

etc.

TYPICAL INJECTION WELL  
CASING PROGRAM

<u>DEPTH</u>	<u>CASING</u>	<u>HOLE SIZE</u>
350 ft. (Red Beds)	8-5/8" OD, 2 1/4#/ft J-55, 8rd. thd. ST&C Surface casing cemented to surface.	12-1/4"
4000 ft. (Bottom of Yates) (Top of Seven Rivers)	5-1/2" OD, 1 1/4#/ft J-55, 8rd. thd. ST&C Production casing cemented from total depth to 1800'	7-5/8"

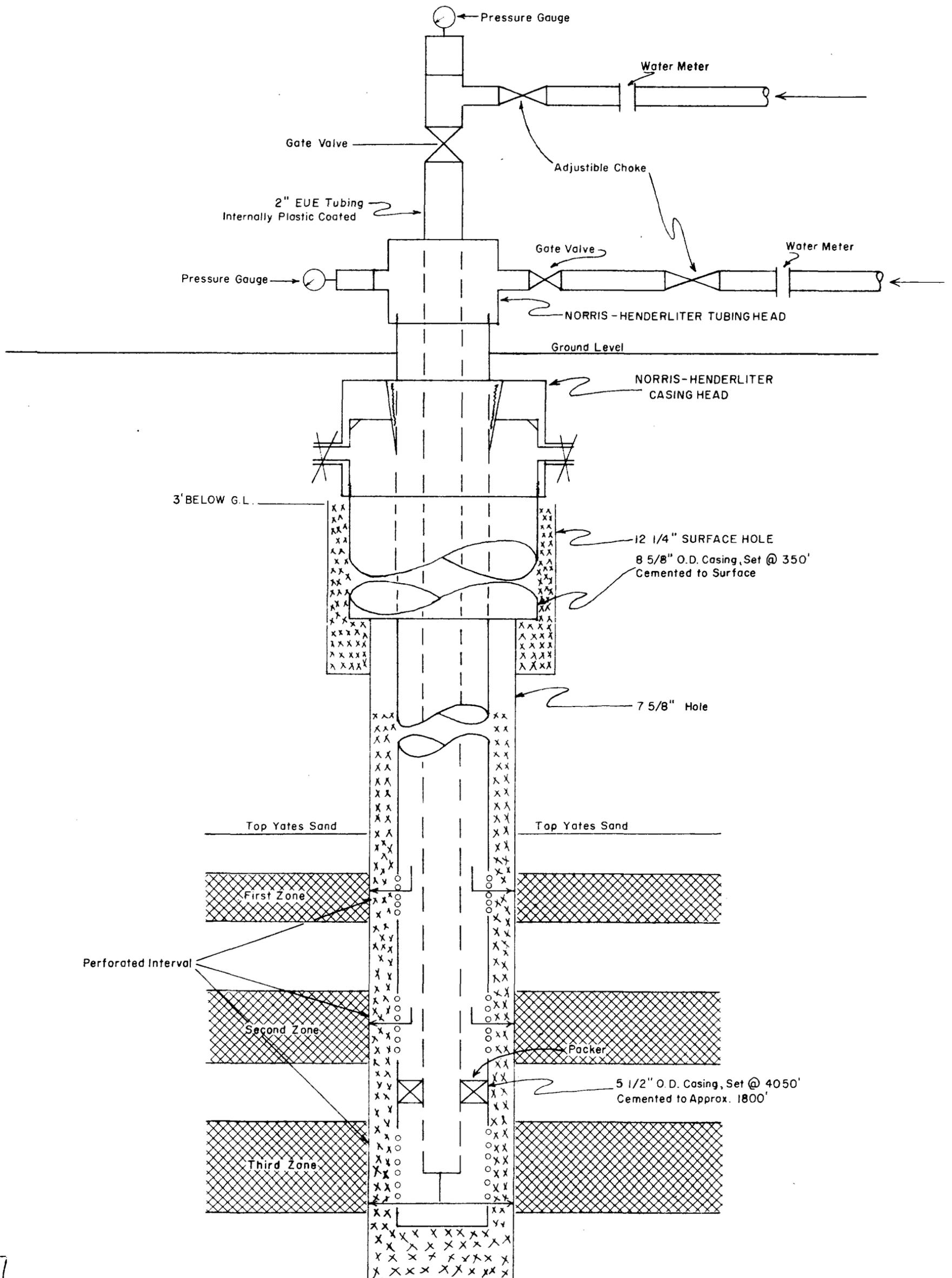
Note: See attached schematic of typical injection well.

EXHIBIT "C"  
OF THE APPLICATION OF THE BRITISH-  
AMERICAN OIL PRODUCING COMPANY FOR  
AUTHORITY TO INJECT FLUID INTO THE  
YATES SAND FORMATION IN THE JALMAT  
FIELD, LEA COUNTY, NEW MEXICO.

