

Exhibit A

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M E M O R A N D U M

THIS MEMORANDUM OF AGREEMENT made and entered into as of the 1st day of January, 1936, by and between the undersigned owners and operators of oil and gas leases in what is known as the Hobbs Oil Pool or Field in Lea County, New Mexico, covering lands in Townships 18 and 19 South, Ranges 37 and 38 East, joined herein by the Commissioner of Public Lands of the State of New Mexico, representing the mineral interests of said State in the lands belonging to the State and affected by this agreement, all of the parties herein acting pursuant to the provisions of Chapter 132 of the Laws of New Mexico enacted at the Ninth Regular Session of the Legislature of the State of New Mexico.

WITNESSETH THAT WHEREAS the State of New Mexico is the owner of certain of the lands embraced in the said Hobbs Pool and the other parties hereto are the owners respectively of producing oil and gas leases and/or oil and gas leases upon lands located in the present and probable oil and gas producing area in said field, and said field contains a large potential oil and gas producing area now capable of producing large quantities of oil, and the parties hereto recognize that the daily quantity of oil that can be produced from said field for a considerable period of time will be largely in excess of the amount that can be marketed and transported through the available transportation and marketing facilities from said field. It is the concensus of opinion of all parties hereto that a program of unrestrained drilling and production would result in a serious waste of gas above ground and a waste of both oil and gas underground and that an extensive storage program would be necessitated resulting in large loss to the operators and others interested, including the State of New Mexico. It is, therefore, believed to be in the interest of all parties hereto and of all royalty owners in the land involved, and in the interest of the furtherance of conservation and the prevention of waste of oil and gas that the allowable outlet of oil from said field to market be prorated on a fair and equitable basis as herein-after outlined among the several parties hereto owning and operating oil and gas leases in the said Pool.

IT IS THEREFORE AGREED:

1. For convenience and brevity the following definitions are agreed upon:

(a) As far as possible, the field shall be divided into forty (40) acre tracts in the form of a square, constituting regular subdivisions of sections according to the Government surveys. Each such tract shall be considered a unit for the purposes of proration hereunder. If it should develop that there are tracts of land owned by individual operators or lease holders constituting less than a unit as above defined or in such form as not to constitute a unit as above defined, then the General Committee hereinafter constituted is hereby authorized to create and outline fractional units or units of a form other than a square, and the parties agree to be bound by the action of the General Committee in so constituting units or fractional units.

(b) The daily potential production of a well is the quantity of oil said well is capable of producing, as hereinafter determined, during a period of twenty-four (24) hours if pumped or if operated naturally under usual methods.

(c) The average daily potential production of any unit or fractional unit shall mean the average daily potential production of all wells thereon obtained by dividing the aggregate daily potential production of all wells on such unit or fractional unit by the number of wells thereon. The average daily potential production of the field shall be the sum of the average daily potential production of all units and fractional units in the field.

(d) The daily allowable runs to common carrier pipe lines or other market facilities for any party hereto during any proration period as herein provided shall be the amount such party is entitled to run daily from all units and fractional units owned by such party in the field during a given proration period.

(e) Beginning at seven (7) a.m. o'clock on the first day and ending at seven (7) a.m. o'clock on the sixteenth (16th) day of each month, and beginning at seven (7) a.m. o'clock on the sixteenth (16th) day and ending at seven (7) a.m. o'clock on the first (1st) day of each following month shall be taken as the proration period; provided that the General Committee hereinafter constituted is hereby authorized to constitute each calendar month the proration period.

2. The parties hereto name and constitute the following as a committee to be known as the General Committee, whose duty it shall be to carry out the details of the proration program herein agreed upon and the other provisions hereof:

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MEMBERS HERETO

H. E. Marsh
E. A. Gladden
H. B. Simeon
A. H. Shaffer
L. A. Manning
S. G. Sanderson
J. R. Suman
E. A. Landreth
C. L. Gladden
G. C. Moody
Glen Bish
Earl Cunningham
Glen Harroun
Lloyd Noble
D. B. Collins
J. C. Creeden
A. M. McCorkle
C. A. Yeager
H. J. Hawley
L. E. Barrows
T. A. Hall
T. J. Sweeney
Harry W. Walker

