

CONFIDENTIAL TREATMENT REQUESTED. CONFIDENTIAL PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED AND HAVE BEEN SEPARATELY FILED WITH THE COMMISSION.

EXHIBIT 10.4.19

Lease and Agreement
Union Oil Company of California

[LOGO]

THIS LEASE AND AGREEMENT, made and entered into as of this 1st day of January, 1972, by and between HOLLY OBERLY THOMSON, also known as HOLLY F. OBERLY THOMSON, also known as HOLLY FELICIA THOMSON, hereinafter referred to as "Lessor", whether one or more, and UNION OIL COMPANY OF CALIFORNIA, a California corporation, hereinafter referred to as "Lessee".

WITNESSETH: That Lessor, for and in consideration of Ten Dollars (\$10.00) in hand paid to Lessor by Lessee, the rentals provided for hereinafter and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, and in consideration of the covenants and agreements hereinafter contained by the Lessee to be kept and performed, Lessor has granted, leased, let and demised and by these presents does grant, lease, let and demise to Lessee, its grantees, successors and assigns, upon and subject to the terms and conditions hereinafter set forth, all that certain land (herein sometimes referred to as the "leased land") situate in the County of Imperial, State of California, and more particularly described as follows, to wit:

TRACT 1: 131.72 acres more or less being the Southwest Quarter of Section 4, Township 17 South, Range 14 East, S.B.M., EXCEPT that portion lying South of the South line of Parcel "A" as shown on Licensed Survey Map filed in Book 10, Page 7 of Licensed Surveys.

TRACT 2: 169.00 acres more or less being Portion of S/2 of School Sec. 36, T16S, R13E and Lots 3 & 8 and portion of Lot 4 Sec. 31; and Tr. 150 and portion of Tr. 292 T16S R14E described as follows: Beg. at a point on S li of S/2 of School Sec. 36 T16S R13E shown as portion of Sec. 31 T16S R14E 2174.54 ft. E of SW cor thereof; th N 00(0) 03'W 2476.94 ft; th Ely to a pt. 20 ft. Sly of cor #5; th Nly 20 ft. to sd cor; th Ely to Wly li of Tr. 40; th Sly alg sd Wly li to SE cor of sd School Sec. 36; th Wly alg S li thereof to P.O.B. and Lots 3 & 8 of Sec. 31 and Tr. 150 and that portion of Lot 4 of Sec. 31 ly Ely of Sly ext of E. li of sd W 2174.54 ft. of S/2 of School Sec. 36 and that por. of Tr. 292 ly Ely of Sly ext of E li of sd W 2174.54 ft of S/2 of School Sec. 36.

TRACT 3: 240.00 acres more or less being Tract 89, and North 1/2 of West 1/2 of Tract 90, Township 16 South, Range 13 East, S.B.M.

(deemed to contain, for the purposes hereof, 540.72 acres, whether there be more or less) with the sale and exclusive right to Lessee to explore for (by such methods as it may desire), drill for, produce, extract, take, remove and sell hot water, steam and thermal

energy and extractable minerals from, and to store, utilize, process, convert and otherwise treat such hot water, steam and thermal energy upon, said land, and to extract any extractable minerals during the term hereof, and to inject or reinject in the leased land effluence from wells located on the leased land or on lands in the vicinity thereof, with the right of entry on the leased land and use and occupancy thereof at all times for said purposes and the furtherance thereof, including the right to construct, use and maintain thereon and to remove therefrom structures, facilities and installations, pipe lines, utility

