

Staff Report 45

APPLICANT:

ORNI 5 LLC

PROPOSED ACTION:

Issuance of two negotiated State geothermal resources leases

AREA, LAND TYPE, AND LOCATION:

Approximately 2,739 acres of school land (also referred to as lieu land) located within the Truckhaven geothermal area, southwest of the Salton Sea, Imperial County.

Application A2079: Approximately 2,016 acres of the State's 100 percent reserved mineral interest (RMI) school land and State-owned school land (fee-owned land, where the State retains the surface and minerals), Assessor's Parcel Numbers 017-010-016, 017-010-017, 017-010-027, 017-010-044, 017-010-045, 017-010-048, 017-010-056, 017-340-003, 017-340-004, 017-340-010, 017-050-013, and 017-970-014, located within Sections 32 and 34, Township 10 South, Range 10 East, and within Sections 4 and 10, Township 11 South, Range 10 East, SBM. The State, Applicant, and DEVCAL Corporation each own a portion of the surface lands. See Exhibits A (A2079) and B (A2079), attached.

Application A2230: Approximately 723 acres of the State's 100 percent RMI school land, Assessor's Parcel Numbers 017-340-011 and 017-340-018, located within Sections 10 and 16, Township 11 South, Range 10 East, SBM. The California Department of Parks and Recreation (CDPR) owns the surface lands, known as the Ocotillo Wells State Vehicular Recreation Area. See Exhibits A (A2230) and B (A2230), attached.

AUTHORIZED USE:

Application A2079 – geothermal resources lease, allowing surface occupancy and drilling of up to four geothermal wells on State RMI and fee-owned lands.

Application A2230 – non-surface occupancy, geothermal resource lease on State RMI school land underlying CDPR managed surface lands. Only subsurface directional drilling of up to four wells.

A prospective future geothermal field development project, which involves construction of powerplants and transmission lines (commercial scale), will require an amendment to these proposed geothermal leases and must be presented to the Commission for consideration, and may only be taken under consideration after further analysis under the California Environmental Quality Act (CEQA).

TERM:

For both leases, a 5-year primary term commencing on November 1, 2020, and for so long thereafter as geothermal resources are being, or are capable of being, produced or utilized in commercial quantities from the leased land or a unit in which the leased land participates. The proposed leases do not authorize any development beyond the initial drilling project.

CONSIDERATION:

Annual Rent: \$10 per acre. For A2079, annual rent is \$20,160 and for A2230, annual rent is \$7,230. The total annual rent for both leases is \$27,390.

Royalty: 3 percent of the gross proceeds from the sale of electrical power; 12.5 percent of the gross revenue received from the sale of steam, brines from which no minerals have been extracted, and associated gases; and 5 percent of the gross revenue received from the sale of mineral products or chemical compounds.

SPECIFIC LEASE PROVISIONS:

- Liability Insurance: Policy naming the State as additional insured, with coverage of at least \$2,000,000 per occurrence and a general aggregate limit of at least \$5,000,000.
- Bond: \$260,000 in favor of the Commission for each well drilled on or through the leased land. The bond must be received by the Commission prior to drilling a well. The bond amount is subject to review and adjustment by staff every 5 years.
- Management Fee: By December 1, 2020, the Applicant will execute a standard reimbursement agreement for \$12,000 (per year), covering both leases, with automatic annual renewals that increase the value by 5 percent per year thereafter, to cover periodic lease inspections, and the administration and implementation of the lease terms.

BACKGROUND:

The Truckhaven area near the Salton Sea is known for geothermal activity and geothermal prospecting has occurred there since the 1960s. The Applicant's ultimate goal is for a full geothermal field development project within the Truckhaven geothermal area covering multiple surface-owner interests that includes land owned and managed by the Commission, the U.S. Bureau of Land Management (BLM), CDPR, and private parties (stakeholders).

In September 2014, the Applicant obtained rights from BLM for numerous leases on federal lands. The federal leases are around the proposed lease areas encompassing applications A2079 and A2230. On February 24, 2015, the Applicant, a subsidiary of Ormat Nevada Inc., applied to the Commission for a negotiated geothermal resource lease covering a total of 2,739 acres. Public Resources Code section 6405 grants the Commission sole authority to lease State mineral interests. In consultation with CDPR, staff separated the Applicant's project into two proposed lease areas, to ensure that geothermal drilling does not impair CDPR's surface use.

The Applicant scaled the project to fit the definition of a geothermal drilling project (pursuant to Public Resources Code section 21065.5), for which CEQA allows the drilling of up to six wells (includes two wells on private land) to be analyzed separately from later commercial scale field development. The Applicant has indicated its intent to pursue commercial field development based on this initial well drilling program, after additional CEQA analysis is conducted and the required permitting is obtained. As such, staff recommends issuing the proposed geothermal leases, as opposed to prospecting permits because, 1) as staff understands, the wells drilled under the current proposed project would be sized for use in future commercial production, if later approved by the Commission; 2) the Applicant's project financing necessitates longer term land control than prospecting permits allow (2 years with a one-time 2 year extension); and 3) prior exploration has indicated evidence of geothermal resources in commercial quantities, making lease issuance suitable. While drilling is required to identify the specific location of the best commercial resources, enough prospecting has already occurred to confirm that commercial resources exist within the lease areas.

Public Resources Code section 6912 states that private surface owners overlying the State's RMI have the right, within 4 months of notice that an application has been received, to file a geothermal lease application. On April 26, 2019, staff notified the only private surface owner, DEVCAL Corporation, and provided a copy of the project application. A second notice was sent out on June 26, 2020, by registered mail. DEVCAL has not raised any objections about the project and is working with the Applicant.

As part of CDPR's application review, CDPR directed the Applicant to conduct biological, cultural, and paleontological surveys. Stakeholders participated in monthly meetings to coordinate and discuss the progress of these surveys. The surveys commenced in April 2016 and were completed in 2018. The surveys took 2 years due to the Applicant's budgetary constraints and the intense summer heat, which limited fieldwork. On December 4, 2018, the Applicant applied to Imperial County (County), the CEQA lead agency, for a conditional use permit (CUP). The County adopted a Mitigated Negative Declaration on December 11, 2019.

PROJECT DESCRIPTION:

The Applicant proposes to drill, test, and evaluate for the presence and characteristics of geothermal resources prior to commencement of a future geothermal field development project. Overall, the Applicant has received approvals to drill a total of ten wells within the full scope of the Truckhaven Geothermal Area: four wells will be on State lands (A2079), two wells on private lands, and four wells on federal lands (under a separate federal approval). The scope of drilling under the proposed leases is consistent with the plan of development identified in Imperial County CUP No. 18-0038 and the Mitigated Negative Declaration adopted by Imperial County for the Truckhaven Geothermal Exploration Well Project; State Clearinghouse No. 2019119033. Neither the CUP, nor the proposed leases, authorize any development beyond the initial drilling project.

Separately, the BLM conducted an Environmental Assessment under the National Environmental Policy Act for exploratory development of the Applicant's federal leases. The BLM issued a Record of Decision on May 29, 2020, approving the development of the four wells on federal lands.

On April 29, 2020, the Commission issued a geophysical permit (Permit 9623.2) to the Applicant, authorizing preliminary geophysical exploration of a 23.5-square-mile area ([Item C67, April 29, 2020](#)). This survey will develop three-dimensional high-resolution images of the subsurface geologic features within the Truckhaven project area and confirm the presence of geothermal resources to aid in the subsurface, bottom hole well placement.

After review of the geophysical survey results, with Commission lease approvals, the Applicant will drill, complete, test, and monitor the production of the wells. The well sites are selected based on past geologic investigations going back to the 1980s, including geologic mapping, geophysical surveys, and temperature gradient holes. The wells will be drilled, and flow tested to examine and confirm the characteristics of the underlying geothermal reservoir. These steps can help determine if the geothermal resource is commercially viable.

Each well will be located and constructed with aggregate material purchased locally on an individual well pad. The well pad will cover an area of 400 feet by 400 feet (except for one well pad that is smaller to avoid sensitive resources) for a total occupation of 14.8 acres on the area encompassing A2079. Well pad preparation includes site clearing, digging, piling dirt, preparing drainage, and other activities necessary for efficient and safe operations. Measures to prevent soil erosion during construction include the preparation of an erosion plan prior to grading. After 5 years, without a lease amendment, if the primary term of any of the proposed leases expires and the lease conditions are not satisfied, the Applicant will be required to plug and abandon all drilled wells and restore the lands, on that lease, to their original condition.

STAFF ANALYSIS AND RECOMMENDATION:

AUTHORITY:

Public Resources Code sections 6005, 6216, 6301, 6501.1, 6503, 6904, 6913, 6918, 6919, 8701, 21065.5, and 21090.1.

STATE'S BEST INTERESTS:

Public Resources Code section 6217.5 provides that the net revenue from school lands shall be deposited in the State Treasury to the credit of the State Teachers' Retirement System. In addition, the leasing, subsequent exploration, and development of school and lieu lands for geothermal resources will help achieve California's goal of increasing electrical generation from renewable sources.

The Applicant eventually seeks to convert heat energy from the geothermal resources to electrical energy, while preserving the integrity and prolonging the life cycle of the geothermal reservoir. Geothermal energy provides base load electricity 24 hours a day, 7 days a week. It is highly reliable, flexible, and produces no nitrogen oxide emissions and virtually no carbon dioxide (CO₂) emissions.

The proposed leases will help the State achieve its ambitious greenhouse gas emission reduction target of 40 percent below 1990 levels by 2030 (SB 32, 2016) and renewable energy procurement targets of 60 percent by 2030 and 100 percent by 2045 (SB 100, 2018). Geothermal operations do not involve the production or burning of fossil fuels and helps the state responsibly transition from dependency on fossil fuel development and embrace a clean energy future.

Geothermal operations are regulated by federal, state, and county agencies that include: the BLM (on federal lands), the California Geological Energy Management

Division (on the proposed lease areas), and Imperial County, as the CEQA lead agency.

Public Resources Code section 6919 allows the Commission to directly negotiate a geothermal lease, as opposed to holding a competitive bid or auction, if the proposed lease areas are determined by the Commission to be unsuitable for competitive bidding because of such factors as their small size or irregular configuration, or their inaccessibility from surface drill sites reasonably available or obtainable.

The proposed lease areas are unsuitable for competitive bidding, and a negotiated lease is appropriate, due to their irregular configuration within other holdings under the Applicant's control. The Applicant has consolidated its holdings in the Truckhaven area through federal and private leases. The proposed lease areas are intermingled within these holdings making leasing to different parties (if any were interested) difficult, as development by different parties could invite operator conflict given the relatively large number of small sized parcels spread over the development area. The Applicant has expressed interest in unitizing all holdings—BLM, private, and State—in order to maximize production while reducing the development footprint and potential impacts on the CDPR operations within the Ocotillo Wells State Vehicular Recreation Area. Because the Applicant has the potential to develop all the proposed lease areas under one future, contiguous plan of development and in conjunction with all stakeholders—BLM, private, and State—staff believes that issuance of the negotiated geothermal leases is appropriate.

CLIMATE CHANGE:

As stated in *Safeguarding California Plan: 2018 Update* (California Natural Resources Agency 2018), climate change is projected to increase the frequency and severity of natural disasters related to flooding, drought, fires, and storms. The lease areas are open lands with moderate to low vegetation fuels and are vulnerable to the above events, including dust storms and flash flooding from thunderstorms, and to a lesser extent, wildland fires. Although the lease areas and surrounding lands may be vulnerable to these weather events, these projected climate change impacts are not expected to affect the use of the lease areas for geothermal exploration.

The Applicant is responsible for ensuring that the drilling locations are maintained in a manner that does not contribute to wildland fire hazards. Regular maintenance of vegetation within the project area and access to the leased lands will help minimize the threat of fire hazards.

ENVIRONMENTAL JUSTICE AND TRIBAL CONSULTATION:

Consistent with the Commission's Environmental Justice Policy, staff evaluated the location of the proposed lease areas to determine whether environmental burdens, should there be any, would disproportionately impact nearby communities. Staff also engaged with the environmental justice communities for comments and ideas about the proposed leases and any related impacts that can be lessened or avoided on those communities. Using the CalEnviroScreen 3.0 program, managed by the California Office of Environmental Health Hazard Assessment, staff identified the census tract covering the proposed lease areas along with adjacent tracts bearing environmental burdens, in certain categories, higher than most other census tracts in the State.

Based on the identified environmental burdens, staff conducted outreach to environmental justice communities and sought input on the proposed geothermal leases. In March and April, staff contacted, via letter and email, 45 individuals and representatives of environmental justice organizations to notify them about the applications and to solicit comments. One environmental justice group (EJ group), reached out to staff for a teleconference.

During an April 3, 2020, teleconference meeting, representatives of that EJ group expressed concerns about associated hazardous materials and waste from the geothermal development and the impact to regional air and water quality. There was also concern about the environmental burdens on the community associated with the intended future geothermal field development project, which will be considered under a separate CEQA document, as noted above, (e.g., traffic due to project activity, hazardous material use, and waste transportation) without receiving project benefits (e.g., employment and reduced energy rates). The group also expressed frustration with the lack of early community engagement during the County environmental review process.

On July 10, 2020, staff had a second meeting with the EJ group to address and clarify the concerns above. Staff shared the following information with the EJ group:

- Additional development, associated with the production and transmission of electricity, is not authorized under the two leases proposed in this application.
- Concerns associated with the drilling operation are outlined and addressed in the adopted mitigation measures, approved during the April 2020 Commission geophysical permit approval.
- The proposed leases require the Applicant to develop and submit to staff an environmental justice community engagement and outreach plan to

meaningfully engage the community before and during environmental review for any additional development activity that expands beyond the drilling activity presently proposed for Commission consideration.

- For geothermal development, staff committed to developing a flow chart illustrating the State agencies that are involved in the entitlement process.
 - This flow chart will identify the various agencies involved in the leasing, permitting, and development of geothermal projects, as well as highlighting where opportunities for public comment will occur.
- During the October 22, 2020 Commission Meeting, the Applicant plans to present information on the project's associated employment and job opportunities.

In closing, the EJ group expressed support for the addition of an engagement plan agreeing that this would allow staff to engage the community proactively and meaningfully, if there is additional geothermal development. The EJ group acknowledged that the Commission plans to consider approval for the drilling project at the October 22, 2020 meeting, and that staff will keep the EJ group informed of any new advancement, development, and further CEQA consideration.

The County, as the CEQA lead agency and pursuant to AB 52, conducted outreach and Consultation with California Native American Tribes, and evaluated potential impacts to Tribal Cultural Resources. However, consistent with the Commission's Environmental Justice Policy, which recognizes the unique burdens and equity challenges faced by Tribal communities, staff sent outreach letters to the fifteen culturally- and geographically-affiliated Native American Tribes inviting them to engage or Consult on the proposed project. Staff did not receive any requests for Consultation or comments on the proposed project from the notified Tribes.

CONCLUSION:

For all the reasons above, staff believes the proposed leases are in the State's best interests and recommends approval.

OTHER PERTINENT INFORMATION:

1. Approval or denial of the applications is a discretionary action by the Commission. Each time the Commission approves or rejects a use of school land, it exercises legislatively delegated authority and responsibility as trustee of

the State's school land, as authorized by law. If the Commission denies the application, the Applicant will not be able to drill on or underneath the leased land. Upon expiration or prior termination of the leases, the Lessee will have no right to a new lease or to renewal of any previous lease.

2. This action is consistent with Strategy 1.1 of the Commission's Strategic Plan to deliver the highest level of public health and safety in the protection, preservation and responsible economic use of the lands and resources under the Commission's jurisdiction; Strategy 1.4 of the Commission's Strategic Plan to incorporate strategies to address climate change, adapt to sea-level rise, incentivize water conservation, and reduce greenhouse gas emissions and the generation of litter and marine debris into all the Commission's planning processes, project analyses and decisions; Strategy 2.1, to optimize returns for the responsible development and use of State lands and resources; and Strategy 3.2 of the Commission's Strategic Plan to commit to early and meaningful coordination and collaboration with local, state and federal agencies, California Native American Tribes, and local and regional communities and all individuals disproportionately impacted by environmental pollution.
3. A Mitigated Negative Declaration, State Clearinghouse No. 2019119033, and a Mitigation Monitoring Program (MMP) were prepared and adopted by Imperial County on December 11, 2019. Staff reviewed these documents and prepared an independent MMP incorporating the County's document that the Commission previously adopted on April 29, 2020 ([Item C67, April 29, 2020](#)). The MMP remains in full force and effect. Staff recommends that the Commission find that no additional CEQA analysis is required.
4. This activity involves lands which have NOT been identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq.; however, the Commission has declared that all lands are significant by nature of their public ownership (as opposed to environmentally significant). Since such declaration of significance is not based upon the requirements and criteria of Public Resources Code section 6370 et seq., use classifications for such lands have not been designated. Therefore, the finding of the project's consistency with the use classification as required by California Code of Regulations, title 2, section 2954 is not applicable.

EXHIBITS:

- A. A2079, A2230 Land Description
- B. A2079, A2230 Site and Location Map

C. A2079, A2230 Geothermal Resources Leases

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Find that a Mitigated Negative Declaration, State Clearinghouse No. 2019119033, was prepared by Imperial County and adopted on December 11, 2019, and that the Commission has reviewed and considered the information contained therein; that the Commission adopted an MMP at its April 29, 2020, meeting that remains in full force and effect; that in the Commission's independent judgment, the scope of activities to be carried out under the leases has been adequately analyzed; that none of the events specified in Public Resources Code section 21166 or the State CEQA Guidelines section 15162 resulting in any new or substantially more severe significant impact will occur and, therefore no additional CEQA analysis is required.

STATE'S BEST INTERESTS:

Find that the issuance of the two proposed leases is in the best interests of the State.

AUTHORIZATION:

1. Find that the lands proposed for leasing are unsuitable for competitive bidding because of their irregular configuration and their inaccessibility from surface drill sites reasonably available or obtainable, due to the lands being intermingled within the Applicant's federal and private geothermal lease holdings in the Truckhaven area.
2. Authorize the issuance of a negotiated geothermal resources lease to ORNI 5 LLC, for lands described in Exhibit A-A2079, Land Description, and shown on Exhibit B-A2079, Site and Location Map (for reference purposes only); for a 5-year term beginning November 1, 2020, and for so long thereafter as geothermal resources are being, or are capable of being, produced or utilized, in commercial quantities from the leased land or from lands unitized; for a geothermal drilling project, with a lease amendment required for a future geothermal field development project.
3. Authorize the issuance of a negotiated non-surface occupancy geothermal resources lease to ORNI 5 LLC, for lands described in Exhibit A-A2230, Land Description, and shown on Exhibit B-A2230, Site and Location Map (for reference

purposes only); for a 5-year term beginning November 1, 2020, and for so long thereafter as geothermal resources are being, or are capable of being, produced or utilized, in commercial quantities from the leased land or from lands unitized; for a geothermal drilling project, with a lease amendment required for a future geothermal field development project.

EXHIBIT A

A 2079

LAND DESCRIPTION

Six parcels of State School and Lieu Lands in Imperial County, State of California, more particularly described as follows:

PARCEL 1

That portion of Section 32 Township 10 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved October 6, 1856, Imperial County described as PARCEL FOUR in that certain Grant Deed recorded on November 13, 2014 in Document 2014022678 in Official Records, Imperial County.

PARCEL 2

That portion of Section 32 Township 10 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved October 6, 1856, Imperial County described as PARCEL SEVEN in that certain Grant Deed recorded on November 13, 2014 in Document 2014022678 in Official Records, Imperial County.

PARCEL 3

South ½ of Section 34 Township 10 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved October 6, 1856, Imperial County.

PARCELS 4 and 5

All of Section 4 Township 11 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved June 4, 1856, Imperial County.

EXCEPTING THEREFROM any portion of land lying within the right-of-way of State Highway 86.

PARCEL 6

That portion of Section 10 Township 11 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved June 4, 1856 lying northeasterly of the northeasterly right-of-way boundary line of State Highway 86.

END OF DESCRIPTION

Prepared 02/11/2020 by the California State Lands Commission Boundary Unit.



EXHIBIT A

A 2230

LAND DESCRIPTION

Two parcels of State School and Lieu Lands in Imperial County, State of California, more particularly described as follows:

PARCEL 1

All Section 16 Township 11 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved June 4, 1856, Imperial County.

PARCEL 2

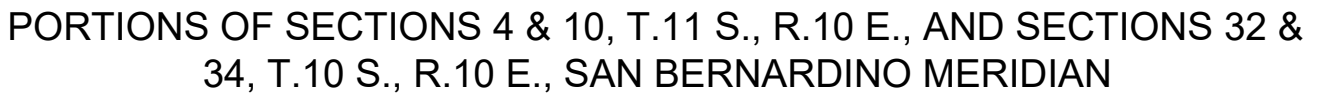
That portion of Section 10 Township 11 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved June 4, 1856 lying westerly of the westerly right-of-way line of State Highway 86.

