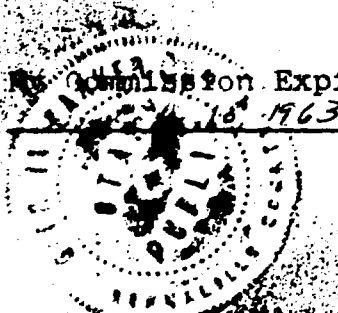
IN WITNESS WHEREOF this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

  
Albuquerque National Bank, Testamentary  
Trustee of Frank A. Andrews, deceased  
By Ralph E. Becker  
Trust Officer

THE STATE OF New Mexico      1  
COUNTY OF Bernalillo      1

The foregoing instrument was acknowledged before me this 20 day of April, 1962, by Ralph E. Becker, Trust Officer of  
Albuquerque National Bank, a National Banking Association.

Georgia Barber  
Notary Public

  
Commission Expires: 10-1-1963

CONSENT AND RATIFICATION OF  
WEST DOLLARHIDE DEVONIAN UNIT AGREEMENT  
EMBRACING LANDS IN LEA COUNTY, NEW MEXICO

The undersigned (whether one or more) hereby acknowledge receipt of a copy of the Unit Agreement for the development and operation of the West Dollarhide Devonian Unit Area embracing lands in Lea County, New Mexico, which said Agreement is dated the 26<sup>th</sup> day of April, 1962, and acknowledge that they have read the same and are familiar with the terms and conditions thereof.

The undersigned also being the owners of royalty, overriding royalty or production payment interests in the lands or minerals embraced in said Unit Area, do hereby commit all of their said interests to the West Dollarhide Devonian Unit Agreement and do hereby consent thereto and ratify and agree to be bound by all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

M. W. Call  
Lillian Hauke Call  
\_\_\_\_\_  
\_\_\_\_\_

THE STATE OF New Mexico  
COUNTY OF Chama

The foregoing instrument was acknowledged before me this 27 day of April, 1962, by M. W. Call & Lillian Hauke Call Husband & Wife.

Jean Baston  
Notary Public

My Commission Expires: 1963



CONSENT AND RATIFICATION OF  
WEST DOLLARHIDE DEVONIAN UNIT AGREEMENT  
EMBRACING LANDS IN LEA COUNTY, NEW MEXICO

The undersigned (whether one or more) hereby acknowledge receipt of a copy of the Unit Agreement for the development and operation of the West Dollarhide Devonian Unit Area embracing lands in Lea County, New Mexico, which said Agreement is dated the 26<sup>th</sup> day of April, 1962, and acknowledge that they have read the same and are familiar with the terms and conditions thereof.

The undersigned also being the owners of royalty, overriding royalty or production payment interests in the lands or minerals embraced in said Unit Area, do hereby commit all of their said interests to the West Dollarhide Devonian Unit Agreement and do hereby consent thereto and ratify and agree to be bound by all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

L. E. Hults

THE STATE OF TEXAS  
COUNTY OF TARRANT

The foregoing instrument was acknowledged before me this 23 day of April, 1962, by L. E. Hults, a married man, dealing in his sole and separate property

E. J. Chancy  
Notary Public

My Commission Expires:  
June 1, 1963

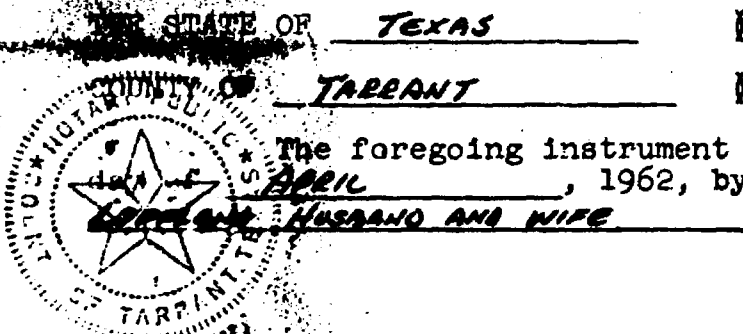
CONSENT AND RATIFICATION OF  
WEST DOLLARHIDE DEVONIAN UNIT AGREEMENT  
EMBRACING LANDS IN LEA COUNTY, NEW MEXICO

The undersigned (whether one or more) hereby acknowledge receipt of a copy of the Unit Agreement for the development and operation of the West Dollarhide Devonian Unit Area embracing lands in Lea County, New Mexico, which said Agreement is dated the 26<sup>th</sup> day of April, 1962, and acknowledge that they have read the same and are familiar with the terms and conditions thereof.

The undersigned also being the owners of royalty, overriding royalty or production payment interests in the lands or minerals embraced in said Unit Area, do hereby commit all of their said interests to the West Dollarhide Devonian Unit Agreement and do hereby consent thereto and ratify and agree to be bound by all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

John M. Loffland Jr.  
(Mrs. Frances J. Loffland)



My Commission Expires: 6-1-63

The foregoing instrument was acknowledged before me this 26<sup>th</sup> day of APRIL, 1962, by JOHN M. LOFFLAND, JR. & FRANCES J. LOFFLAND HUSBAND AND WIFE.

James S. Seung  
Notary Public

CONSENT AND RATIFICATION OF  
WEST DOLLARHIDE DEVONIAN UNIT AGREEMENT  
EMBRACING LANDS IN LEA COUNTY, NEW MEXICO

The undersigned (whether one or more) hereby acknowledge receipt of a copy of the Unit Agreement for the development and operation of the West Dollarhide Devonian Unit Area embracing lands in Lea County, New Mexico, which said Agreement is dated the 26<sup>th</sup> day of April, 1962, and acknowledge that they have read the same and are familiar with the terms and conditions thereof.

The undersigned also being the owners of royalty, overriding royalty or production payment interests in the lands or minerals embraced in said Unit Area, do hereby commit all of their said interests to the West Dollarhide Devonian Unit Agreement and do hereby consent thereto and ratify and agree to be bound by all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

Helen Magruder Kolliker  
William A. Kolliker

THE STATE OF TEXAS                      |  
COUNTY OF EL PASO                      |

The foregoing instrument was acknowledged before me this 23rd day of April, 1962, by Helen Magruder Kolliker  
and William A. Kolliker

My Comm. Expires:



Jane Brownlow  
Notary Public  
Jane Brownlow  
Notary Public in and for El Paso County, Texas

CONSENT AND RATIFICATION OF  
WEST DOLLARHIDE DEVONIAN UNIT AGREEMENT  
EMBRACING LANDS IN LEA COUNTY, NEW MEXICO

The undersigned (whether one or more) hereby acknowledge receipt of a copy of the Unit Agreement for the development and operation of the West Dollarhide Devonian Unit Area embracing lands in Lea County, New Mexico, which said Agreement is dated the 26<sup>th</sup> day of April, 1962, and acknowledge that they have read the same and are familiar with the terms and conditions thereof.

The undersigned also being the owners of royalty, overriding royalty or production payment interests in the lands or minerals embraced in said Unit Area, do hereby commit all of their said interests to the West Dollarhide Devonian Unit Agreement and do hereby consent thereto and ratify and agree to be bound by all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

~~THE FORT WORTH NATIONAL BANK, INC., BY ALAN C. ROBERTS, Vice President and Trust Officer~~  
~~STATE OF TEXAS, COUNTY OF TARRANT~~  
By: Alan C. Roberts  
~~Vice President and Trust Officer~~

THE STATE OF TEXAS )  
COUNTY OF TARRANT )

BEFORE ME, the undersigned authority, on this day personally appeared ALAN C. ROBERTS, Vice President and Trust Officer of The Fort Worth National Bank, Fort Worth, Texas, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity therein stated, and as the act and deed of said bank in its fiduciary capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this 9<sup>th</sup> day of May, A. D., 1962.

