MINUTE ITEM

5. APPLICATION FOR PROSPECTING PERMIT ON PROPRIETARY LAND IN IMPERIAL COUNTY, R. W. CYPHER - W.O. 3885, P.R.C. 2862.1.

After consideration of Calendar Item 22 attached, and upon motion duly made and unanimously carried, the following resolution was adopted:

PURSUANT TO SECTION 6891 OF THE PUBLIC RESOURCES CODE, THE COMMISSION AUTHORIZES THE EXECUTIVE OFFICER TO ISSUE TO R. W. CYPHER A TWO-YEAR PROSPECTING PERMIT AUTHORIZING PROSPECTING FOR GEOTHERMAL STEAM, MINERAL WATERS, AND ALL MINERALS AND GASES EXCLUDING OIL AND HYDROCARBON GASES, ON 160 ACRES OF PROPRIETARY LAND IN THE NWH OF SECTION 12, T. 11 S., R. 13 E., S.B.B.& M., IMPERIAL COUNTY, SUBJECT TO THE CONDITIONS INCLUDED IN EXHIBITS "A" THROUGH "D" ATTACHED HERETO AND HEREBY MADE A PART HEREOF, WITH ROYALTY PAYABLE AS FOLLOWS:

- 1. UNDER THE PROSPECTING PERMIT ISSUED, 20 PERCENT OF THE GROSS VALUE OF ANY MINERALS, GEOTHERMAL STRAM AND SALABLE WATER SECURED BY PERMITTEE FROM THE LANDS EMBRACED WITHIN THE PERMIT AND SOLD OR OTHERWISE DISPOSED OF OR HELD BY THE PERMITTEE FOR SALE OR OTHER DISPOSITION;
- 2. UNDER ANY PREFERENTIAL LEASE ISSUED UPON THE DISCOVERY OF GEOTHERMAL STEAM, VALUABLE DEPOSITS OF MINERALS, AND SALABLE WATER, TO BE DETERMINED AS FOLLOWS:
 - A. UPON ANY AND ALL MINERALS PRODUCED AND EXTRACTED AND SOLD FROM SAID FREMISES:
 - (1) FOR GOLD, SILVER, CHER PRECIOUS MINERALS, AND RADIGACTIVE MINERALS

$$R = 3.00 + 0.01 (C - 20.00)^2$$

(2) FOR NONPRECIOUS METALLIC MINERALS

$$R = 3.00 + 0.37 (C - 60.00)$$

(3) FOR NORMETALLIC MINERALS

$$R = 0.15 + 0.15 (0 - 2.00)$$

WHERE R = ROYALTY IN DOLLARS AND CENTS PYR TON OF MINERAL SALTS

C = WEIGHTED AVERAGE OF GROSS SALES PRICE OF MINERAL SALTS SOLD DETERMINED ON A QUARTERLY BASIS DURING THE FIRST YEAR IN WHICH SALES OCCUR. THEREAFTER, THE WEIGHTED AVERAGE DETERMINED BY GROSS SALES PRICE OF MINERAL SALTS SOLD DURING THE PREVIOUS YEAR IN WHICH SALES OCCUR.

THE MINIMUM ROYALTY UNDER ANY LEASE ISSUED PURSUANT TO THIS PERMIT SKALL BE:

- (1) FOR GOLD, SILVER, OTHER PRECIOUS MINERALS, AND RADIOACTIVE MINERALS: \$3.00 PER TON.
- (2) FOR NONPRECIOUS METALLIC MINERALS: \$3.00 PER TON.
- (3) FOR NORMETALLIC MINERALS: \$0.15 PER TON.

THE MAXIMUM ROYALTY FOR GOLD, SILVER, OTHER PRECIOUS MINERALS, AND RADIOACTIVE MINERALS SHALL NOT EXCEED 50 PERCENT OF THE AVERAGE GROSS SALES PRICE OF THE MINERAL SALTS.

THE MAXIMUM ROYALTY FOR ALL NONPRECIOUS METALLIC AND NONMETALLIC MINERALS SHALL NOT EXCEED 25 PERCENT OF THE AVERAGE GROSS SALES PRICE OF THE MINERAL SALTS.