lines, power and transmission lines. Further, the Lessee is hereby granted the use of roads and ponds on said land together with such rights of way and easements across said land for the construction of roads, ponds, pipe lines, power and telephone transmission lines as are necessary or convenient for the exploration, operation and development of Leased Substances on the leased land or in the vicinity thereof. The possession by Lessee of the leased land shall be sole and exclusive for the purposes hereof and for purposes incident or related thereto, excepting that Lessor reserves the right to use and occupy said land, or to lease or otherwise deal with the same, without unreasonable interference with Lessee's rights, for mining or extraction and utilization of minerals lying on the surface of or in vein deposits on or in said land, or for the extraction of oil, natural hydrocarbon gas and other hydrocarbon substances, or for any and all uses other than the use and rights permitted to Lessee hereunder. Lessee agrees to conduct its activities in a manner which will not unreasonably interfere with the rights reserved to Lessor. The leased land includes also any rights of Lessor, presently owned or hereafter acquired, in and under roads, underlying ditches, and rights of way traversing or adjacent to said land.

For the purposes hereof the following definitions shall apply:

(a) The terms "hot water", "steam" and "thermal energy" shall mean natural geothermal water and/or steam, and shall also mean the natural heat of the earth and the energy present in, resulting from or created by, or which may be extracted from, the natural heat of the earth or the heat present below the surface of the earth, in whatever form such heat or energy occurs;

(b) The term "extractable minerals" shall mean any minerals in solution in the well effluence and all minerals and gases produced from or by means of any well or wells on the leased land or by means of condensing steam or processing water produced from or the effluence from any such well or wells; said term shall also include any water so produced or obtained from condensation of steam; and further provided that the term "gases" shall not include hydrocarbon gases that can be produced separately from the hot water, steam and associated minerals;

(c) The term "Leased Substances" shall collectively refer to the matter, substances and resources, defined in (a) and (b) above, that are the subject of this lease;

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(d) The term "power potential" as used herein with respect to any well or wells shall mean the quantity, or units, of energy capable of being recovered from the hot water, steam or thermal energy produced therefrom by means of any energy conversion or utilization facility (including, but not limited to, electrical generating facilities) or equipment designed for use thereof;

(e) The term "sufficient power potential" as used herein shall be deemed to mean that power potential which, in the judgment of Lessee shall be sufficient for the commercial sale or utilization thereof, or shall warrant the construction of facilities for the commercial sale or other utilization thereof, or shall justify additional drilling or other operations on the leased land;

(f) The word "commercial" used in connection with various phrases herein shall mean those quantities of Leased Substances produced, sold or used, the value of which, after deducting Lessee's operating costs (or extraction costs in case of extractable minerals), will provide to Lessee a net return over such costs sufficient to cause Lessee to continue production thereof or to elect to proceed with further development or exploratory operations on the leased land.

The terms and conditions of this Lease and Agreement are as follows, to wit:

1. This lease shall be for a term of five (5) years from and after the date

hereof (herein called "primary term") and so long thereafter as Leased Substances, or any of them, be derived or produced in commercial quantities from the leased land and for so long, as well, as Lessee is prevented from producing same, or the obligations of Lessee hereunder are suspended, for the causes hereinafter set forth.

If at the expiration of the primary term Lessee has not completed one or more wells on the leased land, separately or collectively producing or being capable of producing steam of sufficient power potential and/or extractable minerals in commercial quantities but Lessee is then engaged in operations for drilling or reworking of any well on the leased land; this lease shall remain in force so long as drilling or reworking operations are prosecuted (whether on the same or different wells) with no cessation of more than six (6) months, and if they result in production or the establishment to the satisfaction of the Lessee of the existence of sufficient power potential and/or extractable minerals in commercial quantities, such well or wells will be deemed to have been completed and such existence so established during the primary term of this lease.