Virgil Lee Mickey VIRGIL LEE MCKEY  
Notary Public in and for Tarrant County, Texas



CONSENT AND RATIFICATION OF  
WEST DOLLARHIDE DEVONIAN UNIT AGREEMENT  
EMBRACING LANDS IN LEA COUNTY, NEW MEXICO

The undersigned (whether one or more) hereby acknowledge receipt of a copy of the Unit Agreement for the development and operation of the West Dollarhide Devonian Unit Area embracing lands in Lea County, New Mexico, which said Agreement is dated the 26<sup>th</sup> day of April, 1962, and acknowledge that they have read the same and are familiar with the terms and conditions thereof.

The undersigned also being the owners of royalty, overriding royalty or production payment interests in the lands or minerals embraced in said Unit Area, do hereby commit all of their said interests to the West Dollarhide Devonian Unit Agreement and do hereby consent thereto and ratify and agree to be bound by all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

Roger B. Quinns + wife  
Larry P. Quinns  
\_\_\_\_\_  
\_\_\_\_\_

STATE OF Texas |  
Tarrant |



The foregoing instrument was acknowledged before me this 23 day of April, 1962, by Roger B. Quinns + wife  
Larry P. Quinns  
E. R. Craft  
Notary Public

CONSENT AND RATIFICATION OF  
WEST DOLLARHIDE DEVONIAN UNIT AGREEMENT  
EMBRACING LANDS IN LEA COUNTY, NEW MEXICO

The undersigned (whether one or more) hereby acknowledge receipt of a copy of the Unit Agreement for the development and operation of the West Dollarhide Devonian Unit Area embracing lands in Lea County, New Mexico, which said Agreement is dated the 26<sup>th</sup> day of April, 1962, and acknowledge that they have read the same and are familiar with the terms and conditions thereof.

The undersigned also being the owners of royalty, overriding royalty or production payment interests in the lands or minerals embraced in said Unit Area, do hereby commit all of their said interests to the West Dollarhide Devonian Unit Agreement and do hereby consent thereto and ratify and agree to be bound by all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

Thomas M. Pugh  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THE STATE OF Kentucky |  
COUNTY OF Calloway |

The foregoing instrument was acknowledged before me this 28  
April, 1962, by Thomas M. Pugh

Elizabeth B. Pugh  
Notary Public

Commission Expires: April 21, 1963



CONSENT AND RATIFICATION OF  
WEST DOLLARHIDE DEVONIAN UNIT AGREEMENT  
EMBRACING LANDS IN LEA COUNTY, NEW MEXICO

The undersigned (whether one or more) hereby acknowledge receipt of a copy of the Unit Agreement for the development and operation of the West Dollarhide Devonian Unit Area embracing lands in Lea County, New Mexico, which said Agreement is dated the 26<sup>th</sup> day of April, 1962, and acknowledge that they have read the same and are familiar with the terms and conditions thereof.

The undersigned also being the owners of royalty, overriding royalty or production payment interests in the lands or minerals embraced in said Unit Area, do hereby commit all of their said interests to the West Dollarhide Devonian Unit Agreement and do hereby consent thereto and ratify and agree to be bound by all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

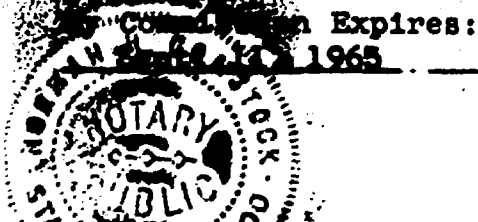
IN WITNESS WHEREOF this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

T. A. Pedley, Jr.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THE STATE OF Colorado      |  
COUNTY OF Denver      |

The foregoing instrument was acknowledged before me this 25th day of April, 1962, by T. A. Pedley, Jr., a married man dealing in his sole and separate property.

Morgan H. Cantelero  
Notary Public



CONSENT AND RATIFICATION OF  
WEST DOLLARHIDE DEVONIAN UNIT AGREEMENT  
EMBRACING LANDS IN LEA COUNTY, NEW MEXICO

The undersigned (whether one or more) hereby acknowledge receipt of a copy of the Unit Agreement for the development and operation of the West Dollarhide Devonian Unit Area embracing lands in Lea County, New Mexico, which said Agreement is dated the 7<sup>th</sup> day of May, 1962, and acknowledge that they have read the same and are familiar with the terms and conditions thereof.

The undersigned also being the owners of royalty, overriding royalty or production payment interests in the lands or minerals embraced in said Unit Area, do hereby commit all of their said interests to the West Dollarhide Devonian Unit Agreement and do hereby consent thereto and ratify and agree to be bound by all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

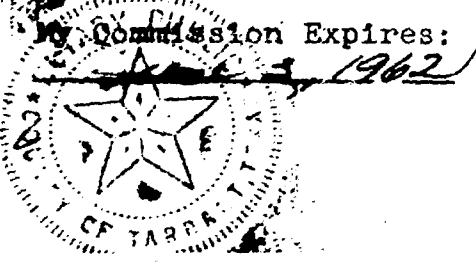
IN WITNESS WHEREOF this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

Neville G. Penrose  
Neville G. Penrose

THE STATE OF Nebraska |  
COUNTY OF Tarrant |

The foregoing instrument was acknowledged before me this 14 day of May, 1962, by Neville G. Penrose.

Carroll R. Rini  
Notary Public



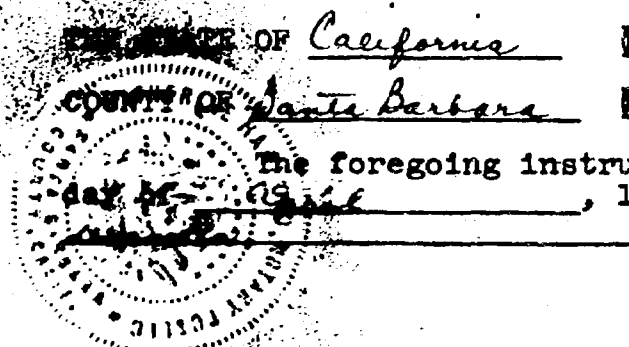
CONSENT AND RATIFICATION OF  
WEST DOLLARHIDE DEVONIAN UNIT AGREEMENT  
EMBRACING LANDS IN LEA COUNTY, NEW MEXICO

The undersigned (whether one or more) hereby acknowledge receipt of a copy of the Unit Agreement for the development and operation of the West Dollarhide Devonian Unit Area embracing lands in Lea County, New Mexico, which said Agreement is dated the 26<sup>th</sup> day of April, 1962, and acknowledge that they have read the same and are familiar with the terms and conditions thereof.

The undersigned also being the owners of royalty, overriding royalty or production payment interests in the lands or minerals embraced in said Unit Area, do hereby commit all of their said interests to the West Dollarhide Devonian Unit Agreement and do hereby consent thereto and ratify and agree to be bound by all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

Effie E. Valentine  
a single woman



The foregoing instrument was acknowledged before me this 27<sup>th</sup> day of April, 1962, by Effie E. Valentine a single woman

Katherine Hammond  
Notary Public

My Commission Expires:  
March 27, 1965

CERTIFICATION - DETERMINATION

14-08-0001 8188

Pursuant to the authority vested in the Secretary of Interior, under the act approved February 25, 1920, 41 Stat. 437, as amended, 30 U. S. C. secs. 181, et seq., and delegated to the Director of the Geological Survey pursuant to Departmental Order No. 2365 of October 8, 1947, I do hereby:

A. Approve the attached agreement for the development and operation of the West Dollarkide-Devonian Unit Area, State of New Mexico.

B. Certify and determine that the unit plan of development and operation contemplated in the attached agreement is necessary and advisable in the public interest for the purpose of more properly conserving the natural resources.