END OF DESCRIPTION

Prepared 01/15/2020 by the California State Lands Commission Boundary Unit.



SITE



LOCATION



This Exhibit is solely for purposes of generally defining the other premises, is based on unverified information provided by the other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

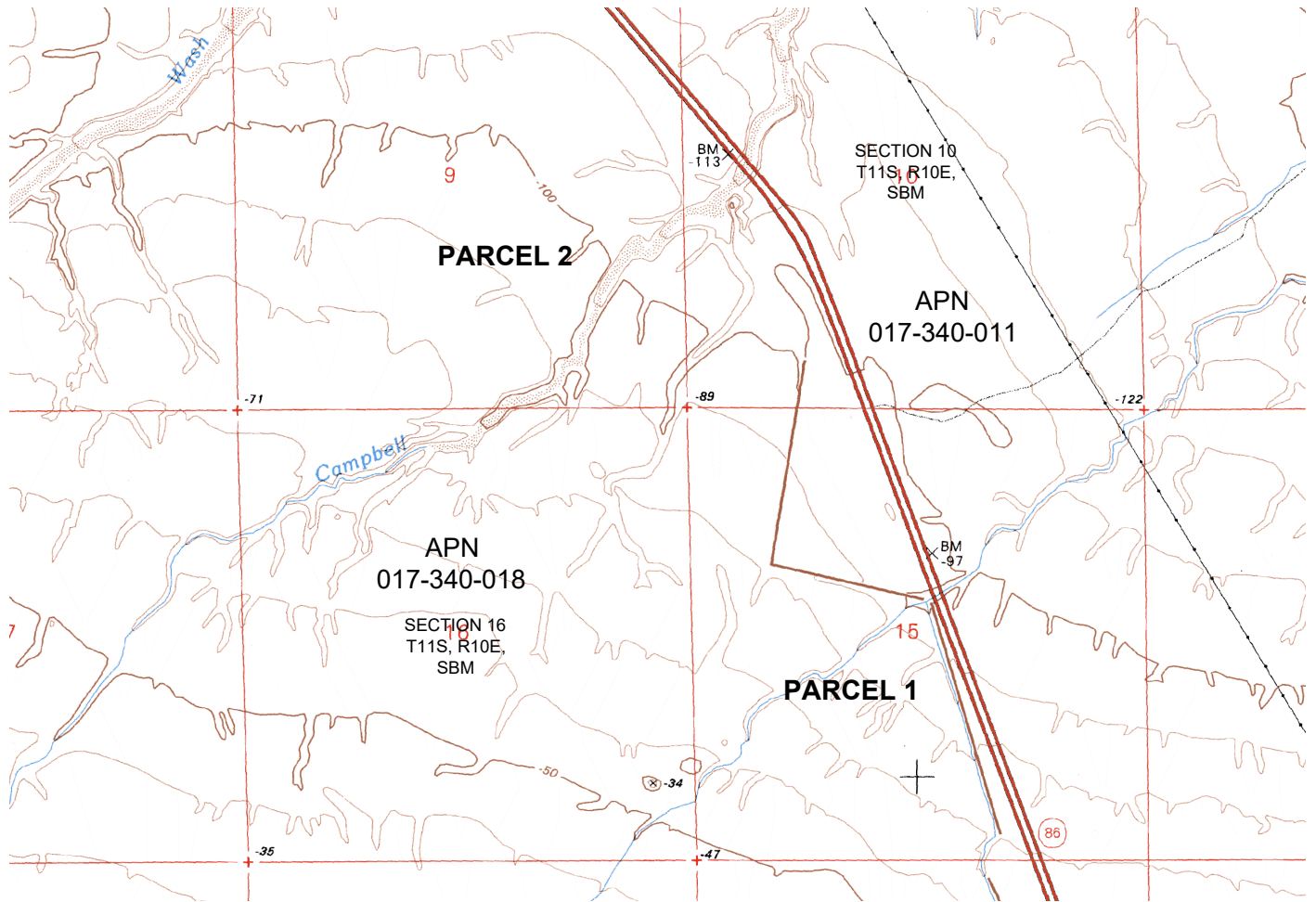
ORNI 5, LLC
GEOHERMAL LEASE
IMPERIAL COUNTY



TS 01/16/2020

NO SCALE

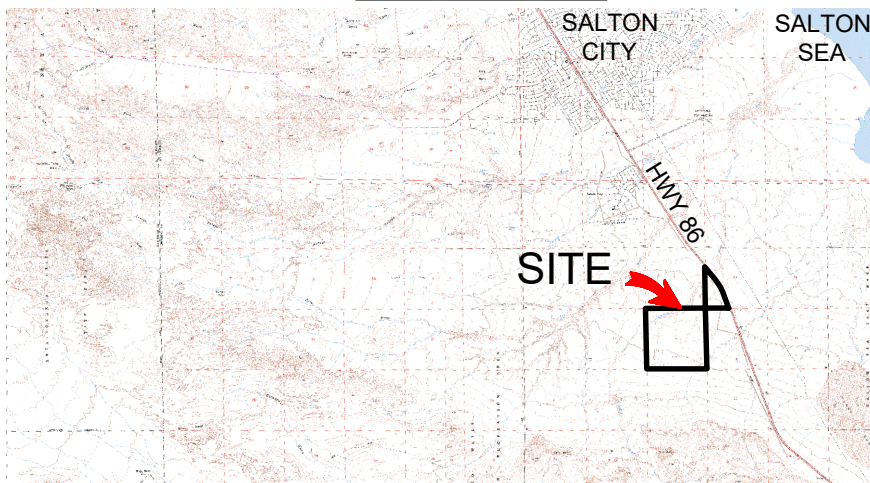
SITE



SECTION 16 AND PORTION OF SECTION 10,
TOWNSHIP 11 SOUTH, RANGE 10 EAST, SAN BERNARDINO MERIDIAN

NO SCALE

LOCATION



MAP SOURCE: USGS QUAD

This Exhibit is solely for purposes of generally defining the other premises, is based on unverified information provided by the other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

Exhibit B

A 2230

ORNI 5, LLC

APNs 017-340-011, -018
GEOTHERMAL LEASE
IMPERIAL COUNTY



TS 01/15/2020

Exhibit C

A2079

RECORDED AT THE REQUEST OF
AND WHEN RECORDED MAIL TO:
STATE OF CALIFORNIA
California State Lands Commission
301 East Ocean Blvd. Suite 550
Long Beach, CA 90802-8833

**STATE OF CALIFORNIA
OFFICIAL BUSINESS**

Document entitled to free recordation
pursuant to Government Code section 27383

SPACE ABOVE IS FOR RECORDER'S USE

A.P.N: 017-010-016, 017-010-017, 017-010-027, 017-010-044, 017-010-045, 017-010-048, 017-010-056, 017-340-003, 017-340-004, 017-340-010, 017-050-013, and 017-970-014

County: Imperial

Lease No. _____
A2079

GEOHERMAL RESOURCES LEASE

This Lease consists of this summary and the following attached and incorporated parts:

Section 1	Basic Provisions
Section 2	Special Provisions Amending or Supplementing Section 1 or 3
Section 3	General Provisions
Exhibit A	Land Description
Exhibit B	Site and Location Map

SECTION 1

BASIC PROVISIONS

THE STATE OF CALIFORNIA, hereinafter referred to as Lessor, acting by and through the **CALIFORNIA STATE LANDS COMMISSION** (301 East Ocean Blvd. Suite 550, Long Beach, CA 90802-8833,), pursuant to Division 6 of the Public Resources Code and Title 2, Division 3 of the California Code of Regulations, and for consideration specified in this Lease, does hereby lease, demise, and let to **ORNI 5, LLC**, hereinafter referred to as Lessee, those certain lands described in Exhibit A hereinafter referred to as Leased Land, subject to the reservations, terms, covenants, and conditions of this Lease.

MAILING ADDRESS: Scott Kessler, Land Division Manager
Ormat Nevada Inc.
6140 Plumas Street
Reno, NV 89519

LEASE TYPE: Geothermal Resources Lease

LAND TYPE: State's 100 percent reserved mineral interest school
land and State-owned school land

LOCATION: Approximately 2,016 acres in portions of Sections 4 & 10,
Township 11 South, Range 10 East and Sections 32 & 34,
Township 10 South, Range 10 East, SAN BERNARDINO
MERIDIAN, as described in Exhibit A, and depicted in
Exhibit B, attached and by this reference made a part hereof.

LAND USE OR PURPOSE:

This Lease is for the purpose of developing a geothermal project (as defined in Public Resources Code section 21065.5) to evaluate the presence and characteristics of geothermal resources prior to commencement of a geothermal field development project. Lessee shall have the exclusive right to drill for, produce, utilize, save and sell geothermal resources from the Leased Land.

TERM:

This Lease shall be for a primary term of 5 years commencing on November 1, 2020, ("effective date") and for so long thereafter as geothermal resources are being produced or utilized, or are capable of being produced or utilized, in commercial quantities from the Leased Land or lands unitized therewith, unless sooner terminated as provided in this Lease.

CONSIDERATION:

Lease Management Fee, Royalty, Rent, Geothermal Resources in Kind, Renegotiations of Consideration, defined below.

AUTHORIZATION: Limited to four geothermal wells and appurtenant facilities. Development associated with the production or transmission of electricity are not authorized by this Lease and will require a Commission approved amendment.

LIABILITY INSURANCE:

\$2,000,000.00 in current dollars per occurrence, and a general aggregate limit of at least \$5,000,000.00; defined in Section 2, special provisions below.

SURETY BOND OR OTHER SECURITY:

\$260,000 per well prior to drilling and in favor of the Commission; defined in Section 2, special provisions below.

**SECTION 2
SPECIAL PROVISIONS**

**BEFORE THE EXECUTION OF THIS LEASE, ITS PROVISIONS ARE
AMENDED, REVISED, OR SUPPLEMENTED AS FOLLOWS:**

1. LAND USE OR PURPOSE

- (a) Lessee shall have the exclusive right to inject geothermal fluids, or other fluids approved by the Commission staff, into the Leased Land and upon such terms and for consideration deemed by the Commission to be in the State's best interests. However, no consideration shall be required for injection if the Commission is receiving royalties based on production from the Leased Land or based on the Commission's participation in a producing unit incorporating the Leased Land. Lessee shall not have the privilege or right to store hydrocarbon or other non-condensable gas beneath the Leased Land, nor any other privilege or right not expressly given.
- (b) Lessee may conduct surveys, tests, or experiments on the Leased Lands necessary to undertake the purpose of the Lease. Lessee may use geological, geochemical, geophysical or other exploratory methods for determining the presence of geothermal resources in the Leased Land. No such survey, test or experiment shall be conducted without prior written approval of the Commission staff.
- (c) The Commission shall have the right to issue to persons other than Lessee nonexclusive exploratory permits or leases for minerals other than geothermal

resources and for non-mineral purposes to conduct such surveys, tests or experiments or for any other purpose not incompatible with Lessee's activities authorized under this Lease. Lessee shall not interfere with the exercise of rights granted by the Commission to other persons to enter upon the Leased Land.

- (d) This Lease and operations under it shall be consistent with the principle of multiple use of public lands and resources as provided in the Public Resources Code section 6906.

2. STATE LEASE MANAGEMENT

Lessee shall execute a Standard Reimbursement Agreement with the Commission for the administration of this Lease, subject to a \$12,000 per annum cap to start on December 1, 2020, with automatic annual renewals increasing the cap 5 percent per year thereafter. The Lessee shall be billed for reimbursement of Commission staff time incurred for the reasonable and necessary costs of field inspections; the administration and implementation of the terms of the Lease, including, but not limited to, engineering review, royalty verification, audit, reservoir and geologic review, annual lease reviews; and any other staff time or expenditures to ensure lease operations conform to all the terms of the Lease and to the rules and regulations of the Commission.

3. ROYALTY AND RENT

Lessee shall pay to the Commission royalties on geothermal resources produced, utilized, saved or sold from the Leased Land, and an annual land rent. Royalties shall be due and payable not later than the 25th day of the calendar month following the calendar month of production.

- (a) Lessee will pay a royalty of 3 percent of the gross proceeds from the sale of electrical power generated from the geothermal resources attributable to the Leased Land.
- (b) Lessee will pay a royalty of 12.5 percent of the gross revenue received from the sale of steam, brines from which no minerals have been extracted, and associated gases produced from the Leased Land, at the point of delivery to the purchaser thereof. No deductions for charges made or incurred with respect to transmission or other services or processes shall be allowable against the Commission's royalty interest.
- (c) Lessee will pay a royalty of 5 percent of the gross revenue received from the sale of mineral products or chemical compounds recovered from geothermal fluids attributable to the Leased Land in the first marketable form.
- (d) Royalties attributable to the Leased Land, if part of a producing geothermal unit, shall be based on the allocation of resources attributable to the Leased Lands determined based on a fraction, where the numerator is the number of

acres comprising the Leased Land and the denominator is the total number of acres comprising the geothermal unit.

- (e) After the discovery of geothermal resources in commercial quantities on the Leased Land or lands unitized therewith, the minimum royalty payment due to the Commission during any lease year must not be less than the equivalent of \$50.00 for each acre or fraction of an acre included in the Leased Land.
- (f) Lessee will pay an annual land rent of \$10 for each acre or fraction of an acre, included in the Leased Land, payable on the first day of this Lease and each lease anniversary thereafter; provided, however, that once production of geothermal resources from the Leased Land begins, or the Leased Land becomes part of a producing geothermal unit, and royalty under Royalty and Rent (a) above begins to accrue, the annual land rent shall immediately be decreased to \$1.00 for each acre or fraction of an acre, or the minimum allowed under the Public Resources Code Section 6913, subdivision (c).

4. GEOTHERMAL RESOURCES IN KIND

At the Commission's option, which may be exercised upon 60 days' prior written notice, Lessee shall deliver to the Commission in kind, and in lieu of royalties due to the Commission, a percentage of the geothermal resources produced, utilized, saved or sold from the Leased Land, in an amount equal to the royalty share owed the State under this Lease. The State will exercise this option consistent with Public Resources Code section 6913, subdivision (f).

5. RENEGOTIATION OF CONSIDERATION

Pursuant to Public Resources Code section 6913, subdivision (e), royalties shall be renegotiated on or after the 20th anniversary of the initiation of commercial operation, which shall be 30 days after the first generating unit has operated for a consecutive 24-hour period, and on every 10th anniversary thereafter. The negotiations shall not increase the maximum royalty rate by more than 50 percent over the royalty rate of the prior period.

6. DRILLING

Lessee shall commence drilling operations within the primary term of the lease. Lessee acknowledges that any further development activities on or into the Leased Land, beyond that specified under Section 2, Land Use or Purpose of this lease, shall require the further approval of the Commission and be contingent upon and subject to additional environmental review of the project and site-specific impacts in accordance with the provisions of the CEQA. In the event Lessee proposes operations on or into the Leased Land that require additional environmental analysis for which the Commission is lead agency under CEQA, Lessee shall provide, in advance, funds sufficient to pay for the preparation of the required environmental documentation. The decision to allow further exploration and development activities on or into the Leased Land, beyond that specified under provision 8(b) of this lease, shall remain within the discretion of the

Commission. Furthermore, nothing contained in this lease, nor in the relationship between the Commission and Lessee arising hereunder, shall impose any constraint or limitation upon the Commission with respect to the conduct of its legal responsibilities arising under CEQA, including without limitation, participating in any environmental review process permitted or required by law pertaining to any project proposed by Lessee, regardless of whether the proposed project would further the purposes of this lease.

7. OFFSET WELL REQUIREMENT

In the event any well is completed or placed into production after the effective date of this Lease on lands not owned by the Commission with any part of its producing interval within 500 feet of the exterior boundary of this Lease, then the Commission may notify Lessee, in writing or by email, to commence drilling an offset well thereto, and within reasonable time, not to exceed 180 days, as specified in such notice, Lessee shall commence operations for drilling an offset well. An offset well shall mean a well the producing interval of which is situated at a location in the Leased Land not more than 500 feet from the point on the exterior boundary of the Leased Land nearest to the producing interval of the well to be offset. Notwithstanding the foregoing, if the Leased Land is part of a geothermal unit and shares in the revenue there from, wells drilled into that unit shall not create an obligation to drill an offset well into Leased Land.

8. OPERATIONS

- (a) Lessee shall meet with Commission staff every other year to discuss Lessee's ongoing operations, and any plans for future exploration, development and operation, as such operations or plans related to the Leased Land or lands pooled or unitized with them.
- (b) All operations on or into the Leased Land shall be carried on in a good and workman like manner in accordance with generally accepted good engineering practice and with due regard for the protection of life, cultural resources and property, preservation of the environment, and conservation of wildlife, plants, and other natural resources.
- (c) No well shall be drilled into the Leased Land, re-drilled, perforated, plugged-back, altered, converted, or abandoned, and no wellhead shall be removed, without Commission staff's prior approval, such approval not to be unreasonably withheld. All drilling shall be performed subject to the provisions of this Lease, the Public Resources Code, and State regulations applicable to the drilling of geothermal wells.
- (d) Before commencing the drilling of a well into the Leased Land, Lessee shall notify the Commission of its intention to drill. The notice shall contain the location, derrick elevation, proposed depth and bottom-hole location, directional drilling program, drilling fluid program, blowout prevention equipment program, casing program, completion program, description of the

size and shape of the drilling site, including a geological engineering report on the site, planned excavation and grading, and location of existing and proposed access roads.

- (e) If any permits are required under the Federal Endangered Species Act, the California Endangered Species Act, and/or California Fish and Wildlife Code 1600, et. seq., for any wells to be drilled into the Leased Land, then Lessee shall consult with the U.S. Fish and Wildlife Service and/or the California Department of Fish and Wildlife, as applicable, regarding such permits.
- (f) No power plant facilities, buildings, structures, production equipment, metering systems, pipelines, roads or electrical transmission lines shall be installed or constructed on the Leased Land without prior Commission approval.
- (g) If Lessee sells steam, hot water from which no minerals have been extracted, or associated gases, then Lessee shall meter the geothermal resources produced from the Leased Land. If Lessee sells electricity or mineral products derived from geothermal resources from the Leased Land, then Lessee shall meter such electricity or mineral products. Metering equipment shall be maintained and operated so that it will meet acceptable standards of accuracy. If Commission staff believes reasonable standards are not being maintained, it shall give notice to Lessee and a reasonable opportunity to Lessee to upgrade such equipment. However, if the Leased Land is committed to a geothermal unit, then no separate metering of geothermal resources or minerals produced from the Leased Land shall be required.
- (h) If the Leased Land contains rock strata known or suspected by Lessee or Commission staff to contain hydrogen sulfide (H₂S), Lessee shall submit a contingency plan for the protection of personnel and equipment while drilling, establish a training program to promote efficient safety procedures in the H₂S contaminated environment, and install an H₂S detection system with an indicator and alarm. The contingency plan, training program and detection system must be approved by Commission staff, such approval not to be unreasonably withheld.
- (i) Commission staff shall conduct inspections of lease operations as necessary during the term of the Lease. All reasonable and necessary costs for the administration and implementation of the inspections of such operations shall be paid by Lessee through a Standard Reimbursement Agreement or other suitable instrument. All costs shall be calculated under provisions of the State Administrative Manual.

9. REQUIRED PRODUCTION AND TESTING

Except where the Leased Land is in an approved geothermal unit, if Lessee supplies geothermal resources to any facility from wells on both the Leased Land

and wells on other lands, and all such wells together can produce a quantity of geothermal resources greater than the maximum quantity that can be used by the facility, Lessee shall produce and sell or use geothermal resources from the wells on the Leased Land in proportion to their deliverability relative to the total deliverability of all the wells. Further, if Lessee completes wells with productive intervals on both the Leased Land and adjacent land, Lessee shall perform tests to determine the allocation of production from each side of the Lease line. Lessee must obtain Commission staff's approval for both the method of testing and the resultant allocation of production, such approval not to be unreasonably withheld.

10. ENVIRONMENTAL IMPACT

- (a) Lessee agrees to be bound by and fully carry out, implement, and comply with all mitigation measures and reporting obligations identified as Lessee's, or Commission's responsibility as set forth in the Mitigation Monitoring Program (MMP) attached hereto as Exhibit C and by this reference made a part of this Lease, or as modified by the Commission as permitted by law. Lessee shall abide by the regulations, conditions and mitigation requirements set forth in Imperial County's Conditional Use Permit (CUP) #18-0038, and any amendments to it, and Mitigated Negative Declaration (MND) (SCH #2019119033). Further, Lessee shall comply with all modifications of equipment and plans deemed necessary by the Commission to achieve the objectives set forth in the CUP and MND.
- (b) If the Lessee fails to comply with the conditions, restrictions and mitigation measures imposed above, Commission staff shall notify the Lessee or its designated representative by telephone and written communication of the noncompliance, direct Lessee to cease all operations that are not in compliance, except emergency mitigative or corrective measures, and order Lessee to develop a remedial plan for the noncompliance which shall be implemented as soon as reasonably possible.
- (c) This Lease has been issued on the basis of the environmental analysis in the MND. Lessee acknowledges that any drilling or development activity proposed specifically on or into the Leased Land from any drill site not permitted by such prior environmental documentation will require further Commission approval and be contingent upon and subject to additional environmental review in accordance with the provisions of the CEQA. If the Lessee proposes development activities or operations on or into the Leased Land that require additional environmental analysis for which the Commission is the lead agency under the CEQA, Lessee shall provide, in advance, funds sufficient to pay for the preparation of the required environmental documentation.

