

STATE LANDS COMMISSION  
State of California  
AMENDMENT AND MODIFICATION OF  
STATE OIL AND GAS LEASE P.R.C. 1466.1  
(SECONDARY RECOVERY)

THIS AGREEMENT entered into under date of ~~MARCH 28~~ *April 25* 1968, by and between STATE OF CALIFORNIA, ACTING BY AND THROUGH THE STATE LANDS COMMISSION OF THE STATE OF CALIFORNIA, sometimes herein called "State" or "Lessor", as first party hereto, and ATLANTIC RICHFIELD COMPANY, A Pennsylvania corporation, herein called "Lessee", as second party hereto, is made with respect to the following agreed facts:

R E C I T A L S

A. Lessee has heretofore acquired and is now the owner and holder of the leasehold and the rights of the "Lessee" under Oil and Gas Lease P.R.C. 1466.1, made and entered into the 29th day of August, 1955, by and between the State and Richfield Oil Corporation, a Delaware corporation, therein called the "Lessee".

B. Said lease was heretofore amended on July 28, 1958, by amending paragraphs 21 and 22 thereof.

C. Lease P.R.C. 1466.1 covers state tide and submerged lands located within the Rincon Offshore Oil and Gas Field, Ventura County, California, as such field is delineated and defined by the State Oil and Gas Supervisor.

D. The lands under said Lease P.R.C. 1466.1 have been developed to such extent that it is desirable that secondary recovery operations be undertaken within said lands in an effort to obtain the maximum economic ultimate recovery of oil and gas therefrom and Lessee has so advised the State.

E. Said lease now provides for the payment by Lessee to State of graduated royalties, dependent upon daily per-well rates of production; and the State desires to encourage the carrying on

of secondary recovery operations under and in connection with Lease P.R.C. 1466.1.

F. State and Lessee propose to agree to modifications of said lease as hereinafter set forth, all pursuant to and in accordance with applicable provisions of the California Public Resources Code, particularly Sections 6830.1, 6830.2, and 6830.3 of said Code, and other applicable provisions of California law.

G. State has made a determination which it hereby affirms that it is in the best interests of the State that the State enter into the within agreement, and that before making said determination and as a basis for the making thereof, and before authorizing the execution of this instrument, and in determining the agreed royalty rates on production as hereinafter set forth, State, acting through the State Lands Commission, has conformably to Section 6830.2 of the Public Resources Code, made a calculated projection of the volume of primary oil to which the State would be entitled under the existing royalty provisions of said lease without any secondary recovery operations. State has compared its determinations thus made with those made by Lessee and the parties have arrived at the agreement herein contained.

WHEREFORE, in consideration of the premises, and of the covenants herein contained, and of the performance of such covenants, and subject to the conditions, limitations, and restrictions herein set forth, it is hereby agreed that State Oil and Gas Lease P.R.C. 1466.1 shall be and is hereby amended and modified in the following manner and extent:

1. Lessee agrees to undertake, to actually commence, and to diligently proceed with secondary recovery operations within the lands covered by Lease P.R.C. 1466.1. Such operations are to be conducted by the injection of water, gas, and (or) steam, provided that such operations may be conducted or such methods may be supplemented by other secondary recovery methods

which shall be first approved in writing by State. Lessee may commence the actual injection of water, gas, and (or) steam into the leasehold lands at any time after the execution of this agreement providing that unless Lessee has commenced such actual injection of water, gas, and (or) steam prior to the expiration of three years from the date this agreement is executed, then this agreement shall be null, void, and of no further force nor effect unless such three-year period is extended by written agreement between these parties. After such commencement within said three years, or any extension thereof, Lessee may engage in and apply such operations to one or more or all of the known producing zones underlying the lease lands.

2. Once it has commenced, Lessee shall diligently and in conformance with good engineering practices carry on the conduct of such secondary operations throughout the term of the lease, provided that if Lessee determines in its best and well-founded judgment that the production response from the secondary recovery efforts is not sufficient to economically justify the continuance of the operations, then it may cease such operations, and further provided that nothing contained in this amending agreement shall require that Lessee continue to maintain, operate, and produce the leasehold or the lease lands, and it shall be free to quitclaim at any time all or any part of the lease lands pursuant to the existing provisions of the lease and in compliance with Section 6804.1 of the Public Resources Code.