2. It is understood and agreed that the initial consideration paid upon the execution hereof covers not only the privileges granted to the date when a rental is payable as hereinafter provided, but any and all other rights conferred hereunder. On or before one (1) year from the date of this lease, Lessee shall pay or tender to Lessor an

*** Confidential material redacted and filed separately with the Commission.

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annual rental in the amount of *** Dollars (\$***), which shall constitute rental until the next anniversary date hereof, and thereafter Lessee shall, on or before each succeeding anniversary date during the primary term hereunder, pay or tender to Lessor an annual rental in the aforesaid amount. The obligation to pay rentals during the primary term hereunder is a firm obligation of Lessee and must be paid even in the event of the abandonment, cancellation or quitclaim of this lease. If at the expiration of the primary term, a well or wells has been completed on the leased land as above provided then in such event Lessee may continue to pay or tender annual rental payments on or before each anniversary date, until Lessee has commenced the actual sale of one or more Leased Substances, and so long as such annual rental payments be so paid or tendered this lease shall remain in force and effect and all payments so paid or tendered after the expiration date of said primary term shall be deemed advance royalties, and so long as same are paid each well or wells shall be deemed to be actually producing one or more Leased Substances in commercial quantities under the terms hereof; provided, however, that if within five (5) years from the date of expiration of the primary term hereof Lessee shall have failed to make, or make arrangements for by executed contract or contracts, a bona fide commercial sale of one or more Leased Substances then Lessor, at its option, may consider Lessee in default hereunder. Additionally, should Lessee fail to make any annual payment herein provided for on or before a particular anniversary date, Lessor may, at its option, consider Lessee in default hereunder.

3. Lessee shall pay to Lessor as royalty ***. Lessee shall pay to Lessor on or before the twenty-fifth day of each month the royalties, accrued and payable for the preceding calendar month, or on or before the twenty-fifth day of each month next following that in which Lessee

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receives payment therefor from the purchase thereof, whichever method shall apply, and in making such royalty payments Lessee shall deliver to Lessor statements setting forth the basis for computation and determination of such royalty.

Lessee shall not be required to account to Lessor for or to pay any royalty on hot water, steam, thermal energy or extractable minerals produced by Lessee on the leased land which are not utilized, saved and sold, or which are used by Lessee in its operations on or with respect to the leased land for or in connection with the developing, recovering, producing, extracting and/or processing of hot water, steam and/or minerals in solution or in facilities used in connection therewith, including operations of facilities for the generation of electric power, or which are unavoidably lost.

Lessee shall have the right, from time to time and at any time, to commingle (for purposes of storing, transporting, utilizing, selling or processing, or any of them) the or any of the Leased Substances produced or extracted from production from the leased land with like Leased Substances, or any of them, produced from other lands or units in the vicinity of the leased land, and in the event of such commingling Lessee shall meter, gauge or measure the production from the leased land, or from the unit or units including same or other units or lands, as the case may be, and compute and pay Lessor's royalty payable under the provisions hereof on the basis of such production so determined or allocated, as the case may be.

Royalties payable hereunder shall never be less than *** Dollars (\$***) per acre per year for the lands then covered by this Lease plus the amount of taxes levied or assessed against production or the right to produce Leased Substances from the lands covered by this Lease that are paid by Lessor pursuant to Paragraph 12 hereof.

4. In the event of any disagreement between the parties as to the application of any provision of this lease or as to any of the factors involved in such application, that shall be determined by arbitration, for which purpose the parties shall, when determination of such question becomes necessary, each promptly appoint a qualified disinterested arbitrator who, in addition to other qualifications, shall be knowledgeable in the field of geothermal operations if the question to be determined shall involve such operations as distinguished from agricultural rental value. The two thus appointed shall promptly proceed with determination of the question involved and if they shall be unable to agree with respect thereto they shall promptly appoint a third such qualified, disinterested arbitrator. The determination of the question involved by any two of said arbitrators shall be final and binding upon the parties who shall bear the expense of such arbitration in inverse proportion to that in which their respective contentions on such arbitration shall prevail (and the arbitrators shall likewise determine that proportion). Should any arbitrator so appointed fail to act the party or parties appointing him shall promptly appoint another in his place.

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In the event it becomes desirable to construct a generating plant or other generating facility on the leased land, Lessee shall purchase the surface of such plant or facility site together with the necessary rights of way, servitudes and other surface easements required to service production from the leased land or lands in the vicinity thereof, for twice the fair market value of such lands with right of reverter in Lessor without payment.