11. ENVIRONMENTAL JUSTICE OUTREACH AND ENGAGEMENT PLAN

- (a) For proposed future development that exceeds the approved exploration activities, Lessee shall submit to Commission staff an environmental justice

outreach and public engagement plan detailing how Lessee will execute outreach. Lessee shall coordinate with Commission staff in reviewing and revising the plan to the extent staff determines revisions are necessary. The plan must be submitted and reviewed by Commission staff prior to the CEQA review process and shall provide for outreach both during the CEQA review process and after lead agency, CEQA approval.

- (b) The environmental justice outreach and public engagement plan must include the following components:
- i. The project description
 - ii. Purpose/objectives/scope for outreach and engagement
 - iii. Outreach contact information – who is leading the outreach?
 - iv. Stakeholder notification list – who are the agencies involved with the project? Will they be participating in the outreach meetings?
 - v. Timeframe for meaningful outreach and engagement
 - vi. List of proposed public meetings dates – type of meetings (informational, interactive, open forum)?
 - vii. Meeting accessibility – how will these meetings be accessible to the public (i.e., staggered meeting times, childcare, snacks/meals, public transit vouchers, language access/translation services, etc.)

12. WASTE OF RESOURCES, DAMAGE, LOSS AND LIABILITY

Lessee shall use all reasonable precautions to prevent waste of, damage to or loss of natural resources (surface and subsurface) and reservoir energy in or under the Leased Land and shall be liable to the Commission for any such waste, damage or loss to the extent that it is caused by the negligence of, the breach of any provision of this Lease by, or the noncompliance with applicable statutes or regulations by, Lessee, or its employees, agents or contractors. Nothing in this Lease shall diminish any other rights or remedies that the State may have in connection with any such negligence, breach or noncompliance.

13. GEOTHERMAL UNITS

- (a) Pursuant to the Public Resources Code section 6923, for the purpose of conserving the natural resources of geothermal resources areas, Lessee may commit the Leased Land to a geothermal unit as provided below. As used herein, the term “geothermal unit” means a cooperative plan of development and operation for the production, utilization, and conservation of geothermal resources, where separate lands and leases held or controlled by Lessee are pooled, developed, and operated as a single working unit. The terms

“unitized” and “unitization” as used elsewhere in this Lease refers to the combining of lands to form a geothermal unit.

- (b) With Commission staff's prior written consent, Lessee may commit the Leased Land to one or more geothermal units, provided the Leased Land is committed in its entirety.
- (c) In the interest of increasing the ultimate recovery of geothermal resources from unreasonable waste, and protecting adjacent landowners, the Commission may require the Lessee to enter into a unit or cooperative agreement with respect to the Leased Land.
- (d) Lessee shall execute a declaration of unitization describing the lands or leases included within any geothermal unit to which the Leased Land is committed. A copy of each such declaration or amendment thereto shall be delivered to the Commission.
- (e) Drilling operations on and production from lands so unitized with the Leased Lands shall be deemed to be drilling operations on and production from the Leased Land that are included in the unit.

14. COMMINGLED PRODUCTION

Except where the Leased Land is in an approved geothermal unit, Lessee may commingle production from any two or more wells, without regard to whether such wells are located in the Leased Land or elsewhere, provided Lessee shall first install and maintain meters to measure the amount of geothermal resources produced from the Leased Land. Such commingling shall be discontinued at any time Commission staff determines that standards of measurement for accuracy or quality are not being maintained, and shall not be resumed until such standards are restored.

15. SUSPENSION OF OPERATIONS

In the event of any disaster affecting the safety of operations on the Leased Land, or uncontrolled flow of geothermal resources or pollution resulting from operations on the Leased Land, Lessee shall immediately suspend all drilling and production operations responsible for the disaster, uncontrolled flow or pollution, except those which are corrective or mitigative, and promptly notify Commission staff by telephone. Drilling and production operations shall not be resumed on the Leased Land until adequate corrective measures have been taken and authorization for resumption of operations on the Leased Land has been given by Commission staff, such approval not to be unreasonably withheld.

16. SUBSIDENCE

Lessee and the Commission acknowledge that subsidence in the Salton Sea area, particularly that part of Imperial County where the Leased Land is located, is monitored by, and in accordance with the requirements of, the California

Geologic Energy Management Division (CalGEM) and the County. Lessee shall comply with all subsidence limitations and mitigation measures imposed on Lessee's operations in the Leased Land by law, the CalGEM, and the County.

17. ENTRY BY STATE

Lessee consents to the inspection of its operations at all reasonable times by any person authorized by Commission staff. Such inspection shall include, but not be limited to, inspection of wells, improvements, pipelines, metering equipment for geothermal resources production and power generation and all other fixtures used in connection with Lessee's operations in or adjacent to the Leased Land or lands unitized therewith. No entry by Commission staff, or by persons authorized by Commission staff, shall give Lessee any right to charge for or subject the Commission to liability for any loss of occupation or quiet enjoyment of the premises.

18. INDEMNIFICATION AND INSURANCE

- (a) Lessee shall be liable to the Commission for all damage to any reservoir underlying the Leased Land and any loss of geothermal or other natural resources to the extent such loss is caused by the negligence of, or the breach of any provision of this Lease by, or noncompliance with any applicable statutes or regulations by, the Lessee, its employees, servants, agents or contractors. Nothing in this Lease shall diminish any other rights or remedies that the Commission may have in connection with any such negligence or breach.
- (b) Lessee shall indemnify the Commission and hold it harmless from any and all claims, actions, causes of action, liabilities, losses, costs, damages and expenses, including, without limitation, for loss of or damage to property, injury to or death of a person or persons, or other harm, including harm to the environment, arising out of or connected with the issuance of this Lease or acts or omissions by or on behalf of the Lessee under this Lease or on the Leased Land, or any breach of any of Lessee's obligations under this Lease. Lessee waives any defense to an action for breach of a covenant of this Lease or for damages or indemnification, including without limitation any such action resulting from a toxic or hazardous substances spill or other harm to the environment, based on the fact that the act or omission complained of was committed by an independent contractor. Lessee agrees to assume responsibility for all acts and omissions of its independent contractors, whether or not such contractors, at the time of the act or omission, are acting within the scope of their employment or license. The foregoing waiver by Lessee of the defense that the act or omission complained of was committed by an independent contractor, and the assumption of liability by Lessee for all acts and omissions of its independent contractors, shall inure exclusively to the benefit of the Commission and is not intended to extend to or provide any benefit to third parties, including without limitation, other state and federal agencies. The obligations of Lessee under this provision shall survive the

expiration or earlier termination of this Lease.

- (c) Lessee shall procure and maintain at Lessee's sole cost and expense a commercial general liability policy of insurance applying to the Leased Land, the operations of the Lessee therein and the business operated by Lessee. Such insurance shall be written on an occurrence basis and shall include broad form contractual liability insurance coverage insuring Lessee's indemnification obligations under this Lease and naming the State of California by endorsement as additional insured to the extent of the indemnity obligations assumed hereunder. Such coverage shall have liability limits of at least \$2,000,000.00 in current dollars (as defined below) per occurrence, and a general aggregate limit of at least \$5,000,000.00 in current dollars; provided, however, that such liability limits may be provided through a combination of primary and excess (i.e., umbrella) insurance policies. Any liability insurance policy shall be written to apply to all bodily injury, property damage, personal injury and other covered loss, however occasioned, during the policy term, and shall be endorsed to provide that such coverage shall be primary and that any insurance maintained by the State shall be excess insurance only. Such coverage shall also contain commercially reasonable endorsements as reasonably requested by Commission staff and shall provide the broadest scope of coverage for liability arising from pollution, explosion, collapse and underground property damage as is available and commercially appropriate. The insurance required by this provision shall provide for severability of interests; shall provide that an act or omission of any one of the named or additional insured shall not reduce or avoid coverage to the other named or additional insured; and shall afford coverage of all claims based on acts, omissions, injury and damage, which claims occurred or arose (or the onset of which occurred or arose) in whole or in part during the policy period. All policies shall be issued by insurers admitted to transact business in California and that have an excellent rating of at least AA in the then-current edition of Best's Insurance Guide. Lessee shall deliver a certificate of insurance to the Commission as soon as practicable after securing the required insurance. All policies shall contain an undertaking by the insurer or their authorized agent to notify the Commission in writing not less than 30 days prior to any material change, reduction in coverage, cancellation or other termination thereof. Lessee shall furnish the Commission with proof of renewal or binders for new insurance at least 5 days before the expiration date of each policy.
- (d) Lessee shall repair all damage to the Leased Land, and to fixtures, improvements or personal property on the Leased Land, caused by or resulting from operations of or on behalf of Lessee under this Lease, or the breach of any of Lessee's obligations under this Lease. Lessee shall not be responsible for any damage caused by or resulting from the Commission's sole negligence.

- (e) Lessee shall maintain Worker's Compensation Insurance as required by law and Employer's Liability Insurance with limits of not less than \$1,000,000.00 in current dollars per occurrence, and in form reasonably satisfactory to Commission staff.
- (f) Lessee shall maintain business auto liability insurance with limits of not less than \$1,000,000.00 in current dollars per occurrence. Such insurance shall cover liability arising out of any auto including owned, hired and non-owned autos, and shall name the Commission as additional insured by endorsement.
- (g) Current dollars means a dollar amount calculated by multiplying the dollar amount specified in this Lease by a fraction, the numerator of which is the Consumer Price Index (CPI) for All Urban Consumers (U.S. All Items, Series ID CUUR0000SA0, Base Year 1982-84 = 100, published by the U.S. Department of Labor, Bureau of Labor Statistics) last published prior to the anniversary of the effective date of this Lease, and the denominator of which is the CPI last published immediately prior to the effective date of this Lease.

19. SURETY BOND OR OTHER SECURITY

Lessee shall furnish, and maintain until released by the Commission, a bond or other security device approved by Commission staff, in the amount of \$260,000 per well, to be furnished prior to drilling and to be in favor of the Commission for its exclusive use and benefit, guaranteeing the faithful performance by Lessee of the terms and conditions of this Lease, up to and including the full abandonment and removal of improvements placed by Lessee on the Leased Lands. This requirement shall be separate from any other bonding provisions of any other federal, state or local agency having jurisdiction over Lessee's operations on the Leased Land. The amount of the bond may be reviewed by the Commission no more than once every 5 years, starting on the effective date of the Lease, and shall be adjusted so that the total value of the bond matches the State's estimated cost of abandoning the wells and improvements authorized under this Lease.

Section 3 General Provisions

1. GEOTHERMAL RESOURCES

The term "geothermal resources" as used in this Lease shall have the meaning given by the Public Resources Code section 6903.

2. INTEREST AND PENALTIES

- (a) Royalties, rentals and other monetary considerations that are not paid when due shall bear simple interest from their due date until they are paid at the rate of 1.5 percent per month on the unpaid balance.

- (b) Royalties, rentals and other monetary considerations that are not paid when due shall be assessed a penalty of 5 percent of the amount of any such past due royalties, rentals or other monetary considerations in accordance with the Commission's regulations.
- (c) Past due royalties, rentals and other monetary considerations include, but are not limited to, amounts which were not paid because of Lessee's unreasonable use of inaccurate information in computing the royalties, rentals and other monetary considerations and Lessee's unreasonable errors in the computations themselves. The determination of what errors of Lessee are unreasonable rests with the Commission.

3. RECORDS AND REPORTS

Lessee shall keep accurate records of its operations on the Leased Land or lands unitized with them, and shall file with the Commission the following information in the time and manner specified:

- (a) Not later than the 25th day of the calendar month following the calendar month of production, Lessee shall submit a detailed royalty accounting statement in such form as may be prescribed by Commission staff, including, but not limited to, information showing the amount of gross revenue derived from all geothermal resources produced, shipped, utilized or sold, and the amount of royalty due. At the request of Commission staff, Lessee shall provide more detailed statements and explanatory materials in order to aid Commission staff in interpreting and evaluating Lessee's royalty accounting statement. All statements are subject to audit and revision by the Commission. The Commission may inspect, at all reasonable times, all Lessee's books, records and accounts relating to operations under this Lease, including, but not limited to, the development, production, sale, utilization or shipment of geothermal resources. Lessee waives any statutory or other rights or objections it might have to such inspection by the Commission. All production data shall be deemed to have been "obtained in confidence" for purposes of Government Code section 6254, subdivision (e), and be disclosed to other persons only with the written consent of Lessee or upon the determination of Commission staff that their disclosure is in the public interest.
- (b) Lessee shall supply to Commission staff all physical and factual exploration results, logs, surveys and any other data in any form resulting from operations on the Leased Land or lands unitized with them, including, but not limited to, any surveys, tests or experiments conducted on the Leased Land by Lessee or by any person or entity acting on behalf of Lessee. Lessee shall also supply to the Commission the results of all geological, geophysical and geochemical tests, experiments, reports and studies, interpretive or factual, including, but not limited to, reservoir studies, computer modeling work and tests, experiments, reports or studies relating to injection or reservoir depletion on the Leased Land or lands unitized with them, irrespective of whether the results of such tests, experiments, reports or studies contain sensitive

proprietary or confidential information or trade secrets. All of the aforementioned data and results shall be supplied to the Commission within 30 days of completion of any recorded portion of the operation, test, experiment, report or study from which the data or results are obtained. All data and documents supplied by Lessee pursuant to this Records and Reports shall be deemed to have been "obtained in confidence" for purposes of Government Code section 6254, subdivision (e) and be disclosed to other persons only with the written consent of Lessee or upon the determination of Commission staff that disclosure is in the public interest.

4. EXAMINATION OF BOOKS

Lessee waives all rights it may have to prevent the Commission's examination at reasonable times of the books and records of any individual, association or corporation that has transported for, or received from, Lessee any geothermal resources produced, utilized, saved or sold from the Leased Land. Lessee waives all rights it may have to prevent the Commission's examination at reasonable times of the books and records of any such individual, association or corporation with respect to such individual's, association's or corporation's operations, wells, improvements, machinery and fixtures used on or in connection with the Leased Land.

5. WAIVER OF USE OF DATA

Lessee waives any statutory or other right to prevent disclosure to the Commission, or a duly authorized employee or representative of the Commission, of any information, reports, data or studies of any kind filed by Lessee with any federal, state or local agency relating to the Leased Land, the geothermal resources thereunder or any operations performed on the Leased Land or lands unitized therewith, irrespective of whether such information, reports, data or studies contain sensitive, proprietary or confidential information or trade secrets. All information filed with the Commission as required by this Lease shall always be available for any use of the Commission or its duly authorized representatives. Any information, reports, data or studies obtained by the Commission from any public agency and that are not public records shall be deemed to have been "obtained in confidence" for purposes of Government Code section 6254, subdivision (e), and may be disclosed to other persons only with the written consent of Lessee or upon the determination of Commission staff that their disclosure is in the public interest.

6. NOTICES

All notices to be given under this Lease can be provided electronically or in writing and deposited in the U.S. Mail, registered, with postage prepaid, and addressed as follows:

To the Commission: California State Lands Commission
 Mineral Resources Management Division
 301 E. Ocean Blvd., Suite 550
 Long Beach, CA 90802-8833
 Attention: Division Chief

Telephone: (562) 590-5201

To the Lessee:

Attention: _____
Telephone: () _____

The addressees to which the notices shall be mailed may be changed by written notice given by one party to the other as provided above. Nothing contained in this Notices shall preclude the giving of any notice by personal service to Lessee or its officers or agents. All payments specified in this Lease shall be made to the Commission at the address provided for notices to the Commission, unless the Commission instructs Lessee to send payments to another address.

7. PRESERVATION OF PROPERTY, WASTE DISCHARGE

Lessee shall perform all work with due regard for the preservation of the Leased Land and with due regard to the environmental impact of its operations in accordance with the following terms and conditions:

- (a) Lessee shall remove the derrick, other equipment and facilities within 60 days after Lessee has stopped using them in its operations.
- (b) All drilling operations shall be conducted in a manner that will eliminate, as far as practical, dust, noise, vibration and noxious odors. Operating sites shall be kept neat, clean and safe. Drilling dust shall be controlled to prevent its widespread deposition. Dangerous material deposited on trees and vegetation shall be removed. The determination as to what material is dangerous rests with Commission staff.
- (c) Lessee shall file with the Regional Water Quality Control Board a report on any proposed waste discharge in accordance with State Water Code section 13260. Water shall be discharged in accordance with requirements prescribed by the California Regional Water Quality Control Board, and copies of such requirements and approvals filed with the Commission. The Commission and any other agency having jurisdiction over the affected lands shall also approve in advance the place and manner of such waste discharge.
- (d) Lessee shall notify the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service before beginning any operations that may adversely affect fish and wildlife resources. Lessee shall conduct its operations in a manner that will not interfere with the right of the public to fish upon and from California's public land, and that will not preclude the public's right to reasonable use of public land and waters.
- (e) This Lease is granted subject to article 1, section 25 of the California

Constitution, which provides that the people shall have the right to fish upon and from the State's public land and in the waters thereof, and the Commission hereby reserves in favor of the people the absolute right to fish upon the surface of the Leased Land.

- (f) Any operations disturbing the surface of the soil, including road building, construction and movement of heavy equipment, shall be conducted in a manner that will not result in unreasonable damage to trees and plant cover, in soil erosion, or in degradation of California's waters including fish and aquatic life habitat.
- (g) Lessee shall maintain existing roads and bridges on or serving the Leased Land in a condition at least equal to that before Lessee's use. New roads and bridges shall be located, constructed and maintained in accordance with applicable Commission approvals and local specifications.
- (h) Lessee shall compensate the surface owner at market value for all timber cut from the Leased Land or otherwise damaged or destroyed. Lessee shall not obtain borrow pit material from the Leased Land without permission from and payment of its market value to the Commission.
- (i) Lessee shall protect from damage and repair or replace, when damaged by Lessee, all improvements, structures, trails, ditches, pipelines, water developments, fences, crops and any other property of other persons, including the Commission, on or near the Leased Land.
- (j) Lessee shall control access to drilling and production sites by the public to prevent accidents or injury to persons or property.
- (k) Lessee shall pond drilling mud in a safe manner and place and, where required by Commission staff, post the site with danger signs and fence it in order to protect persons, domestic animals and wildlife. Any drilling mud that is determined to be hazardous by any federal, state, or local agency, shall be disposed of in the manner required by the applicable statute or regulation.
- (l) Lessee shall keep to a reasonable number and size any areas to be cleared and graded for drilling and production facility sites. Any clearing and grading shall be subject to the approval of Commission staff, such approval not to be unreasonably withheld.

- (m) During drilling and remedial well operations, Lessee shall monitor continuously effluent gases at the wellhead in order to determine the emissions of H₂S and other toxic materials. Lessee shall submit to the California Air Resources Board and to any local Air Pollution Control District having jurisdiction, as required, the results of complete gas analyses, including toxic materials that would exist in vapor form at the wellhead temperature.
- (n) Lessee shall keep noise levels for drilling or any other phase of operations to a minimum and at no time shall allow the noise level exceed local standards.
- (o) The above requirements are in addition to, and shall not be construed as limitations upon, all other regulations, restrictions and measures provided in this Lease that are designed to restrict, modify or minimize the environmental impact of operations under this Lease.

8. EXISTING RIGHTS

This Lease is issued subject to all existing rights at the effective date of this Lease, and such rights shall not be affected by the issuance of this Lease.

9. RESERVATION OF RIGHTS

The Commission reserves the right to sell or transfer the Leased Land subject to the rights of Lessee under this Lease. The Commission also reserves the right to issue leases, permits and licenses to the surface and/or subsurface of the Leased Land for any purpose not inconsistent with the rights of Lessee under this Lease. This reservation includes the Commission's right at any time during the term of this Lease to grant to persons whatever easements or rights-of-way in the surface of the Leased Land the Commission determines to be necessary or appropriate, provided that no easement shall be granted that unreasonably interferes with Lessee's operations.

10. COORDINATION OF ACTIVITIES

Lessee shall coordinate activities with other Commission lessees or permittees for the development of geothermal resources on lands nearby or adjacent to the Leased Land. Such coordination includes, but is not limited to, giving the Commission's lessees or permittees the right to use Lessee's access roads and unitizing or pooling the Leased Land with other leased or permitted lands, if the Commission determines that such action would facilitate the most efficient development of the Commission's geothermal resources, taking into account Lessee's economic interest.