In the event that Lessee shall cease secondary operations in any portion of the leasehold lands, nevertheless the royalty provided for herein shall continue to apply to all production from all now producing zones within the boundaries of the lands described in Lease P.R.C. 1466.1.

3. Lessee shall make and carry out the determinations and decisions required in connection with such operations including but not limited to the selection of the locations for any new wells to be drilled and completed, whether intended for production purposes or for the injection of water, gas, and (or) steam and the conversion of now existing wells to injection functions, whether now producing or idle; provided that Lessee shall in accordance with the lease terms submit for approval by the State the surface locations and proposed courses of any new wells to be drilled and completed, and comply with the provisions of Section 6830 of the Public Resources Code, and shall continue to file with the State such notices of intention, reports, proposed drilling programs, logs, surveys, physical samples, and other information, data, and material, which matters, or their counterparts with reference to such secondary operations, have heretofore been required to be filed with the State by Lessee under the terms of said lease, and applicable laws and rules or regulations. Lessee shall file with State duplicates of all notices, reports, logs, surveys, and other data which Lessee files with the State Oil and Gas Supervisor in connection with operations on Lease P.R.C. 1466.1, and in addition such reservoir pressure measurements as Lessee may take in connection with secondary recovery operations on Lease P.R.C. 1466.1.

4. In arriving at the determinations mentioned in Recital paragraph G above, and in concluding that it is desirable that this agreement be entered into, the parties have made the following determinations:

- (a) The projected total future primary production by months and in barrels for Lease P.R.C. 1466.1 as to all

now producing zones within the boundaries of the land described in said lease, if primary recovery methods were continued and no secondary recovery operations were undertaken;

(b) The projected future royalty percentages which would apply to said projected total future primary production under the existing royalty provisions of Lease P.R.C. 1466.1 to establish the total royalty production to which the State would be entitled under said lease, if primary recovery methods were continued and no secondary recovery operations were undertaken, such percentages being projected month-by-month;

(c) The projected future primary royalty production, expressed in barrels and by the month, which the State would be entitled to from said projected future primary production under the existing royalty provisions of Lease P.R.C. 1466.1, if primary recovery methods were continued and no secondary recovery operations were undertaken.

Said determinations of the parties are shown on Exhibit "A" entitled, "Agreed Primary Production and Royalty Schedule", which is attached hereto and by this reference incorporated herein. The State and the Lessee now hereby confirm, accept, adopt, and agree to the aforesaid projections as set forth in "Exhibit "A".

5. For purposes of future royalty accounting under Lease P.R.C. 1466.1 as hereby modified and amended, these parties hereby agree that under successful secondary recovery operations, the projected total future primary production determined upon as provided in paragraph 4 above will be produced sooner than such production would have been produced under primary recovery operations.

These parties hereby agree to and adopt the following definitions:

(a) "Commencement date" is hereby defined and adopted for royalty accounting purposes as the first calendar month following the calendar month in which Lessee first injects water, gas, and (or) steam into a zone within the boundaries of the land described in Lease P.R.C. 1466.1 for secondary recovery purposes.

(b) "Cut-off date" is hereby defined and adopted for royalty accounting purposes as the date and time at which actual production from Lease P.R.C. 1466.1 beginning with the commencement date equals the total of the projected monthly primary production volumes shown in Exhibit "A" for the period beginning with the commencement date and ending with the last month shown on Exhibit "A".

6. During the time between the execution of this amendment and the commencement date above defined, the now existing royalty accounting requirements and procedures of Lease P.R.C. 1466.1 will remain in full force and effect. Beginning with the first production in the month shown on Exhibit "A" which corresponds to the commencement date and continuing until the cut-off date, State shall be entitled to and Lessee shall compute and pay to State the projected future royalty percentage, as shown in Exhibit "A", of each corresponding projected volume of primary production as shown in Exhibit "A", when such volume of production is actually produced regardless of the month in which such volume may actually be produced.