Case 2546

# JALMAT (YATES SAND) UNIT

## SCHEMATIC OF TYPICAL INJECTION WELL

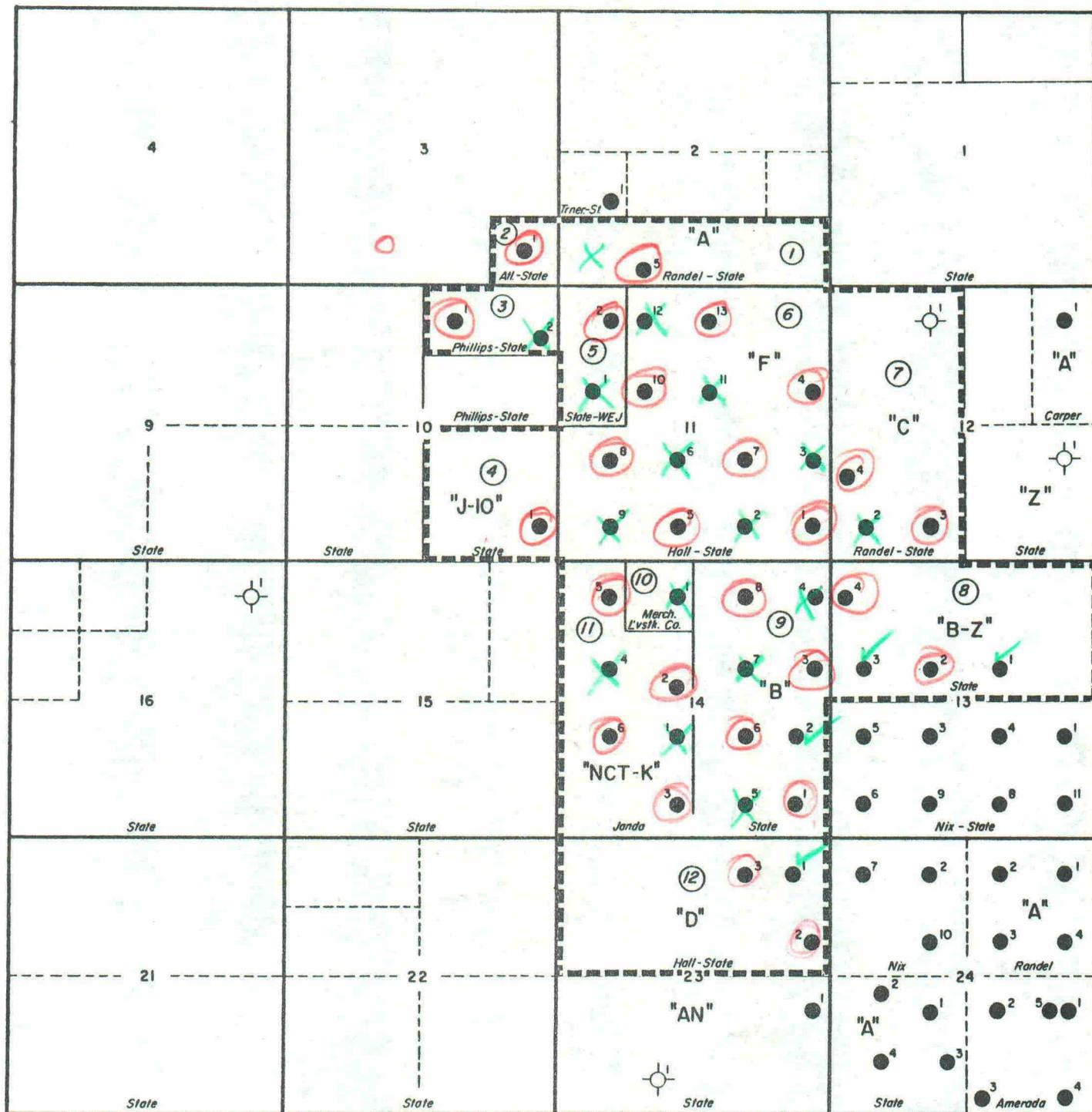


EX-C

R. 35 E.

T. 22 S.

T. 22 S.



R. 35 E.

- Unit Area
- Tract Boundary
- ⑦ Tract Number
- Producing Well, Yates Sand



EXHIBIT "B"  
to the  
UNIT AGREEMENT  
JALMAT FIELD YATES SAND UNIT  
LEA COUNTY, NEW MEXICO

4-1-62

UNIT AGREEMENT  
for the  
JALMAT FIELD  
YATES SAND UNIT  
LEA COUNTY, NEW MEXICO

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UNIT AGREEMENT  
JALMAT FIELD YATES SAND UNIT  
LEA COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the first day of April, 1962, by the parties who have signed the original of this instrument, a counterpart thereof, or other instrument agreeing to be bound by the provisions hereof;

WITNESSETH:

WHEREAS, In the interest of the public welfare and to promote conservation and increase the ultimate recovery of oil, gas, and associated minerals from the Jalmat Field, in Lea County, State of New Mexico, and to protect the rights of the owners of interests therein, it is deemed necessary and desirable to enter into this agreement to unitize the Oil and Gas Rights in and to the Unitized Formation in order to conduct a secondary recovery, pressure maintenance, or other recovery program as herein provided; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Chap. 88, Laws 1943, as amended, Laws 1961 ch 176 #1) 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 Oil Conservation Commission of the State of New Mexico is authorized by law (Chap. 72, Laws of 1935, as amended by Chap. 193, Laws of 1937, Chap. 166, Laws of 1941, and Chap. 168, Laws of 1949) to approve this agreement and the conservation provisions hereof;

NOW, THEREFORE, In consideration of the premises and of the mutual agreements herein contained, it is agreed as follows:

ARTICLE 1

DEFINITIONS

As used in this agreement, the terms herein contained shall have the following meaning:

1.1 Unit Area means the lands described by Tracts in Exhibit A and shown on Exhibit B as to which this agreement becomes effective or to which it may be extended as herein provided.

1.2 Unitized Formation means that subsurface portion of the Unit Area commonly known or described as follows: The Yates Sand Formation encountered in

the drilling of the British-American Hall State "D" No. 1 Well between the depths of Three Thousand Eight Hundred Twelve (3,812) feet KB and Four Thousand and Eighteen (4,018) feet KB as shown by the Radiation Log of said well, which well is located Six Hundred Sixty (660) feet from the north line and Six Hundred Sixty (660) feet from the east line of Section 23, Township 22 South, Range 35 East, Lea County, New Mexico.

1.3 Unitized Substances means all oil, gas, gaseous substances, sulphur contained in gas, condensate, distillate, and all associated and constituent liquid or liquefiable hydrocarbons within or produced from the Unitized Formation.

1.4 Working Interest means an interest in Unitized Substances by virtue of a lease, operating agreement, fee title, or otherwise, including a carried interest, which interest is chargeable with and obligated to pay or bear, either in cash or out of production or otherwise, all or a portion of the cost of drilling, developing, producing, and operating the Unitized Formation. Any interest in Unitized Substances which is a Working Interest as of the date the owner thereof executes or ratifies this Agreement shall thereafter be treated as a Working Interest for all purposes of this Agreement.

1.5 Royalty Interest means a right to or interest in any portion of the Unitized Substances or proceeds thereof other than a Working Interest.

1.6 Royalty Owner means a party hereto who owns a Royalty Interest.

1.7 Working Interest Owner means a party hereto who owns a Working Interest. The owner of oil and gas rights that are free of lease or other instrument conveying the Working Interest to another shall be regarded as a Working Interest Owner to the extent of seven-eighths (7/8) of his interest in Unitized Substances, and as a Royalty Owner with respect to his remaining one-eighth (1/8) interest therein.

1.8 Tract means each parcel of land described as such and given a Tract number in Exhibit A.

1.9 Unit Operating Agreement means the agreement entitled "Unit Operating Agreement, Jalmat Field Yates Sand Unit, Lea County, New Mexico," of the same effective date as the effective date of this agreement, and which is entered into by Working Interest Owners.

1.10 Unit Operator means the Working Interest Owner designated by Working Interest Owners under the Unit Operating Agreement to develop and operate the Unitized Formation, acting as operator and not as a Working Interest Owner.

1.11 Tract Participation means the percentage shown on Exhibit A for allocating Unitized Substances to a Tract under this agreement.

1.12 Unit Participation of each Working Interest Owner means the sum of the percentages obtained by multiplying the Working Interest of such Working Interest Owner in each Tract by the Tract Participation of such Tract.

1.13 Outside Substances means all substances obtained from any source other than the Unitized Formation and which are injected into the Unitized Formation.

1.14 Total Tract Remaining Primary Reserves Subsequent to May 31, 1961 means the estimated volume of oil that would be produced after May 31, 1961 from the Unitized Formation under each Unit Tract if the current method of oil producing operations were continued until oil production from each Tract declined to a rate which would not compensate for continued operation of the wells on each Tract.

1.15 Total Unit Area Remaining Primary Reserves Subsequent to May 31, 1961 means the summation of reserves defined in Paragraph 1.14 of all Tracts in the Unit Area.

1.16 Total Tract Producing Rate for the Six (6) Months Prior to June, 1961 means the total oil production from the Unitized Formation under each Unit Tract from December 1, 1960 to May 31, 1961, inclusive, as reported to the Oil Conservation Commission of the State of New Mexico by Operators of the individual Tracts.

1.17 Total Unit Area Producing Rate for the Six (6) Months Prior to June, 1961 means the summation of the oil production defined in Paragraph 1.16 of all Tracts in the Unit Area.

1.18 Total Tract Productive Acreage means the surface area, in acres, of each Tract in the Unit Area which is located within the estimated producing limits of the Unitized Formation.

1.19 Total Unit Area Productive Acreage means the summation of the Tract productive acreage of all tracts in the Unit Area as defined in Paragraph 1.18.

1.20 Total Tract Ultimate Primary Reserves means the summation of the oil production from the Unitized Formation from the date of first production through May 31, 1961 as reported to the Oil Conservation Commission of the State of New Mexico by Operators of the individual Tracts and the reserves defined in Paragraph 1.14, for each Tract in the Unit Area.

1.21 Total Unit Area Ultimate Primary Reserves means the summation of the reserves defined in Paragraph 1.20 of all Tracts in the Unit Area.

1.22 Oil and Gas Rights means the right to explore, develop, and operate lands within the Unit Area for the production of Unitized Substances, or to share in the production so obtained or the proceeds thereof.

1.23 Unit Operations means all operations conducted by Working Interest Owners or Unit Operator pursuant to this agreement and the Unit Operating Agreement for or on account of the development and operation of the Unitized Formation for the production of Unitized Substances.