11. COMPLIANCE WITH LAWS

Lessee shall comply with all valid federal, state and local laws applicable to Lessee's operations on the Leased Land, including, but not limited to, the applicable provisions of the Public Resources Code Divisions 3 and 6 and all

applicable and effective regulations adopted at any time during the term of this Lease under the authority of these statutory provisions.

12. EMPLOYMENT PRACTICES

Lessee shall not discriminate against any person in its employment practices because of race, color, ancestry, national origin, religion, sex, age, marital status, physical disability, AIDS, AIDS-related condition, sexual orientation, or other protected class under state or federal law. Lessee shall carry at all times full worker's compensation insurance covering all employees engaged in operations under this Lease.

13. TAXES

Lessee shall pay, when due, all taxes and assessments lawfully assessed and levied under the laws of the United States, the Commission or any of the State's political subdivisions against Lessee's interest in the Leased Land, against improvements, property or assets of Lessee situated upon the Leased Land, against the geothermal resources and other products produced from the Leased Land, and against all other rights of Lessee arising out of this Lease. There shall be no deduction from the royalties payable to the Commission by reason of the levy and payment of such taxes, assessments, fees, charges, or other amount for any of the above described reasons.

14. CANCELLATION

- (a) The Commission may cancel this Lease at any time before the discovery of commercially valuable deposits of geothermal resources on the Leased Land or lands unitized with them upon the failure of Lessee, after 60 days' written notice and demand for performance, to exercise due diligence and care in the prosecution of the exploratory or development work on the Leased Land or lands unitized therewith, in accordance with the terms and conditions of this Lease.
- (b) After the discovery of commercially valuable deposits of geothermal resources on the Leased Land, the Commission may cancel this Lease upon failure of Lessee, after 90 days' written notice and demand for compliance, to cure any breach or default under the terms and conditions of the Lease. Notwithstanding the foregoing, as to any breach or default which through the exercise of reasonable diligence cannot be cured within the 90-day time period allotted therefore, provided Lessee, within said 90-day period, commences measures to cure the breach or default and diligently pursues such measures to completion, Lessee's time to effect cure shall be extended as reasonably necessary to cure the breach or default. If the Lease is canceled, Lessee shall have the right to retain under this Lease all wells currently being drilled or producing geothermal resources in commercial quantities, plants and facilities, and rights-of-way through the Leased Land that will enable Lessee to drill and operate the retained well or wells. The Commission shall prescribe a reasonable rental, not to exceed the initial rental payable under Lease Royalty

and Rent Section 2, Provision 3(e), and other reasonable terms and conditions for operation of the retained wells. Royalty shall be calculated per Lease Royalty and Rent Section 2, Provision 3(a), (b), and (c). If the Lease is canceled, Lessee shall have a reasonable time within which to remove any property owned or used by Lessee in connection with its operations under the Lease, and shall comply with the restoration and removal conditions of this Lease.

15. WAIVER OF BREACH

The Commission's waiver of any breach or default shall not constitute a waiver of any other breach or default of the same or any other provision of this Lease, regardless of the Commission's knowledge of the other breaches or defaults. The Commission's acceptance of monies from Lessee shall not constitute a waiver of any preceding breach or default, other than the failure of Lessee to pay the particular monies accepted, regardless of the Commission's knowledge of the preceding breach or default at the time of its acceptance of the monies. Acceptance of monies by the Commission after Lease termination of the shall not constitute a reinstatement, extension or renewal of the Lease or revocation of any notice or other act by the Commission.

16. SOLVENCY

If at any time during the term of this Lease, Lessee is insolvent under the federal bankruptcy laws, makes a voluntary assignment of its assets for the benefit of creditors, or is adjudged as bankrupt either upon Lessee's voluntary petition in bankruptcy or upon the involuntary petition of Lessee's creditors, the Commission shall have all the rights and privileges afforded it by federal bankruptcy laws to protect its interests under this Lease.

17. ASSIGNMENT AND SUBLETTING

(a) Lessee may assign or transfer this Lease or any interest it may have in this Lease and may sublet all or part of the Leased Land as provided in Public Resources Code sections 6804 and 6925. The Commission's approval, which shall not be unreasonably withheld, to an assignment, transfer or sublease may be conditioned upon, among other things, the Commission's participation in any consideration received by Lessee or its successors in interest for the assignment, transfer or sublease if this participation is deemed by the Commission to be in the State's best interests. The consent to any assignment, transfer or sublease shall not be deemed as consent to any subsequent assignment, transfer or sublease. Any assignment, transfer or sublease made without the Commission's consent, whether voluntary or by operation of law, shall be of no effect and shall be a breach that gives to the Commission the right to cancel this Lease. Lessee may subcontract, without Commission approval, parts of the work to be performed under this Lease so long as Lessee remains responsible to the Commission for the work that is subcontracted. Upon approval by the Commission of any assignment, transfer or sublease, the Assignee, Transferee or Sublessee shall be bound by the terms of this

Lease to the same extent as if such Assignee, Transferee or Sublessee were the original Lessee, any conditions in the assignment, transfer or sublease to the contrary notwithstanding. Lessee shall submit to Commission staff documentation of any acquisition, merger, name change, corporate reorganization or any other organizational restructuring that affects the entity that holds this Lease.

- (b) For purposes of this Assignment and Subletting, any transaction or conveyance, or series of transactions or conveyances occurring within 6 consecutive months, regardless of form or structure, that results in the transfer of either a controlling interest in Lessee or a 50 percent or greater ownership interest in any business entity owning a controlling interest in Lessee, shall be deemed an assignment or transfer of the Lease for which Commission approval is required. A controlling interest in Lessee is 35 percent or more of:
 - (i) the voting stock of the Lessee if it is a corporation;
 - (ii) the general partnership interest if the Lessee is a general or limited partnership; or
 - (iii) the membership interest if the Lessee is a limited liability company.

18. QUITCLAIM

The Lessee may make at any time a written quitclaim or relinquishment of all rights under this Lease or of any portion of the Leased Land as provided in Public Resources Code sections 6804.1 and 6914. Upon acceptance by the Commission, the quitclaim or relinquishment shall be effective when it is filed with the Commission, subject to the continued obligation of the Lessee and its surety to pay all accrued rentals and royalties, to abandon all wells drilled into or through the Leased Lands to be quitclaimed or relinquished in a manner approved in writing by the Commission and to restore such lands in accordance with the approved CalGEM regulations and standards. However, the quitclaim or relinquishment shall not release Lessee or its surety from any liability for breach of any obligation of this Lease with respect to which Lessee is in default at the time the Commission's acceptance of the quitclaim.

19. SURRENDER OF PREMISES OR LEASE TERMINATION

If Lessee is not the surface owner at the expiration or sooner termination of this Lease, Lessee will indemnify the Commission from all liability from all actions or omissions of Lessee in connection with the abandonment and surrender of the surface estate; provided, however, the Commission reserves the right to require Lessee to abandon properly all wells and drill sites on the Leased Land or lands serving the Leased Land in a manner approved in writing by the Commission and CalGEM. Such wells and drill sites shall be abandoned within the time specified by the Commission, and at the expense of Lessee. This provision shall survive the termination of the Lease.

20. RESTORATION

Within twelve 12 months after the expiration, surrender or termination of this Lease, Lessee shall (a) plug and abandon any geothermal wells on or into the

Property in accordance with applicable Law (b) remove from the Leased Lands any other facilities owned or installed by Lessee thereon (c) level and fill in all sump holes and mud pits and (d) leave the land surface free from debris. The Commission may approve a plan of restoration that varies from these requirements. Lessee shall have a continuing easement to enter the Property for such purpose during such twelve (12) month period.

21. FORCE MAJEURE

The obligations imposed upon Lessee by this Lease may be suspended during the time Lessee is prevented from complying with them by wars, strikes, riots, acute and unusual labor or material shortages, acts of God or such other unusual conditions that are beyond the control of Lessee. In order for any obligation imposed upon Lessee to be suspended, Lessee must inform the Commission in writing as soon as possible that a condition warranting suspension has arisen. Lessee shall inform the Commission in writing as soon as possible when such condition ceases to exist.

22. POSSESSORY INTEREST TAX

Lessee recognizes and understands in accepting this Lease that it may be liable for the possessory interest tax imposed by the city or county on its leasehold.

23. SEVERABILITY

If any provision of this Lease is judicially determined to be invalid, it shall be considered deleted from the Lease and shall not invalidate the remaining provisions.

[SIGNATURES ON NEXT PAGE]

CALIFORNIA STATE LANDS COMMISSION

Date

By: _____
Marina Voskanian, Chief
Mineral Resources Management Division

LESSEE*

Date

By: _____

* In executing this document, the following are required:

Corporations:

1. Affix Corporate Seal.
2. Attach certified copy of the resolution or other document authorizing its execution on behalf of the corporation.

Individuals:

1. Attach acknowledgment of Signature.

EXHIBIT A

A 2079

LAND DESCRIPTION

Six parcels of State School and Lieu Lands in Imperial County, State of California, more particularly described as follows:

PARCEL 1

That portion of Section 32 Township 10 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved October 6, 1856, Imperial County described as PARCEL FOUR in that certain Grant Deed recorded on November 13, 2014 in Document 2014022678 in Official Records, Imperial County.

PARCEL 2

That portion of Section 32 Township 10 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved October 6, 1856, Imperial County described as PARCEL SEVEN in that certain Grant Deed recorded on November 13, 2014 in Document 2014022678 in Official Records, Imperial County.

PARCEL 3

South ½ of Section 34 Township 10 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved October 6, 1856, Imperial County.

PARCELS 4 and 5

All of Section 4 Township 11 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved June 4, 1856, Imperial County.

EXCEPTING THEREFROM any portion of land lying within the right-of-way of State Highway 86.

PARCEL 6

That portion of Section 10 Township 11 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved June 4, 1856 lying northeasterly of the northeasterly right-of-way boundary line of State Highway 86.

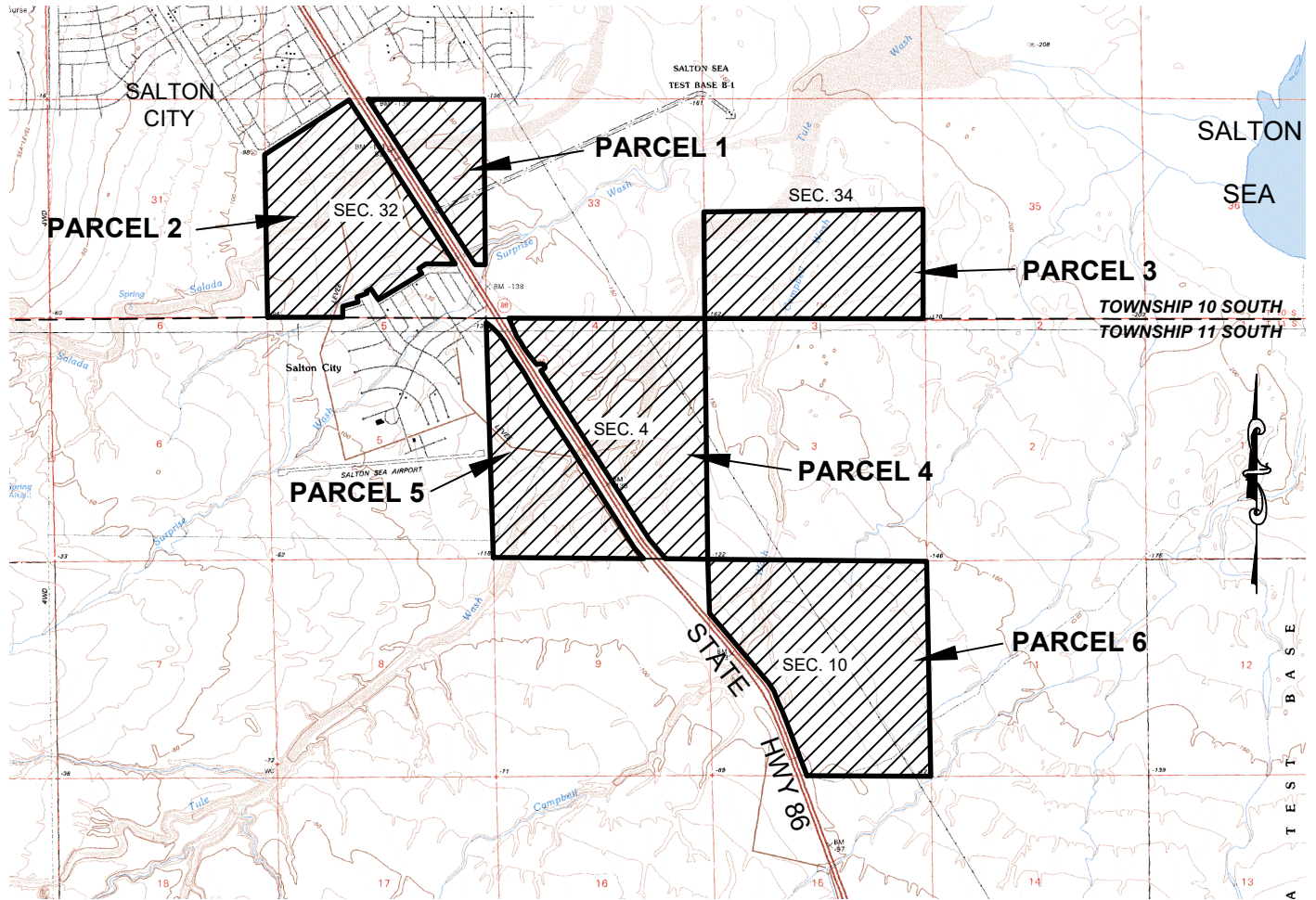
END OF DESCRIPTION

Prepared 02/11/2020 by the California State Lands Commission Boundary Unit.



NO SCALE

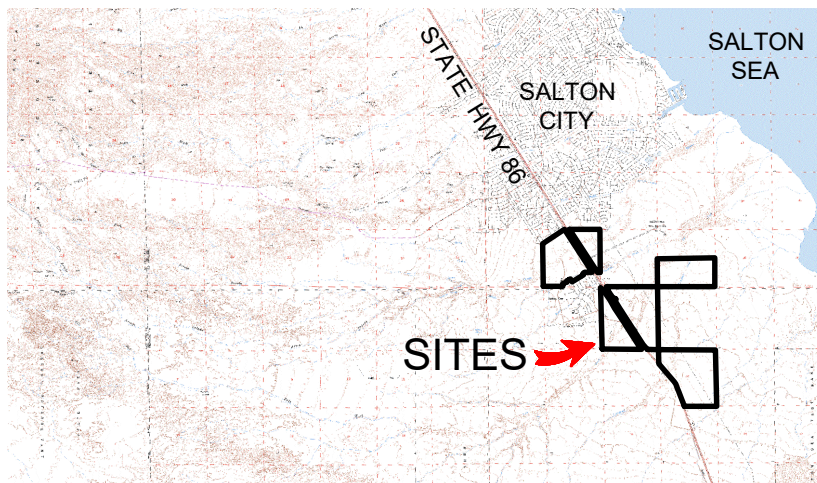
SITE



PORTIONS OF SECTIONS 4 & 10, T.11 S., R.10 E., AND SECTIONS 32 & 34, T.10 S., R.10 E., SAN BERNARDINO MERIDIAN

NO SCALE

LOCATION



MAP SOURCE: USGS QUAD

This Exhibit is solely for purposes of generally defining the other premises, is based on unverified information provided by the other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

Exhibit B

A 2079

ORNI 5, LLC
GEOTHERMAL LEASE
IMPERIAL COUNTY



TS 01/16/2020

EXHIBIT C
CALIFORNIA STATE LANDS COMMISSION
MITIGATION MONITORING PROGRAM
TRUCKHAVEN GEOTHERMAL EXPLORATION WELL PROJECT
(A2079 / A2230, State Clearinghouse No. 2019119033)

The California State Lands Commission (Commission or CSLC) is a responsible agency under the California Environmental Quality Act (CEQA) for the Truckhaven Geothermal Exploration Well Project (Project). The CEQA lead agency for the Project is Imperial County.

In conjunction with approval of this Project, the Commission adopts this Mitigation Monitoring Program (MMP) for the implementation of mitigation measures for the portion(s) of the Project located on Commission lands. The purpose of a MMP is to impose feasible measures to avoid or substantially reduce the significant environmental impacts from a project identified in an Environmental Impact Report (EIR) or a Mitigated Negative Declaration (MND). State CEQA Guidelines section 15097, subdivision (a), states in part:¹

In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

The lead agency adopted an MND, State Clearinghouse No. 2019119033, adopted a Mitigation Monitoring and Reporting Program (MMRP) for the whole of the Project (see Exhibit C, Attachment C-1), and remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with its program. The Commission's action and authority as a responsible agency apply only to the mitigation measures listed in Table C-1 below. The full text of each mitigation measure, as set forth in the MMRP prepared by the CEQA lead agency (Attachment C-1), is incorporated by reference in this Exhibit C. Any mitigation measures adopted by the Commission that differ substantially from those adopted by the lead agency are shown as follows:

- Additions to the text of the mitigation measure are underlined; and
- Deletions of the text of the mitigation measure are shown as ~~strikeout~~ or as otherwise noted.

¹ The State CEQA Guidelines are found at California Code of Regulations, title 14, section 15000 et seq.

Table C-1. Project Impacts and Applicable Mitigation Measures

Potential Impact ²	Mitigation Measure (MM) ³	Difference Between CSLC MMP and Lead Agency MMP
Biological		
IV (a)	MM BIO-1 to MM BIO-9	None
IV (c)	MM BIO-10	None
IV (d)	MM BIO-3	None
IV (e)	MM BIO-1 to MM BIO-9	None
Cultural		
V (a)	MM CUL-2	None
V (b)	MM CUL-3	See addition below
V (c)	MM CUL-4	None
Geology		
VII (b)	MM GEO-1	None
VII (f)	MM PAL-1, MM PAL-2, MM PAL-3	See addition below
Water Quality		
X (c)(iv)	MM BIO-10	None
Noise		
XIII (a)	MM NOI-1, MM NOI-2	None

Add to MM CUL-3:

- California State Lands Commission (Commission) staff shall be notified of any significant cultural resources discovered on lands under the jurisdiction of the Commission. The final disposition of archaeological and historical resources from such lands must be approved by the Commission.

Add to MM PAL-3:

- California State Lands Commission (Commission) staff shall be notified of any paleontological specimens discovered on lands under the jurisdiction of the Commission. The final disposition of any artifacts or specimens including, but not limited to, those of a paleontological nature from such lands must be approved by the Commission.

² Impact numbering corresponds to the Environmental Checklist Form in the MND.

³ See Attachment C-1 for the full text of each MM taken from the MMP prepared by the CEQA lead agency.

ATTACHMENT C-1

Mitigation Monitoring and Reporting Program

Adopted by Imperial County

**MITIGATION MONITORING AND
REPORTING PROGRAM
TRUCKHAVEN GEOTHERMAL
EXPLORATION WELL PROJECT**

IMPERIAL COUNTY, CALIFORNIA

Prepared for:

**COUNTY OF IMPERIAL
Planning & Development Services Department
801 Main Street
El Centro, CA 92243
(442) 265-1736**

Prepared by:

**CHAMBERS GROUP, INC.
9620 Chesapeake Dr, Suite 202
San Diego, CA 92123
(858) 541-2800**

January 2019

SECTION 1.0 – PURPOSE

The County of Imperial would adopt this Mitigation Monitoring and Reporting Program (MMRP) in accordance with Public Resources Code (PRC) Section 21081.6 and Section 15097 of the California Environmental Quality Act (CEQA) Guidelines. The purpose of the MMRP is to ensure that the Truckhaven Geothermal Exploration Well Project (Proposed Project) complies with all applicable environmental mitigation requirements identified in the Final Mitigated Negative Declaration (MND) for the Proposed Project. The mitigation measures for the Proposed Project would be adopted by the County of Imperial, in conjunction with the adoption of the Final MND. The mitigation measures from the Final MND have been integrated into this MMRP. The MMRP provides a mechanism for monitoring the mitigation measures in compliance with the Final MND, and general guidelines for the use and implementation of the monitoring program are described below. Within this document, the approved mitigation measures are organized and referenced by subject category. The specific mitigation measures are identified, as well as the method and timing of verification and the responsible party that would ensure that each action is implemented.

The mitigation measures applicable to the Proposed Project include avoiding certain impacts altogether, minimizing impacts by limiting the degree or magnitude of the action and its implementation, and/or reducing or eliminating impacts over time by maintenance operations during the life of the Proposed Project.

Public Resources Code Section 21081.6 requires the Lead Agency, for each project that is subject to CEQA, to monitor performance of the mitigation measures included in any environmental document to ensure that implementation takes place. The County of Imperial is the designated Lead Agency for the MMRP. Lead Agency is responsible for review of all monitoring reports, enforcement actions, and document disposition. The County of Imperial would rely on information provided by the monitor as accurate and up to date and would field check mitigation measure status as required.