COMPANIES

Colorado Petroleum Corporation
Atlantic Oil Producing Company
Continental Oil Company
Empire Gas & Fuel Company
Getty Oil Company
Gypay Oil Company
Humble Oil & Refining Company
Landreth Production Corporation
Magnolia Petroleum Company
Mid-Continent Petroleum Corporation
Ohio Oil Company
Oil Well Drilling Company
Repollo Oil Company
Samedan Oil Corporation
Shell Petroleum Corporation
Skelly Oil Company
Stanolind Oil and Gas Company
Texas Pacific Coal & Oil Company
The California Company
The Texas Company
Tide Water Oil Company
Twin States Oil Company
Walker Oil Corporation

It is understood and agreed that any party hereto may substitute for the representative of such party above named some other representative, by notifying all the other parties hereto in writing. This Committee shall have the powers and functions hereinafter set forth. Said Committee shall select its own Chairman.

3. An Executive Committee is hereby constituted, composed of L. E. Barrows, J. C. Creeden, D. B. Collins, E. A. Landreth, H. E. Marsh, A. M. McCorkle, J. R. Suman, S. G. Sanderson, and Harry W. Walker, and the Commissioner of Public Lands and the State Geologist of New Mexico, whose chairman shall be the chairman of the General Committee, which Committee, subject to the control of the General Committee above named, shall be charged with the responsibility of carrying out the details

of the proration program herein agreed upon and shall have the duties hereinafter named. Vacancies in said committee shall be filled by election by the General Committee. Any party hereto may appeal from any action or decision taken by the Executive Committee hereunder to the General Committee.

4. (a) The parties hereto agree to prorate the allowable outlet for oil from said field upon the following basis: The Umpire, as provided for in Paragraph 12, shall determine the average daily potential production of the field and of each producing unit and fractional unit therein on the basis of gauges or other tests as hereinafter provided and under the direction and control of the Executive Committee at such times as may be decided upon by said Executive Committee. The Executive Committee shall also ascertain from time to time the allowable outlet and/or fair proportion of the state allowable to be allocated to this field, and shall recommend such fair proportion to the State Oil Conservation Commission for its adoption.

ALLOCATION OF ALLOWABLE OUTLET

(b) Except in case of water units as hereinafter defined, the field allowable shall be allocated among the various units on the following basis: One fourth ($1/4$) of the daily allowable outlet from the field shall be prorated among the several producing units and fractional units without reference to the producing ability thereof, each fractional unit participating to the extent of its prorata part of a full unit. The other three-fourths ($3/4$) of the daily allowable outlet shall be prorated to each producing unit in the ratio that the average daily potential production of each unit bears to the average daily potential production of the field; each producing fractional unit shall be entitled to the part it would get as a full unit on the above basis multiplied by the fraction obtained by using the number of acres therein as a numerator and the figure forty "40" as a denominator. In the event special circumstances should arise under which the division of allowable outlet as herein provided should work an undue hardship upon the owner of any unit or fractional unit, the Executive Committee is authorized to make special adjustments after hearing upon notice to all parties concerned; and, subject to the right of appeal to the General Committee, such adjustments when made shall be final and binding upon all parties hereto.

5. Water Units

Commencing January 1, 1936 and beginning of any other proration period there-

...at (a) shall be ... during ... (b) ... day period ... at least 50 water shall at the election of the operator ... be entitled to receive an allocation of the daily allowable outlet, based either on an allowance of 25% for acreage and 75% for average unit potential or 40% for acreage and 60% for average unit potential. Any operator controlling such water unit desiring to change the method of allocation shall deliver to the Empire on or before the 10th day of any calendar month a written request for a change in allocation, which request shall also contain necessary data to qualify such unit as a "Water Unit" as hereinabove defined.