- B. UPON ALL ELECTRIC ENERGY AND SALABLE WATER PRODUCED FROM MINERAL WATERS EXTRACTED FROM SAID LEASE PREMISES:
 - (1) A FIXED MINIMUM PAYMENT OF 121 PERCENT OF THE GROSS SALES VALUE OF ALL ELECTRIC POWER AND WATER PRODUCED.
 - (2) AN ADDITIONAL SUM OF 33-1/3 PERCENT OF THE NET PROFIT DERIVED FROM ALL THE OPERATIONS ON STATE LANDS, LESS THE MINIMUM PAYMENT.
- C. UPON ALL CARBON DIOXIDE GAS AND OTHER NONHYDROCARBON GASES EXTRACTED AND SAVED UNDER THIS LEASE, A PAYMENT OF SIXTEEN AND TWO-THIRDS (16-2/3) PERCENT OF THE CURRENT MARKET PRICE AT THE VELL AND OF ANY PREMIUM OR BONUS PAID ON ALL NONHYDROCARBON PRODUCTION REMOVED OR SOLD FROM THE LEASED LANDS.

Attachment
Calendar Item 22 (8 pages)

CALENDAR ITEM --

22.

APPLICATION FOR PROSPECTING PERMIT ON PROPRIETARY LAND IN IMPERIAL COUNTY, R. W. CYPHER - W.O. 3885.

An application has been received from R. W. Cypher of Long Beach for a permit to prospect for geothermal steam, mineral waters, and all minerals and gases excluding oil and hydrocarbon gases, on approximately 160 acres of proprietary land in the $NW_{\overline{k}}$ of Section 12, T. 11 S., R. 13 E., S.B.B.& M., Imperial County.

In the course of drilling exploratory wells for the production of oil and gas in this general area, large quantities of superheated mineralized water were encountered at depths of less than 1000 feet. No oil or hydrocarbon gas zones were penetrated. The area is believed to be underlain by molten magma which provides heat to the subterranean vaters.

The applicant proposes to prospect for geothermal steam to be used to produce electric energy, and, as a by-product of this operation, some minerals and fresh water may be produced. Similar operations for the development of electric power have proved successful at The Geysers, near Santa Rosa.

In the event that the proposed operations prove to be successful, the Board of Directors of the Imperial Irrigation District has agreed to purchase on any lease held by the applicant in this vicinity, not to exceed 10,000 kilowatts of electric energy at the price of $\frac{1}{12}$ mills per kilowatt-hour delivered at a proposed generating plant.

The feasibility of isolating individual mineral salts from the precipitate deposited upon vaporization of the superheated mineral water can be determined only after the operation has commenced. The sale of domestic water in this area should present no problem.

The office of the Attorney General has advised that, under the authority of Public Resources Code Section 6891, the Commission may issue a prospecting permit for the exploration of mineral waters in the subject land. The office of the Attorney General has further advised that the issuance of contiguous permits to the same applicant is not legally objectionable.

On March 24, 1960 (Minute Item 12, page 5763), the Commission authorized the issuance of a prospecting permit to the applicant covering 40 acres of sovereign land, and on March 7, 1961 (Minute Items 9, 10, 11 and 12, pages 6722-36), the Commission authorized the issuance of four contiguous prospecting permits to the applicant covering 535 acres of proprietary land under the jurisdiction of the Department of Fish and Game.

During August of 1361, the applicant completed an exploratory steam well, the O'Neill "Sportsman" No. 1, on private land near State Prospecting Permit P.R.C. 2708.1. The well tested at the rate of 25,000 barrels of fluid per day or 350,000 pounds of steam and water per hour, of which approximately 100,000 pounds per hour was steam. The applicant is currently

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CALFNDAR ITEM 22. (CONTD.)

drilling another exploratory well, the O'Neill "Imperial" No. 1, on private lands near State Prospecting Permit P.R.C. 2708.1.

A field reconnaissance of the area has established that the land sought is not known to contain commercially valuable deposits of mineral. The statutory filing fee of \$5 has been paid and the permit fee of \$160 has been deposited by the applicant.