C. Certify and determine that the drilling, producing, rental, minimum royalty, and royalty requirements of all Federal leases committed to said agreement are hereby established, altered, changed, or revoked to conform with the terms and conditions of this agreement.

JUN 27 1962

Dated \_\_\_\_\_.

*Arthur O. Zahner*  
*Arthur O. Zahner*  
Acting Director,  
United States Geological Survey

CERTIFICATE OF APPROVAL  
BY COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO


WEST DOLLARHIDE DEVONIAN UNIT

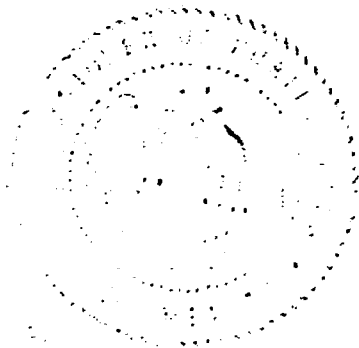
There having been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, the attached Agreement for the development and operation of acreage which is described within the attached Agreement, dated April 26, 1961, which has been executed or is to be executed 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, THEREFORE, by virtue of the authority conferred upon me under Sections 7-11-39, 7-11-40, 7-11-41, 7-11-47, 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 4th day of June 19 62.

  
\_\_\_\_\_  
Commissioner of Public Lands  
of the State of New Mexico



47790

CERTIFICATE OF UNITIZATION  
WEST DOLLARHIDE DEVONIAN UNIT AGREEMENT  
LEA COUNTY, NEW MEXICO  
EFFECTIVE DATE: JULY 1, 1962

WHEREAS, a Unit Agreement, dated April 26, 1962, covering proposed waterflood operations in the West Dollarhide Devonian Oil Pool was adopted by 100 per cent of the Working Interest Owners and ratified by more than 75 per cent of all owners of Royalty Interests; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico has approved said Unit Agreement by executing a Certificate of Approval dated June 4, 1962; and

WHEREAS, 100 per cent of the tracts of the Unit Area as described in Exhibit "A" attached to and made a part of said Unit Agreement have qualified and the approval of the Oil Conservation Commission of the State of New Mexico has been obtained as evidenced by its Order No. R-2248 (Case No. 2557) dated June 4, 1962; and

WHEREAS, the Acting Director of the United States Geological Survey has approved the said Unit Agreement by executing Certification -- Determination No. 14-08-0001 8188 dated June 27, 1962; and

WHEREAS, a fully executed counterpart of said Unit Agreement was on July 6, 1962 filed for record and is recorded in Book 187, Page 212, of the Oil and Gas Records of Lea County, New Mexico, such recording having been made as expeditiously as possible after its approval and return by the United States Geological Survey with the consent of more than 90 per cent of all Working Interest Owners; and

WHEREAS, each and every prerequisite to the Unit's effectiveness has now been met as provided in Section 22 of the said West Dollarhide Devonian Unit Agreement,

NOW, THEREFORE, Gulf Oil Corporation as Unit Operator does hereby declare and certify to all of the foregoing, and that said Unit shall be and it is hereby effective as to all Tracts described in Exhibit "A" of said Unit Agreement as of 7:00 A.M. the first day of July, 1962.

IN WITNESS WHEREOF, this certificate is executed this 12th day of July, 1962, by the undersigned, as Unit Operator, pursuant to Section 22 of said Unit Agreement.



GULF OIL CORPORATION

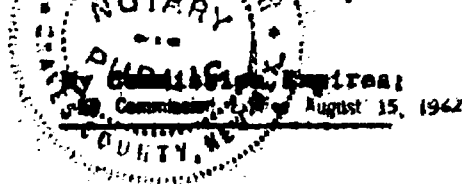
By W. A. Shellshear  
Attorney in Fact

THE STATE OF NEW MEXICO  
COUNTY OF LEA

X  
X  
X

47790

NOTARY PUBLIC The foregoing instrument was acknowledged before me this 12th day of July, 1962, by W. A. SHELLSHEAR, Attorney in Fact of GULF OIL CORPORATION, a Pennsylvania corporation on behalf of said corporation.



STATE OF NEW MEXICO  
COUNTY OF LEA  
FILED

JUL 16 1962

at 9:00 o'clock A.M.  
and Recorded in Book 187  
Page 422

Eva Marie Cooper





UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
WASHINGTON 25, D. C. 20548

IN REPLY REFER TO

*Chase*  
*2551*

MAR 2 1962 46 0766

Gulf Oil Corporation  
Post Office Box 1953  
Roswell, New Mexico



Gentlemen:

Your application of October 13 filed with the Regional Oil and Gas Supervisor, Roswell, New Mexico, requested the designation of 765.25 acres, more or less, in Lea County, New Mexico, as logically subject to operation under the unitization provisions of the Mineral Leasing Act, as amended. The unit area contains 94.45 acres (12.342 percent) of Federal land, and 670.80 acres (87.658 percent) of State of New Mexico land.

Unitization will be limited to the "Devonian Age Formation" as identified in section 2 of the proposed form of unit agreement. The unit area has 18 producing oil wells completed in the formation to be unitized.

Unit participation during the "primary phase of operation" will be based 50 percent on estimated remaining primary reserves and 50 percent on gross oil production as measured during the period from July 1, 1960, to January 1, 1961. Unit participation during the "secondary phase of operation" will be based on estimated ultimate primary recovery. Unit participation parameters are set forth in section 13 of the unit agreement. You estimate that the proposed waterflood project will result in the recovery of about 2,725,000 barrels of oil over and above that recoverable by primary methods.

The land outlined on your plat marked "Exhibit A, West Dollarhide Devonian unit" is acceptable as a logical unit area for secondary-recovery operations. Your proposed form of unit agreement which modifies the standard form (1961 reprint) to the extent necessary to cover conditions incidental to secondary-recovery operation of a producing unit is acceptable. Returned herewith is one copy of said form showing, in colored pencil or by attachments, necessary changes and additions. One such form is being retained and one is being sent to the Regional Oil and Gas Supervisor, Roswell, New Mexico. Please contact the State of New Mexico before soliciting joinders.

In the absence of any other type of land requiring special provisions, or any objections not now apparent, a duly executed agreement identical with said form, approved by the appropriate officials of the State of New Mexico and accompanied by an acceptable allocation schedule calculated in accordance with the basic participation formulas, will

be approved if submitted in an approvable status within a reasonable period of time. We reserve the right, however, to deny approval of any executor agreement which, in our opinion, does not have the full commitment of sufficient lands to afford effective control of secondary-recovery operations. Please include the latest status of all acreage when the executed agreement is submitted to the Supervisor for approval.

Very truly yours,



Acting Director

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
May 10, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of Gulf Oil Corporation for a unit agreement and a secondary recovery project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the West Dollarhide Devonian Unit Agreement embracing 765.25 acres, more or less, of Federal and State lands in Townships 24 and 25 South, Range 38 East, Lea County, New Mexico. Applicant further seeks permission to institute a secondary recovery project in the proposed West Dollarhide Devonian Unit Area by injection of water into the Devonian formation into certain wells located in said unit.

Case 2557

BEFORE: Daniel S. Nutter, Examiner.

## TRANSCRIPT OF HEARING

MR. NUTTER: The hearing will come to order, please.

The next case will be 2557, application of Gulf Oil Corporation for a unit agreement and a secondary recovery project, Lea County, New Mexico.

MR. KASTLER: Bill Kastler from Roswell, appearing on behalf of Gulf, and our witness is Mr. Vance M. Hendricks.

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Will you please stand and be sworn?

(Witness sworn.)

VANCE HENDRICKS

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KASTLER:

Q Please state your name, position and employer.

A Vance Hendricks, Petroleum Engineer for the Gulf Oil Corporation, Roswell, New Mexico.

Q Have you testified before the New Mexico Oil Conservation Commission previously?

A Yes, sir, I have.

