

To: Office of Planning and Research  
PO Box 3044, 1400 Tenth Street, Room 222  
Sacramento, CA 95812-3044

From: California Energy Commission  
1516 Ninth Street, MS-48  
Sacramento, CA 95814

Project Title: Development of a Non-Contact Drilling Technology for Geothermal Wells

Project Location – Specific: Field site near Raymond, CA

Project Location – City: Raymond, CA Project Location – County: \_\_\_\_\_

**Description of Project:**

This project will develop and test an operational prototype hydrothermal spallation drilling unit that can be used for slim-hole hard rock drilling. Potter Drilling will design, fabricate, and assemble a scaled drill head capable of producing 4-inch holes to 1,000 ft. Three starter wells will be drilled and surface cased at a test site overlying competent white granite at the site location near Raymond, CA. In a series of three iterative field experiments, Potter Drilling will use the field-ready Hydrothermal Spallation drilling system to extend the starter wells from depths of 300 ft to 1000 ft. On the third field test, Potter Drilling will invite members of the geothermal and investment community to observe the operation of the drilling system. Concurrently, work in laboratories will focus on advancing the science for next-generation heating and heat exchanger systems to allow for more efficient and low-cost heating to be implemented in a future commercial-scale system.

Name of Public Agency Approving Project: California Energy Commission

Name of Person or Agency Carrying Out Project: Potter Drilling, Inc.

**Exempt Status:** (check one)

- Ministerial (Sec. 21080(b)(1); 15268);
- Declared Emergency (Sec. 21080(b)(3); 15269(a));
- Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- Categorical Exemption. State type and section number 14 CCR Sections 15303, 15304, & 15306
- Statutory Exemptions. State code number. \_\_\_\_\_
- Common Sense Exemption. 15061(b)(3)

**Reasons why project is exempt:**

This project is exempt under Title 14, Chapter 3, Article 19, under the following sections:

15303 - New Construction - A corral will be constructed for three exploratory drilling pads, and the corral will only take up of 4,932 ft2 (0.11 acre) area, which is within the limits of this exemption for new construction.

15304 - Minor Alterations to Land - Potter Drilling will survey and grade the area, if necessary, for the three drilling pads, and upon completion will cover pit and tailings and condemn or plug and abandon the well per Madera County regulations.

15306 - Information Collection/Research - Three small exploratory holes will be drilled for the purpose of testing and demonstrating the commercial viability of a new drilling technique. These activities will not result in a serious or major disturbance to an environmental resource.

Overall, the way this project is designed and will be carried out will not significantly impact the environment. This conclusion was also made by the U.S. Department of Energy as part of its National Environmental Policy Act analysis of this project (See Attachment ??).

In preparing for this project, the Recipient conducted a biological assessment (See Attachment ??). The assessment concluded, "Due to the small footprint (0.11 acre) of the corral, existing disturbance regimes, impacts on habitat value (i.e., importance, desirability, benefit, etc.) for special status species and sensitive biotic habitats is anticipated to be **low**." (Emphasis in original.)

In addition to the biological assessment, the Recipient also prepared an archeological survey regarding the project's potential impact (See Attachment ??). The survey concluded, "No cultural resources were identified within the Area of Potential Effects or adjacent to it. Therefore, the proposed project will have 'No Effect on Historic Properties.'"

**Lead Agency**

**Contact Person:** John Hingtgen **Area code/Telephone/Ext:** 651-9106

**If filed by applicant:**

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project?  Yes  No

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Title:** \_\_\_\_\_

**Signed by Lead Agency**

**Signed by Applicant**

**Date received for filing at OPR:** \_\_\_\_\_