Subject land, now under the jurisdiction of the Department of Fish and Game, was acquired by the State for use as a waterfowl refuge. The Department has been notified of the receipt of the application, and has consented to the proposed prospecting, subject to the conditions listed in Exhibit "D".

IT IS RECOMMENDED THAT, PURSUANT TO SECTION 6891 OF THE PUBLIC RESOURCES CODE, THE COMMISSION AUTHORIZE THE EXECUTIVE OFFICER TO ISSUE TO R. W. CYPHER A TWO-YEAR PROSPECTING PERMIT AUTHORIZING PROSPECTING FOR GEOTHERMAL STEAM, MINERAL WATERS, AND ALL MINERALS AND GASES EXCLUDING OIL AND HYDRO-CARBON GASES, ON 160 ACRES OF PROPRIETARY LAND IN THE NWH OF SECTION 12, T. 11 S., R. 13 E., S.B.B.& M., IMPERIAL COUNTY, SUBJECT TO THE CONDITIONS INCLUDED IN EXHIBITS "A" THROUGH "D" ATTACHED HERETO AND HEREBY MADE A PART HEREOF, WITH ROYALTY PAYABLE AS FOLLOWS:

- 1. UNDER THE PROSPECTING PERMIT ISSUED, 20 PERCENT OF THE GROSS VALUE OF ANY MINERALS, GEOTHERMAL STEAM AND SALABLE WATER SECURED BY PERMITTEE FROM THE LANDS EMBRACED WITHIN THE PERMIT AND SOLD OR OTHERWISE DISPOSE OF OR HELD BY THE PERMITTEE FOR SALE OR OTHER DISPOSITION;
- 2. UNDER ANY PREFERENTIAL LEASE ISSUED UPON THE DISCOVERY OF GEOTHERMAL STEAM, VALUABLE DEPOSITS OF MINERALS, AND SALABLE WATER, TO BE DETERMINED AS FOLLOWS:
 - A. UPON ANY AND ALL MINERALS PRODUCED AND EXTRACTED AND SOLD FROM SAID PREMISES:
 - (1) FOR GOLD, SILVER, OTHER PRECIOUS MINERALS, AND RADIOACTIVE MINERALS

$$R = 3.00 + 0.01 (c - 20.00)^2$$

(2) FOR NONPRECIOUS METALLIC MINERALS

$$B = 3.00 + 0.37 (C - 60.00)$$

(3) FOR NONMETALLIC MINERALS

$$R = 0.15 + 0.15 (C - 2.00)$$

WHERE R = ROYALTY IN DOLLARS AND CENTS PER TON OF MINERAL SALTS

C = WEIGHTED AVERAGE OF GROSS SALES PRICE OF MINERAL SALES SOID DITERMINED ON A QUARTERLY BASIS DURING THE FIRST YEAR IN WHICH SALES OCCUR. THEREAFTER, THE WEIGHTED AVERAGE DETERMINED BY GROSS SALES PRICE OF MINERAL SALTS SOID DURING THE PREVIOUS YEAR IN WHICH SALES OCCUR.

CALENDAR ITEM 22. (CONTD.)

THE MINIMUM ROYALTY UNDER ANY LEASE ISSUED FURSUANT TO THIS PERMIT SHALL BE:

- (1) FOR GOLD, SILVER, OTHER PRECIOUS MINERALS, AND RADIOACTIVE MINERALS: \$3.00 PER TON.
- (2) FOR NONPRECIOUS METALLIC MINERALS: \$3.00 PER TON.
- (3) FOR NONMETALLIC MINERALS: \$0.15 PER TON.