A record of the MMRP would be maintained at County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243. All mitigation measures contained in the MND shall be made conditions of the project as may be further described below. Revisions to the mitigation measures in response to public comment have been shown in strike-out/underline format.

SECTION 2.0 – FORMAT

The mitigation measures applicable to the project involve minimizing impacts by limiting the degree or magnitude of the action and its implementation. Within this document, the approved mitigation measure is referenced by subject category. The mitigation measure has a numerical reference. The following items are identified for the mitigation measure.

- Mitigation Language and Numbering
- Mitigation Timing
- Methods for Monitoring and Reporting
- Responsible Parties

MITIGATION LANGUAGE AND NUMBERING

Provides the language of the mitigation measure in its entirety.

MITIGATION TIMING

The mitigation measure required for the project will be implemented prior to construction and during construction.

METHODS FOR MONITORING AND REPORTING

The MMRP includes the procedures for documenting and reporting mitigation implementation efforts. As the project proponent, the County of Imperial is responsible for implementation of the mitigation measure.

RESPONSIBLE PARTIES

For the mitigation measure, the party responsible for implementation, monitoring and reporting, and verifying successful completion of the mitigation measure is identified.

Mitigation Measure	Implementation Time Frame	Monitoring Method	Implementation Responsibility	Verification Responsibility
I. Biological Resources				
<p>MM-BIO-1: A qualified biologist(s) will monitor all construction activities to ensure that standard and special- status species-specific avoidance and minimization recommendations are adhered to. The monitor will retain stop work authority in the event there is the likelihood of eminent take of special- status species.</p> <p><u>Should a special-status species be found to be present, the biological monitor will stop work and ensure avoidance of the species. Species-specific mitigation measures are provided in MM-BIO-3 through MM-BIO-7. Should an additional special-status species be discovered, the biological monitor will stop work or redirect work away from the species. An appropriate buffer will be applied in consultation with USFWS and CDFW.</u></p> <p>The biological monitor will conduct a general preconstruction survey no more than 14 days prior to the start of construction to verify that no special- status species are in the Proposed Project area or its buffers. The monitor shall also conduct a daily survey in and around work areas before activities start.</p>	Prior to and during construction	Preconstruction field survey and daily field surveys of Proposed Project area	County of Imperial and/or ORNI 5	County of Imperial
<p>MM-BIO-2: A worker education program (WEAP) will be prepared and presented to all employees working on the Proposed Project in</p>	Prior to construction	Worker education program (WEAP) presented to employees	County of Imperial and/or ORNI 5	County of Imperial

sensitive species habitat. The education program will include identification of target species and their habitats, any project mitigation measures and stipulations, reporting requirements, and penalties for failure of compliance.		working on the Proposed Project		
MM-BIO-3: Should construction activities occur between February 15 and August 15, the time period typically referenced in California for the general bird nesting season, preconstruction nesting surveys will be conducted in the Proposed Project area by a qualified biologist within two weeks of the start of construction. If no active bird nests are found within this area, no further mitigation is required. If an active nest is found, a buffer shall be instated around the nest if it belongs to a non-listed or migratory bird in coordination with USFWS and CDFW. If the nest belongs to a listed or fully-protected species, a larger buffer shall be instated around the nest, at a distance approved prior to construction activities.	Prior to construction	Nesting bird surveys of Proposed Project Area and buffers (approved prior to construction)	County of Imperial and/or ORNI 5	County of Imperial
MM-BIO-4: Avoid burrows that may be utilized by special- status wildlife species with a minimum buffer of 20-feet from burrows suitable for flat-tailed horned lizard and a minimum buffer of 30- feet from burrows suitable for burrowing owls. If burrows cannot be avoided, MM-BIO-5 and MM-BIO-6 would be implemented.	During construction	Field surveys and buffers (20-foot buffer for burrows suitable for flat-tailed horned lizards and a 30-foot buffer for burrows suitable for burrowing owls)	County of Imperial and/or ORNI 5	County of Imperial

MM-BIO-5: If flat-tailed horned lizards are observed within the construction area, the qualified biological monitor, with prior approval through project acquired permits or permissions and in consultation with CDFW, will notify CDFW and relocate the individual out of the construction area, adjacent to where it was moved from.	During construction	Field surveys and individual relocation to outside the construction area, adjacent to where it was found	County of Imperial and/or ORNI 5	County of Imperial
MM-BIO-6: If burrowing owls are observed within the Project area prior to or during construction activities, occupied burrows shall not be disturbed during the owl nesting season, February 1 and August 31. If burrows are found, the appropriate CDFW-recommended buffer, or a buffer deemed appropriate by the qualified biological monitor, shall be instated in consultation with CDFW until occupancy status is determined. If the buffer cannot be maintained during the non-breeding season, owls may be evicted from the burrows using accepted methodology as approved by resource agencies. Eviction will not occur during the breeding season.	Prior to and during construction	Field surveys and CDFW or qualified monitor recommended buffer; if buffer cannot be maintained, eviction using accepted methodology approved by resource agencies (may not occur during breeding season)	County of Imperial and/or ORNI 5	County of Imperial
MM-BIO-7: Avoid special- status plant species with a minimum buffer of 5 to 10 feet, depending on the root structure and as determined by the biological monitor.	During construction	Field surveys and buffer of 5 to 10 feet depending on root structure and as determined by the biological monitor	County of Imperial and/or ORNI 5	County of Imperial
MM-BIO-8: Access to proposed well sites and geophysical survey truck paths will be via pre-existing access routes, to the greatest extent possible, and the work area boundaries will be	Prior to and during construction	Use of pre-existing access routes, delineating work area boundaries, signs and fencing placed	County of Imperial and/or ORNI 5	County of Imperial

delineated with staking, flagging, or other comparable markings to minimize surface disturbance associated with vehicle straying. Signs and/or fencing will be placed around the Proposed Project area to restrict access to project-related vehicles.		around the Proposed Project area		
MM-BIO-9: Project-related equipment will be washed prior to entering the project area for the first time to reduce the chance of transporting noxious weed seeds from outside the area.	Prior to construction	Washing of project-related equipment prior to entering the Proposed Project area	County of Imperial and/or ORNI 5	County of Imperial
MM-BIO-10: If the California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), or U.S. Army Corps of Engineers (USACE) determine that access roads associated with well sites 47-32 and 18-32 are located within waters of the State/United States <u>or any other project impact area to be determined during surveys conducted prior to project activities</u> , prior to impacts the Applicant or its contractor shall obtain, and shall comply with all mitigation and conditions associated with, one or more of the following permits, as applicable: a CDFW Lake and Streambed Alteration Agreement; RWQCB Section 401 Water Quality Certification; or Section 404 USACE permit. Permit compliance shall be met through the purchase of in-lieu credits for non-vegetated streams at an approved mitigation bank, implementation of in-kind or out-of-kind restoration, or a combination of	Prior to construction	Jurisdictional delineations	County of Imperial and/or ORNI 5	County of Imperial

these actions. The mitigation replacement ratio shall be determined by the regulatory agencies during the permitting process.				
II. Cultural Resources				
MM-CUL-1: A temporary track will be placed over the historic site within the geophysical survey vibroseis path in the three different locations the Applicant would like to cross over the historic resource. Once the need to cross the area associated with the historic resource has concluded, the temporary cover can be removed.	During construction	Temporary track over historic resource	County of Imperial and/or ORNI 5	County of Imperial
MM-CUL-2: Prior to construction, the Applicant shall prepare a mitigation and monitoring plan specific to Cultural resources. The mitigation and monitoring plan shall identify procedures for monitoring and the implementation of a discovery plan in coordination with affected Tribal groups. The mitigation and monitoring plan will incorporate a worker awareness program, stop work authority and all avoidance recommendations from the Class III report.	Prior to construction	Preparation of an MRP specific to Cultural Resources	County of Imperial and/or ORNI 5	County of Imperial
MM-CUL-3: The Applicant shall retain qualified archaeological monitors (and Tribal monitors, if requested) for all ground-disturbing activities associated with the geophysical survey and development of access roads and construction of the drill pads. If a significant cultural resource site is found during ground-disturbing activities associated with well pad or access road construction the	Prior to and during construction	Evaluation of any archaeological resources encountered during construction	County of Imperial and/or ORNI 5	County of Imperial

Project features will either be moved, or the resource will be protected in place, or data recovery will be initiated, consistent with the mitigation and monitoring plan required by MM-CUL-2. The final disposition of archaeological or historical, resources recovered on state land under the jurisdiction of the California State Lands Commission must be approved by the Commission.				
MM-CUL-4: California State law (California Health and Safety Code 7050.5) and federal law and regulations (Archaeological Resources Protection Act [ARPA], 16 United States Code [U.S.C.] 470 and 43 Code of Federal Regulations, [CFR] 7, Native American Graves Protection and Repatriation Act [NAGPRA] 25 U.S.C. 3001 and 43 CFR 10, and Public Lands, Interior 43 CFR 8365.1-7) require a defined protocol if human remains are discovered in the state of California regardless if the remains are modern or archaeological. Upon discovery of human remains, all work within a minimum of 200 feet of the remains must cease immediately, and the County Coroner must be notified. The appropriate land manager/owner or the site shall also be notified of the discovery. If the remains are located on federal lands, the federal land manager(s), federal law enforcement, and/or federal archaeologist should also be notified. If the human remains are determined by the Coroner to be prehistoric, the appropriate	During construction	Evaluation of any human remains and implantation of discovery protocol	County of Imperial and/or ORNI 5	County of Imperial

federal archaeologist must be called. The archaeologist will initiate the proper procedures under ARPA and/or NAGPRA. If the remains can be determined to be Native American, the steps as outlined in NAGPRA 43 CFR 10.6 Inadvertent Discoveries must be followed.				
III. Geology and Soils				
MM-GEO-1: Applicant will prepare a SWPPP consistent with the requirements of the California State Water Resources Control Board (SWRCB) to reduce the potential for water pollution and sedimentation from proposed Project activities. The SWPPP will be project specific and expressly address site runoff, assuring that project runoff would not affect or alter drainage patterns to sensitive habitat.	Prior to construction	Preparation of a SWPPP	County of Imperial and/or ORNI 5	County of Imperial
MM-PAL-1: All Project personnel and other onsite workers shall receive environmental awareness training on paleontological resources prior to the start or continuation of any elements of the Project that include ground-disturbing activities. The training will be conducted by a qualified, BLM- and DPR-permitted paleontologist and will provide a description of the fossil resources that may be encountered in the Project area, outline steps to follow in the event that a fossil discovery is made, and provide contact information for the Project Paleontologist. The training may be conducted concurrent with other	Prior to construction	Environmental awareness training on paleontological resources presented to employees working on the Proposed Project	County of Imperial and/or ORNI 5	County of Imperial

environmental training (e.g., cultural and natural resources awareness training, safety training, etc.) and may also be videotaped or presented in an informational brochure for future use by field personnel not present at the start of the Project. The workers should be informed that any unlawful collection of paleontological resources may be subject to a misdemeanor, a fine, or both.				
<p>MM-PAL-2: Prior to the commencement of ground-disturbing activities, a qualified professional paleontologist shall be retained to prepare and implement a Paleontological Resource Mitigation Plan (Plan) for the Project. The Plan should address the recommended approach to additional specimen collection, the specific locations and intensity of monitoring recommended for each geologic unit, and monitoring intensity.</p> <p>Paleontological monitoring will be required for all ground-disturbing activities within the previously undisturbed Arroyo Diablo Formation, Borrego Formation, Brawley Formation, Lake Cahuilla deposits, and Quaternary older alluvium, which underlies the Project area. Monitoring will entail the visual inspection of excavated or graded areas and trench sidewalls. In the event that a paleontological resource is discovered, the monitor will have the authority to temporarily divert the construction equipment around the</p>	Prior to ground breaking activities	Paleontological Resources Mitigation Plan and ground surveys in the Proposed Project area	County of Imperial and/or ORNI 5	County of Imperial

find until it is assessed for scientific significance and collected. The final disposition of paleontological resources recovered on state land under the jurisdiction of the California State Lands Commission must be approved by the Commission.				
<p>MM-PAL-3: Upon completion of fieldwork, all significant fossils collected will be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation will include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary. Following laboratory work, all fossils specimens will be identified to the lowest taxonomic level, cataloged, analyzed, and curated. Fossil specimens collected from BLM managed land remain the property of the Federal government and they must be placed in the approved museum repository identified on the Paleontological Resource Use Permit. Fossil specimens collected from DPR-managed land remain the property of the State of California and must also be delivered to an accredited regional museum repository for permanent curation and storage. The cost of curation is assessed by the repository and is the responsibility of the the Applicant.</p> <p>At the conclusion of laboratory work and museum curation, a final report will be prepared to describe the results of the</p>	Post-construction	Fossil preparation and preparation of a final report to describe the results of the paleontological mitigation monitoring efforts	County of Imperial and/or ORNI 5	County of Imperial

paleontological mitigation monitoring efforts associated with the Project. The report will include a summary of the field and laboratory methods, an overview of the Project area geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. If the monitoring efforts produced fossils, then a copy of the report will also be submitted to the curation facility.				
IV. Noise				
MM-NOI-1: During the geophysical survey, the project applicant shall require that the Vibroseis trucks are operated a minimum of 200 feet away from any occupied home.	During geophysical survey	Noise reduction measures implementation	County of Imperial and/or ORNI 5	County of Imperial
MM-NOI-2: During construction of the exploratory wells, the project applicant shall require the well drilling contractor to implement the following noise reduction measures: <ul style="list-style-type: none"> All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds that are no less effective than those originally installed by the manufacturer; All non-essential well drilling equipment and truck deliveries shall be limited to 	During construction	Noise reduction measures implementation	County of Imperial and/or ORNI 5	County of Imperial

<p>operating during the allowable construction times of between 7 a.m. and 7 p.m. Monday thru Friday and between 9 a.m. and 5 p.m. on Saturday;</p> <ul style="list-style-type: none">▪ The portable office and any storage containers used during the well drilling phase shall be placed between the drilling equipment and nearest home, in order to effectively act as a sound wall and provide attenuation to the nearest home.				
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Exhibit C

A2230

RECORDED AT THE REQUEST OF
AND WHEN RECORDED MAIL TO:
STATE OF CALIFORNIA
California State Lands Commission
301 East Ocean Blvd. Suite 550
Long Beach, CA 90802-8833

**STATE OF CALIFORNIA
OFFICIAL BUSINESS**

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A.P.N. 017-340-011 & 017-340-018
County: Imperial

Lease No. _____
A2230

GEOHERMAL RESOURCES LEASE

This Lease consists of this summary and the following attached and incorporated parts:

Section 1	Basic Provisions
Section 2	Special Provisions Amending or Supplementing Section 1 or 3
Section 3	General Provisions
Exhibit A	Land Description
Exhibit B	Site and Location Map

SECTION 1

BASIC PROVISIONS

THE STATE OF CALIFORNIA, hereinafter referred to as Lessor, acting by and through the **CALIFORNIA STATE LANDS COMMISSION** (301 East Ocean Blvd. Suite 550, Long Beach, CA 90802-8833), pursuant to Division 6 of the Public Resources Code and Title 2, Division 3 of the California Code of Regulations, and for consideration specified in this Lease, does hereby lease, demise, and let to **ORNI 5, LLC**, hereinafter referred to as Lessee, those certain lands described in Exhibit A hereinafter referred to as Leased Land, subject to the reservations, terms, covenants, and conditions of this Lease.

MAILING ADDRESS: Scott Kessler, Land Division Manager
Ormat Nevada Inc.
6140 Plumas Street
Reno, NV 89519

LEASE TYPE: Geothermal Resources Lease, Subsurface Only-No Surface Use

LAND TYPE: State's 100 percent reserved mineral interest school land

LOCATION: Approximately 723 acres in all of Section 16 and portion southwesterly of Hwy 86 of Section 10, Township 11 South, Range 10 East, SAN BERNARDINO MERIDIAN, as described in Exhibit A, and depicted in Exhibit B, attached and by this reference made a part hereof.

LAND USE OR PURPOSE:

This Lease is for the purpose of developing a geothermal exploratory project (as defined in Public Resources Code §section 21065.5) to evaluate the presence and characteristics of geothermal resources prior to commencement of a geothermal field development project. Lessee shall have the exclusive right to drill for, produce, utilize, save and sell geothermal resources from the Leased Land. This Lease is for a non-surface use and does not independently authorize surface development on the Leased Lands.

TERM:

This Lease shall be for a primary term of 5 years commencing on November 1, 2020, ("effective date") and for so long thereafter as geothermal resources are being produced or utilized, or are capable of being produced or utilized, in commercial quantities from the Leased Land or lands unitized therewith, unless sooner terminated as provided in this Lease.

CONSIDERATION:

Lease Management Fee, Royalty, Rent, Geothermal Resources in Kind, Renegotiations of Consideration, defined below.

AUTHORIZATION: No Surface Use Authorized. Only subsurface development by means of up to four directionally drilled wells may occur on the leased land. Development associated with the production or transmission of electricity are not authorized by this Lease and will require a Commission approved amendment.

LIABILITY INSURANCE:

\$2,000,000.00 in current dollars per occurrence, and a general aggregate limit of at least \$5,000,000.00; defined in Section 2, special provisions below.

SURETY BOND OR OTHER SECURITY:

\$260,000 per well prior to drilling (directionally drilled) and in favor of the Commission; defined in Section 2, special provisions below.

**SECTION 2
SPECIAL PROVISIONS**

BEFORE THE EXECUTION OF THIS LEASE, ITS PROVISIONS ARE AMENDED, REVISED, OR SUPPLEMENTED AS FOLLOWS:

1. LAND USE OR PURPOSE

- (a) Lessee shall have the exclusive right to inject geothermal fluids, or other fluids approved by the Commission staff, into the Leased Land and upon such terms and for consideration deemed by the Commission to be in the State's best interests. However, no consideration shall be required for injection if the Commission is receiving royalties based on production from the Leased Land or based on the Commission's participation in a producing unit incorporating the Leased Land. Lessee shall not have the privilege or right to store hydrocarbon or other non-condensable gas beneath the Leased Land, nor any other privilege or right not expressly given.
- (b) Lessee may conduct surveys, tests, or experiments on the Leased Lands necessary to undertake the purpose of the Lease. Lessee may use geological, geochemical, geophysical or other exploratory methods for determining the presence of geothermal resources in the Leased Land. No such survey, test or experiment shall be conducted without prior written approval of the Commission staff and notification to surface owner.
- (c) The Commission shall have the right to grant, other than the Lessee, nonexclusive exploratory permits or leases for minerals other than geothermal

resources and for non-mineral purposes to conduct such surveys, tests or experiments or for any other purpose not incompatible with Lessee's activities authorized under this Lease. Lessee shall not interfere with the exercise of rights granted by the Commission to other persons to enter upon the Leased Land.

- (d) This Lease and operations under it shall be consistent with the principle of multiple use of public lands and resources as provided in the Public Resources Code section 6906.

2. STATE LEASE MANAGEMENT

Lessee shall execute a Standard Reimbursement Agreement with the Commission for the administration of this Lease, subject to a \$12,000 per annum cap to start on December 1, 2020, with automatic annual renewals increasing the cap 5 percent per year thereafter. The Lessee shall be billed for reimbursement of Commission staff time incurred for the reasonable and necessary costs of field inspections; the administration and implementation of the terms of the Lease, including, but not limited to, engineering review, royalty verification, audit, reservoir and geologic review, annual lease reviews; and any other staff time or expenditures to ensure lease operations conform to all the terms of the Lease and to the rules and regulations of the Commission.

3. ROYALTY AND RENT

Lessee shall pay to the Commission royalties on geothermal resources produced, utilized, saved or sold from the Leased Land, and an annual land rent. Royalties shall be due and payable not later than the 25th day of the calendar month following the calendar month of production.

- (a) Lessee will pay a royalty of 3 percent of the gross proceeds from the sale of electrical power generated from the geothermal resources attributable to the Leased Land.
- (b) Lessee will pay a royalty of 12.5 percent of the gross revenue received from the sale of steam the brines from which no minerals have been extracted, and associated gases produced from the Leased Land, at the point of delivery to the purchaser thereof. No deductions for charges made or incurred with respect to transmission or other services or processes shall be allowable against the Commission's royalty interest.
- (c) Lessee will pay a royalty of 5 percent of the gross revenue received from the sale of mineral products or chemical compounds recovered from geothermal fluids attributable to the Leased Land in the first marketable form.
- (d) Royalties attributable to the Leased Land, if part of a producing geothermal unit, shall be based on the allocation of resources attributable to the Leased Lands determined based on a fraction, where the numerator is the number of

acres comprising the Leased Land and the denominator is the total number of acres comprising the geothermal unit.