7. From and after the cut-off date, Lessee shall pay to State a flat royalty on all oil produced from Lease P.R.C.

1466.1. Said flat royalty shall be the percentage that expresses the ratio between the total volume of royalty production received by the State during the period beginning with the commencement date and ending with the cut-off date (expressed in barrels) and the total production from said lease during the same period. Notwithstanding any other provision of this agreement to the contrary except paragraph 8 hereof, Lessee shall at all times pay to the State a royalty of not less than thirty per cent (30%) upon all oil produced from Lease P.R.C. 1466.1.

8. The term "outside substance" as used herein shall mean any substance obtained from any source other than the land covered by Lease P.R.C. 1466.1 which is injected into a producing zone within the boundaries of said land. Provisions of this agreement to the contrary notwithstanding, there shall be no royalties due or payable to the State on the production specified in Section 24 of Lease P.R.C. 1466.1, or on the production that is classified herein as an outside substance, and in computing the various volumes of primary production for the purpose of paragraph 6 hereof and the total amount of primary production for the purpose of paragraph 7 hereof, the production specified in Section 24 of Lease P.R.C. 1466.1 and the production classified herein as an outside substance shall not be taken into account. If any outside substance of like kind to those produced from Lease P.R.C. 1466.1 is injected into a producing zone within the boundaries of said land, one hundred per cent (100%) of any such substance subsequently produced shall be

deemed to be an outside substance until the aggregate of said one hundred per cent (100%) equals the accumulated volume of such outside substance so injected.

9. It is recognized by the parties hereto that Lessee may hereafter discover and (or) produce oil from a zone, pool, or separate underground reservoir from which it is not now producing and the oil accumulations within such zone, pool, or reservoir were not included by the parties in making the agreed determinations under paragraph 4 and Exhibit "A" hereof, and which zone, pool, or reservoir is not being affected by secondary recovery operations being carried on at the time of such discovery or such production. In the event that production should occur under the foregoing circumstances, it is agreed that the present provisions of Lease P.R.C. 1466.1, including royalty provisions, shall control with respect to such production, unaffected by this amendment. State agrees that in the event Lessee proposes to apply secondary recovery operations and methods to any such zone, pool, or reservoir, that the State will endeavor to arrive at an agreement with Lessee on further amendment of Lease P.R.C. 1466.1 to cover such proposed additional recovery operations pursuant to the provisions of Public Resources Code Sections 6830.1, et seq.

10. Lessee hereby agrees to indemnify and hold harmless the State of California and any officer, agency, commission, agent, or employee of the State, from and against any and all claims, demands, or causes of action made or presented by any third party on account of the injection by Lessee of water or any other substance into the lands included in Lease P.R.C. 1466.1.



11. The parties hereto agree that neither can predict with reasonable certainty that secondary recovery operations, however conducted, will necessarily result in given volumes of production, although both parties verify that the determinations made herein and in connection herewith represent and contain their best efforts to project the volumes of oil production which would result from the exercise of continued primary production efforts on a sound, diligent, and workmanlike basis. Therefore, it is further agreed that nothing contained herein shall be construed to mean that Lessee must account to State for any guaranteed quantity of royalty production.

12. Lessee shall seek and obtain the approval of the California Oil and Gas Supervisor to any secondary recovery program which Lessee proposes to undertake pursuant to the terms of this agreement prior to undertaking any such program. If requested by Lessee, State agrees to join with Lessee in making any such request for approval.

13. As heretofore and herein amended, Lease P.R.C. 1466.1 shall remain in full force and effect as now written.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed the day and year first above written.

STATE LANDS COMMISSION OF THE  
STATE OF CALIFORNIA

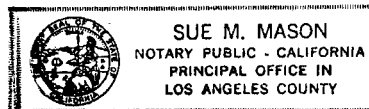
By \_\_\_\_\_  
Executive Officer LESSOR

ATLANTIC RICHFIELD COMPANY

By P. Campbell  
Its Attorney in Fact LESSEE

*JK*  
*RSK*

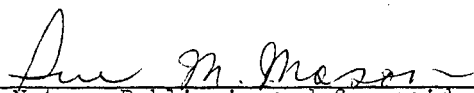
STATE OF CALIFORNIA }  
COUNTY OF LOS ANGELES } ss.