The allocation to each unit in the Hobbs Pool shall first be computed exactly as prescribed in Paragraph 4 (b) of this Agreement, viz., using 25% as the acreage factor and 75% as the potential factor. A second computation shall next be made in like manner using 40% as the acreage factor and 60% as the potential factor. The Empire shall then assign to each water unit the larger of the two allowables thus computed for each such water unit. The total of all allowables for water units thus computed shall be deducted from the daily allowable outlet, and the remaining daily allowable outlet shall be allocated to the non-water units exactly as prescribed in said paragraph 4 (b) of this Agreement, using 25% as the acreage factor and 75% as the potential factor. To illustrate: Assume 200 units in the Hobbs Pool of which 40 units are water units; assume a daily allowable outlet of 30,000 barrels; and assume 6,000 barrels have been allocated to the water units. Twenty-five percent of this 24,000 barrels, or 6,000 barrels, shall be allocated ratably to each of the 160 non-water units, which would give an "acreage allowance" of 37.5 barrels to each non-water unit. The remaining 18,000 barrels shall be allocated to the several non-water units in the ratio that the average daily potential production of the several non-water units bears to total average daily potential production of the 160 non-water units.

6. UNITS NOT CAPABLE OF PRODUCING ALLOWABLE:

If any unit cannot produce the amount allocated to it, the excess of the allowable over the producing capacity of the unit shall be distributed to the remaining units by first deducting the daily production of such units from the daily field allowable and also by deducting the number of such units from the total number of units in the field, then allocating the remaining field allowable to the remaining units as hereinabove provided.

Adjusted Potentials and Bottom Hole Pressures

In order to equalize existing potentials throughout the field, the new adjusted potentials shall be determined in such manner as to approach a uniform bottom hole pressure for all wells in the pool.

Adjusted potentials on all wells, excepting packer wells as hereinafter defined and provided for, heretofore completed shall be determined at six month intervals as follows:

The operators have heretofore unanimously adopted and approved a method of declining potentials known as Plan 2A. This method is hereby approved, re-adopted and is applied as follows:

Beginning December 1, 1935, the potential of each well shall be readjusted every six months thereafter using the average bottom hole pressure of all wells at the beginning of said three months period as a denominator and the new bottom hole pressure of each well as a numerator, both readings being reduced by two-thirds ($\frac{2}{3}$) the average field pressure and the quotient multiplied by the potential of said well at the beginning of said six months period shall be the adjusted potential of said well to be effective for the succeeding three months period; provided that the average bottom hole pressure of the field shall be assigned to each packer well and its new potential arrived at as provided for herein for non-packer wells.

The Umpire shall each six months determine the bottom hole pressure of each well in the field, provided that for each well in which the bottom hole pressure cannot be safely determined for mechanical reasons, such well shall have assigned to it the bottom hole pressure of the nearest well in which a bottom hole pressure is taken, or if equidistant from two or more wells in which bottom hole pressures are taken said well shall have assigned to it the average of the bottom hole pressures of said equidistant wells. All packer wells may be bombed and the pressure obtained shall be used in determining the field average pressure. Potential of packer wells shall be declined as in the past.

As the bottom hole pressures of the entire field decline the executive Committee shall have authority to adjust from time to time the fractional part of the average field pressure to be subtracted from the bottom hole pressures in determining the numerator and denominator of the fraction used in adjusting potentials under Plan 2A.

The potential of no well shall be adjusted below the unit allowable on acreage, and this shall be considered to be the potential of the well, should it be necessary to make an upward revision of the potential due to an increased bottom hole

A packer well as defined herein is any well in which a formation packer has been set for the purpose of conserving reservoir energy.

8. POTENTIALS OF WELLS COMPLETED SUBSEQUENT TO JANUARY 1, 1938:

(a) New wells shall be tested in the following manner: The well shall be produced through the tubing for a period of two (2) hours. The first hour's production shall be disregarded, but the last hour's production shall be gauged. The one hour tubing test multiplied by 24 shall constitute the tubing potential. The casing shall then be opened and the well produced through casing and tubing for a period of one hour. The quantity of oil so produced multiplied by 24 will give the open flow potential, which will be used in determining the allowable unit production. It shall be the privilege of any operator to use the tubing potential herein provided for in connection with the current tubing casing potential curve as approved by the Engineering Committee, as hereinafter provided for, to ascertain the open flow potential of any well without taking the combined casing and tubing flow as provided for herein. Pumping wells shall be tested for a period of six hours and this figure when multiplied by four will be considered the potential for determining the allowable production.

(b) The Chairman of the General Committee, upon recommendation of a majority of the Engineering Committee is authorized to make any variations in the rules set out in Paragraphs 7 and 8, to make the plan workable, and such changes shall be promptly submitted to the Executive Committee for approval.