MR. KASTLER: Are the witness's qualifications satisfactory, Mr. Nutter?

MR. NUTTER: Yes, sir, they are.

Q Are you familiar with the requests that are being made in connection with this case regarding the West Dollarhide Devonian Unit?

A Yes, sir.

Q Will you please tell us why the properties encompassed by the proposed West Dollarhide Devonian Unit are being unitized and as to the events that prompted the Unit's formation?



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A Unitization of the New Mexico properties producing in the Dollarhide Devonian Pool and owned by Pan American Petroleum Corporation, Skelly Oil Company, Texaco Inc. and Gulf was prompted by the initiation of water injection into the Devonian formation in September, 1959 on offsetting leases in the Texas portion of the Dollarhide Devonian reservoir. The commencement of water injection followed the successful unitization of the North Dollarhide and Dollarhide Units by Cities Service and The Pure Oil Company, respectively. At the present time, all 136 Devonian wells in the Texas portion of the Devonian reservoir are under unitized operation and 26 of these wells have been converted to water injection wells. In view of these offsetting activities, the New Mexico operators met and through joint effort have formed the West Dollarhide Devonian Unit.

Q Have you prepared or caused to have been prepared a plat showing the boundary of the proposed West Dollarhide Devonian Unit?

A Yes, sir, I have. It is included in Exhibit No. 1 which we would like to submit.

(Whereupon, Gulf's Exhibit No. 1 was marked for identification.)

MR. NUTTER: Has this brochure been marked Gulf's Exhibit No. 1?



A Yes, it has.

Q Refer now to Figure 1.

A Figure No. 1 of Exhibit No. 1 is a plat of a portion of Southern Lea County relevant to this hearing. The plat shows all wells that have been drilled in the immediate area of the proposed West Dollarhide Devonian Unit. The proposed Unit boundary has been outlined in yellow. As can be seen, the Dollarhide Field is composed of the Queen, Drinkard, Fusselman, Devonian and Ellenburger reservoirs.

Q Do you have a plat showing only the Dollarhide Devonian Pool wells that are to be unitized?

A Yes. Figure No. 2 is an enlarged plat of the proposed unit and shows only the Devonian wells that are to be unitized. The plat also shows that the West Dollarhide Devonian Unit, when approved, will be contiguous with two existing waterflood units located in Andrews County, Texas. The northernmost of these is the North Dollarhide Unit operated by Cities Service Producing Company. The larger unit, which extends considerably further to the south than is shown on the plat, is operated by Pure and is designated as a Dollarhide Unit. Further explanation of Figure No. 2 will be presented later in the testimony.

Q What are the reservoir and fluid characteristics of the reservoir with particular reference to reservoir name, composition

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of producing formation, geological structure, type of producing method, and the original reservoir pressure?

A The reservoir to be water flooded is the Devonian age formation which is comprised of two producing intervals. The Upper Devonian pay is a white to brown, fine to coarse crystalline limestone, having scattered intercrystalline porosity. The Lower Devonian section is a white to light buff weathered chert, having intergranular and solution type porosities. If you will refer to Figure No. 4 of Exhibit No. 1 you'll see a microlog obtained in Gulf's Leonard (NCT-G) No. 6, Unit C Sec. 4, Township 25 South, Range 38 East, which shows the upper and lower Devonian pay development.

The subsurface structure is a northwest-southeast trending anticline which dips about 450 miles on the north and east flanks --

Q 450 miles?

A 450 feet per mile on the north and east flanks of the anticline and approximately 1500 feet per mile on the south and west flanks.

The Devonian reservoir has and is producing by a solution gas drive mechanism. The original reservoir pressure was 3300 pounds.

Q Please describe the proposed project area, giving the number of productive acres in the Unit and the reservoir

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characteristics.

A The proposed waterflood unit will be comprised of 765 acres, 671 acres of which are State lands and 94 acres are Federal lands. There is no privately owned land in the Unit. Pan American, Skelly, Texaco and Gulf are the only operators of leases that will be unitized. The proposed Unit will include all wells which are producing in the Dollarhide Devonian Pool of Lea County, New Mexico, with the exception of Elliott Federal No. 1, located -- you might turn to Exhibit No. 1, Figure No. 1, the Elliott well is located in Unit H of Section 31, Township 24 South, Range 38 East and is approximately one mile from the Unit boundary.

Q Would you describe Unit H as being within the southeast of the northeast quarter of Section 31?

A That is correct.

Q Thank you. Go on.

A The average depth to the top of the Devonian pay is 7800 feet. The Upper Devonian gross thickness is about 70 feet, while the Lower Devonian has about 40 feet of gross pay. The respective average effective thickness for the Upper and Lower intervals is 15 and 30 feet. The Upper Devonian has an average effective porosity of 8.1 per cent with an average permeability of 3 millidarcys. Similar data for the Lower Devonian are 17.2 per cent and 16 millidarcys. The Devonian crude has an API gravity of

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about 36.5 degrees.

Q Do you have exhibits which show primary production history and present status of the Dollarhide Devonian Pool?

A Yes. I invite you to look at Figure No. 3. Figure No. 3 is a family of curves showing the performance of the pool since the first well was completed in April, 1952. The uppermost line is nothing more than a well count showing that most of the Unit's wells were drilled early in the life of the pool. At present, there are 17 producing Devonian wells in the area to be unitized. The next curve is a plot of the average reservoir pressure taken at a datum of 4700 feet subsea. The most recent pressure taken in May, 1961 is 718 pounds per square inch and represents the average pressure recorded in 6 flowing wells.

On the far right side of the figure and above bottom hole pressure curve is a plot of the pool's producing gas-oil ratio for the last three years.

The monthly oil production has been plotted for all the wells in the proposed Unit. This is tabulated in Table No. 1. The curve indicates that the oil production has steadily decreased for the past several years. Current monthly oil production for all the wells to be unitized was 6,267 barrels during February of this year. This monthly figure represents an average daily oil rate of 13.2 barrels per day per well. The reservoir is producing

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in the late stage of depletion.

MR. NUTTER: Mr. Hendricks, the Elliott well is not included in this curve here?

A That is correct. Those are just the wells to be unitized, yes, sir.

MR. NUTTER: Thank you.

A The cumulative oil production as of March 1, 1962 for all wells in the proposed unit was 2,565,299 barrels. The lowermost plot is that of monthly water production. As can be seen, water production has averaged about 300 barrels per month. The February water production was 183 barrels per month or about 3 barrels per well per day.

Q What will be the source of injection water, type of water to be used, pattern and spacing anticipated, and other relevant matters regarding injection?

A Again, I invite you to look at Figure No. 2. Water to be injected will be obtained from source wells completed in the Santa Rosa formation on State Water Easements No. W-266 and W-267, located in Sections 32 and 33, Township 24 South, Range 38 East.

Q Do those two water leases encompass all of 32 and 33 and the north half of 5?

A That is correct.

Q Thank you.

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A Based on capacity tests in nearby Santa Rosa wells, it is believed that 4 and possibly 5 source wells will be needed to provide the estimated 9,000 barrels of water that will be used.

The Santa Rosa water is believed to be brackish so we plan to adequately protect all exposed equipment so that the water system will be as corrosion proof as possible. Based on our knowledge of the Santa Rosa water, no treatment facilities are anticipated; however, if a water analysis subsequently indicates that treatment is needed, appropriate action will be taken at that time.

Referring again to Figure No. 2, it can be seen that the proposed injection pattern is that of an 80-acre five-spot. The proposed New Mexico pattern is merely a continuation of the existing pattern water flood offsetting the proposed Unit to the east. The wells circled in red are existing water injection wells while those circled in yellow are the proposed water injection wells in the West Dollarhide Devonian Unit.