1.24 Unit Equipment means all personal property, lease and well equipment, plants, and other facilities and equipment taken over or otherwise acquired for the joint account for use in Unit Operations.

1.25 Unit Expense means all cost, expense, or indebtedness incurred by Working Interest Owners or Unit Operator pursuant to this agreement and the Unit Operating Agreement for or on account of Unit Operations.

1.26 Unless the context otherwise clearly indicates, words used in the singular include the plural, the plural include the singular, and the neuter gender include the masculine and the feminine.

## ARTICLE 2

### EXHIBITS

2.1 Exhibits. Attached hereto are the following exhibits which are incorporated herein by reference:

2.1.1 Exhibit A, which is a schedule that describes each Tract in the Unit Area and shows its Tract Participation.

2.1.2 Exhibit B, which is a map that shows the boundary lines of the Unit Area and the Tracts therein.

2.2 Reference to Exhibits. When reference herein is made to an exhibit, the reference is to the Exhibit as originally attached or, if revised, to the latest revision.

2.3 Exhibits Considered Correct. An exhibit shall be considered to be correct until revised as herein provided.

2.4 Correcting Errors. The shapes and descriptions of the respective Tracts have been established by using the best information available. If it subsequently appears that any Tract, because of diverse royalty or working interest ownership on the effective date hereof, should be divided into more than one Tract, or that any mechanical miscalculation has been made, Unit Operator, with the approval of Working Interest Owners, may correct the mistake by revising the exhibits to conform to the facts. The revision shall not include any re-evaluation of engineering

or geological interpretations used in determining Tract Participation. Each such revision of an exhibit shall be effective at 7:00 a.m. on the first day of the calendar month next following the filing for record of the revised exhibit or on such other date as may be determined by Working Interest Owners and set forth in the revised exhibit.

2.5 Filing Revised Exhibits. If an exhibit is revised pursuant to this agreement, Unit Operator shall certify and file the revised exhibit with the Commissioner of Public Lands of the State of New Mexico and for record in the County or Counties in which this agreement is filed.

### ARTICLE 3

#### CREATION AND EFFECT OF UNIT

3.1 Oil and Gas Rights Unitized. Subject to the provisions of this agreement, all Oil and Gas Rights of Royalty Owners in and to the lands described in Exhibit A, and all Oil and Gas Rights of Working Interest Owners in and to said lands, are hereby unitized insofar as the respective Oil and Gas Rights pertain to the Unitized Formation, so that operations may be conducted as if the Unitized Formation had been included in a single lease executed by all Royalty Owners, as lessors, in favor of all Working Interest Owners, as lessees, and as if the lease had been subject to all of the provisions of this agreement.

3.2 Personal Property Excepted. All lease and well equipment, materials, and other facilities heretofore or hereafter placed by any of the Working Interest Owners on the lands covered hereby shall be deemed to be and shall remain personal property belonging to and may be removed by the Working Interest Owners. The rights and interests therein as among Working Interest Owners are covered by the Unit Operating Agreement.

3.3 Amendment of Leases and Other Agreements. The provisions of the various leases, agreements, division and transfer orders, or other instruments covering the respective Tracts or the production therefrom are amended to the extent necessary to make them conform to the provisions of this agreement, but otherwise shall remain in effect.

3.4 Continuation of Leases and Term Royalties. Unit Operations conducted on any part of the Unit Area shall be considered with respect to leases and term royalties as follows:

3.4.1 Operations, including drilling operations, conducted with respect to the Unitized Formation on any part of the Unit Area, or production from any part of the Unitized Formation, except for the purpose of determining payments to Royalty Owners, shall be considered as operations upon or production from each Tract, and such operations or production shall continue in effect each lease or term royalty interest as to all lands covered thereby just as if such operations had been conducted and a well had been drilled on and was producing from each Tract.

3.4.2 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.

3.4.3 Any lease embracing lands of the State of New Mexico having only a portion of its land committed hereto, shall be segregated as to the portion committed and that portion not committed, and the terms of such lease shall apply separately as to such segregated portions commencing as of the effective date hereof. Notwithstanding any of the provisions of this agreement to the contrary, any lease embracing lands of the State of New Mexico having only a portion of its land committed hereto shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease (whether within or without the Unit Area), (i) if, and for so long as Unitized Substances are capable of being produced in paying quantities from some part of the lands embraced in such lease committed to this agreement, or (ii) if, and for so long as some part of the lands embraced in such State lease are allocated Unitized Substances; or (iii) if, at the expiration of the secondary term, the lessee or the Unit Operator is then engaged in bona fide drilling or reworking operations on some part of the lands embraced therein and for so long as such operations are being diligently prosecuted, and if they result in the production of Unitized Substances, said lease shall continue in full force and effect as to all of the lands embraced therein, as provided in (i) or (ii) above.

3.5 Titles Unaffected by Unitization. Nothing herein shall be construed to result in the transfer of title to the Oil and Gas Rights by any party hereto to any other party or to Unit Operator. The intention is to provide for the cooperative

development and operation of the Tracts and for the sharing of Unitized Substances as herein provided.

3.6 Injection Rights. Royalty Owners hereby grant unto Working Interest Owners the right to inject into the Unitized Formation any substances in whatever amounts Working Interest Owners deem expedient for Unit Operations, including the right to drill and maintain injection wells on the Unit Area and to use producing or abandoned oil or gas wells for such purposes.

3.7 Development Obligation. Nothing herein shall relieve Working Interest Owners from the obligation to develop reasonably as a whole the lands and leases committed hereto.

#### ARTICLE 4

##### PLAN OF OPERATIONS

4.1 Unit Operator. Working Interest Owners are, as of the effective date of this agreement, entering into the Unit Operating Agreement, designating The British-American Oil Producing Company as Unit Operator. Unit Operator shall have the exclusive right to conduct Unit Operations. The operations shall conform to the provisions of this agreement and the Unit Operating Agreement. If there is any conflict between such agreements, this agreement shall govern.

4.2 Operating Methods. To the end that the quantity of Unitized Substances ultimately recoverable may be increased and waste prevented, Working Interest Owners shall, with diligence and in accordance with good engineering and production practices, engage in methods of operation of the Unit Area which from time to time will in their judgment be conducive to that end within practicable economic limits, including water flooding operations and such other pressure maintenance, repressuring and secondary recovery operations as may be deemed by them to be necessary or proper to achieve that end.

4.3 Change of Operating Methods. Nothing herein shall prevent Working Interest Owners from discontinuing or changing in whole or in part any method of operation which, in their opinion, is no longer in accord with good engineering or production practices. Other methods of operation may be conducted or changes may be made by Working Interest Owners from time to time if determined by them to be feasible, necessary, or desirable to increase the ultimate recovery of Unitized Substances.

ARTICLE 5

TRACT PARTICIPATION

5.1 Tract Participation. The Tract Participation of each Tract is shown in Exhibit A. Upon the effective date hereof, the Tract Participation of each Tract shall be the Primary Percentage Participation shown in Exhibit "A" for each Tract, which shall continue to be the Tract Participation for each Tract until there has been produced subsequent to May 31, 1961, from the formation herein referred to as the Unitized Formation underlying the Unit Area as initially described in Exhibit A a total volume of oil of five hundred thousand three hundred thirty nine (500,339) barrels and until 7:00 A.M. on the first day of the calendar month next following the month in which such total oil production is reached. Thereafter the Tract Participation of each Tract shall be the Secondary Percentage Participation for such Tract shown in Exhibit "A". The volume of oil to be produced from the Unitized Formation referred to in this Paragraph 5.1 shall be determined from New Mexico Oil Conservation Commission Form C-115 as required by and submitted to said Commission.