5. At such time as Lessee shall have drilled and completed such well or wells on the leased land which shall indicate to the satisfaction of Lessee a sufficient power potential, or the existence of extractable minerals in

commercial quantities, Lessee may at any time thereafter construct and install on the leased land facilities for the commercial sale or use of hot water, steam or thermal energy produced from the leased land or lands in the vicinity thereof or for the extraction of extractable minerals, or for development of electric power from the use of steam or thermal energy produced from the leased land or lands in the vicinity thereof.

In the event it becomes desirable to construct a generating plant or other generating facility on the leased land, Lessee shall purchase the surface of such plant or facility site together with the necessary rights of way, servitudes and other surface easements required to service production from the leased land or lands in the vicinity thereof, for twice the fair market value of such lands with right of reverter in Lessor without payment.

6. Lessee shall have the right to drill such well or wells on the leased land as Lessee may deem desirable for the purposes hereof, including wells for injection or re-injection purposes; provided, however, that Lessee agrees to utilize for such purpose or purposes only so much of the leased land as shall be reasonably necessary for Lessee's operations and activities thereon. No well shall be drilled within one hundred (100) feet of any residence or barn now on said land without Lessor's consent. Lessee shall have free use of water from said land for all operations thereon, provided that such free use shall not interfere with Lessor's own use for domestic, commercial, stock or agricultural purposes, nor interfere with any contractual commitments of Lessor relating thereto and existing on the date hereof. Lessee shall not be entitled to free use of any water which has been or is being purchased by Lessor or his tenants.

Lessee agrees to conduct drilling operations hereunder from such location or locations on the leased land as Lessor shall designate, together with adequate right-of-way from a county road to such drill sites. Lessor agrees to make such designation within fifteen (15) days after receipt of written request from Lessee to make such designations. The failure by Lessor to act within the time prescribed shall be deemed a waiver of such right and Lessee may then designate the location and right-of-way. Further, Lessee shall not have the right to construct any new roads upon

the leased property except roads necessary for ingress and egress from presently existing roads to such drill sites as Lessor may designate. In the event pipe lines, utility lines, power and/or transmission lines are deemed necessary, Lessee agrees to secure Lessor's consent as to the location of same.

Lessee shall pay Lessor for using the surface of any of the leased lands for well locations, roads constructed solely and used principally by Lessee, rights-of-way, ponds, production facilities or other facilities and structures (except generating plants or facilities) or other surface uses by Lessee in its operations herein at one of the following rates to be chosen by Lessor:

a. Lessee shall pay Lessor for the actual surface acreage to be used at the applicable rental rate determined annually then being paid in the area for the use of the surface of like or similar lands; or

b. Lessee shall purchase the surface acreage required for its operations at twice its fair market value with right of reverter in Lessor without payment.

Lessee shall reimburse Lessor for any loss of all or a part of any agricultural rental due Lessor from a surface tenant where such loss is caused by Lessee's operations hereunder.

Should the agricultural rental value of the leased land (exclusive of any portion thereof devoted exclusively to Lessee's use and for which rental is separately payable under other provisions of this lease) be impaired or

diminished as a result of Lessee's operations, then for the period of such impairment or diminution Lessee shall pay Lessor the difference between the top agricultural rental value for comparable land in the area (including only comparable land unaffected by conditions such as those resulting from Lessee's operations) and the amount of the agricultural rental value of Lessor's land as impaired or reduced by such operations; which payment shall be made for time to time in like installments as the agricultural rental for the affected period is payable for Lessor's land -- the amounts so payable to be adjusted and determined annually on such basis.

Lessee agrees that if because of its operations it becomes necessary to relocate any of the concrete irrigation ditches, tile lines or other appurtenances to the land, it shall do so at Lessee's expense.