An initial wellhead injection pressure of approximately 500 pounds per square inch is expected while the maximum anticipated will be in the neighborhood of 1500 to 2000 pounds per square inch. The planned rate of water injection is 1,000 barrels per well per day per injection well. Since the Unit consists of only fully developed 40-acre tracts, no further drilling is planned.

Q Do you have an exhibit showing the casing program of the



injection wells and what conclusions can you make from it?

A Yes, I have. Table No. 2 is the last two pages in the brochure and is a tabulation of the casing program existing in the 9 proposed injection wells. The tabulation shows the size, setting depth, amount of cement used, and the indicated cement top for all casing run.

Based on these data, it appears that all these wells are satisfactory cased and cemented to adequately protect the other producing horizons and shallow fresh water zones.

Q What results do you expect from the project?

A It is expected that the proposed water flood project will effectively result in increased oil recovery from the Devonian Age formation. It is believed that the proposed water flood will recover from 75 to 100 per cent of the reservoir's primary ultimate recovery. In terms of barrels, the increased recovery due to secondary recovery measures should be in the magnitude of 2 to 2.7 million barrels of oil.

Q What are the reasons for the project and what recommendations does Gulf have?

A The Dollarhide Devonian Pool produces by a solution gas drive mechanism and as a result a considerable quantity of oil will remain unrecovered at the end of primary depletion unless some type of fluid injection project is inaugurated to increase

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the ultimate oil recovery.

Production from the wells in the proposed Unit Area has declined to an average daily oil production of about 13 barrels per well. At the existing rate of decline these wells have only a few years remaining to produce prior to depletion and abandonment. Therefore, in order to prolong the production life of these wells and to increase the ultimate recovery, some type of secondary recovery project should be inaugurated. The available data indicate that the Devonian formation underlying the proposed West Dollarhide Devonian Unit is susceptible to water flooding operations and that the proposed plan should increase ultimate recovery.

In view of the above considerations, Gulf, in association with Pan American, Skelly and Texaco, has concluded that the best course of action is the unitization of the 18 wells completed in the Dollarhide Devonian Pool as shown on Figure 2, so that a joint water flood project can be undertaken. In so doing, the entire Dollarhide Devonian Pool of New Mexico will be water flooded in conjunction with the full scale water flooding of the Texas properties producing from the same reservoir. Therefore, Gulf Oil Corporation, as the West Dollarhide Devonian Unit Operator, respectfully requests that the Oil Conservation Commission approve the installation of the proposed waterflood facilities.

Q Mr. Hendricks, I want to refer to the Unit Agreement,



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and it's my understanding that at the time the application was made three copies of the Unit Agreement were sent to the Commission.

What is the basic form of this Unit Agreement?

A The Unit Agreement is that of a standard federal unit that is used widely in southeastern New Mexico.

Q Is it the same type of Unit Agreement that is used in other secondary recovery water flood projects?

A Yes, sir, that is my opinion, my understanding.

Q Has this Unit Agreement been accepted by the operators?

A It has.

Q Have the operators also accepted a joint operating agreement?

A They have, yes.

Q Do you have a list for introduction here as Exhibit No. 2 which shows the names and addresses of all operators and all other interested parties?

A Yes, we do, and it's Exhibit No. 2.

(Whereupon, Gulf's Exhibit No. 2 was marked for identification.)

Q What does the Unit Agreement provide as to the expansion of the Unit?

A There is a provision, Section 4 of the Unit Agreement, which provides for expansion. Any party that is not in the Unit



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at the present time may request being taken into the Unit by contacting the working interest owners, and more specifically, the Unit operator; at which time the Unit operator will circulate a notice to all the working interest owners setting out the basis for the admission, the Unit participation to be assigned, and other pertinent data, and if at least three working interest owners having an aggregate of 80% of Unit participation have agreed that such tract should come in, it will be accepted, a notice will then be prepared of the proposed expansion, and it will be delivered to the working interest owners, the Land Commissioner, and the Oil Conservation Commission.

Q Mr. Hendricks, in the event that there were any expansion, would Gulf, as the Unit operator, also comply with State Oil Conservation Commission rules and regulations?

A Certainly.

Q And particularly Rule 501, I believe it is?

A 701.

Q 701.

A Yes, we would.

Q Isn't it a matter of fact that all the lands contiguous to this Unit area are owned by parties who are otherwise members of the Unit?

A This is a fact.



Q So that the enlargement or expansion of the Unit would not necessarily encompass an expansion of any additional parties?

A That is correct.

Q To your knowledge has Gulf solicited a waiver or consent to this hearing from Mr. Frank Elliott, who owns a Devonian oil producing well which is not presently encompassed in this Unit?

A We did so solicit and, as I understand, it has been directed to the Oil Conservation Commission.

Q Mr. Hendricks, what might you say about the formula that has been adopted, providing for the tract participation?

A Yes. That is provided in the Unit Agreement. There is a split formula that has been adopted by all the working interest owners. There is a primary phase of operation and a secondary phase. The primary phase participation is based on 50% of a ratio of the primary reserves for each tract, all the tracts.

Q Is a tract a producing unit?

A That is correct. The other half of the primary formula is 50% of the ratio of the rate of production of the tract to the total production for the entire unitized area for the period from July 1st, 1960 to June 1st, 1961. The secondary phase participation is that of dedicated to 100% the ultimate primary recovery for each tract as determined by the Engineering Committee and adopted by the working interest owners.

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Q In your opinion, does this formula provide for the protection of correlative rights?

A It does, yes, sir.

Q Mr. Hendricks, has the State Land Commissioner's office indicated that it has examined this Unit Agreement and has preliminarily, at least, approved it?

A Yes, that's true.

Q And the other royalty owner you testified is the United States?

A Yes.

Q Has the United States Geological Survey rendered its preliminary approval?

A They have.

Q Pending final approval upon submission of a fully executed copy of the Unit Agreement?

A That's correct.

Q There are no fee owners, royalty owners, is that correct?

A There are none.

Q Of the overriding royalty owners, how many have accepted?

A All but about three, and that is a very, very small interest.

Q Have any of the overriding royalty operators or owners written back and appeared antagonistic to the Unit?



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A They have not.

Q Do you expect to get them all in a matter of time?

A Yes.

Q What about the operators owning oil and gas rights in the Unit? How many of them have approved and accepted the Unit?

A One hundred percent of the working interest owners have signed the Unit Agreement.

Q What is your proposed project area? Do you propose a pilot water flood?

A No. We propose, as outlined in our previous testimony, the area outlined in yellow on Figure No. 2 of Exhibit 1. It is described fully on page 3 of the Unit Agreement.

Q How many injection wells do you intend to start off with?

A Nine injection wells.

Q Nine injection wells. Therefore, you intend to have to transfer the allowables covering those nine wells?

A Yes.

Q How long do you calculate the period of fill up will be before you anticipate getting a kick?

A It will be in the vicinity of two years.

Q Was Exhibit No. 1 and all of the figures and tables contained therein prepared by you or at your direction and supervision?



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A They were.

Q And Exhibit No. 2 contains a list which is a mailing list and check list and that is correct to the best of your information, knowledge and belief?

A That is correct.

MR. KASTLER: I would like to move for the admission of Exhibits 1 and 2 in evidence in this case.

MR. NUTTER: Gulf's Exhibits 1 and 2 will be admitted in evidence.

(Whereupon, Gulf's Exhibits Nos. 1 and 2 were admitted in evidence.)

MR. NUTTER: Does anyone have any questions of Mr. Hendricks?

MR. MORRIS: Yes.

MR. NUTTER: Mr. Morris.

CROSS EXAMINATION

BY MR. MORRIS:

Q Mr. Hendricks, could you tell me briefly what is transpiring across the line in Texas in the flood going on over there?

A Yes, to the best of my knowledge, as you see, there are two separate units, one, the North Dollarhide Unit and the Dollarhide Unit is operated by Pure. They have converted 22 wells, I speak of Pure, has converted 22 wells, and Cities Service has converted four.