5.1.1 The Primary and Secondary Participation Percentages shown in Exhibit A were determined in accordance with the following formulas:

(a) Primary Participation formula:

$$\frac{\text{Total Tract Remaining Primary Reserves Subsequent to May 31, 1961}}{\text{Total Unit Area Remaining Primary Reserves Subsequent to May 31, 1961}} \quad \times \quad 60$$

Plus

$$\frac{\text{Total Tract Producing Rate for the six (6) Months prior to June, 1961}}{\text{Total Unit Area Producing Rate for the six (6) months prior to June, 1961}} \quad \times \quad 30$$

Plus

$$\frac{\text{Total Tract Productive Acreage}}{\text{Total Unit Area Productive Acreage}} \quad \times \quad 10$$

= Tract Primary Percentage Participation.

(b) Secondary Participation formula:

$$\frac{\text{Total Tract Ultimate Primary Reserves}}{\text{Total Unit Area Ultimate Primary Reserves}} \quad \times \quad 75$$

Plus

Total Tract Producing Rate for the Six (6) Months prior to June, 1961		
<u>Total Unit Area Producing Rate for the Six (6) Months prior to June, 1961</u>	X	10

Plus

<u>Total Tract Productive Acreage</u>	X	15
<u>Total Unit Area Productive Acreage</u>		

= Tract Secondary Percentage Participation

5.2 Relative Tract Participations. If the Unit Area is enlarged or reduced, the revised Tract Participations of the Tracts remaining in the Unit Area and which were within the Unit Area prior to the enlargement or reduction shall remain in the same ratio one to another.

## ARTICLE 6

### ALLOCATION OF UNITIZED SUBSTANCES

6.1 Allocation to Tracts. All Unitized Substances produced and saved shall be allocated to the several Tracts in accordance with the respective Tract Participations effective during the period that the Unitized Substances were produced. The amount of Unitized Substances allocated to each Tract, regardless of whether it is more or less than the actual production of Unitized Substances from the well or wells, if any, on such Tract, shall be deemed for all purposes to have been produced from such Tract.

6.2 Distribution Within Tracts. The Unitized Substances allocated to each Tract shall be distributed among, or accounted for to, the parties 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 Tract, or in the proceeds thereof, had this agreement not been entered into, and with the same legal effect. If any Oil and Gas Rights in a Tract hereafter become divided and owned in severalty as to different parts of the Tract, the owners of the divided interests, in the absence of an agreement providing for a different division, shall share in the Unitized Substances allocated to the Tract, or in the proceeds thereof, in proportion to the surface acreage of their respective parts of the Tract.

6.3 Taking Unitized Substances in Kind. The Unitized Substances allocated to each Tract shall be delivered in kind to the respective parties entitled thereto by virtue of the ownership of Oil and Gas Rights therein or by purchase from such owners. Such parties shall have the right to construct, maintain, and operate

within the Unit Area all necessary facilities for that purpose, provided that they are so constructed, maintained, and operated as not to interfere with Unit Operations. Any extra expenditures incurred by Unit Operator by reason of the delivery in kind of any portion of the Unitized Substances shall be borne by the receiving party. If a Royalty Owner has the right to take in kind a share of Unitized Substances and fails to do so, the Working Interest Owner whose Working Interest is subject to such Royalty Interest shall be entitled to take in kind such share of the Unitized Substances.

6.4 Failure to Take in Kind. If any party fails to take in kind or separately dispose of its share of Unitized Substances, Unit Operator shall have the right, for the time being and subject to revocation at will by the party owning the share, but not the obligation, to purchase for its own account or sell to others such share at not less than the average market price for all such sales from the Unitized Formation; provided that, all contracts of sale by Unit Operator of any other party's share of Unitized Substances shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the circumstances, but in no event shall any such contract be for a period in excess of one year. The proceeds of the Unitized Substances so disposed of by Unit Operator shall be paid to the party entitled thereto. If, under the provisions of this paragraph, Unit Operator contracts to sell in interstate commerce any gas not taken in kind or separately disposed of by the owning party, Unit Operator shall give such owning party ninety (90) days notice of such sale.

6.5 Responsibility for Royalty Settlements. Any party receiving in kind or separately disposing of all or part of the Unitized Substances allocated to any Tract or receiving the proceeds therefrom shall be responsible for the payment thereof to the persons entitled thereto, and shall indemnify all parties hereto, including Unit Operator, against any liability for all royalties, overriding royalties, production payments, and all other payments chargeable against or payable out of such Unitized Substances or the proceeds therefrom.

6.6 Royalty On Outside Substances. If any Outside Substances, consisting of natural gases, are injected into the Unitized Formation, fifty percent (50%) of any like substances contained in Unitized Substances subsequently produced and sold, or used for other than operations hereunder, shall be deemed to be Outside Substances until the aggregate of said fifty percent (50%) equals the accumulated

volume of such natural gases injected into the Unitized Formation. If the Outside Substances injected be liquefied petroleum gases, or other liquid hydrocarbons, as distinguished from natural gases then, beginning one (1) year after injection of such liquefied petroleum gases or other liquid hydrocarbons is commenced, ten percent (10%) of all Unitized Substances produced and sold from the Unitized Formation shall be deemed to be Outside Substances until the aggregate value of said ten percent (10%) equals the entire accumulated cost to the Working Interest Owners of such liquefied petroleum gases or other liquid hydrocarbons injected. No payments shall be due or payable to Royalty Owners on any substance which is classified hereby as an Outside Substance.

#### ARTICLE 7

##### PRODUCTION AS OF THE EFFECTIVE DATE

7.1 Oil in Lease Tanks. Unit Operator shall gauge all lease and other tanks within the Unit Area to ascertain the amount of merchantable oil produced from the Unitized Formation in such tanks, above the pipe line connections, as of 7:00 a.m. on the effective date hereof. The oil that is a part of the prior allowable of the wells from which it was produced shall remain the property of the parties entitled thereto the same as if the Unit had not been formed. Any such oil not promptly removed may be sold by the Unit Operator for the account of the parties entitled thereto, subject to the payment of all royalties, overriding royalties, production payments, and all other payments under the provisions of the applicable lease or other contracts. The oil that is in excess of the prior allowable of the wells from which it was produced shall be regarded as Unitized Substances produced after the effective date hereof.

7.2 Overproduction. If, as of the effective date hereof, any Tract is overproduced with respect to the allowable of the wells on that Tract and the amount of overproduction has been sold or otherwise disposed of, such overproduction shall be regarded as a part of the Unitized Substances produced after the effective date hereof and shall be charged to such Tract as having been delivered to the parties entitled to Unitized Substances allocated to such Tract.

#### ARTICLE 8

##### USE OR LOSS OF UNITIZED SUBSTANCES

8.1 Use of Unitized Substances. Working Interest Owners may use as much of the Unitized Substances as they deem necessary for Unit Operations, including but not limited to the injection thereof into the Unitized Formation.

8.2 Royalty Payments. No royalty, overriding royalty, production, or other payments shall be payable upon, or with respect to, Unitized Substances used or consumed in Unit Operations, or which otherwise may be lost or consumed in the production, handling, treating, transportation, or storing of Unitized Substances.

#### ARTICLE 9

##### TRACTS TO BE INCLUDED IN UNIT

9.1 Qualification of Tracts. On and after the effective date hereof and until the enlargement or reduction thereof, the Unit Area shall be composed of the Tracts listed in Exhibit A that corner or have a common boundary (Tracts separated only by a public highway or a railroad right of way shall be considered to have a common boundary), and that otherwise qualify as follows:

9.1.1 Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have become parties to this agreement and as to which Royalty Owners owning eighty five percent (85%) or more of the Royalty Interest have become parties to this agreement.