9. SHOOTING, DEEPENING AND ACID TREATMENT:

The parties hereto agree that no well in said field shall be shot with explosives without first obtaining the written permission of the Executive Committee.

All applications for permission to treat wells with acid shall be submitted in writing through the Umpire to the State Geologist. The potential of a well deepened and/or treated with acid shall be the potential of the well before acid treatment and/or deepening modified by declining at each potential period at the same rate as the average potential decline of the field.

10. The parties hereto agree that no wells in said field shall be put on air or gas lift without first obtaining written permission from the Executive Committee, and further agree not to use such gas lift for the purpose of taking potentials. The parties further agree not to operate any wells in such manner as unnecessarily or unreasonably to waste gas or wastefully to dissipate the natural pressure

thereof and to follow the instructions of the Executive Committee, brought in, corrected, and such production records should they occur.

11. The parties hereto express the view that a policy of drilling only one well in a given horizon in the unit, or functional unit, as far as it is practicable in the judgment of the individual operator is highly desirable, and they hereby agree that in any event no well shall be drilled nearer than 300 feet to the boundary line of any separately owned tract.

12. It is recognized that the Executive Committee requires a secretary and umpire to aid it in carrying out the program herein outlined and may be required to incur additional expenditures in carrying out said program. It is understood that the expense shall be borne by the parties hereto pro rata on the basis of their proportionate participations in the allowable output as herein provided, and they severally agree to pay to the Chairman of the Executive Committee such pro rata immediately upon receipt of statements; provided, however, that neither the Commissioner of Public Lands nor the State of New Mexico shall be required to pay any part of such expenses.

13. Each operator shall be entitled to name one Petroleum Engineer as a member of the Field Engineering Committee of which the Umpire shall be Chairman.

14. This agreement shall not be binding upon any of the parties hereto unless and until it is executed by all of the parties whose names appear in paragraph 2 hereof and is approved by the Oil Conservation Commission of the State of New Mexico, but if and when so executed and approved, same shall be binding upon all parties hereto and their respective successors and assigns, and shall be and remain in full force and effect for a term of twelve months from the said date of January 1, 1936, and may be renewed or extended for successive periods of time thereafter by the agreement of all parties hereto in writing with the consent in writing of the Oil Conservation Commission of New Mexico, provided, however, that any party hereto, including members of the State Oil Conservation Commission, may at any time, withdraw from this agreement upon giving thirty (30) days' notice in writing to all of the other parties hereto, and, in that event, this agreement shall, from and after the date specified in said notice, be considered as terminated.

This AGREEMENT may be executed in counterpart and when so executed the several counterparts shall be deemed to be a single agreement.

IN TESTIMONY WHEREOF WITNESSETH THE signature of the respective parties
hereto by their respective officers and agents herunto duly authorized.

AMERADA PETROLEUM CORPORATION

BY _____

ATLANTIC OIL PRODUCING COMPANY

BY _____

CONTINENTAL OIL COMPANY

BY _____

EMPIRE GAS & FUEL COMPANY

BY _____

GETTY OIL COMPANY

BY _____

GYPSY OIL COMPANY

BY _____

HUMBLE OIL & REFINING COMPANY

BY _____

LANDRETH PRODUCTION CORPORATION

BY _____

MAGNOLIA PETROLEUM COMPANY

BY _____

MID-CONTINENT PETROLEUM CORPORATION

BY _____

OHIO OIL COMPANY

BY _____

OIL WELL DRILLING COMPANY

BY _____

RESOLLO OIL COMPANY

BY _____

SAMEDAN OIL CORPORATION

BY _____

SHELL PETROLEUM CORPORATION

BY _____

SKELLY OIL COMPANY

BY _____

STANOLIND OIL AND GAS COMPANY

BY _____

TEXAS PACIFIC COAL & OIL COMPANY

BY _____

THE CALIFORNIA COMPANY

BY _____

THE TEXAS COMPANY

BY _____

TIDE WATER OIL COMPANY

BY _____

TWIN STATES OIL COMPANY

BY _____

WALKER OIL CORPORATION

BY _____

APPROVED THIS _____ day of January,

1936, as of the First Day of January,

1936:

Chairman

Commissioner of Public Lands
of the State of New Mexico

Oil Conservation Commission,
State of New Mexico.