MR. KASTLER: By converted --

A Producing Devonian wells to water injection wells. The four wells in the North Dollarhide Unit were placed on in September of 1959, and the northernmost, that being the Dollarhide Unit Wells No. Tract 991, Tract 850, Tract 746, Tract 534 and Tract 11, were placed on injection at the same time and continued under that pilot operation for a period of about a year and a half. The remaining wells in the Dollarhide Unit were put on water injection service approximately eight months ago.

Q With respect to the injection wells that are closest to the New Mexico line, are they at the present time injecting water into those wells?

A They are injecting water in the three wells adjacent to the state line, yes.

Q What rates of injection are they using in those wells?

A About 900 barrels per well per day.

Q So that would be fairly comparable to the thousand barrels a day that you estimate for the wells in New Mexico?

A Yes.

Q Do you know approximately the rates of production of oil from the wells in Texas immediately adjacent to the New Mexico line?

A The reports for production for wells in those units are

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published in a C. D. Lockwood report in Texas, and they cumulate all those wells and just give one figure for the entire unit, so I can not specifically answer by well. However, the Texas Railroad Commission proration schedule gives us some indication as to the allowables that these wells have, and in the Cities Service Unit, that is the North Dollarhide Unit, the allowables, I will give you some as representative, if you like.

Q Yes.

A 20 barrels, 28 barrels, 63 barrels, 40 barrels, 25, others 29, 17, 36, 70.

Q Down on the Pure acreage do you have the figure for that well 106 or 110?

A Yes, I believe I do. That's Tract 10-106. That has an allowable of 20 barrels. The No. 12-110 has 17 barrels. This Tract 9-116, which would be one well removed from the state line has a 3-barrel allowable.

Q That's a per day allowable?

A That is a scheduled day allowable.

Q Right. Do you feel that the rates of production of the wells on the New Mexico side of the line, and immediately adjacent to the Texas line, will be sufficiently comparable to the rates of production on the Texas side so that the New Mexico Unit will be protecting its own correlative rights, so-to-speak?



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A At the present time or in the immediate future?

Q Both, if you will.

A At the present time, yes. I think that further study is going to have to be made, especially in the area of when a response occurs, so I would rather not speculate as to what might be the case in the future.

Q Have any of the wells on the New Mexico side received any response from the water injection on the Texas side?

A There are no known responses in the New Mexico wells, and the only response that has been shown in the Texas wells are very slight increases in bottom hole pressure. There has been no increase in production.

Q How long have they been injecting water into the injection wells immediately adjacent to the line?

A To my knowledge, it's been about eight months.

Q So you would estimate another year before you would get a fill up?

A At least that, yes.

MR. MORRIS: I believe that's all I have, thank you.

BY MR. NUTTER:

Q What is the total production in this unit area through 1960?

A Through 1960?



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Q Through '60. I believe your participation formula is based on primary production through '60.

A Yes.

Q And then remaining primary of January 1st, 1961?

A The cumulative oil production for all the wells in the proposed unit as of 1-1-61, 2,458,809 barrels.

Q I believe your Unit Agreement participation formula determines that there are 276,576 barrels remaining of primary production?

A After that date 1-1-61.

Q Yes, sir. How much has been produced since 1-1-61, do you have any idea?

A May I tell you how much is remaining?

Q Yes. A 170,000.

Q So, the difference between 170,000 and 276,000 was what was produced in early '61 and the early part of '62?

A Yes, sir.

Q How was the 276,000 barrels of remaining primary arrived at, is that a, was that determined from production decline curves for individual wells?

A It was determined from production decline curves for each operator, extrapolated on log rate versus time curve by the Engineering Committee.



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Q That was a decline curve for each operator rather than for each lease or each well?

A That is correct.

Q I don't know if you gave any estimate or not as to the expected recovery as the result of water injection.

A Yes, sir. We are anticipating 75 to 100% of the Unit primary ultimate, which in terms of barrels would be between 2 and 2.7 million barrels.

Q What was the initial bottom hole pressure, Mr. Hendricks?

A In the Texas portion of the reservoir it was 3300 pounds. The initial pressure in the New Mexico completion was 2,000 pounds.

Q And you stated that you had 15 feet of pay in the upper part of the Devonian and 30 feet of pay in the lower part?

A Yes, sir, these are effective figures.

Q Does each well have perforations or open hole completions in each of these two pays?

A No, some of them are completed in open hole both upper and lower sections, some are completed in perforations upper and lower, and some are completed in just the upper.

Q So all the wells don't have both zones?

A That is correct.

Q How about the injection wells, do they all have both zones open?





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A All but one.

Q Is this one well that doesn't have injection perforations in both zones located in a place where it's going to be necessary, is it located in such a position that you can efficiently flood any offsetting well that does have production in both zones?

A Yes. We feel that it is. It's the Penny Federal No. 2, which is located in the Northwest of the Southwest of Section 4.

Q That injection well has only one zone, is that correct?

A Perforated, yes, sir.

Q How about the well to the west of it, does it have both zones?

A It has the upper and lower both perforated, yes, sir.

Q And which does the Penny No. 2 have?

A It has the upper perforations only.

Q So you wouldn't be flooding the lower in the Penny Federal No. 1, will you?

A It is our intent to perforate the lower section and flood the lower section.

Q So that the No. 2 well will have perforations of both sections?

A Yes, it will have.

Q What was the pilot area again in the Dollarhide Unit?

A Yes. That is shown on Figure 2. It is the row of wells



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in the North Dollarhide Unit, there's just the one row. Then it's the northernmost row, or the offsetting row of the Dollarhide Unit. The top two rows where those were placed on injection in 1959.

Q You mean the four wells in the North Dollarhide Unit and the uppermost five wells in the Dollarhide Unit?

A Let me correct that. The uppermost four and the second row starting with No. 50, the state line well was not on injection until approximately eight months ago. In other words, it would be Well No. 50, 46, 34 and 1 in the Dollarhide Unit.

Q And then in the North Dollarhide, the number?

A 5, 1, 1 and 2. They have different tract numbers.

Q And that was the original pilot area?

A Yes, sir.

Q Have wells directly offsetting them been the ones that had the increase in pressure?

A Very slight.

Q But no response as far as production is concerned?

A No response, and the GOR behavior has been erratic, as it was reported to me. The Pure representative stated in a telephone conversation that they are anticipating a response sometime in the summer months.

Q Has the Commissioner of Public Lands for the State of



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New Mexico given tentative approval to this Unit Agreement, including the participation formula?

A Yes, sir, it has.

Q One other thing, I missed the permeability in the upper section of the pay.

A Yes. Three millidarcys in the upper.

MR. NUTTER: Any further questions of Mr. Hendricks?

Mr. Gray.

MR. GRAY: Mr. Examiner, I would like to ask Mr. Hendricks about Table 2, injection well program.

BY MR. GRAY:

Q Will the Santa Rosa be injected down the five and a half inch production string, or you mentioned over on page 2 some corrosion-proof injection system?

A Yes, it is our intent to use plastic coated tubing inside the oil string and then inject below a packer into the Devonian.

Q Do you have a detail showing approximately where the packer would be set, or will it just be at the Devonian?

A No, it will be set between the upper section and the lower section, as it is our intent to water flood the lower section and meeting what is being done in Texas, and then if that proves to be satisfactory and response occurs, then we will consider



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water flooding the Upper Devonian section.

MR. NUTTER: So you wouldn't be flooding both sections to start with?

A No.

MR. NUTTER: Now, this estimate of secondary recovery, is that for both sections?

A That's for both sections, yes, sir.

MR. NUTTER: But at the present time the injection is in the lower bench in Texas?

A Yes.

MR. NUTTER: And you are going to try that first before trying the upper bench?

A Yes, and cooperate with Pure.

MR. NUTTER: Of course, this primary is both benches?