9.1.2 Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have become parties to this agreement, and as to which Royalty Owners owning less than eighty five percent (85%) of the Royalty Interest have become parties to this agreement, and as to which (a) all Working Interest Owners in such Tract have joined in a request for the inclusion of such Tract in the Unit Area, and as to which (b) eighty five percent (85%) of the combined voting interests of Working Interest Owners in all Tracts that meet the requirements of Section 9.1.1 have voted in favor of the inclusion of such Tract. For the purpose of this Section 9.1.2, the voting interest of a Working Interest Owner shall be equal to the ratio that its Unit Secondary Percentage Participation attributable to Tracts that qualify under Section 9.1.1 bears to the total Unit Secondary Percentage Participation of all Working Interest Owners attributable to all Tracts that qualify under Section 9.1.1.

9.1.3 Each Tract as to which Working Interest Owners owning less than one hundred percent (100%) of the Working Interest have become parties to this agreement, regardless of the percentage of Royalty Interest therein that is committed hereto; and as to which (a) the Working Interest Owner who operates the Tract and all of the other Working Interest Owners in such Tract who have

become parties to this agreement have joined in a request for inclusion of such Tract in the Unit Area, and have executed and delivered an indemnity agreement agreeing to indemnify and hold harmless the other Working Interest Owners in the Unit Area, their successors and assigns, against all claims and demands that may be made by the owners of Working Interests in such Tract who are not parties to this agreement, and which arise out of the inclusion of the Tract in the Unit Area; and as to which (b) eighty five percent (85%) of the combined voting interest of Working Interest Owners in all Tracts that meet the requirements of Section 9.1.1 and 9.1.2 have voted in favor of the inclusion of such Tract and to accept the indemnity agreement. For the purpose of this Section 9.1.3, the voting interest of each Working Interest Owner shall be equal to the ratio that its Unit Secondary Percentage Participation attributable to Tracts that qualify under Sections 9.1.1 and 9.1.2 bears to the total Unit Secondary Percentage Participation of all Working Interest Owners attributable to all Tracts that qualify under Sections 9.1.1 and 9.1.2. Upon the inclusion of such a Tract in the Unit Area, the Unit Participation that would have been attributed to the nonsubscribing owners of the Working Interest in such Tract, had they become parties to this agreement and the Unit Operating Agreement, shall be attributed to the Working Interest Owners in such Tract who have become parties to such agreements, in proportion to their respective Working Interests in the Tract.

9.2 Subsequent Commitment of Interest to Unit. After the effective date hereof, the commitment of any interest in any Tract within the Unit Area shall be upon such terms as may be negotiated by Working Interest Owners and the owner of such interest, but not more favorable to the owner of such interest than the basis upon which Tracts were admitted on the effective date of this agreement.

9.3 Revision of Exhibits. If any of the Tracts in Exhibit A fail to qualify for inclusion in the Unit Area on the effective date hereof Unit Operator shall recompute, using the original basis of computation, the Tract Participation of each of the qualifying Tracts and shall revise Exhibit A and B accordingly, to be effective as of the effective date hereof upon approval by the Commissioner of Public Lands of the State of New Mexico.

ARTICLE 10

TITLES

10.1 Removal of Tract from Unit Area. If a Tract ceases to have sufficient Working Interest Owners or Royalty Owners committed to this agreement to meet the conditions of Article 9 because of failure of title of any party hereto, such Tract shall be removed from the Unit Area effective as of the first day of the calendar month in which the failure of title is finally determined; however, the Tract shall not be removed from the Unit Area if, within ninety (90) days of the date of final determination of the failure of title, the Tract requalifies under a Section of Article 9.

10.2 Revision of Exhibits. If a Tract is removed from the Unit Area because of the failure of title, Unit Operator, subject to Section 5.2, shall recompute the Tract Participation of each of the Tracts remaining in the Unit Area and shall revise Exhibits A and B accordingly. The revised exhibits shall be effective as of the first day of the calendar month in which such failure of title is finally determined.

10.3 Working Interest Titles. If title to a Working Interest fails, the rights and obligations of Working Interest Owners by reason of the failure of title shall be governed by the Unit Operating Agreement.

10.4 Royalty Owner Titles. If title to a Royalty Interest fails, but the Tract to which it relates is not removed from the Unit Area, the party whose title failed shall not be entitled to share hereunder with respect to such interest.

10.5 Production Where Title is in Dispute. If the title or right of any party claiming the right to receive in kind all or any portion of the Unitized Substances allocated to a Tract is in dispute, Unit Operator at the discretion of Working Interest Owners shall either:

(a) require that the party to whom such Unitized Substances are delivered or to whom the proceeds thereof are paid, furnish security for the proper accounting therefor to the rightful owner if the title or right of such party fails in whole or in part, or

(b) withhold and market the portion of Unitized Substances with respect to which title or right is in dispute, and impound the proceeds thereof until such time as the title or right thereto is established by a final judgment of a court of competent jurisdiction or otherwise to the satisfaction of Working Interest Owners, whereupon the proceeds so impounded shall be paid to the party rightfully entitled thereto.

#### ARTICLE 11

##### EASEMENTS OR USE OF SURFACE

11.1 Grant of Easements. The parties hereto, to the extent of their rights and interests, hereby grant to Working Interest Owners the right to use as much of the surface of the land within the Unit Area as may reasonably be necessary for Unit Operations; provided that, nothing herein shall be construed as leasing or otherwise conveying to Working Interest Owners a site for a water, gas injection, processing or other plant, or camp site.

11.2 Use of Water. Working Interest Owners shall have free use of water from the Unit Area for Unit Operations, except water from any well, lake, pond, or irrigation ditch of a Royalty Owner.

11.3 Surface Damages. Working Interest Owners shall pay the owner for damages to growing crops, timber, fences, improvements, and structures on the Unit Area that result from Unit Operations.

#### ARTICLE 12

##### ENLARGEMENTS OF UNIT AREA

12.1 Enlargements of Unit Area. The Unit Area may be enlarged to include acreage reasonably proved to be productive, upon such terms as may be determined by Working Interest Owners and upon approval by the Commissioner of Public Lands of the State of New Mexico and the Oil Conservation Commission of the State of New Mexico, including but not limited to, the following:

12.1.1 The acreage shall qualify under a Section of Article 9.

12.1.2 The participation to be allocated to the acreage shall be reasonable, fair, and based on all available information.

12.1.3 There shall be no retroactive allocation or adjustment of Unit Expense or of interests in the Unitized Substances produced, or proceeds thereof; however, this limitation shall not prevent an adjustment of investment by reason of the enlargement.

12.2 Determination of Tract Participation. Unit Operator, subject to Section 5.2, shall determine the Tract Participation of each Tract within the Unit Area as enlarged, and shall revise Exhibits A and B accordingly.

12.3 Effective Date. The effective date of any enlargement of the Unit Area shall be 7:00 a.m. on the first day of the calendar month following compliance with conditions for enlargement as specified by Working Interest Owners, approval of the enlargement by the appropriate governmental authority, if required, and the filing for record of revised Exhibits A and B in the records of the County or Counties in which this agreement is recorded.

## ARTICLE 13

### CHANGE OF TITLE

13.1 Covenant Running With the Land. This agreement shall extend to, be binding upon, and inure to the benefit of, the respective heirs, devisees, legal representatives, successors, and assigns of the parties hereto, and shall constitute a covenant running with the lands, leases, and interests covered hereby.

13.2 Notice of Transfer. Any conveyance of all or any part of any interest owned by any party hereto with respect to any Tract shall be made expressly subject to this agreement. No change of title shall be binding on the Unit Operator, or upon any party hereto other than the party so transferring, until the first day of the calendar month next succeeding the date of receipt by Unit Operator of a photocopy or a certified copy of the recorded instrument evidencing such change in ownership.