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- B. WPON ALL ELECTRIC ENERGY AND SALABLE WATER PRODUCED FROM MINERAL WATERS EXTRACTED FROM SAID LEASE PREMISES:
 - (1) A FIXED MINIMUM PAYMENT OF 122 PERCENT OF THE GROSS SALES VALUE OF ALL ELECTRIC POWER AND WATER PRODUCED.
 - (2) AN ADDITIONAL SUM OF 33-1/3 PERCENT OF THE PROFIT DERIVED FROM ALL THE OPERATIONS ON STATE LANDS, LESS THE MINIMUM PAYMENT.
- C. UPON ALL CARBON DIOXIDE GAS AND OTHER NONHYDROCARBON GASES EXTRACTED AND SAVED UNDER THIS LEASE, A PAYMENT OF SIXTEEN AND TWO-THIRDS (16-2/3) PERCENT OF THE CUFRENT MARKET PRICE AT THE WELL AND OF ANY PREMIUM OR BONUS PAID ON ALL NONHYDROCARBON PRODUCTION REMOVED OR SOLD FROM THE LEASED LANDS.

Attachments
Exhibits "A" through "D"

EXHIBIT "A"

- 1. The State Lands Commission by issuing the requested prospecting permit is in no way purporting to fix the amount of mineral water that the Permittee may bring to the surface, which quantities are subject to other applicable provisions of the law.
- 2. The State shall have the right to determine the spacing of wells and the rate of drilling and rate of production of such wells so as to prevent the waste of superheated water and promote the maximum economic recovery of superheated water from and the conservation of reservoir energy in each zone or separate underground source of supply of superheated water covered in whole or in part by this lease.
- 5. The Permittee shell use all reasonable precautions to prevent waste of natural resources and energies, including o'll and gas, in the lease lands or the entrance of water through wells drilled to any oil or gas, fresh water or carbon dioxide bearing strata to the destruction or injury of such deposits.
- The Permittee shall file promptly with the State Lands Commission copies of all logs, including electric logs, surveys, drilling records, well histories, core records and related information as measured and recorded for the wells drilled by the Permittee into the permitted lands. The Permittee does hereby waive any statutory limitations upon the use by the State or a duly authorized employee of the State of any information filed with the Division of Oil and Gas of the Department of Natural Resources by the Permittee in connection with this permit. Any and all information filed by the Permittee with the said Division of Oil and Gas in connection with this permit shall be available at all times for the confidential use of the State for the purpose of enforcing compliance with the terms, covenants, and conditions of this lease and rules and regulations now promulgated by the State, but shall not be open to inspection by any person except members, officers, or employees of the State Land: Commission or Division and persons performing any function or work assigned to them by said Commission or Division, except upon the written consent of the Permittee. Notwithstanding any other provision hereof, said information may be disclosed to any person where such disclosure is reasonably necessary for the administration of the functions, responsibilities, and duties vested in the Commission by law, including but not limited to functions, responsibilitles, and duties arising in connection with any litigations relating to this permit or to the rights, duties, and obligations arising hereunder.
- 5. With respect to Lamuge to any reservoir underlying the demised promines and loss of oil, gas or other hydrocarbon substances, superheated water, or carbon dioxide gas therein or therefrom, Permittee shall be liable to the State for such damage and loss to the extent that such damage and loss is caused by the negligence of or the breach of any provision of

EXHIBIT "A" (CONTD.)

- .this lease or noncompliance with any applicable statutes or rules and regulations by the Permittee or its employees, servants, agents or contractors, provided that nothing herein shall diminish any other rights or remedies which the State may have in connection with any such negligence or breach.
- 6. In the event any well has been, is or shall be completed on other than State lands, with any part of its producing interval within six hundred (600) feet from the exterior boundary of this lease, and if such well is capable of producing superheated waters in commercial quantities, provided Permittee is not drilling or has not heretofore drilled an offset well thereto on the permitted lands, then the State may notify the Permittee in writing to drill an offset well thereto, and within one hundred twenty (140) days from the date of such notice, the Permittee shall commence operations for the drilling of an offset well on the leased lands to the same zone as that zone from which such well is producing, or is capable of producing, superheated waters. For the purpose of this section an offset well shall mean a well the producing interval of which is situated at a location in the leased lands not more than one hundred (100) feet from the point on the boundary of the lease nearest to the producing interval of the well to be offset.
- 7. An electric log, gamma ray neutron log or logs, and temperature survey shall be made of all formations peretrated to the drilled depth of each well or to such depth as is Temsible. At least one oriented core or dipmeter record shall be made during the drilling of the first well to each zone if it is mechanically practicable to do so, or during the drilling of the earliest subsequent well in which it is mechanically practicable to make such core or record. True and correct copies of all logs, surveys, paleontological reports, dipmeter records, oriented core records, rock core records, drill records and well histories and all other drilling tests and production data taken by Permittee or his agents shall be immediately available to the representatives of the State, and said representatives shall also have ready access to all rock cores and samples which may be obtained during the drilling of each well.
- 8. The Permittee shall comply with all valid laws of the United States and of the State of California and with all valid ordinances of cities and counties applicable to the Permittee's operations hereunder, including without limitation by reason of the specification thereof the Permittee's compliance with Division 3 of the Public Resources Code, Statutes of California. The Permittee further agrees without limitation by reason of the specifications thereof to comply with all provisions of Division of the Public Resources Code, Statutes of California, applicable to the Permittee's operations hereunder, and with all rules and regulations of the State Lands Commission applicable to the Permittee's operations hereunder in effect at the date of the issuance of this permit.