A Yes.

MR. NUTTER: I am sorry, Mr. Gray.

MR. GRAY: I think that pretty well covers it.

MR. NUTTER: At any rate, for the time being, all injection will be down plastic coated tubing under a packer?

A Yes, sir.

MR. NUTTER: Any further questions of Mr. Hendricks? He may be excused.

(Witness excused.)



MR. NUTTER: Do you have anything further, Mr. Kastler?

MR. KASTLER: I was to mention some concurrences, but we only have copies of them. I believe the Commission has received the regular ones, so I yield.

MR. MORRIS: Mr. Examiner, the Commission has received concurrences from Skelly Oil Company and Elliott.

MR. NUTTER: Mr. Buell.

MR. BUELL: May it please the Examiner, Pan American has a working interest over in this Unit, and as such, we have been associated closely with Gulf in the developing of this program. In our opinion it is a significant conservation effort and we urge the Commission to approve, one, the Unit Agreement, as well as the proposed secondary recovery program.

MR. NUTTER: Anything else? We will take the case under advisement. The hearing is adjourned.

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STATE OF NEW MEXICO )  
 ) ss  
COUNTY OF BERNALILLO )

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 12th day of June, 1962.

*Ada Dearnley*  
Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2557 heard by me on 5/10, 1962.

*[Signature]* Examiner  
New Mexico Oil Conservation Commission



DRAFT

JMD/esr  
7-23-63

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

CASE No. 2557  
Order No. R-2248-A

APPLICATION OF GULF OIL CORPORATION  
FOR APPROVAL OF A UNIT AGREEMENT AND  
A WATERFLOOD PROJECT, LEA COUNTY,  
NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE COMMISSION:

It appearing to the Commission that due to clerical error and inadvertence, Order No. R-2248 dated June 4, 1962, does not correctly state the intended order of the Commission,

IT IS THEREFORE ORDERED:

(1) That the descriptive phrase, "Harry Leonard (NCT-G) Well No. 1, located in Unit C, Section 33, Township 24 South, Range 38 East" is hereby stricken from Paragraph 5 on Page 3 of Order No. R-2248, and the descriptive phrase, "Harry Leonard (NCT-1) Well No. 1, located in Unit F, Section 33, Township 24 South, Range 38 East" is hereby interlineated in lieu thereof.

(2) That this order shall be effective nunc pro tunc as of June 4, 1962.

DONE at Santa Fe, New Mexico, on this \_\_\_\_\_ day of July, 1963.

*Don*  
*5/29*  
*Don*  
*5-31-62*  
*Off.*  
*5/31*

**DRAFT**

RSM/esr  
May 24, 1962

*Need special frame  
for initial*

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE No. 2557

Order No. R-2248

APPLICATION OF GULF OIL CORPORATION  
FOR APPROVAL OF A UNIT AGREEMENT AND  
A WATERFLOOD PROJECT, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on May 10, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this June day of May, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Gulf Oil Corporation, seeks approval of the West Dollarhide Devonian Unit Agreement, embracing 765 acres, more or less, of Federal and State lands in Townships 24 and 25 South, Range 38 East, NMPM, Lea County, New Mexico.

(3) That the proposed unit plan will in principle tend to promote the conservation of oil and gas and the prevention of waste.

(4) That the applicant further seeks permission to institute a waterflood project in the proposed West Dollarhide Devonian Unit Area by the injection of water into the Devonian formation through 9 wells located therein; applicant proposes to operate the waterflood project under the provisions of Rule 701.



(5) That the wells in the proposed waterflood project have reached an advanced stage of depletion and should be classified as "stripper" wells.

(6) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That the West Dollarhide Devonian Unit Agreement is hereby approved.

PROVIDED HOWEVER, That notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the New Mexico Oil Conservation Commission by law relative to the supervision and control of operations for exploration and development of any lands committed to said West Dollarhide Devonian Unit Agreement, or relative to the production of oil and gas therefrom.

(2) That the unit area shall be:

TOWNSHIP 24 SOUTH, RANGE 38 EAST, NMPM  
LEA COUNTY, NEW MEXICO

Section 32: SE/4 NE/4 and E/2 SE/4

Section 33: Lots 1, 2, 3 and 4, E/2 NW/4,  
SW/4 NW/4, and SW/4

TOWNSHIP 25 SOUTH, RANGE 38 EAST, NMPM  
LEA COUNTY, NEW MEXICO

Section 4: Lots 1 and 4, NW/4 and NW/4 SW/4

Section 5: N/2 NE/4 and NE/4 SE/4

containing 765 acres, more or less.

(3) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof. In the event of subsequent joinder by any party, the unit operator shall file with the Commission within 30 days after such action counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.

(4) That this order shall become effective upon the approval of said unit agreement by the Commissioner of Public Lands for the State of New Mexico and the Director of the United States Geological Survey, and shall terminate ipso facto upon the termination of said

unit agreement. The last unit operator shall notify the Commission in writing of such termination.

(5) That Gulf Oil Corporation is hereby authorized to institute a waterflood project in the West Dollarhide Devonian Unit Area by the injection of water into the Devonian formation through the following-described wells:

Harry Leonard (NCT-G) Well No. 2, located in Unit D, Section 4, Township ~~24~~ 25 South, Range 38 East;

Harry Leonard (NCT-G) Well No. 5, located in Unit N, Section 33, Township 24 South, Range 38 East;

Harry Leonard (NCT-G) Well No. 7, located in Unit L, Section 33, Township 24 South, Range 38 East;

Harry Leonard (NCT-G) Well No. 9, located in Unit F, Section 4, Township 25 South, Range 38 East;

Harry Leonard (NCT-G) Well No. 1, located in Unit C, Section 33, Township 24 South, Range 38 East;

State Y Well No. 1, located in Unit H, Section 32, Township 24 South, Range 38 East;

Mexico J Well No. 24, located in Unit P, Section 32, Township 24 South, Range 38 East;

Mexico L Well No. 22, located in Unit B, Section 5, Township 25 South, Range 38 East; and

Penny Federal Well No. 2, located in Unit L, Section 4, Township 25 South, Range 38 East.

(6) That the subject waterflood project shall be governed by the provisions of Rule 701.

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

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

State of New Mexico  
Oil Conservation Commission

P. O. BOX 871  
SANTA FE

Re: Case No. 2557  
Order No. R-2248  
Applicant:  
**Gulf Oil Corporation**

A. L. Porter, Jr.

**OTHER** \_\_\_\_\_

**Note:** A special letter will follow instructing you as to the allowable which this project will receive.

CASE 2527: Application of HUMBLE OIL  
& REFINING for a dual completion of  
its STATE "BO" WELL NO. 1.

432 / 10.

2527

dition, Transcript,  
all Exhibits, Etc.

GOVERNOR  
EDWIN L. MECHEM  
CHAIRMAN

State of New Mexico  
Oil Conservation Commission

LAND COMMISSIONER  
E. S. JOHNNY WALKER  
MEMBER



STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

P. O. BOX 871  
SANTA FE

April 19, 1962

Re: CASE NO. 3527

ORDER NO. R-2219

APPLICANT:

Humble Oil & Refining Co.

Mr. Howard Bratton  
Hervey, Dow & Hinkle  
Attorneys at Law  
Box 10  
Roswell, New Mexico

Dear Sir:

Enclosed herewith are two copies of the above-referenced  
Commission order recently entered in the subject case.