13.3 Waiver of Rights to Partition. Each party hereto covenants that, during the existence of this agreement, it will not resort to any action to partition the Unit Area or the Unit Equipment, and to that extent waives the benefits of all laws authorizing such partition.

## ARTICLE 14

### RELATIONSHIP OF PARTIES

14.1 No Partnership. The duties, obligations, and liabilities of the parties

hereto are intended to be several and not joint or collective. This agreement is not intended to create, and shall not be construed to create, an association or trust, or to impose a partnership duty, obligation, or liability with regard to any one or more of the parties hereto. Each party hereto shall be individually responsible for its own obligations as herein provided.

14.2 No Sharing of Market. This agreement is not intended to provide, and shall not be construed to provide, directly or indirectly, for any cooperative refining, joint sale, or marketing of Unitized Substances.

14.3 Royalty Owners Free of Costs. This agreement is not intended to impose, and shall not be construed to impose, upon any Royalty Owner any obligation to pay for Unit Expense unless such Royalty Owner is otherwise so obligated.

14.4 Information to Royalty Owners. Each Royalty Owner upon written request therefor shall be entitled to all information in possession of Unit Operator to which such Royalty Owner is entitled by an existing agreement with any Working Interest Owner.

#### ARTICLE 15

##### LAWS AND REGULATIONS

15.1 Laws and Regulations. This agreement shall be subject to the conservation laws of the State of New Mexico; to the valid rules, regulations, and orders of the Oil Conservation Commission of New Mexico; and to all other applicable federal, state, and municipal laws, rules, regulations, and orders.

#### ARTICLE 16

##### FORCE MAJEURE

16.1 Force Majeure. All obligations imposed by this agreement on each party, except for the payment of money, shall be suspended while compliance is prevented, in whole or in part, by a strike, fire, war, civil disturbance, act of God; by federal, state, or municipal laws; by any rule, regulation, or order of a governmental agency; by inability to secure materials; or by any other cause or causes beyond reasonable control of the party. No party shall be required against its will to adjust or settle any labor dispute. Neither this agreement nor any lease or other instrument subject hereto shall be terminated by reason of suspension of Unit Operations due to any one or more of the causes set forth in this Article.

#### ARTICLE 17

##### EFFECTIVE DATE

17.1 Effective Date. This agreement shall become binding upon each party as

of the date such party signs the instrument by which it becomes a party hereto, and, unless sooner terminated as provided in Section 17.2, shall become effective as to qualified Tracts at the time and date as determined by the Working Interest Owners in all the qualified Tracts, and set forth in a certificate filed for record by Unit Operator in Lea County, New Mexico. The certificate shall also recite the percentage of the Unit Area represented by the Tracts qualified under Article 9, the book and page in which a counterpart of this agreement has been recorded, and the case number and order number of the order of approval by Governmental authority, if obtained. The certificate shall not be filed until after the following requirements have been met:

17.1.1 Tracts comprising eighty five percent (85%) or more of the Unit Area as shown on the original Exhibit B have qualified under the provisions of Article 9.

17.1.2 At least one counterpart of this agreement has been filed for record by Unit Operator in Lea County, New Mexico.

17.1.3 This agreement has been approved by the Oil Conservation Commission of the State of New Mexico.

17.1.4 This agreement has been **approved** by the Commissioner of Public Lands of the State of New Mexico.

17.2 Ipsa Facto Termination. If the requirements of Section 17.1 are not accomplished on or before July 1, 1962, this agreement shall ipso facto terminate on that date (hereinafter called "termination date") and thereafter be of no further effect, unless prior thereto Working Interest Owners owning a combined Unit Secondary Percentage Participation of at least eighty five percent (85%) have become parties to this agreement and have decided to extend the termination date for a period not to exceed six (6) months. If the termination date is so extended and the requirements of Section 17.1 are not accomplished on or before the extended termination date, this agreement shall ipso facto terminate on the extended termination date and thereafter be of no further effect. For the purpose of this section, Unit Participation shall be as shown on the original Exhibit C attached to the Unit Operating Agreement.

## ARTICLE 18

### TERM

18.1 Term. The term of this agreement shall be for the time that Unitized Substances are produced in paying quantities and as long thereafter as Unit

Operations are conducted without a cessation of more than one hundred eighty (180) consecutive days, unless sooner terminated by Working Interest Owners in the manner herein provided.

18.2 Termination by Working Interest Owners. This agreement may be terminated by Working Interest Owners having a combined Unit Secondary Percentage Participation of at least eighty five percent (85%) whenever such Working Interest Owners determine that Unit Operations are no longer profitable or feasible.

18.3 Effect of Termination. Upon termination of this agreement, the further development and operation of the Unitized Formation as a unit shall be abandoned, Unit Operations shall cease, and thereafter the parties shall be governed by the provisions of the leases and other instruments affecting the separate Tracts.

18.4 Salvaging Equipment Upon Termination. If not otherwise granted by the leases or other instruments affecting each Tract unitized under this agreement, Royalty Owners hereby grant Working Interest Owners a period of six (6) months after the date of termination of this agreement within which to salvage and remove Unit Equipment.

## ARTICLE 19

### EXECUTION

19.1 Original, Counterpart, or Other Instrument. A person may become a party to this agreement by signing the original of this instrument, a counterpart thereof, or other instrument agreeing to be bound by the provisions hereof. The signing of any such instrument shall have the same effect as if all the parties had signed the same instrument.

19.2 Joinder in Dual Capacity. Execution as herein provided by any party as either a Working Interest Owner or a Royalty Owner shall commit all interests that may be owned or controlled by such party.

## ARTICLE 20

### GENERAL

20.1 Amendments Affecting Working Interest Owners. Amendments hereto relating

wholly to Working Interest Owners may be made if signed by all Working Interest Owners.

20.2 Action by Working Interest Owners. Any action or approval required by Working Interest Owners hereunder shall be in accordance with the provisions of the Unit Operating Agreement.

20.3 Lien of Unit Operator. Unit Operator shall have a lien upon the interests of Working Interest Owners in the Unit Area to the extent provided in the Unit Operating Agreement.

IN WITNESS WHEREOF, The parties hereto have executed this agreement on the dates opposite their respective signatures.

WORKING INTEREST OWNERS

DATE: \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Its \_\_\_\_\_

THE BRITISH-AMERICAN OIL PRODUCING COMPANY

By \_\_\_\_\_

Its \_\_\_\_\_

DATE: \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Its \_\_\_\_\_

AMERADA PETROLEUM CORPORATION

By \_\_\_\_\_

Its \_\_\_\_\_

DATE: \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Its \_\_\_\_\_

AZTEC OIL & GAS COMPANY

By \_\_\_\_\_

Its \_\_\_\_\_

DATE: \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Its \_\_\_\_\_

CARPER DRILLING COMPANY, INC.

By \_\_\_\_\_

Its \_\_\_\_\_

DATE: \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Its \_\_\_\_\_

DIXILYN CORPORATION

By \_\_\_\_\_

Its \_\_\_\_\_

DATE: \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Its \_\_\_\_\_

GULF OIL CORPORATION

By \_\_\_\_\_

Its \_\_\_\_\_

DATE: \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Its \_\_\_\_\_

TEXACO, INC.

By \_\_\_\_\_

Its \_\_\_\_\_

ROYALTY OWNERS

DATE: \_\_\_\_\_

\_\_\_\_\_

DATE: \_\_\_\_\_

\_\_\_\_\_

DATE: \_\_\_\_\_

\_\_\_\_\_

DATE: \_\_\_\_\_

\_\_\_\_\_

STATE OF }  
County of }

Before me, the undersigned authority, on this day personally appeared \_\_\_\_\_, \_\_\_\_\_ President of \_\_\_\_\_, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that the same was the free act and deed of the said \_\_\_\_\_, a corporation, and that he having been duly authorized by the Board of Directors of said corporation, executed the same as his free and voluntary act and deed, and as the free and voluntary act and deed of such corporation, for the purposes and consideration therein expressed, and in the capacity therein stated.