Lessee agrees to fence all sump holes or other excavations, and upon abandonment of any well on the leased land, or the termination of the lease, Lessee shall level and fill all sump excavations, shall remove all debris and shall restore the surface to as near its original condition as is practicable.

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Lessee shall protect said land against liens of every character arising from its operations thereon. Lessee, at its own expense, prior to commencing operations on the leased land, shall obtain, and thereafter while this lease is in effect shall maintain, adequate Workmens Compensation Insurance. Lessee shall protect Lessor against damages of every kind and character arising out of the operations or working of Lessee or those under Lessee's control upon the leased land, but Lessee shall not be liable hereunder in the event of the negligence or willful misconduct of parties other than Lessee. In the event any building or personal property be damaged or destroyed, or grazing or agricultural lands be destroyed by Lessee's operations, then Lessee shall be liable for, and to the extent of, the reasonable value thereof.

Lessee shall have the right at any time and from time to time to remove from the leased land any and all casing, machinery, equipment, structures, installations and property of every kind and character placed upon said leased land by or pursuant to permission of Lessee, provided that if such removal should occur after termination hereof same shall be completed within a reasonable time thereafter.

7. Lessor, or its agents, at Lessor's sole risk, may at all times examine said land and the workings, installations and structures thereon and operations of Lessee thereon, and may at reasonable times inspect the books and records of Lessee with respect to matters pertaining to the payment of royalties to Lessor.

8. Upon the violation of any of the terms and conditions of this lease by Lessee (including but not limited to payment of rental and/or advance royalty) and the failure of Lessee to, as to monetary matters, make payment, and as to other violations begin in good faith to remedy the same, within sixty (60) days after written notice from Lessor so to do, specifying in said notice the nature of such default, then at the option of Lessor this lease shall forthwith cease and terminate and all rights of Lessee in and to the leased land shall be at an end, save and excepting five (5) acres surrounding each and any well then producing or capable of producing or being drilled, and in respect to which Lessee shall not be in default, together with the rights, rights of way and easements which may be retained by Lessee by virtue of the granting clause of this lease, and together with rights granted Lessee in Paragraph 5, hereof.

9. Notwithstanding any other provisions of this lease, and in consideration of the payment made by the Lessee to the Lessor for the execution of this lease, Lessee shall have the right at any time prior to or after default hereunder, to quitclaim and surrender to Lessor all right, title and interest of Lessee in and

to the leased land, or any part thereof, and thereupon all rights and obligations of the parties hereto one to the other shall cease and terminate as to the lands or areas so quitclaimed and surrendered, save and except as to any then accrued monetary obligations or royalty obligations of Lessee then payable as to which Lessee shall remain liable to Lessor.

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10. In the event Lessor at the time of making this lease owns a less interest in the leased land than One Hundred Percent (100%) of the rights and interests herein granted or leased to Lessee, then the rentals and royalties accruing hereunder shall be paid to Lessor only in the proportions which Lessor's interest bears to a One Hundred Percent (100%) interest therein in the leased land. Notwithstanding the foregoing, should Lessor hereafter acquire any additional right, title or interest in or to the leased land, it shall be subject to the provisions hereof to the same extent as if owned by Lessor at the date hereof, and any increase in payments of money hereunder necessitated thereby shall commence with the payment next following receipt by Lessee of satisfactory evidence of Lessor's acquisition of such additional interest.

11. Lessor hereby warrants and agrees to defend title to the leased land and agrees that Lessee, at its option, may pay and discharge any taxes, mortgages, trust deeds or other liens or encumbrances existing, levied or assessed on or against the leased land, and in the event Lessee exercises such option, Lessee shall be subrogated to the rights of any holder or holders thereof, and shall have, among other rights, the right of applying to the discharge of any such mortgage, tax or other lien or encumbrance any royalties or rentals accruing to Lessor hereunder.