EXHIBIT "A" (CONTD.)

- 9. The Permittee shall furnish to the State detailed drawings of all pipelines attached in any manner to the said wells and report any changes or additions promptly, and shall gauge all water and measure all steam.
- 10. The Permittee having furnished bond in favor of the State of California in the penal sum of \$50,000 in connection with nearby prospecting permits P.R.C. 2548.1, P.R.C. 2705.4, P.R.C. 2766.4, P.R.C. 2707.4, and P.R.C. 2708.4 shall amend the aforesaid bond to guarantee the faithful performance by the Permittee of the terms and covenants and observance of the conditions of said permit, and the provisions of the rules and regulations of the State Lands Commission to cover operations under this permit, or the Permittee shall deposit a similar bond in the penal sum of \$10,000 under this permit.
- II. The Permittee may use superheated water from Lessee's well drilled into the leased lands for drilling and production purposes only, to the extent such use is necessary for operations of said wells. Such superheated water, so used, shall not be included in computing, for royalty purposes, the total production of superheated water removed or sold from the leased lands during the month.

EXHIBIT "B"

"Gross Sales Value" shall be determined by multiplying the contract sales price of electricity and water by the quantity produced.

EXHIBIT "C"

"Development and Operating Costs" to be allowed in determining net profit for the purposes of this lease shall include only the ordinary and necessary expenses incurred by the Lessee which are properly allocable in accordance with generally accepted accounting principles to the cost of production of electric energy, and water from the lease premises, including development costs of steam wells.

EXHIBIT "D"

Operations under this permit or any lease issued covering subject land shall be conducted in accordance with the following conditions:

- 1. Drilling operations shall be conducted outside the present duckpond area.
- 2. The present roadways shall be avoided.
- 3. Drilling shall be conducted under the supervision of the area manager and at times when duckhunting is not in season.
- 4. Testing shall be conducted through calorimeters or closed system, and in any event, testing shall not be conducted by blowing steam into the air.

EXHIBIT "D" (CONTD.)

- 5. Any existing levee roads used by the lessee for operations under this lease shall be graveled, oiled, and kept in good state of repair at all times at the sole expense of said lessee.
- 6. The location of any roads to be constructed for access to well locations under this lease shall be approved in advance by the Department of Fish and Game. Such roads shall be constructed at the sole expense of the lessee of said lease.
- 7. Surface equipment for all wells drilled under this lease shall be located so as to be as inconspicuous as possible and with the approval of the Department of Fish and Game first had and obtained. All surface equipment necessary for well operation and handling of gas shall be painted in a manner to be approved by the Department of Fish and Game.
- 8. No drilling or construction activities shall be conducted on the above described premises during the open migratory waterfowl seasons and all other activities of the lessee shall be kept to a minimum during the said seasons. Said lessee shall conduct all of its activities at all times and in such manner as will not in the judgment and opinton of the Department of Fish and Game interfere with the purpose, function and use of the Wister Waterfowl Management Area by the Department of Fish and Game.
- 9. Any pipe lines laid on the above-described premises in connection with this lease shall be laid below plow depth and at least 2 feet below the bottom of any irrigation or drainage ditch or slough.