Given under my hand and seal of office at \_\_\_\_\_, this the \_\_\_\_\_ day of \_\_\_\_\_, A.D., 19\_\_\_\_.

My commission expires: \_\_\_\_\_  
Notary Public

STATE OF }  
County of }

Before me, the undersigned authority, on this day personally appeared \_\_\_\_\_, \_\_\_\_\_ President of \_\_\_\_\_, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that the same was the free act and deed of the said \_\_\_\_\_, a corporation, and that he having been duly authorized by the Board of Directors of said corporation, executed the same as his free and voluntary act and deed, and as the free and voluntary act and deed of such corporation, for the purposes and consideration therein expressed, and in the capacity therein stated.

Given under my hand and seal of office at \_\_\_\_\_, this the \_\_\_\_\_ day of \_\_\_\_\_, A.D., 19\_\_\_\_.

My commission expires: \_\_\_\_\_  
Notary Public

STATE OF }  
County of } ss.

Before me, the undersigned, a Notary Public, in and for said County and State, on this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, personally appeared \_\_\_\_\_, to me known to be the identical person who executed the within und foregoing instrument, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.

My commission expires: \_\_\_\_\_  
Notary Public

STATE OF                    )  
County of                    ) ss.

Before me, the undersigned, a Notary Public, in and for said County and State, on this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, personally appeared \_\_\_\_\_, to me known to be the identical person who executed the within and foregoing instrument, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.

My commission expires:

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

STATE OF                    )  
County of                    ) ss.

Before me, the undersigned, a Notary Public, in and for said County and State, on this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, personally appeared \_\_\_\_\_, to me known to be the identical person who executed the within and foregoing instrument, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.

My commission expires:

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

STATE OF                    )  
County of                    ) ss.

Before me, the undersigned, a Notary Public, in and for said County and State, on this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, personally appeared \_\_\_\_\_, to me known to be the identical person who executed the within and foregoing instrument, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.

My commission expires:

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

EXHIBIT A

TO

UNIT AGREEMENT  
 JAIMAT FIELD YATES SAND UNIT  
 IEA COUNTY, NEW MEXICO  
 TRACT DESCRIPTION, TRACT OWNERSHIP  
 AND TRACT PARTICIPATION PERCENTAGE  
 4-1-62

Tract No. (Lease Name)	*Tract Description	No. Acres	Lessee of Record	State Lease No. and Date of Lease	Royalty Interest Ownership and Percentage	Working Interest Ownership and Percentage		Tract Participation Percentage	
						Primary	Secondary	Primary	Secondary
1 (Randel-A)	S/2 S/2 Sec. 2	160	Carper Drilling Company, Inc.	E-266 4-10-44	State of New Mexico 12.500000 L. A. Crancer 1.562500 Morris Mizel 0.781250 Sam Mizel 0.781250 O. H. Randel 3.125000 Robert E. Boling 1.000000	Carper Drilling Company, Inc. 100.000000	3.36558	2.19415	
2 (Atlantic-State)	SE/4 SE/4 Sec. 3	40	The Atlantic Refining Company	E-8322 7-20-54	State of New Mexico 12.500000 The Atlantic Refining Company 5.468750	Dixilyn Corporation 100.000000 After Payout Dixilyn Corporation 75.000000 John F. Younger et ux 25.000000	0.52222	0.61222	
3 (Phillips-State)	N/2 NE/4 Sec. 10	80	Phillips Petroleum Company	E-1932 6-10-48	State of New Mexico 12.500000 Phillips Petroleum Company 9.375000	Dixilyn Corporation 100.000000 After Payout Dixilyn Corporation 75.000000 John F. Younger et ux 25.000000	2.71190	2.10605	

EXHIBIT A  
TO  
UNIT AGREEMENT  
JALMAT FIELD YATES SAND UNIT  
LEA COUNTY, NEW MEXICO  
TRACT DESCRIPTION, TRACT OWNERSHIP  
AND TRACT PARTICIPATION PERCENTAGE  
4-1-62

Tract No. (Lease Name)	Tract Description	No. Acres	Lessee of Record	State Lease No. and Date of Lease	Royalty Interest Ownership and Percentage	Working Interest Ownership and Percentage	Tract Participation Percentage	
							Primary	Secondary
4 (State-J-10)	SE/4 Sec. 10	160	Aztec Oil and Gas Company	E-6019-1 2-11-52	State of New Mexico 12.500000	Aztec Oil and Gas Company 100.000000	0.75019	1.17730
5 (State-WEJ)	W/2 NW/4 Sec. 11	80	Amerada Petroleum Corporation	E-1625 12-10-47	State of New Mexico 12.500000	Amerada Petroleum Corporation 100.000000	2.77286	2.56859
6 (Hall-State F)	E/2 NW/4, NE/4 & S/2 Sec. 11	560	The British-American Oil Producing Company	E-8244 6-15-54	State of New Mexico 12.500000	The British-American Oil Producing Company 100.000000	26.36584	28.88651
7 (Randel-C)	W/2 Sec. 12	320	Carper Drilling Company, Inc.	E-268 4-10-44	State of New Mexico 12.500000 L. A. Crancer 1.562500 Morris Mizel 0.781250 Sam Mizel 0.781250 O. H. Randel 3.125000 Robert E. Boling 1.000000	Carper Drilling Company, Inc. 100.000000	2.59299	3.52852
8 (State-BZ)	N/2 Sec. 13	320	Texaco, Inc.	B-158-3 8-14-31	State of New Mexico 12.500000	Texaco, Inc. 100.000000	4.84927	5.57382

EXHIBIT A  
TO  
UNIT AGREEMENT  
JALMAT FIELD YATES SAND UNIT  
LEA COUNTY, NEW MEXICO  
TRACT DESCRIPTION, TRACT OWNERSHIP  
AND TRACT PARTICIPATION PERCENTAGE  
4-1-62

Tract No. (Lease Name)	Tract Description	No. Acres	Lessee of Record	State Lease No. and Date of Lease	Royalty Interest Ownership and Percentage	Working Interest Ownership and Percentage	Tract Participation Percentage		
							Primary	Secondary	
9 (State-B)	E/2 Sec. 14	320	The British-American Oil Producing Company	E-8173 5-18-54	State of New Mexico 12.500000	The British-American Oil Producing Company 100.000000	22.77251	26.74397	
10 (Merchants Livestock)	NE/4 NW/4 Sec. 14	40	The British-American Oil Producing Company	Fee	The Merchants Live- stock Company 25.000000	The British-American Oil Producing Company 100.000000	5.93640	3.74621	
11 (Janda-NCT-K)	NW/4 NW/4, S/2 NW/4 & SW/4 Sec. 14	280	Gulf Oil Corporation	E-229 9-10-31	State of New Mexico 12.500000	Gulf Oil Corporation 100.000000	22.91078	16.76495	
12 (Hall-State D)	N/2 Sec. 23	320	The British-American Oil Producing Company	E-8244 6-15-54	State of New Mexico 12.500000	The British-American Oil Producing Company 100.000000	4.44946	6.09771	
							100.00000	100.00000	
Total State of New Mexico Land							2640 Ac.		
Total Fee Land							40 Ac.		
Total Land In Unit							2680 Ac.		

\*All described tracts in T22S-R35E N.M.P.M.