- (e) After the discovery of geothermal resources in commercial quantities on the Leased Land or lands unitized therewith, the minimum royalty payment due to the Commission during any lease year must not be less than the equivalent of \$50.00 for each acre or fraction of an acre included in the Leased Land.
- (f) Lessee will pay an annual land rent of \$10 for each acre or fraction of an acre, included in the Leased Land, payable on the first day of this Lease and each lease anniversary thereafter, provided, however, that once production of geothermal resources from the Leased Land begins, or the Leased Land becomes part of a producing geothermal unit, and royalty under Royalty and Rent (a) above begins to accrue, the annual land rent shall immediately be decreased to \$1.00 for each acre or fraction of an acre, or the minimum allowed under the Public Resources Code Section 6913, subdivision (c).

4. GEOTHERMAL RESOURCES IN KIND

At the Commission's option, which may be exercised upon 60 days' prior written notice, Lessee shall deliver to the Commission in kind, and in lieu of royalties due to the Commission, a percentage of the geothermal resources produced, utilized, saved or sold from the Leased Land, in an amount equal to the royalty share owed the State under this Lease. The State will exercise this option consistent with Public Resources Code section 6913, subdivision (f).

5. RENEGOTIATION OF CONSIDERATION

Pursuant to Public Resources Code section 6913, subdivision (e), royalties shall be renegotiated on or after the 20th anniversary of the initiation of commercial operation, which shall be 30 days after the first generating unit has operated for a consecutive 24-hour period, and on every 10th anniversary thereafter. The negotiations shall not increase the maximum royalty rate by more than 50 percent over the royalty rate of the prior period.

6. DRILLING-NO SURFACE USE

Lessee shall commence drilling operations (directionally drilling) within the primary term of this lease. Lessee acknowledges that any further development activities on or into the Leased Land, beyond that specified under Section 2, Land Use or Purpose of this lease, shall require the further approval of the Commission and be contingent upon and subject to additional environmental review of the project and site-specific impacts in accordance with the provisions of the CEQA. In the event Lessee proposes operations into the Leased Land that require additional environmental analysis for which the Commission is lead agency under CEQA, Lessee shall provide, in advance, funds sufficient to pay for the preparation of the required environmental documentation. The decision to allow further exploration and development activities into the Leased Land, beyond that specified under Operations, provision 8(b) of this lease, shall remain within the

discretion of the Commission. Furthermore, nothing contained in this lease, nor in the relationship between the Commission and Lessee arising hereunder, shall impose any constraint or limitation upon the Commission with respect to the conduct of its legal responsibilities arising under CEQA, including without limitation, participating in any environmental review process permitted or required by law pertaining to any project proposed by Lessee, regardless of whether the proposed project would further the purposes of this lease.

7. OFFSET WELL REQUIREMENT

In the event any well is completed or placed into production after the effective date of this Lease on lands not owned by the Commission with any part of its producing interval within 500 feet of the exterior boundary of this Lease, then the Commission may notify Lessee, in writing or by email, to commence drilling an offset well thereto, and within reasonable time, not to exceed 180 days, as specified in such notice, Lessee shall commence operations for drilling an offset well. An offset well shall mean a well the producing interval of which is situated at a location in the Leased Land not more than 500 feet from the point on the exterior boundary of the Leased Land nearest to the producing interval of the well to be offset. Notwithstanding the foregoing, if the Leased Land is part of a geothermal unit and shares in the revenue therefrom, wells drilled into that unit shall not create an obligation to drill an offset well into Leased Land.

8. OPERATIONS

- (a) Lessee shall meet with Commission staff every other year to discuss Lessee's ongoing operations, and any plans for future exploration, development and operation, as such operations or plans relate to the Leased Land or lands pooled or unitized with them.
- (b) All operations on or into the Leased Land shall be carried on in a good and workman like manner in accordance with generally accepted good engineering practice and with due regard for the protection of life, cultural resources and property, preservation of the environment, and conservation of wildlife, plants, and other natural resources.
- (c) No well shall be drilled into the Leased Land, re-drilled, perforated, plugged-back, altered, converted, or abandoned, and no wellhead shall be removed, without the Commission's prior approval, such approval not to be unreasonably withheld. All drilling shall be performed subject to the provisions of this Lease, the Public Resources Code, and State regulations applicable to the drilling of geothermal wells.
- (d) Before commencing the drilling of a well into the Leased Land, Lessee shall notify the Commission of its intention to drill. The notice shall contain the location, derrick elevation, proposed depth and bottom-hole location, directional drilling program, drilling fluid program, blowout prevention equipment program, casing program, completion program, description of the

size and shape of the drilling site, including a geological engineering report on the site, planned excavation and grading, and location of existing and proposed access roads.

- (e) If any permits are required under the Federal Endangered Species Act, the California Endangered Species Act, and/or California Fish and Wildlife Code 1600, et. seq., for any wells to be drilled into the Leased Land, then Lessee shall consult with the U.S. Fish and Wildlife Service and/or the California Department of Fish and Wildlife, as applicable, regarding such permits.
- (f) No power plant facilities, buildings, structures, production equipment, metering systems, pipelines, roads or electrical transmission lines shall be installed or constructed on the Leased Land without prior Commission approval.
- (g) If Lessee sells steam, hot water from which no minerals have been extracted, or associated gases, then Lessee shall meter the geothermal resources produced from the Leased Land. If Lessee sells electricity or mineral products derived from geothermal resources from the Leased Land, then Lessee shall meter such electricity or mineral products. Metering equipment shall be maintained and operated so that it will meet acceptable standards of accuracy. If Commission staff believes reasonable standards are not being maintained, it shall give notice to Lessee and a reasonable opportunity to Lessee to upgrade such equipment. However, if the Leased Land is committed to a geothermal unit, then no separate metering of geothermal resources or minerals produced from the Leased Land shall be required.
- (h) If the Leased Land contains rock strata known or suspected by Lessee or Commission staff to contain hydrogen sulfide (H₂S), Lessee shall submit a copy of OSHA's contingency plan for the protection of personnel and equipment while drilling, establish a training program to promote efficient safety procedures in the H₂S contaminated environment, and install an H₂S detection system with an indicator and alarm. The approvals for the contingency plan, training program and detection system must be shared with Commission staff.
- (i) Commission staff shall conduct inspections of lease operations as necessary during the term of the Lease. All reasonable and necessary costs for the administration and implementation of the inspections of such operations shall be paid by Lessee through a Standard Reimbursement Agreement or other suitable instrument. All costs shall be calculated under provisions of the State Administrative Manual.

9. REQUIRED PRODUCTION AND TESTING

Except where the Leased Land is in an approved geothermal unit, if Lessee supplies geothermal resources to any facility from wells on both the Leased Land

and wells on other lands, and all such wells together can produce a quantity of geothermal resources greater than the maximum quantity that can be used by the facility, Lessee shall produce and sell or use geothermal resources from the wells on the Leased Land in proportion to their deliverability relative to the total deliverability of all the wells. Further, if Lessee completes wells with productive intervals on both the Leased Land and adjacent land, Lessee shall perform tests to determine the allocation of production from each side of the Lease line. Lessee must obtain Commission staff's approval and notify surface owner for both the method of testing and the resultant allocation of production, such approval not to be unreasonably withheld.

10. ENVIRONMENTAL IMPACT

- (a) Lessee agrees to be bound by and fully carry out, implement, and comply with all mitigation measures and reporting obligations identified as Lessee's, or Commission's responsibility as set forth in the Mitigation Monitoring Program (MMP) attached hereto as Exhibit C and by this reference made a part of this Lease, or as modified by the Commission as permitted by law. Lessee shall abide by the regulations, conditions and mitigation requirements set forth in Imperial County's Conditional Use Permit (CUP) #18-0038, and any amendments to it, and Mitigated Negative Declaration (MND) (SCH #2019119033). Further, Lessee shall comply with all modifications of equipment and plans deemed necessary by the Commission to achieve the objectives set forth in the CUP and MND.
- (b) If the Lessee fails to comply with the conditions, restrictions and mitigation measures imposed above, Commission staff shall notify the Lessee, surface owner, and its designated representative by telephone, email, written communication of the noncompliance, direct Lessee to cease all operations that are not in compliance, except emergency mitigative or corrective measures, and order Lessee to develop a remedial plan for the noncompliance which shall be implemented as soon as reasonably possible. Lessee will provide remedial plan to staff and the surface owner.
- (c) This Lease has been issued on the basis of the environmental analysis in the MND. Lessee acknowledges that any drilling or development activity proposed specifically into the Leased Land from any drill site not permitted by such prior environmental documentation will require further Commission approval and be contingent upon and subject to additional environmental review in accordance with the provisions of the CEQA. If the Lessee proposes development activities or operations on or into the Leased Land that require additional environmental analysis for which the Commission is the lead agency under the CEQA, Lessee shall provide, in advance, funds sufficient to pay for the preparation of the required environmental documentation.

11. ENVIRONMENTAL JUSTICE OUTREACH AND ENGAGEMENT PLAN

- (a) For proposed future development that exceeds the approved exploration activities, Lessee shall submit to Commission staff an environmental justice outreach and public engagement plan detailing how Lessee will execute outreach. Lessee shall coordinate with Commission staff in reviewing and revising the plan to the extent staff determines revisions are necessary. The plan must be submitted and reviewed by Commission staff prior to the CEQA review process and shall provide for outreach both during the CEQA review process and after lead agency, CEQA approval.
- (b) The environmental justice outreach and public engagement plan must include the following components:
 - i. The project description
 - ii. Purpose/objectives/scope for outreach and engagement
 - iii. Outreach contact information – who is leading the outreach?
 - iv. Stakeholder notification list – who are the agencies involved with the project? Will they be participating in the outreach meetings?
 - v. Timeframe for meaningful outreach and engagement
 - vi. List of proposed public meetings dates – type of meetings (informational, interactive, open forum)?
 - vii. Meeting accessibility – how will these meetings be accessible to the public (i.e. staggered meeting times, childcare, snacks/meals, public transit vouchers, language access/translation services, etc.)

12. WASTE OF RESOURCES, DAMAGE, LOSS AND LIABILITY

Lessee shall use all reasonable precautions to prevent waste of, damage to or loss of natural resources (surface and subsurface) and reservoir energy in or under the Leased Land and shall be liable to the Commission for any such waste, damage or loss to the extent that it is caused by the negligence of, the breach of any provision of this Lease by, or the noncompliance with applicable statutes or regulations by, Lessee, or its employees, agents or contractors. Nothing in this Lease shall diminish any other rights or remedies that the State may have in connection with any such negligence, breach or noncompliance.

13. GEOTHERMAL UNITS

- (a) Pursuant to the Public Resources Code section 6923, for the purpose of conserving the natural resources of geothermal resources areas, Lessee may commit the Leased Land to a geothermal unit as provided below. As used herein, the term “geothermal unit” means a cooperative plan of development and operation for the production, utilization, and conservation of geothermal

resources, where separate lands and leases held or controlled by Lessee are pooled, developed, and operated as a single working unit. The terms "unitized" and "unitization" as used elsewhere in this Lease refers to the combining of lands to form a geothermal unit.

- (b) With Commission staff's prior written consent, Lessee may commit the Leased Land to one or more geothermal units, provided the Leased Land is committed in its entirety.
- (c) In the interest of increasing the ultimate recovery of geothermal resources, from unreasonable waste, and protecting adjacent landowners, the Commission may require the Lessee to enter into a unit or cooperative agreement with respect to the Leased Land.
- (d) Lessee shall execute a declaration of unitization describing the lands or leases included within any geothermal unit to which the Leased Land is committed. A copy of each such declaration or amendment thereto shall be delivered to the Commission.
- (e) Drilling operations on and production from lands so unitized with the Leased Lands shall be deemed to be drilling operations on and production from the Leased Land that are included in the unit.

14. COMMINGLED PRODUCTION

Except where the Leased Land is in an approved geothermal unit, Lessee may commingle production from any two or more wells, without regard to whether such wells are located in the Leased Land or elsewhere, provided Lessee shall first install and maintain meters to measure the amount of geothermal resources produced from the Leased Land. Such commingling shall be discontinued at any time Commission staff determines that standards of measurement for accuracy or quality are not being maintained, and shall not be resumed until such standards are restored.

15. SUSPENSION OF OPERATIONS

In the event of any disaster affecting the safety of operations on the Leased Land, or uncontrolled flow of geothermal resources or pollution resulting from operations on the Leased Land, Lessee shall immediately suspend all drilling and production operations responsible for the disaster, uncontrolled flow or pollution, except those which are corrective or mitigative, and promptly notify Commission staff and surface owner by telephone or email. Drilling and production operations shall not be resumed on the Leased Land until adequate corrective measures have been taken and authorization for resumption of operations on the Leased Land has been given by Commission staff, such approval not to be unreasonably withheld.

16. SUBSIDENCE

Lessee and the Commission acknowledge that subsidence in the Salton Sea area, particularly that part of Imperial County where the Leased Land is located, is monitored by, and in accordance with the requirements of, the California Geologic Energy Management Division (CalGEM) and the County. Lessee shall comply with all subsidence limitations and mitigation measures imposed on Lessee's operations in the Leased Land by law, the CalGEM, and the County.

17. ENTRY BY STATE

Lessee consents to the inspection of its operations at all reasonable times by any person authorized by Commission staff. Such inspection shall include, but not be limited to, inspection of wells, improvements, pipelines, metering equipment for geothermal resources production and power generation and all other fixtures used in connection with Lessee's operations in or adjacent to the Leased Land or lands unitized therewith. No entry by Commission staff, or by persons authorized by Commission staff, shall give Lessee any right to charge for or subject the Commission to liability for any loss of occupation or quiet enjoyment of the premises.

18. INDEMNIFICATION AND INSURANCE

- (a) Lessee shall be liable to the Commission for all damage to any reservoir underlying the Leased Land and any loss of geothermal or other natural resources to the extent such loss is caused by the negligence of, or the breach of any provision of this Lease by, or noncompliance with any applicable statutes or regulations by, the Lessee, its employees, servants, agents or contractors. Nothing in this Lease shall diminish any other rights or remedies that the Commission may have in connection with any such negligence or breach.
- (b) Lessee shall indemnify the Commission and hold it harmless from any and all claims, actions, causes of action, liabilities, losses, costs, damages and expenses, including, without limitation, for loss of or damage to property, injury to or death of a person or persons, or other harm, including harm to the environment, arising out of or connected with the issuance of this Lease or acts or omissions by or on behalf of the Lessee under this Lease or on the Leased Land, or any breach of any of Lessee's obligations under this Lease. Lessee waives any defense to an action for breach of a covenant of this Lease or for damages or indemnification, including without limitation any such action resulting from a toxic or hazardous substances spill or other harm to the environment, based on the fact that the act or omission complained of was committed by an independent contractor. Lessee agrees to assume responsibility for all acts and omissions of its independent contractors, whether or not such contractors, at the time of the act or omission, are acting within the scope of their employment or license. The foregoing waiver by Lessee of the defense that the act or omission complained of was committed by an independent contractor, and the assumption of liability by Lessee for all acts and omissions of its independent contractors, shall inure exclusively to

the benefit of the Commission and is not intended to extend to or provide any benefit to third parties, including without limitation, other state and federal agencies. The obligations of Lessee under this provision shall survive the expiration or earlier termination of this Lease.

- (c) Lessee shall procure and maintain at Lessee's sole cost and expense a commercial general liability policy of insurance applying to the Leased Land, the operations of the Lessee therein and the business operated by Lessee. Such insurance shall be written on an occurrence basis and shall include broad form contractual liability insurance coverage insuring Lessee's indemnification obligations under this Lease and naming the State of California by endorsement as additional insured to the extent of the indemnity obligations assumed hereunder. Such coverage shall have liability limits of at least \$2,000,000.00 in current dollars (as defined below) per occurrence, and a general aggregate limit of at least \$5,000,000.00 in current dollars; provided, however, that such liability limits may be provided through a combination of primary and excess (i.e., umbrella) insurance policies. Any liability insurance policy shall be written to apply to all bodily injury, property damage, personal injury and other covered loss, however occasioned, during the policy term, and shall be endorsed to provide that such coverage shall be primary and that any insurance maintained by the State shall be excess insurance only. Such coverage shall also contain commercially reasonable endorsements as reasonably requested by Commission staff and shall provide the broadest scope of coverage for liability arising from pollution, explosion, collapse and underground property damage as is available and commercially appropriate. The insurance required by this provision shall provide for severability of interests; shall provide that an act or omission of any one of the named or additional insured shall not reduce or avoid coverage to the other named or additional insured; and shall afford coverage of all claims based on acts, omissions, injury and damage, which claims occurred or arose (or the onset of which occurred or arose) in whole or in part during the policy period. All policies shall be issued by insurers admitted to transact business in California and that have an excellent rating (of at least AA) in the then-current edition of Best's Insurance Guide. Lessee shall deliver a certificate of insurance to the Commission as soon as practicable after securing the required insurance. All policies shall contain an undertaking by the insurer or their authorized agent to notify the Commission in writing not less than 30 days prior to any material change, reduction in coverage, cancellation or other termination thereof. Lessee shall furnish the Commission with proof of renewal or binders for new insurance at least 5 days before the expiration date of each policy.
- (d) Lessee shall repair all damage to the Leased Land, and to fixtures, improvements or personal property on the Leased Land, caused by or resulting from operations of or on behalf of Lessee under this Lease, or the breach of any of Lessee's obligations under this Lease. Lessee shall not be

responsible for any damage caused by or resulting from the Commission's sole negligence.

- (e) Lessee shall maintain Worker's Compensation Insurance as required by law and Employer's Liability Insurance with limits of not less than \$1,000,000.00 in current dollars per occurrence, and in form reasonably satisfactory to Commission staff.
- (f) Lessee shall maintain business auto liability insurance with limits of not less than \$1,000,000.00 in current dollars per occurrence. Such insurance shall cover liability arising out of any auto including owned, hired and non-owned autos, and shall name the Commission as additional insured by endorsement.
- (g) Current dollars means a dollar amount calculated by multiplying the dollar amount specified in this Lease by a fraction, the numerator of which is the Consumer Price Index (CPI) for All Urban Consumers (U.S. All Items, Series ID CUUR0000SA0, Base Year 1982-84 = 100, published by the U.S. Department of Labor, Bureau of Labor Statistics) last published prior to the anniversary of the effective date of this Lease, and the denominator of which is the CPI last published immediately prior to the effective date of this Lease.

19. SURETY BOND OR OTHER SECURITY

Lessee shall furnish, and maintain until released by the Commission, a bond or other security device approved by Commission staff, in the amount of \$260,000 per well, to be furnished prior to drilling and to be in favor of the Commission for its exclusive use and benefit, guaranteeing the faithful performance by Lessee of the terms and conditions of this Lease, up to and including the full abandonment and removal of improvements placed by Lessee on the Leased Lands. This requirement shall be separate from any other bonding provisions of any other federal, state or local agency having jurisdiction over Lessee's operations on the Leased Land. The amount of the bond may be reviewed by the Commission no more than once every 5 years, starting on the effective date of the Lease, and shall be adjusted so that the total value of the bond matches the State's estimated cost of abandoning the wells and improvements authorized under this Lease.

Section 3 General Provisions

1. GEOTHERMAL RESOURCES

The term "geothermal resources" as used in this Lease shall have the meaning given by the Public Resources Code section 6903.

2. INTEREST AND PENALTIES

- (a) Royalties, rentals and other monetary considerations that are not paid when due shall bear simple interest from their due date until they are paid at the

rate of 1.5 percent per month on the unpaid balance.

- (b) Royalties, rentals and other monetary considerations that are not paid when due shall be assessed a penalty of 5 percent of the amount of any such past due royalties, rentals or other monetary considerations in accordance with the Commission's regulations.
- (c) Past due royalties, rentals and other monetary considerations include, but are not limited to, amounts which were not paid because of Lessee's unreasonable use of inaccurate information in computing the royalties, rentals and other monetary considerations and Lessee's unreasonable errors in the computations themselves. The determination of what errors of Lessee are unreasonable rests with the Commission.

3. RECORDS AND REPORTS

Lessee shall keep accurate records of its operations on the Leased Land or lands unitized with them, and shall file with the Commission the following information in the time and manner specified:

- (a) Not later than the 25th day of the calendar month following the calendar month of production, Lessee shall submit a detailed royalty accounting statement in such form as may be prescribed by Commission staff, including, but not limited to, information showing the amount of gross revenue derived from all geothermal resources produced, shipped, utilized or sold, and the amount of royalty due. At the request of Commission staff, Lessee shall provide more detailed statements and explanatory materials in order to aid Commission staff in interpreting and evaluating Lessee's royalty accounting statement. All statements are subject to audit and revision by the Commission. The Commission may inspect, at all reasonable times, all Lessee's books, records and accounts relating to operations under this Lease, including, but not limited to, the development, production, sale, utilization or shipment of geothermal resources. Lessee waives any statutory or other rights or objections it might have to such inspection by the Commission. All production data shall be deemed to have been "obtained in confidence" for purposes of Government Code section 6254, subdivision (e), and be disclosed to other persons only with the written consent of Lessee or upon the determination of Commission staff that their disclosure is in the public interest.
- (b) Lessee shall supply to Commission staff all physical and factual exploration results, logs, surveys and any other data in any form resulting from operations on the Leased Land or lands unitized with them, including, but not limited to, any surveys, tests or experiments conducted on the Leased Land by Lessee or by any person or entity acting on behalf of Lessee. Lessee shall also supply to the Commission the results of all geological, geophysical and geochemical tests, experiments, reports and studies, interpretive or factual, including, but not limited to, reservoir studies, computer modeling work and tests, experiments, reports or studies relating to injection or reservoir depletion on

the Leased Land or lands unitized with them, irrespective of whether the results of such tests, experiments, reports or studies contain sensitive proprietary or confidential information or trade secrets. All of the aforementioned data and results shall be supplied to the Commission within 30 days of completion of any recorded portion of the operation, test, experiment, report or study from which the data or results are obtained. All data and documents supplied by Lessee pursuant to this Records and Reports shall be deemed to have been "obtained in confidence" for purposes of Government Code section 6254, subdivision (e) and be disclosed to other persons only with the written consent of Lessee or upon the determination of Commission staff that disclosure is in the public interest.