12. Lessee shall pay all taxes levied on Lessee's structures and improvements placed on the leased land by Lessee. Lessee shall pay 90% and the Lessor shall pay 10% of any taxes assessed against any Leased Substances stored on the leased land. In the event any taxes are levied or assessed against the right to produce Leased Substances from the leased land or in the event any increase in the taxes levied or assessed against the leased land shall be based upon the production from the leased land of Leased Substances, then in either such event prior to the date Lessor receives from Lessee its first royalty payment, Lessee will pay all such taxes without right of recoupment; after which date Lessee shall pay 90% of any such taxes or increase as the case may be, and Lessor shall pay 10% thereof. Lessor shall pay all taxes levied or assessed against the leased land as such without reference to the production of Leased Substances therefrom and shall pay all taxes levied and assessed against any and all rights in or to or with respect to the leased land not covered by this lease and shall pay all taxes levied and assessed against all structures and improvements owned by Lessor or placed on the leased land by or pursuant to permission of Lessor.

13. The rights of either party hereunder may be assigned in whole or in part, and the right and privilege so to do is hereby reserved by each party, and the provisions hereof shall extend to the heirs, successors and assigns of the parties hereto, but no change or division in ownership of the land, rentals or royalties, however accomplished, shall operate to enlarge the obligations or diminish the rights of Lessee, and Lessee may continue to operate the leased land and to pay and settle rentals or royalties as an entirety, and no such change in ownership shall be binding upon Lessee until the expiration of

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thirty (30) days after Lessee is furnished with satisfactory written evidence thereof. In the event of assignment of this lease as to a segregated portion of

said land, the rentals payable hereunder shall be apportionable between the several leasehold owners ratably according to the surface area of each, and default in rental payment by one shall not affect the rights of other leasehold owners hereunder.

14. The obligations of Lessee hereunder shall be suspended and the term of this lease shall be extended, as the case may be, while Lessee is prevented from complying therewith, in whole or in part, by strikes, lockouts, riots, actions of the elements, accidents, delays in transportation, inability to secure labor or materials in the open market, laws, rules or regulations of any federal, state, municipal or other governmental agency, authority or representative, or other matters or conditions beyond the reasonable control of Lessee, whether or not similar to the conditions or matters herein specifically enumerated.

If at any time after the expiration of fifteen (15) years from date hereof the production of all Leased Substances ceases for any cause other than one or more of the causes hereinabove enumerated, this lease shall nevertheless remain in full force and effect for an additional period of one (1) year from cessation and thereafter if, and so long as, Lessee commences and continues diligently and in good faith the steps, operations or procedures to cause a resumption of such production (either through the existing wells or the drilling of new wells), until such production be resumed.

15. All statements of production and royalty and all payments to be made by Lessee to Lessor hereunder shall be sent to persons hereinafter set forth, respectively, at the addresses indicated and each such person shall be entitled to receive that portion of the total rentals and royalty payable hereunder as is hereinafter set forth after the name of such person:

Holly Oberly Thomson
3278 Wilshire Boulevard
Los Angeles, California 90005

100%

Tax Payer Identification No.
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Lessee shall, upon notification of change of ownership in the lands or in rentals or royalties hereunder, as provided in Paragraph 13 hereof, divide and distribute the same to the new owners of such interests; provided, however, that if at any time there are three or more persons entitled to rentals or royalties hereunder, Lessee may, at its option, withhold payment of such rentals or royalties until a majority in interest of such persons designate in writing in a recordable instrument delivered to Lessee, a bank, trust company or corporation, as a common agent and depository, to receive all payments due hereunder to such persons. Such designation may be changed at any time in the same manner. Delivery of all statements and payments hereunder may be made by depositing the same

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in the United States mail duly addressed to Lessor at the above address or addresses or to such agents and depository which shall constitute full performance of Lessee's obligation to make such delivery. In the event that the amount payable under this lease shall result in a payment of less than Five Dollars (\$5.00) becoming due Lessor, Lessee may, at its option, withhold and accrue sufficient periodic payments until the total due Lessor exceeds Five Dollars (\$5.00).