CASE NO. 2546

EXHIBIT NO. 4

WATERFLOOD DATA

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
*April* EXHIBIT NO. 4  
CASE NO. 2546

OPERATOR The British-American Oil Producing Company DATE April 25, 1962

FIELD Jalmat COUNTY Lea

RESERVOIR Yates Sand

Date of completion of first well in reservoir December 19, 1955

Other operators injecting into this reservoir in this field None

I. Reservoir and fluid characteristics

A. Information on entire reservoir

1. Name of reservoir Yates Sand
2. Composition (sand, limestone, dolomite, etc.) Sand
3. Structure Monocline  
(See cross-section and structural maps)
4. Type drive during primary production Solution Gas
5. Original reservoir pressure 1400 psi
6. Average well density 40 acres per well

B. Information on proposed project area

1. Number of productive acres in lease or leases to be flooded 2078
2. Average depth to top of pay (feet) 3600'
3. Estimated average effective thickness (feet) 40'
4. Estimated average porosity (%) 21.5
5. Average horizontal permeability (mds.) 18 md. Range 0.1 - 200 md.
6. Connate water content (% of pore space) 43% - core analysis
7. Gravity of oil (API) 36.9° API
8. Viscosity of oil (centipoises) 1.5 cp.
9. Solution GOR @ bubble point 364 cubic feet per barrel

II. Primary production history and present status

1. Date first well completed in Unit area April 8, 1955 - Texaco BZ #1
2. Stage of depletion of project area Stripper
3. Number of wells in project area 1 F, 43 P, 1 T.A.
4. Average daily oil production per well at present time 10.7 BOPD
5. Cumulative oil production to 4-1-62 from Unit area 1,569,732
6. Estimated oil saturation at present time (% of pore space) 52%
7. Estimated ultimate primary recovery 1.9 million barrels of oil
8. Remaining primary reserves 400,000 barrels of oil

III. Injection

1. Source of injected water (formations, depths) Capitan Reef 4200'
2. Fresh or salt water Fresh
3. Open or closed system Closed
4. Treatment of injected water Chemical as required
5. Pattern and spacing 5 spot pattern, 80-acre spacing
6. Initial injection pressure to be used (psi) 500 psi (estimated)
7. Estimated initial per well rate of injection (bbls.) 350 BPD

IV. Results expected

1. Estimated residual oil saturation at abandonment (% of pore space) 34%
2. Estimate increased ultimate as a result of waterflood (bbls.) 2 million bbls.
3. Estimated original oil in place (bbls.) 32.6 million barrels of oil
4. Estimated water requirements 50 million barrels of water

## BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 9  
 CASE NO. 2546

CASE NO. 2546

EXHIBIT NO. 9

## COMPLETION AND PRODUCTION DATA

Operator, Lease and Well	Completion Date	Perforations	Initial Potential	Production March, 1962
<b>Amerada</b>				
State WE-J				
Well No. 1	7-28-58	3902-4024 (selective)	Pump 44 BO and 0 BW	345 BO
Well No. 2	2-1-59	3877-4008 (selective)	Pump 108 BO and 1 BW	125
				220
<b>Aztec</b>				
State J-10				
Well No. 1	9-1-58	3940-4062 (selective)	Pump 9 BO	0 BO
<b>British-American</b>				
Hall State "D"				
Well No. 1	5-4-56	3864-3928 (selective)	Flow 245 BO and 0 BW	591 BO
Well No. 2	7-30-56	3810-3928 (selective)	Pump 23 BO and 8 BW	374
Well No. 3	3-28-57	3850-3956 (selective)	Pump 26 BO and 0 BW	58
				159
Hall State "F"				
Well No. 1	9-27-56	3812-3970 (selective)	Pump 38 BO and 0 BW	4839 BO
Well No. 2	5-5-57	3910-3976 (selective)	Pump 42 BO and 5 BW	273
Well No. 3	3-29-57	3844-3990 (selective)	Flow 63 BO and 0 BW	187
Well No. 4	5-13-57	3866-3944 (selective)	Pump 9 BO and 2 BW	408
Well No. 5	3-12-58	3867-4013 (selective)	Flow 85 BO and 0 BW	1082
Well No. 6	4-1-58	3893-4018 (selective)	Pump 134 BO and 0 BW	210
Well No. 7	5-5-58	3868-4004 (selective)	Pump 187 BO and 4 BW	508
Well No. 8	5-4-58	3888-4006 (selective)	Flow 40 BO and 0 BW	457
Well No. 9	5-27-58	3885-3998 (selective)	Flow 46 BO and 0 BW	282
Well No. 10	5-29-58	3882-4010 (selective)	Flow 70 BO and 0 BW	740
Well No. 11	6-17-58	3876-3972 (selective)	Flow 140 BO and 0 BW	347
Well No. 12	6-25-58	3874-4004 (selective)	Flow 160 BO and 0 BW	284
Well No. 13	7-20-58	3883-3959 (selective)	Flow 161 BO and 0 BW	61
<b>Merchants Livestock</b>				
Well No. 1				
	2-14-58	3853-3964 (selective)	Flow 83 BO and 0 BW	1278 BO
<b>New Mexico "B"</b>				
Well No. 1	1-1-56	3831-3932 (selective)	Flow 62 BO and 0 BW	3124 BO
Well No. 2	2-22-56	3862-3934 (selective)	Flow 133 BO and 2 BW	75
Well No. 3	4-30-56	3862-3950 (selective)	Pump 78 BO and 0 BW	100
Well No. 4	6-21-56	3870-3945 (selective)	Flow 170 BO and 7 BW	350
Well No. 5	2-1-57	3892-3960 (selective)	Flow 92 BO and 0 BW	587
Well No. 6	12-10-56	3838-3936 (selective)	Flow 115 BO and 1 BW	526
Well No. 7	1-16-57	3833-3940 (selective)	Flow 101 BO and 0 BW	636
Well No. 8	2-20-57	3864-3978 (selective)	Pump 122 BO and 2 BW	775
<b>Carper Drilling Company</b>				
Randel "A"				
Well No. 5	3-5-59	3832-3920 (selective)	Flow 25 BO and 0 BW	546 BO
Randel "C"				
Well No. 2	12-9-56	3902-3918 (selective)	Flow 552 BO and 0 BW	355 BO
Well No. 3	3-8-57	3812-3842 (selective)	Flow 15 BO and 0 BW	187
Well No. 4	9-10-58	3828-3936 (selective)	Pump 60 BO and 0 BW	56
				112
<b>Dixilyn Drilling Company</b>				
Atlantic-State				
Well No. 1	8-18-58	3906-3988 (selective)	Pump 10 BO and 0 BW	95 BO
Phillips-State				
Well No. 1	5-20-58	3923-4113 (selective)	Flow 30 BO and 0 BW	359 BO
Well No. 2	12-3-58	3910-4033 (selective)	Flow 33 BO and 0 BW	162
				197
<b>Gulf Oil Corporation</b>				
Janda "K"				
Well No. 1	2-2-58	3910-4030 (selective)	Flow 128 BO and 4 BW	2199 BO
Well No. 2	2-25-58	3882-3982 (selective)	Flow 122 BO and 2 BW	589
Well No. 3	4-9-58	3892-3952 (selective)	Pump 62 BO and 17 BW	589
Well No. 4	5-21-58	3857-3984 (selective)	Pump 165 BO and 4 BW	—
Well No. 5	5-21-58	3854-3988 (selective)	Pump 159 BO and 6 BW	560
Well No. 6	10-31-58	3883-4006 (selective)	Pump 11 BO and 6 BW	374
				91
<b>Texaco, Inc.</b>				
State BZ				
Well No. 1	3-18-55	Open hole, recompleted	Pump 11 BO and 0 BW	525 BO
Well No. 2	9-23-56	3898-3950 (selective)	Pump 60 BO and 0 BW	203
Well No. 3	6-26-56	3830-3875 (selective)	Pump 28 BO and 0 BW	139
Well No. 4	8-15-56	3822-3900 (selective)	Pump 72 BO and 0 BW	32
				151
<b>Unit Total</b>				<b>14,256 BO</b>