4. EXAMINATION OF BOOKS

Lessee waives all rights it may have to prevent the Commission's examination at reasonable times of the books and records of any individual, association or corporation that has transported for, or received from, Lessee any geothermal resources produced, utilized, saved or sold from the Leased Land. Lessee waives all rights it may have to prevent the Commission's examination at reasonable times of the books and records of any such individual, association or corporation with respect to such individual's, association's or corporation's operations, wells, improvements, machinery and fixtures used on or in connection with the Leased Land.

5. WAIVER OF USE OF DATA

Lessee waives any statutory or other right to prevent disclosure to the Commission, or a duly authorized employee or representative of the Commission, of any information, reports, data or studies of any kind filed by Lessee with any federal, state or local agency relating to the Leased Land, the geothermal resources thereunder or any operations performed on the Leased Land or lands unitized therewith, irrespective of whether such information, reports, data or studies contain sensitive, proprietary or confidential information or trade secrets. All information filed with the Commission as required by this Lease shall always be available for any use of the Commission or its duly authorized representatives. Any information, reports, data or studies obtained by the Commission from any public agency and that are not public records shall be deemed to have been "obtained in confidence" for purposes of Government Code section 6254, subsection (e), and may be disclosed to other persons only with the written consent of Lessee or upon the determination of Commission staff that their disclosure is in the public interest.

6. NOTICES

All notices to be given under this Lease can be provided electronically or in writing and deposited in the U.S. Mail, registered, with postage prepaid, and addressed as follows:

To the Commission: California State Lands Commission
 Mineral Resources Management Division

301 E. Ocean Blvd., Suite 550
Long Beach, CA 90802-8833
Attention: Division Chief
Telephone: (562) 590-5201

To the Lessee:

Attention: _____
Telephone: () _____

The addressees to which the notices shall be mailed may be changed by written notice given by one party to the other as provided above. Nothing contained in this Notices shall preclude the giving of any notice by personal service to Lessee or its officers or agents. All payments specified in this Lease shall be made to the Commission at the address provided for notices to the Commission, unless the Commission instructs Lessee to send payments to another address.

7. PRESERVATION OF PROPERTY, WASTE DISCHARGE

Lessee shall perform all work with due regard for the preservation of the Leased Land and with due regard to the environmental impact of its operations in accordance with the following terms and conditions:

- (a) Lessee shall remove the derrick, other equipment and facilities within 60 days after Lessee has stopped using them in its operations.
- (b) All drilling operations shall be conducted in a manner that will eliminate, as far as practical, dust, noise, vibration and noxious odors. Operating sites shall be kept neat, clean and safe. Drilling dust shall be controlled to prevent its widespread deposition. Dangerous material deposited on trees and vegetation shall be removed. The determination as to what material is dangerous rests with Commission staff.
- (c) Lessee shall file with the Regional Water Quality Control Board a report on any proposed waste discharge in accordance with State Water Code section 13260. Water shall be discharged in accordance with requirements prescribed by the California Regional Water Quality Control Board, and copies of such requirements and approvals filed with the Commission. The Commission and any other agency having jurisdiction over the affected lands shall also approve in advance the place and manner of such waste discharge.
- (d) Lessee shall notify the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service before beginning any operations that may adversely affect fish and wildlife resources. Lessee shall conduct its operations in a manner that will not interfere with the right of the public to

fish upon and from California's public land, and that will not preclude the public's right to reasonable use of public land and waters.

- (e) This Lease is granted subject to article 1 section 25 of the California Constitution, which provides that the people shall have the right to fish upon and from the State's public land and in the waters thereof, and the Commission hereby reserves in favor of the people the absolute right to fish upon the surface of the Leased Land.
- (f) Any operations disturbing the surface of the soil, including road building, construction and movement of heavy equipment, shall be conducted in a manner that will not result in unreasonable damage to trees and plant cover, in soil erosion, or in degradation of California's waters including fish and aquatic life habitat.
- (g) Lessee shall maintain existing roads and bridges on or serving the Leased Land in a condition at least equal to that before Lessee's use. New roads and bridges shall be located, constructed and maintained in accordance with applicable Commission approvals and local specifications.
- (h) Lessee shall compensate the surface owner at market value for all timber cut from the Leased Land or otherwise damaged or destroyed. Lessee shall not obtain borrow pit material from the Leased Land without permission from and payment of its market value to the Commission.
- (i) Lessee shall protect from damage and repair or replace, when damaged by Lessee, all improvements, structures, trails, ditches, pipelines, water developments, fences, crops and any other property of other persons, including the Commission, on or near the Leased Land.
- (j) Lessee shall control access to drilling and production sites by the public to prevent accidents or injury to persons or property.
- (k) Lessee shall pond drilling mud in a safe manner and place and, where required by Commission staff, post the site with danger signs and fence it in order to protect persons, domestic animals and wildlife. Any drilling mud that is determined to be hazardous by any federal, state, or local agency, shall be immediately disposed of in the manner required by the applicable statute or regulation.
- (l) Lessee shall keep to a reasonable number and size any areas to be cleared and graded for drilling and production facility sites, described in the MND. Any clearing and grading shall be subject to the approval of Commission staff, such approval not to be unreasonably withheld.
- (m) During drilling and remedial well operations, Lessee shall monitor

continuously effluent gases at the wellhead in order to determine the emissions of H₂S and other toxic materials. Lessee shall submit to the California Air Resources Board and to any local Air Pollution Control District having jurisdiction, as required, the results of complete gas analyses, including toxic materials that would exist in vapor form at the wellhead temperature.

- (n) Lessee shall keep noise levels for drilling or any other phase of operations to a minimum and at no time shall allow the noise level to exceed local standards.
- (o) The above requirements are in addition to, and shall not be construed as limitations upon, all other regulations, restrictions and measures provided in this Lease that are designed to restrict, modify or minimize the environmental impact of operations under this Lease.

8. EXISTING RIGHTS

This Lease is issued subject to all existing rights at the effective date of this Lease, and such rights shall not be affected by the issuance of this Lease.

9. RESERVATION OF RIGHTS

The Commission reserves the right to issue non-surface occupancy leases, permits and licenses to the surface and/or subsurface of the Leased Land for any purpose not inconsistent with the rights of Lessee under this Lease.

10. COORDINATION OF ACTIVITIES

Lessee shall coordinate activities with other Commission lessees or permittees for the development of geothermal resources on lands nearby or adjacent to the Leased Land. Such coordination includes, but is not limited to, giving the Commission's lessees or permittees the right to use Lessee's access roads and unitizing or pooling the Leased Land with other leased or permitted lands, if the Commission determines that such action would facilitate the most efficient development of the Commission's geothermal resources, taking into account Lessee's economic interest.

11. COMPLIANCE WITH LAWS

Lessee shall comply with all valid federal, state and local laws applicable to Lessee's operations on the Leased Land, including, but not limited to, the applicable provisions of the Public Resources Code Divisions 3 and 6 and all applicable and effective regulations adopted at any time during the term of this Lease under the authority of these statutory provisions.

12. EMPLOYMENT PRACTICES

Lessee shall not discriminate against any person in its employment practices because of race, color, ancestry, national origin, religion, sex, age, marital status, physical disability, AIDS, AIDS-related condition, sexual orientation, or other

protected class under state or federal law. Lessee shall carry at all times full worker's compensation insurance covering all employees engaged in operations under this Lease.

13. TAXES

Lessee shall pay, when due, all taxes and assessments lawfully assessed and levied under the laws of the United States, the Commission or any of the State's political subdivisions against Lessee's interest in the Leased Land, against improvements, property or assets of Lessee situated upon the Leased Land, against the geothermal resources and other products produced from the Leased Land, and against all other rights of Lessee arising out of this Lease. There shall be no deduction from the royalties payable to the Commission by reason of the levy and payment of such taxes, assessments, fees, charges, or other amount for any of the above described reasons.

14. CANCELLATION

- (a) The Commission may cancel this Lease at any time before the discovery of commercially valuable deposits of geothermal resources on the Leased Land or lands unitized with them upon the failure of Lessee, after 60 days' written notice and demand for performance, to exercise due diligence and care in the prosecution of the exploratory or development work on the Leased Land or lands unitized therewith, in accordance with the terms and conditions of this Lease.
- (b) After the discovery of commercially valuable deposits of geothermal resources on the Leased Land, the Commission may cancel this Lease upon failure of Lessee, after 90 days' written notice and demand for compliance, to cure any breach or default under the terms and conditions of the Lease. Notwithstanding the foregoing, as to any breach or default which through the exercise of reasonable diligence cannot be cured within the 90-day time period allotted therefore, provided Lessee, within said 90-day period, commences measures to cure the breach or default and diligently pursues such measures to completion, Lessee's time to effect cure shall be extended as reasonably necessary to cure the breach or default. If the Lease is canceled, Lessee shall have the right to retain under this Lease all wells currently being drilled or producing geothermal resources in commercial quantities, plants and facilities, and rights-of-way through the Leased Land that will enable Lessee to drill and operate the retained well or wells. The Commission shall prescribe a reasonable rental, not to exceed the initial rental payable under Lease Royalty and Rent Section 2, Provision 3(e), and other reasonable terms and conditions for operation of the retained wells. Royalty shall be calculated per Lease Royalty and Rent Section 2, Provision 3(a), (b), and (c). If the Lease is canceled, Lessee shall have a reasonable time within which to remove any property owned or used by Lessee in connection with its operations under the Lease, and shall comply with the restoration and removal conditions of this Lease.

15. WAIVER OF BREACH

The Commission's waiver of any breach or default shall not constitute a waiver of any other breach or default of the same or any other provision of this Lease, regardless of the Commission's knowledge of the other breaches or defaults. The Commission's acceptance of monies from Lessee shall not constitute a waiver of any preceding breach or default, other than the failure of Lessee to pay the particular monies accepted, regardless of the Commission's knowledge of the preceding breach or default at the time of its acceptance of the monies. Acceptance of monies by the Commission after Lease termination of the shall not constitute a reinstatement, extension or renewal of the Lease or revocation of any notice or other act by the Commission.

16. SOLVENCY

If at any time during the term of this Lease, Lessee is insolvent under the federal bankruptcy laws, makes a voluntary assignment of its assets for the benefit of creditors, or is adjudged as bankrupt either upon Lessee's voluntary petition in bankruptcy or upon the involuntary petition of Lessee's creditors, the Commission shall have all the rights and privileges afforded it by federal bankruptcy laws to protect its interests under this Lease.

17. ASSIGNMENT AND SUBLETTING

(a) Lessee may assign or transfer this Lease or any interest it may have in this Lease and may sublet all or part of the Leased Land as provided in Public Resources Code Sections 6804 and 6925. The Commission's approval, which shall not be unreasonably withheld, to an assignment, transfer or sublease may be conditioned upon, among other things, the Commission's participation in any consideration received by Lessee or its successors in interest for the assignment, transfer or sublease if this participation is deemed by the Commission to be in the State's best interests. The consent to any assignment, transfer or sublease shall not be deemed as consent to any subsequent assignment, transfer or sublease. Any assignment, transfer or sublease made without the Commission's consent, whether voluntary or by operation of law, shall be of no effect and shall be a breach that gives to the Commission the right to cancel this Lease. Lessee may subcontract, without Commission approval, parts of the work to be performed under this Lease so long as Lessee remains responsible to the Commission for the work that is subcontracted. Upon approval by the Commission of any assignment, transfer or sublease, the Assignee, Transferee or Sublessee shall be bound by the terms of this Lease to the same extent as if such Assignee, Transferee or Sublessee were the original Lessee, any conditions in the assignment, transfer or sublease to the contrary notwithstanding. Lessee shall submit to Commission staff documentation of any acquisition, merger, name change, corporate reorganization or any other organizational restructuring that affects the entity that holds this Lease.

- (b) For purposes of this Assignment and Subletting, any transaction or conveyance, or series of transactions or conveyances occurring within 6 consecutive months, regardless of form or structure, that results in the transfer of either a controlling interest in Lessee or a 50 percent or greater ownership interest in any business entity owning a controlling interest in Lessee, shall be deemed an assignment or transfer of the Lease for which Commission approval is required. A controlling interest in Lessee is 35 percent or more of: (i) the voting stock of the Lessee if it is a corporation; (ii) the general partnership interest if the Lessee is a general or limited partnership; or (iii) the membership interest if the Lessee is a limited liability company.

18. QUITCLAIM

The Lessee may make at any time a written quitclaim or relinquishment of all rights under this Lease or of any portion of the Leased Land as provided in Public Resources Code sections 6804.1 and 6914. Upon acceptance by the Commission, the quitclaim or relinquishment shall be effective when it is filed with the Commission, subject to the continued obligation of the Lessee and its surety to pay all accrued rentals and royalties, to abandon all wells drilled into or through the Leased Lands to be quitclaimed or relinquished in a manner approved in writing by the Commission and to restore such lands in accordance with the approved CalGEM regulations and standards. However, the quitclaim or relinquishment shall not release Lessee or its surety from any liability for breach of any obligation of this Lease with respect to which Lessee is in default at the time the Commission's acceptance of the quitclaim.

19. SURRENDER OF PREMISES OR LEASE TERMINATION

If Lessee is not the surface owner at the expiration or sooner termination of this Lease, Lessee will indemnify the Commission from all liability from all actions or omissions of Lessee in connection with the abandonment and surrender of the surface estate; provided, however, the Commission reserves the right to require Lessee to abandon properly all wells and drill sites on the Leased Land or lands serving the Leased Land in a manner approved in writing by the Commission and CalGEM. Such wells and drill sites shall be abandoned within the time specified by the Commission, and at the expense of Lessee. This provision shall survive the termination of the Lease.

20. RESTORATION

Within 12 months after the expiration, surrender or termination of this Lease, Lessee shall (a) plug and abandon any geothermal wells into the Property in accordance with applicable Law (b) remove from the Leased Lands any other facilities owned or installed by Lessee thereon (c) level and fill in all sump holes and mud pits and (d) leave the land surface free from debris. The Commission may approve a plan of restoration that varies from these requirements. Lessee shall have a continuing easement to enter the Property for such purpose during such 12 month period.

21. FORCE MAJEURE

The obligations imposed upon Lessee by this Lease may be suspended during the time Lessee is prevented from complying with them by wars, strikes, riots, acute and unusual labor or material shortages, acts of God or such other unusual conditions that are beyond the control of Lessee. In order for any obligation imposed upon Lessee to be suspended, Lessee must inform the Commission in writing as soon as possible that a condition warranting suspension has arisen. Lessee shall inform the Commission in writing as soon as possible when such condition ceases to exist.

22. POSSESSORY INTEREST TAX

Lessee recognizes and understands in accepting this Lease that it may be liable for the possessory interest tax imposed by the city or county on its leasehold.

23. SEVERABILITY

If any provision of this Lease is judicially determined to be invalid, it shall be considered deleted from the Lease and shall not invalidate the remaining provisions.

[SIGNATURES ON NEXT PAGE]

CALIFORNIA STATE LANDS COMMISSION

Date

By: _____
Marina Voskanian, Chief
Mineral Resources Management Division

LESSEE*

Date

By: _____

* In executing this document, the following are required:

Corporations:

1. Affix Corporate Seal.
2. Attach certified copy of the resolution or other document authorizing its execution on behalf of the corporation.

Individuals:

1. Attach acknowledgment of Signature.

EXHIBIT A

A 2230

LAND DESCRIPTION

Two parcels of State School and Lieu Lands in Imperial County, State of California, more particularly described as follows:

PARCEL 1

All Section 16 Township 11 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved June 4, 1856, Imperial County.

PARCEL 2

That portion of Section 10 Township 11 South, Range 10 East, San Bernardino Meridian, as shown on that Official Township Survey Plat approved June 4, 1856 lying westerly of the westerly right-of-way line of State Highway 86.

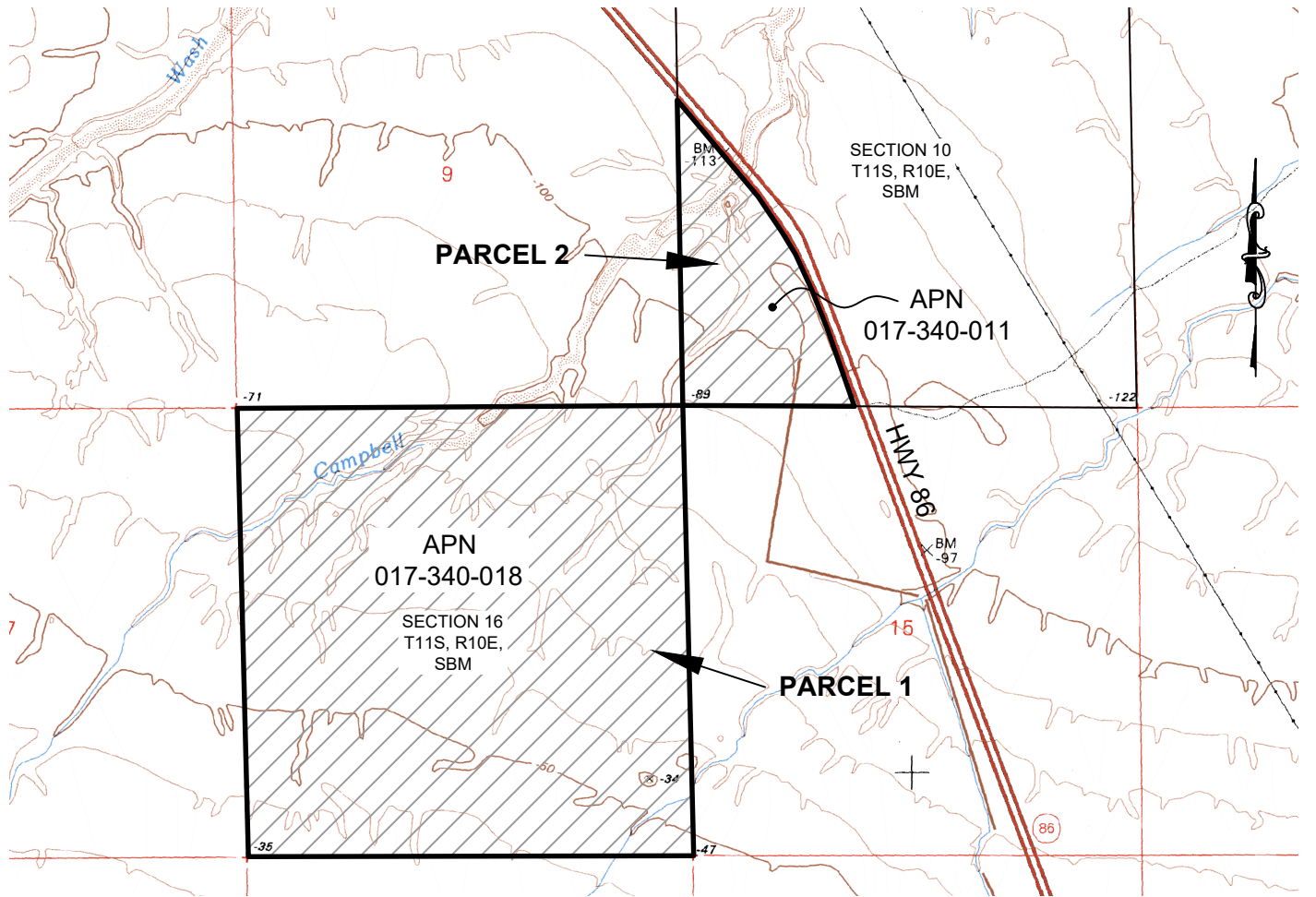
END OF DESCRIPTION

Prepared 01/15/2020 by the California State Lands Commission Boundary Unit.