16. Any notice herein required or permitted to be given or furnished by one party to the other shall be in writing. Delivery of such written notice to Lessor shall be made by depositing the same in the United States mail duly certified and addressed to Lessor at 3278 Wilshire Boulevard, Los Angeles, California 90005 and delivery of such written notice to Lessee shall be made by depositing the same in the United States mail duly certified and addressed to Lessee at Union Oil Center, 461 South Boylston Street, Los Angeles, California 90017. Either party hereto may by written notice to the other party change its

address to any other location.

17. In the event any part or portion or provision of this instrument shall be found or declared to be null, void or unenforceable for any reason whatsoever by any Court of competent jurisdiction or any governmental agency having authority thereover then, and in such event only such part, portion or provision shall be affected thereby, and such finding, ruling or decision shall not in any way affect the remainder of this instrument or any of the other terms or conditions hereof, which said remaining terms and conditions shall remain binding, valid and subsisting and in full force and effect between the parties hereto, it being specifically understood and agreed that the provisions hereof are severable for the purposes of the provisions of this clause. In this connection, this lease shall not in any event extend beyond such term as may be legally permissible under present applicable laws, and should any such applicable law limit the term hereof to less than that herein provided, then this lease shall not be void but shall be deemed to be in existence for such term and no longer.

18. If more than one person is named as a Lessor herein and one or more of them fails to execute this lease, said lease shall nevertheless (when accepted by Lessee) become effective as a lease from such of said named parties Lessor as may have executed the same.

19. This lease may be executed in any number of counterparts and all such counterparts shall be deemed to constitute a single lease and the execution of one counterpart by any party Lessor shall have the same force and effect as if such party had signed all the other counterparts.

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20. This Lease and Agreement and all of the terms, covenants and conditions hereof shall extend to the benefit of and be binding upon the respective heirs, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties have caused this instrument to be duly executed as of the date hereinabove first written.

-----	/s/ Holly Oberly Thomson

	Holly Oberly Thomson, also known as
	Holly F. Oberly Thomson, also known
	Holly Felicia Thomson
-----	-----
-----	-----
Subscribing Witness	Lessor
	UNION OIL COMPANY OF CALIFORNIA
	By /s/ indecipherable

	Lessee

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THIS AGREEMENT made and entered into as of this 21st day of June, 1976, by and between HOLLY OBERLY THOMSON, also known as Holly F. Oberly Thomson, also known as Holly Felicia Thomson hereinafter called "Lessor" and UNION OIL COMPANY OF CALIFORNIA, a California corporation, hereinafter called "Lessee";

W I T N E S S E T H:

THAT WHEREAS, Lessee presently holds all of the Lessee's right, title and interest under that certain Geothermal Lease and Agreement dated January 1, 1972, entered into by and between Lessor and Lessee herein, covering 540.72 acres, more or less, situate in Imperial County, California, more particularly described in said lease, a Memorandum of which was recorded April 11, 1972, in Book 1325, at Page 1037, Official Records of said County and State; and

WHEREAS, it is the desire of the parties hereto to amend said lease by modifying the primary term, rental rider, royalty rider and quitclaim clause thereof as hereinafter provided;

NOW, THEREFORE, in consideration of Ten Dollars (\$10.00) in hand paid by Lessee to Lessor and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Lessor does hereby lease said land to Lessee

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for the same purposes and upon all the same terms, provisions and conditions, as contained in said lease of January 1, 1972, and the parties hereto agree:

1. That the first paragraph of the habendum clause which appears on Page 2 of said lease is hereby deleted in its entirety and the following is hereby substituted therefor:

"This lease shall be for a term of ten (10) years from and after the date hereof (herein called "primary term") and so long thereafter as Leased Substances, or any of them, be derived or produced in commercial quantities from the leased land and for so long as well, as Lessee is prevented from producing same, or the obligations of Lessee hereunder are suspended, for the causes hereinafter set forth or this lease is continued in force by reason of any other provision hereof."