Very truly yours,

*A. L. Porter, Jr.*

A. L. PORTER, Jr.  
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC       

Aztec OCC       

OTHER

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE No. 2527  
Order No. R-2219

APPLICATION OF HUMBLE OIL & REFINING  
COMPANY FOR A DUAL COMPLETION, LEA  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 11, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 18th day of April, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

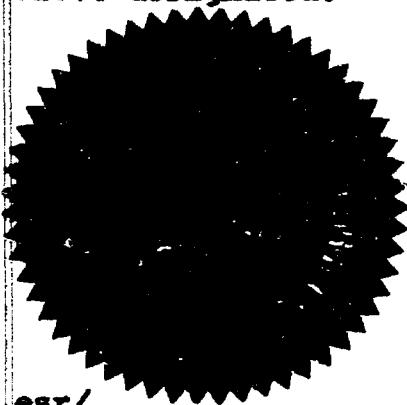
(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the application in Case No. 2527 is eligible for administrative approval, and, accordingly, Case No. 2527 should be dismissed.

IT IS THEREFORE ORDERED:

That Case No. 2527 is hereby dismissed.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*E. L. Mechem*  
EDWIN L. MECHEM, Chairman

*E. S. Walker*  
E. S. WALKER, Member

*A. L. Porter, Jr.*  
A. L. PORTER, Jr., Member & Secretary

esr/

OIL CONSERVATION COMMISSION

P. O. BOX 871  
SANTA FE, NEW MEXICO

March 26, 1962

C  
O  
P  
Y  
  
Humble Oil & Refining Company  
P. O. Box 2347  
Hobbs, New Mexico

Attention: Mr. R. R. Alworth

Gentlemen:

This is to advise that your application for administrative approval of the dual completion of your New Mexico State "No" Well No. 1, Section 12, Township 18 South, Range 34 East, Lea County, New Mexico, to produce from the Drinkard and Abo formations has been set for hearing before one of the Commission's examiners at 9 o'clock a.m., April 11, 1962, in Santa Fe.

This was done because some question has arisen as to whether the Drinkard and Abo pays actually constitute separate reservoirs or may in fact all be one common source of supply.

We would suggest that Humble should be prepared to show such separation both on a geological as well as engineering basis.

Very truly yours,

DANIEL S. NUTTER  
Chief Engineer

*1-30-62*  
*3/30/62*  
DSN/ir  
cc: Mr. J. D. Ramey  
Oil Conservation Commission - Hobbs, New Mexico  
Case File 2527



No. 11-62

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 11, 1962

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or  
Elvis A. Utz, as Alternate Examiner:

- CASE 2521: Application of Pan American Petroleum Corporation for a non-standard gas proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 160-acre non-standard gas proration unit in the Basin-Dakota Gas Pool, comprising the NW/4 of Section 23, Township 29 North, Range 13 West, San Juan County, New Mexico, said unit to be dedicated to the Gallegos Canyon Unit Well No. 94 located 1850 feet from the North and West lines of said Section 23.
- CASE 2522: Application of Shell Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its State GA Well No. 2, located in Unit N of Section 16, Township 15 South, Range 36 East, Lea County, New Mexico, as a dual completion (conventional) in the Caudill Permo-Pennsylvanian and Caudill-Devonian Pools with the production of oil from the Permo-Pennsylvanian zone to be through a string of 1-inch tubing and the production of oil from the Devonian zone to be through a parallel string of 2 1/16-inch tubing, a hydraulic casing pump and the casing-tubing annulus.
- CASE 2523: Application of Consolidated Oil & Gas, Inc., for an unorthodox gas well location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location in the Blanco-Mesaverde Gas Pool for its Tribal "C" Well No. 2-6 to be 1650 feet from the North line and 1550 feet from the West line of Section 6, Township 26 North, Range 3 West, Rio Arriba County, New Mexico.
- CASE 2524: Application of Cities Service Petroleum Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 320-acre non-standard gas proration unit in the Jalmat Gas Pool, comprising the E/2 of Section 19, Township 24 South, Range 37 East, Lea County, New Mexico; said unit is to be dedicated to

Docket No. 11-62

the Thomas Well No. 2 located at an unorthodox location 2310 feet from the North line and 2210 feet from the East line of said Section 19.

CASE 2525:

Application of Cities Service Petroleum Company for conversion of two wells in the Drickey-Queen Sand Unit, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of the conversion of the Drickey-Queen Sand Unit Wells Nos. 7-1 and 21-3 located, respectively, in the NW/4 NW/4 of Section 1 and the SE/4 NE/4 of Section 2, all in Township 14 South, Range 31 East, Chaves County, New Mexico, to water injection wells. Said wells have not received a response from the waterflood operations.

CASE 2526:

Application of Texaco Inc., for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its State "R" (NCT-4) Well No. 2 located in Unit D, Section 7, Township 18 South, Range 35 East, Lea County, New Mexico, as a dual completion (tubingless) in an undesignated Drinkard pool and adjacent to the Vacuum-Abo Pool, with the production of oil from both zones to be through parallel strings of 2 7/8-inch casing.

CASE 2527:

Application of Humble Oil & Refining Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its State "BO" Well No. 1, located in Unit H, Section 12, Township 16 South, Range 34 East, Lea County, New Mexico, as a dual completion (combination) in an undesignated Drinkard pool and adjacent to the Vacuum Abo Pool, with the production of oil from the Abo zone to be through tubing inside 4 1/2-inch casing and the production of oil from the Drinkard zone to be through a parallel string of 2 7/8-inch tubing.

CASE 2528:

Application of R & G Drilling Company for special allowables, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks permission to produce 12 wells in the West Kutz-Pictured Cliffs Gas Pool and 2 wells producing from the Farmington formation, located in Sections 22, 27, 28, 32, 33 and 34, Township 28 North, Range 11 West, and in Section 10, Township 27 North, Range 11 West, San Juan County, New Mexico, under a project allowable of 3300 MCF of gas per day to be produced from any well or combination of wells in the project. Applicant further seeks approval to install compression equipment with which to produce said wells.

-3-

Docket No. 11-62

CASE 2529: Application of R & G Drilling Company for an exception to Order No. R-2046, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of the two following described non-standard gas proration units in the Basin-Dakota Gas Pool in San Juan County, as an exception to Order No. R-2046 which established a series of non-standard Dakota Units:

- (1) Lots 3, 4, 5, 6 & 7, the SE/4 NW/4 and the E/2 SW/4 of Section 6, and Lots 1 and 2 and the E/2 NW/4 of Section 7, containing 342.51 acres;
- (2) Lots 3 and 4 and the E/2 SW/4 of Section 7, and the W/2 of Section 18, containing 320.27 acres, all in Township 30 North, Range 13 West, San Juan County.

iqg/

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
April 12, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of Humble Oil & Refining Company  
for a dual completion, Lea County, New Mexico.  
Applicant, in the above-styled cause, seeks  
permission to complete its State "BO" Well No.  
1, located in Unit H, Section 12, Township 18  
South, Range 34 East, Lea County, New Mexico,  
as a dual completion (combination) in an un-  
designated Drinkard pool and adjacent to the  
Vacuum-Abo Pool, with the production of oil  
from the Abo zone to be through tubing inside  
4½-inch casing and the production of oil from  
the Drinkard zone to be through a parallel  
string of 2 7/8-inch tubing.

CASE 2527

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: We will call next Case 2527.

MR. WHITFIELD: Case 2527: Application of Humble Oil  
and Refining Company for a dual completion, Lea County, New  
Mexico.

MR. MORRIS: Mr. Examiner, the application in this  
case should be dismissed on the Commission's own motion, inasmuch  
as it is eligible for administrative approval.

MR. NUTTER: Case No. 2527 will be dismissed.

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DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

ALBUQUERQUE, N. M.  
PHONE 243-6691



STATE OF NEW MEXICO     )  
                                  ) ss  
COUNTY OF BERNALILLO    )

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

DATED this 18th day of April, 1962, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

*Ada Dearnley*  
NOTARY PUBLIC

My Commission Expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2527, heard by me on 4/9, 1962.

*[Signature]*, Examiner  
New Mexico Oil Conservation Commission

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1112

ALBUQUERQUE, N. M.  
PHONE 243-6691