NO SCALE

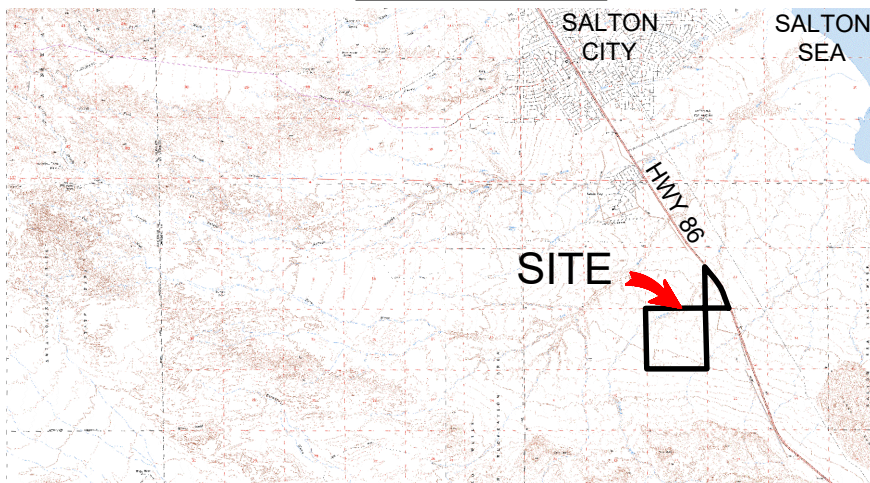
SITE



SECTION 16 AND PORTION OF SECTION 10,
TOWNSHIP 11 SOUTH, RANGE 10 EAST, SAN BERNARDINO MERIDIAN

NO SCALE

LOCATION



MAP SOURCE: USGS QUAD

This Exhibit is solely for purposes of generally defining the other premises, is based on unverified information provided by the other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

Exhibit B

A 2230

ORNI 5, LLC

APNs 017-340-011, -018
GEOTHERMAL LEASE
IMPERIAL COUNTY



TS 01/15/2020

EXHIBIT C
CALIFORNIA STATE LANDS COMMISSION
MITIGATION MONITORING PROGRAM
TRUCKHAVEN GEOTHERMAL EXPLORATION WELL PROJECT
(A2079 / A2230, State Clearinghouse No. 2019119033)

The California State Lands Commission (Commission or CSLC) is a responsible agency under the California Environmental Quality Act (CEQA) for the Truckhaven Geothermal Exploration Well Project (Project). The CEQA lead agency for the Project is Imperial County.

In conjunction with approval of this Project, the Commission adopts this Mitigation Monitoring Program (MMP) for the implementation of mitigation measures for the portion(s) of the Project located on Commission lands. The purpose of a MMP is to impose feasible measures to avoid or substantially reduce the significant environmental impacts from a project identified in an Environmental Impact Report (EIR) or a Mitigated Negative Declaration (MND). State CEQA Guidelines section 15097, subdivision (a), states in part:¹

In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

The lead agency adopted an MND, State Clearinghouse No. 2019119033, adopted a Mitigation Monitoring and Reporting Program (MMRP) for the whole of the Project (see Exhibit C, Attachment C-1), and remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with its program. The Commission's action and authority as a responsible agency apply only to the mitigation measures listed in Table C-1 below. The full text of each mitigation measure, as set forth in the MMRP prepared by the CEQA lead agency (Attachment C-1), is incorporated by reference in this Exhibit C. Any mitigation measures adopted by the Commission that differ substantially from those adopted by the lead agency are shown as follows:

- Additions to the text of the mitigation measure are underlined; and
- Deletions of the text of the mitigation measure are shown as ~~strikeout~~ or as otherwise noted.

¹ The State CEQA Guidelines are found at California Code of Regulations, title 14, section 15000 et seq.

Table C-1. Project Impacts and Applicable Mitigation Measures

Potential Impact ²	Mitigation Measure (MM) ³	Difference Between CSLC MMP and Lead Agency MMP
Biological		
IV (a)	MM BIO-1 to MM BIO-9	None
IV (c)	MM BIO-10	None
IV (d)	MM BIO-3	None
IV (e)	MM BIO-1 to MM BIO-9	None
Cultural		
V (a)	MM CUL-2	None
V (b)	MM CUL-3	See addition below
V (c)	MM CUL-4	None
Geology		
VII (b)	MM GEO-1	None
VII (f)	MM PAL-1, MM PAL-2, MM PAL-3	See addition below
Water Quality		
X (c)(iv)	MM BIO-10	None
Noise		
XIII (a)	MM NOI-1, MM NOI-2	None

Add to MM CUL-3:

- California State Lands Commission (Commission) staff shall be notified of any significant cultural resources discovered on lands under the jurisdiction of the Commission. The final disposition of archaeological and historical resources from such lands must be approved by the Commission.

Add to MM PAL-3:

- California State Lands Commission (Commission) staff shall be notified of any paleontological specimens discovered on lands under the jurisdiction of the Commission. The final disposition of any artifacts or specimens including, but not limited to, those of a paleontological nature from such lands must be approved by the Commission.

² Impact numbering corresponds to the Environmental Checklist Form in the MND.

³ See Attachment C-1 for the full text of each MM taken from the MMP prepared by the CEQA lead agency.

ATTACHMENT C-1

Mitigation Monitoring and Reporting Program

Adopted by Imperial County

**MITIGATION MONITORING AND
REPORTING PROGRAM
TRUCKHAVEN GEOTHERMAL
EXPLORATION WELL PROJECT**

IMPERIAL COUNTY, CALIFORNIA

Prepared for:

COUNTY OF IMPERIAL
Planning & Development Services Department
801 Main Street
El Centro, CA 92243
(442) 265-1736

Prepared by:

CHAMBERS GROUP, INC.
9620 Chesapeake Dr, Suite 202
San Diego, CA 92123
(858) 541-2800

January 2019

SECTION 1.0 – PURPOSE

The County of Imperial would adopt this Mitigation Monitoring and Reporting Program (MMRP) in accordance with Public Resources Code (PRC) Section 21081.6 and Section 15097 of the California Environmental Quality Act (CEQA) Guidelines. The purpose of the MMRP is to ensure that the Truckhaven Geothermal Exploration Well Project (Proposed Project) complies with all applicable environmental mitigation requirements identified in the Final Mitigated Negative Declaration (MND) for the Proposed Project. The mitigation measures for the Proposed Project would be adopted by the County of Imperial, in conjunction with the adoption of the Final MND. The mitigation measures from the Final MND have been integrated into this MMRP. The MMRP provides a mechanism for monitoring the mitigation measures in compliance with the Final MND, and general guidelines for the use and implementation of the monitoring program are described below. Within this document, the approved mitigation measures are organized and referenced by subject category. The specific mitigation measures are identified, as well as the method and timing of verification and the responsible party that would ensure that each action is implemented.

The mitigation measures applicable to the Proposed Project include avoiding certain impacts altogether, minimizing impacts by limiting the degree or magnitude of the action and its implementation, and/or reducing or eliminating impacts over time by maintenance operations during the life of the Proposed Project.

Public Resources Code Section 21081.6 requires the Lead Agency, for each project that is subject to CEQA, to monitor performance of the mitigation measures included in any environmental document to ensure that implementation takes place. The County of Imperial is the designated Lead Agency for the MMRP. Lead Agency is responsible for review of all monitoring reports, enforcement actions, and document disposition. The County of Imperial would rely on information provided by the monitor as accurate and up to date and would field check mitigation measure status as required.

A record of the MMRP would be maintained at County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243. All mitigation measures contained in the MND shall be made conditions of the project as may be further described below. Revisions to the mitigation measures in response to public comment have been shown in strike-out/underline format.

SECTION 2.0 – FORMAT

The mitigation measures applicable to the project involve minimizing impacts by limiting the degree or magnitude of the action and its implementation. Within this document, the approved mitigation measure is referenced by subject category. The mitigation measure has a numerical reference. The following items are identified for the mitigation measure.

- Mitigation Language and Numbering
- Mitigation Timing
- Methods for Monitoring and Reporting
- Responsible Parties

MITIGATION LANGUAGE AND NUMBERING

Provides the language of the mitigation measure in its entirety.

MITIGATION TIMING

The mitigation measure required for the project will be implemented prior to construction and during construction.

METHODS FOR MONITORING AND REPORTING

The MMRP includes the procedures for documenting and reporting mitigation implementation efforts. As the project proponent, the County of Imperial is responsible for implementation of the mitigation measure.

RESPONSIBLE PARTIES

For the mitigation measure, the party responsible for implementation, monitoring and reporting, and verifying successful completion of the mitigation measure is identified.

Mitigation Measure	Implementation Time Frame	Monitoring Method	Implementation Responsibility	Verification Responsibility
I. Biological Resources				
<p>MM-BIO-1: A qualified biologist(s) will monitor all construction activities to ensure that standard and special- status species-specific avoidance and minimization recommendations are adhered to. The monitor will retain stop work authority in the event there is the likelihood of eminent take of special- status species.</p> <p><u>Should a special-status species be found to be present, the biological monitor will stop work and ensure avoidance of the species. Species-specific mitigation measures are provided in MM-BIO-3 through MM-BIO-7. Should an additional special-status species be discovered, the biological monitor will stop work or redirect work away from the species. An appropriate buffer will be applied in consultation with USFWS and CDFW.</u></p> <p>The biological monitor will conduct a general preconstruction survey no more than 14 days prior to the start of construction to verify that no special- status species are in the Proposed Project area or its buffers. The monitor shall also conduct a daily survey in and around work areas before activities start.</p>	Prior to and during construction	Preconstruction field survey and daily field surveys of Proposed Project area	County of Imperial and/or ORNI 5	County of Imperial
<p>MM-BIO-2: A worker education program (WEAP) will be prepared and presented to all employees working on the Proposed Project in</p>	Prior to construction	Worker education program (WEAP) presented to employees	County of Imperial and/or ORNI 5	County of Imperial

sensitive species habitat. The education program will include identification of target species and their habitats, any project mitigation measures and stipulations, reporting requirements, and penalties for failure of compliance.		working on the Proposed Project		
MM-BIO-3: Should construction activities occur between February 15 and August 15, the time period typically referenced in California for the general bird nesting season, preconstruction nesting surveys will be conducted in the Proposed Project area by a qualified biologist within two weeks of the start of construction. If no active bird nests are found within this area, no further mitigation is required. If an active nest is found, a buffer shall be instated around the nest if it belongs to a non-listed or migratory bird in coordination with USFWS and CDFW. If the nest belongs to a listed or fully-protected species, a larger buffer shall be instated around the nest, at a distance approved prior to construction activities.	Prior to construction	Nesting bird surveys of Proposed Project Area and buffers (approved prior to construction)	County of Imperial and/or ORNI 5	County of Imperial
MM-BIO-4: Avoid burrows that may be utilized by special- status wildlife species with a minimum buffer of 20-feet from burrows suitable for flat-tailed horned lizard and a minimum buffer of 30- feet from burrows suitable for burrowing owls. If burrows cannot be avoided, MM-BIO-5 and MM-BIO-6 would be implemented.	During construction	Field surveys and buffers (20-foot buffer for burrows suitable for flat-tailed horned lizards and a 30-foot buffer for burrows suitable for burrowing owls)	County of Imperial and/or ORNI 5	County of Imperial

MM-BIO-5: If flat-tailed horned lizards are observed within the construction area, the qualified biological monitor, with prior approval through project acquired permits or permissions and in consultation with CDFW, will notify CDFW and relocate the individual out of the construction area, adjacent to where it was moved from.	During construction	Field surveys and individual relocation to outside the construction area, adjacent to where it was found	County of Imperial and/or ORNI 5	County of Imperial
MM-BIO-6: If burrowing owls are observed within the Project area prior to or during construction activities, occupied burrows shall not be disturbed during the owl nesting season, February 1 and August 31. If burrows are found, the appropriate CDFW-recommended buffer, or a buffer deemed appropriate by the qualified biological monitor, shall be instated in consultation with CDFW until occupancy status is determined. If the buffer cannot be maintained during the non-breeding season, owls may be evicted from the burrows using accepted methodology as approved by resource agencies. Eviction will not occur during the breeding season.	Prior to and during construction	Field surveys and CDFW or qualified monitor recommended buffer; if buffer cannot be maintained, eviction using accepted methodology approved by resource agencies (may not occur during breeding season)	County of Imperial and/or ORNI 5	County of Imperial
MM-BIO-7: Avoid special- status plant species with a minimum buffer of 5 to 10 feet, depending on the root structure and as determined by the biological monitor.	During construction	Field surveys and buffer of 5 to 10 feet depending on root structure and as determined by the biological monitor	County of Imperial and/or ORNI 5	County of Imperial
MM-BIO-8: Access to proposed well sites and geophysical survey truck paths will be via pre-existing access routes, to the greatest extent possible, and the work area boundaries will be	Prior to and during construction	Use of pre-existing access routes, delineating work area boundaries, signs and fencing placed	County of Imperial and/or ORNI 5	County of Imperial

delineated with staking, flagging, or other comparable markings to minimize surface disturbance associated with vehicle straying. Signs and/or fencing will be placed around the Proposed Project area to restrict access to project-related vehicles.		around the Proposed Project area		
MM-BIO-9: Project-related equipment will be washed prior to entering the project area for the first time to reduce the chance of transporting noxious weed seeds from outside the area.	Prior to construction	Washing of project-related equipment prior to entering the Proposed Project area	County of Imperial and/or ORNI 5	County of Imperial
MM-BIO-10: If the California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), or U.S. Army Corps of Engineers (USACE) determine that access roads associated with well sites 47-32 and 18-32 are located within waters of the State/United States <u>or any other project impact area to be determined during surveys conducted prior to project activities</u> , prior to impacts the Applicant or its contractor shall obtain, and shall comply with all mitigation and conditions associated with, one or more of the following permits, as applicable: a CDFW Lake and Streambed Alteration Agreement; RWQCB Section 401 Water Quality Certification; or Section 404 USACE permit. Permit compliance shall be met through the purchase of in-lieu credits for non-vegetated streams at an approved mitigation bank, implementation of in-kind or out-of-kind restoration, or a combination of	Prior to construction	Jurisdictional delineations	County of Imperial and/or ORNI 5	County of Imperial

these actions. The mitigation replacement ratio shall be determined by the regulatory agencies during the permitting process.				
II. Cultural Resources				
MM-CUL-1: A temporary track will be placed over the historic site within the geophysical survey vibroseis path in the three different locations the Applicant would like to cross over the historic resource. Once the need to cross the area associated with the historic resource has concluded, the temporary cover can be removed.	During construction	Temporary track over historic resource	County of Imperial and/or ORNI 5	County of Imperial
MM-CUL-2: Prior to construction, the Applicant shall prepare a mitigation and monitoring plan specific to Cultural resources. The mitigation and monitoring plan shall identify procedures for monitoring and the implementation of a discovery plan in coordination with affected Tribal groups. The mitigation and monitoring plan will incorporate a worker awareness program, stop work authority and all avoidance recommendations from the Class III report.	Prior to construction	Preparation of an MRP specific to Cultural Resources	County of Imperial and/or ORNI 5	County of Imperial
MM-CUL-3: The Applicant shall retain qualified archaeological monitors (and Tribal monitors, if requested) for all ground-disturbing activities associated with the geophysical survey and development of access roads and construction of the drill pads. If a significant cultural resource site is found during ground-disturbing activities associated with well pad or access road construction the	Prior to and during construction	Evaluation of any archaeological resources encountered during construction	County of Imperial and/or ORNI 5	County of Imperial

Project features will either be moved, or the resource will be protected in place, or data recovery will be initiated, consistent with the mitigation and monitoring plan required by MM-CUL-2. The final disposition of archaeological or historical, resources recovered on state land under the jurisdiction of the California State Lands Commission must be approved by the Commission.				
MM-CUL-4: California State law (California Health and Safety Code 7050.5) and federal law and regulations (Archaeological Resources Protection Act [ARPA], 16 United States Code [U.S.C.] 470 and 43 Code of Federal Regulations, [CFR] 7, Native American Graves Protection and Repatriation Act [NAGPRA] 25 U.S.C. 3001 and 43 CFR 10, and Public Lands, Interior 43 CFR 8365.1-7) require a defined protocol if human remains are discovered in the state of California regardless if the remains are modern or archaeological. Upon discovery of human remains, all work within a minimum of 200 feet of the remains must cease immediately, and the County Coroner must be notified. The appropriate land manager/owner or the site shall also be notified of the discovery. If the remains are located on federal lands, the federal land manager(s), federal law enforcement, and/or federal archaeologist should also be notified. If the human remains are determined by the Coroner to be prehistoric, the appropriate	During construction	Evaluation of any human remains and implantation of discovery protocol	County of Imperial and/or ORNI 5	County of Imperial

federal archaeologist must be called. The archaeologist will initiate the proper procedures under ARPA and/or NAGPRA. If the remains can be determined to be Native American, the steps as outlined in NAGPRA 43 CFR 10.6 Inadvertent Discoveries must be followed.				
III. Geology and Soils				
MM-GEO-1: Applicant will prepare a SWPPP consistent with the requirements of the California State Water Resources Control Board (SWRCB) to reduce the potential for water pollution and sedimentation from proposed Project activities. The SWPPP will be project specific and expressly address site runoff, assuring that project runoff would not affect or alter drainage patterns to sensitive habitat.	Prior to construction	Preparation of a SWPPP	County of Imperial and/or ORNI 5	County of Imperial
MM-PAL-1: All Project personnel and other onsite workers shall receive environmental awareness training on paleontological resources prior to the start or continuation of any elements of the Project that include ground-disturbing activities. The training will be conducted by a qualified, BLM- and DPR-permitted paleontologist and will provide a description of the fossil resources that may be encountered in the Project area, outline steps to follow in the event that a fossil discovery is made, and provide contact information for the Project Paleontologist. The training may be conducted concurrent with other	Prior to construction	Environmental awareness training on paleontological resources presented to employees working on the Proposed Project	County of Imperial and/or ORNI 5	County of Imperial

environmental training (e.g., cultural and natural resources awareness training, safety training, etc.) and may also be videotaped or presented in an informational brochure for future use by field personnel not present at the start of the Project. The workers should be informed that any unlawful collection of paleontological resources may be subject to a misdemeanor, a fine, or both.				
<p>MM-PAL-2: Prior to the commencement of ground-disturbing activities, a qualified professional paleontologist shall be retained to prepare and implement a Paleontological Resource Mitigation Plan (Plan) for the Project. The Plan should address the recommended approach to additional specimen collection, the specific locations and intensity of monitoring recommended for each geologic unit, and monitoring intensity.</p> <p>Paleontological monitoring will be required for all ground-disturbing activities within the previously undisturbed Arroyo Diablo Formation, Borrego Formation, Brawley Formation, Lake Cahuilla deposits, and Quaternary older alluvium, which underlies the Project area. Monitoring will entail the visual inspection of excavated or graded areas and trench sidewalls. In the event that a paleontological resource is discovered, the monitor will have the authority to temporarily divert the construction equipment around the</p>	Prior to ground breaking activities	Paleontological Resources Mitigation Plan and ground surveys in the Proposed Project area	County of Imperial and/or ORNI 5	County of Imperial

find until it is assessed for scientific significance and collected. The final disposition of paleontological resources recovered on state land under the jurisdiction of the California State Lands Commission must be approved by the Commission.				
<p>MM-PAL-3: Upon completion of fieldwork, all significant fossils collected will be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation will include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary. Following laboratory work, all fossils specimens will be identified to the lowest taxonomic level, cataloged, analyzed, and curated. Fossil specimens collected from BLM managed land remain the property of the Federal government and they must be placed in the approved museum repository identified on the Paleontological Resource Use Permit. Fossil specimens collected from DPR-managed land remain the property of the State of California and must also be delivered to an accredited regional museum repository for permanent curation and storage. The cost of curation is assessed by the repository and is the responsibility of the the Applicant.</p> <p>At the conclusion of laboratory work and museum curation, a final report will be prepared to describe the results of the</p>	Post-construction	Fossil preparation and preparation of a final report to describe the results of the paleontological mitigation monitoring efforts	County of Imperial and/or ORNI 5	County of Imperial

paleontological mitigation monitoring efforts associated with the Project. The report will include a summary of the field and laboratory methods, an overview of the Project area geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. If the monitoring efforts produced fossils, then a copy of the report will also be submitted to the curation facility.				
IV. Noise				
MM-NOI-1: During the geophysical survey, the project applicant shall require that the Vibroseis trucks are operated a minimum of 200 feet away from any occupied home.	During geophysical survey	Noise reduction measures implementation	County of Imperial and/or ORNI 5	County of Imperial
MM-NOI-2: During construction of the exploratory wells, the project applicant shall require the well drilling contractor to implement the following noise reduction measures: <ul style="list-style-type: none"> All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds that are no less effective than those originally installed by the manufacturer; All non-essential well drilling equipment and truck deliveries shall be limited to 	During construction	Noise reduction measures implementation	County of Imperial and/or ORNI 5	County of Imperial

<p>operating during the allowable construction times of between 7 a.m. and 7 p.m. Monday thru Friday and between 9 a.m. and 5 p.m. on Saturday;</p> <ul style="list-style-type: none">▪ The portable office and any storage containers used during the well drilling phase shall be placed between the drilling equipment and nearest home, in order to effectively act as a sound wall and provide attenuation to the nearest home.				
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