2. The rental payments due hereunder have been paid by Lessee and received by Lessor and operate to defer the commencement of drilling operations until January 1, 1977.
3. That the rental clause rider which appears on Page 2 of said lease is hereby deleted in its entirety and the following is hereby substituted therefor:

"It is understood and agreed that the initial consideration paid upon the execution hereof covers not only the privileges granted to the date when a rental is payable as hereinafter provided, but any and all other rights conferred hereunder. If on or before one (1) year from January 1, 1976 Lessee has not drilled such well or wells on the leased land as to indicate or establish to the satisfaction of Lessee the existence of sufficient power potential and/or extractable minerals in commercial quantities, then, but subject to Lessee's right of surrender, on or before said anniversary date, Lessee shall pay or tender to Lessor an annual rental in the amount of *** Dollars (\$***)

which shall constitute rental until the next anniversary date hereof, and thereafter Lessee shall, on or before each succeeding anniversary date during the primary term hereunder, pay or tender to Lessor an annual rental in the

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aforesaid amount, this until such time as from the drilling of well or wells on the leased land, there has been established to the satisfaction of the Lessee the existence of sufficient power potential and/or extractable minerals in commercial quantities. Upon such establishing as aforesaid, Lessee may nevertheless continue to pay or tender annual rental payments on or before each anniversary date, this until Lessee has commenced the actual sale of one or more Leased Substances, and so long as such annual rental payments be so paid or tendered this lease shall remain in force and effect, even though thereby extended past the primary term, and all payments so paid or tendered after the expiration of said primary term shall be deemed advance royalties, and so long as same are paid each well or wells shall be deemed to be actually producing one or more Leased Substances in commercial quantities under the terms hereof; provided, however, that if within five (5) years from the date of expiration of the primary term hereof Lessee shall have failed to make, or make arrangements for by executed contract or contracts, a bona fide commercial sale of one or more Leased Substances then Lessor, at its option, may consider Lessee in default hereunder. Additionally, should Lessee fail to make any annual payment herein provided for on or before a particular anniversary date, Lessor may, at its option, consider Lessee in default hereunder."

4. That the royalty clause rider which appears on Page 3 of said lease is hereby deleted in its entirety and the following is hereby substituted therefor:

"Royalties payable hereunder shall never be less than Fifteen Dollars (\$15.00) per acre per year for the lands then covered by this Lease plus the amount of taxes levied or assessed against production or the right to produce Leased Substances from the lands covered by this Lease that are paid by Lessor pursuant to Paragraph 12 hereof."

5. That the quitclaim clause which appears on Page 4 of said lease is hereby deleted in its entirety and the following is hereby substituted therefor:

"9. Notwithstanding any other provisions of this lease, and in consideration of the payment made by the Lessee to the Lessor for the execution of this lease, Lessee shall have the right at any time prior to or after default hereunder, to quitclaim and surrender to Lessor all right, title

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and interest of Lessee in and to the leased land, and thereupon all rights and obligations of the parties hereto one to the other shall cease and terminate as to the lands or areas so quitclaimed and surrendered, save and except as to any then accrued monetary obligations or royalty obligations of Lessee then payable as to which Lessee shall remain liable to Lessor.

As hereby amended said lease shall be and remain in full force and effect as to all its terms and provisions.

This agreement shall be binding upon and shall inure to the benefit of the heirs personal representatives, successors and assigns of the parties hereto.

This agreement may be executed in any number of counterparts with the same force and effect as though all parties signed the same document.

IN WITNESS WHEREOF, the parties hereto have executed this instrument the day and year first hereinabove written.

/s/ Holly Oberly Thomson

Holly Oberly Thomson, also known as
Holly F. Oberly Thomson, also know
Holly Felicia Thomson
LESSOR

UNION OIL COMPANY OF CALIFORNIA
By _____
Its Attorney in Fact
LESSEE