On this 20th day of MARCH, 1968, before me, the undersigned, a Notary Public in and for said County and State, personally appeared P. CAMPBELL, known to me to be the person whose name is subscribed to the within instrument, as the Attorney in Fact of Atlantic Richfield Company, a Pennsylvania corporation, and acknowledged to me that he subscribed the name of Atlantic Richfield Company thereto as principal and his own name as Attorney in Fact.

WITNESS my hand and official seal.

My commission expires May 4, 1968

  
\_\_\_\_\_  
Notary Public in and for said  
County and State  
Sue M. Mason

STATE OF CALIFORNIA }  
COUNTY OF LOS ANGELES } ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, A.D., 1968, before me, the undersigned, a Notary Public in and for the State of California, with principal office in the County of Los Angeles, personally appeared F. J. HORTIG, known to me to be the Executive Officer of the STATE LANDS COMMISSION, STATE OF CALIFORNIA, the Commission that executed the within Instrument, known to me to be the person who executed the within Instrument, on behalf of the Commission therein named, and acknowledged to me that such Commission executed the within Instrument pursuant to a resolution of its Commissioners.

WITNESS my hand and official seal.

\_\_\_\_\_  
\_\_\_\_\_  
Name (Typed or Printed)  
NOTARY PUBLIC IN AND FOR THE STATE  
OF CALIFORNIA

EXHIBIT A

Agreed primary production and royalty schedule for 1466.1 Lease amendment and modification.

This tabulation of lease Total oil production was compiled from the computer prediction of individual well performance. The summation of individual well monthly rates to achieve lease monthly oil rates accumulated a small statistical error in royalty percent as calculated from monthly Totals after minimum royalty is reached in April, 1970. This resulted in several monthly percentage figures of less than the 30% legal minimum royalty in the amount of 0.01 or 0.02%. In these cases, the monthly royalty oil barrels number was adjusted to equal 30% of the total lease oil production.

<u>1968</u>	<u>Future Lease Monthly Oil Barrels</u>	<u>Future Royalty Monthly Oil Barrels</u>	<u>Royalty Percent</u>
April	21,821	8,510	39.00
May	21,989	8,427	38.32
June	20,756	7,820	37.68
July	21,009	7,781	37.04
August	20,495	7,476	36.48
September	19,429	6,978	35.92
October	19,582	6,937	35.43
November	18,571	6,475	34.87
December	18,802	6,462	34.37
Total	182,454	66,866	36.65
<u>1969</u>			
January	18,342	6,210	33.86
February	16,159	5,395	33.39
March	17,535	5,769	32.90
April	16,465	5,344	32.46
May	16,685	5,357	32.11
June	15,832	5,051	31.90
July	16,048	5,086	31.69
August	15,739	4,954	31.48
September	14,939	4,675	31.29
October	15,143	4,709	31.10
November	14,291	4,417	30.91
December	14,486	4,451	30.73

<u>1969 Continued</u>	<u>Future Lease Monthly Oil Barrels</u>	<u>Future Royalty Monthly Oil Barrels</u>	<u>Royalty Percent</u>
Total	191,664	61,418	32.04
Cumulative	374,118	128,284	
<u>1970</u>			
January	14,218	4,337	30.50
February	12,601	3,819	30.31
March	13,692	4,125	30.13
April	13,006	3,902	30.00
May	13,189	3,957	30.00
June	12,528	3,759	30.00
July	12,627	3,788	30.00
August	12,395	3,719	30.00
September	11,784	3,535	30.00
October	11,957	3,587	30.00
November	11,358	3,407	30.00
December	11,535	3,461	30.00
Total	150,890	45,396	30.09
Cumulative	525,008	173,680	
<u>1971</u>			
January	11,329	3,399	30.00
February	10,055	3,017	30.00
March	10,934	3,280	30.00
April	10,396	3,119	30.00
May	10,554	3,166	30.00
June	10,036	3,011	30.00
July	10,188	3,056	30.00
August	10,016	3,005	30.00
September	9,523	2,857	30.00
October	9,672	2,902	30.00
November	9,200	2,760	30.00
December	9,258	2,777	30.00
Total	121,161	36,349	30.00
Cumulative	646,169	210,029	32.504