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## RECEIVED

By Dustin Holcomb at 2:37 pm, Oct 03, 2024

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| For NDOM Use Only STATE OF NEVADA Date Received  |                        |
| Entered in Database <b>DIVISION OF MINERALS</b> API # 27-015-9   | 0157                   |
| By: Date: 400 W. King Street, Suite 106<br>Carson City, Nevada 89703 Lander  |                        |
| (775) 684-7040   Fax (775) 684-7052  |                        |
| http://minerals.nv.gov Permit Number<br>FOR DIVISION   | 1620<br>USE ONLY       |
| GEOTHERMAL RESOURCE DEVELOPMENT PERMIT APPLICATION   |                        |
| Name or Corporate/Business Name Nevada Bureau of Mines and Geology, University of Nevada, Rer  | סו                     |
| Nevada SOS Business ID Number  |                        |
| Street Address 1664 N Virginia St, MS 0178   |                        |
| City Reno State NV Zip Code 89557  |                        |
| hereby makes application for a geothermal development permit, State of Nevada, Division of Mine  | erals.                 |
| (If applicant is a corporation, show state and date of incorporation; if a partnership, list names of p  |                        |
|  |                        |
| The applicant is drilling these exploration wells with the permission of the landowner/leas shown in agreement letter attached. These holes are being drilled as a part of the Depart Energy grant DE-EE009254-the INGENIOUS project. RESPEC is the drilling engineer an services oversight for the project. | ment of                |
| This application is for a Domestic well Commercial well Indus  | strial well            |
| Other, specify: Observation well Other, specify: Observation well  | ntry                   |
| <b>Note:</b> Re-entry includes workover, deepening, or plugging back operations.   |                        |
| Applicant is: Land Owner I-85 Lease Holder **Agreement with landowner attached 1-85  |                        |
| Lease Name/No: Argenta Rise Split Estate?  | Yes 🗌 No               |
| Land Type:  Federal (BLM, USFS, etc.)  Private  State  |                        |
| Location of Well:  |                        |
| Domestic: Street: n/a  |                        |
| City: County:  |                        |
| Commercial and Industrial:<br>SE 1⁄4 of, SE 1⁄4 in Section 1   |                        |
| Township $30$ , Range $45$   | ,                      |
| UTM Northing <u>4482581</u> N; UTM Easting <u>513228</u> E (NAD83 Datum)   | )                      |
| County Lander  |                        |
| •  |                        |
| (If applicable, give street address below.)<br>Street: n/a   |                        |
|  |                        |

| Operator's Name: RESPEC attn Sami Atalay 760-423-2217  |
|--|
| Address: 77560 Enfield Ln Build E  |
| City, St Zip: Palm Desert, CA 92211  |
| Drilling Contractor's Name: Envirotech attn Brian Mikelson 775-421-0481  |
| Address: 900 East 4th Street   |
| City, St Zip: Winnemucca, NV 89445   |
| Rotary Rig Description: See program attached.  |
| Hole Size: max 8.5 (surface) Casing Size: max 7" Weight/Gauge: max 42 ppf  |
| Estimated Well Head Temperature: < 100°C/212F at surface (WHT)   |
| Size of BOP: 2000 psi 3000 psi 5000 psi BOP n/a  |
| Planned Use of Geothermal Resource:  |
| Size of BOP n/a. This is a research project funded by DOE to learn improved methods for finding geothermal resources hidden below the surface in the Great Basin. Wells will not (are not intended to) flow. Install un-cemented blank closed liner to TD to keep hole open for obtaining downhole temperature equilibrium measurements, filling the hole with freshwater upon completion. Drilling would stop and hole completed safely from the depth where boiling temperature is seen at surface. Hole is cooled by drilling operations enough to proceed safely until this point. See attached program for details. |
| Planned Disposal of Spent Geothermal Fluid:  |
| Fluids are not expected from a TG well in this area at the proposed drilled depths. Any cuttings with water based mud materials will be captured at surface and then spread evenly over the drill site as part of the site abandonment procedure, which is planned/budgeted prior to (as a requirement of) closing of INGENIOUS grant. If freshwater aquifer is encountered, it will be managed and cemented at surface. Freshwater aquifer is deepest max 272' (83 m) in this area.   |
| Type and Amount of Bond: n/a   |
| (Exempt for Domestic Class)  |
| Bond Issued by: Serial No  |
| Geothermal Project Area (if applicable) Bond is waived as Operator is a state agency with confirmed P&A Plan.  |
|  |
| The Source of the Proposed Geothermal Resource is:   |
| Hidden system based on fault, geological and geophysical features.   |
| (List name of hot spring, geologic formation(s) or other source.)  |
| Total Depth to be drilled: 500 to 1500 ft depending on conditions encountered, depth of surface casing set.  |
| Drilling will commence on or before: October 23, 2024 (timeline dependent on permit approval, weather and subcontractor agreements)  |
|  |
| Signature of Applicant/Agent: James E. Jaulds  |
| Date: 30 September 2024  |
| Please attach a detailed drilling program including the following information:   |

- 1. Well design schematic; casing and mud programs; potential water supply; drilling rig to be used and pad layout; blow out prevention equipment diagram and testing program; directional drilling information if applicable; map of location and access roads. Additional information may be required upon review.
- 2. The required fee per NAC 534A 210 or 534A.212.

## **CONDITIONS OF PERMIT**

- 1. All permittees must comply with appropriate sections of the Geothermal Rules and Regulations of the Division of Minerals and with applicable rules and regulations of other local, state, and federal agencies.
- 2. During the drilling of domestic geothermal wells, all water strata above the geothermal horizon being used must be sealed or separated in order to prevent their contents from passing into other strata.
- 3. All fresh water and water of value or possible value for other beneficial uses must be confined to their respective strata and be adequately protected by methods approved by the Division. Precautions must be taken in drilling and abandoning wells to guard against any loss of fresh water from the strata in which it occurs, and the contamination of any fresh water by objectionable water.
- 4. The operator of any well must shut off and exclude all water from any geothermal resource-bearing stratum to the satisfaction of the Division.
- 5. See attached Conditions of Approval.
- 6. Please send daily drilling reports to : Dustin Holcomb.....<u>dholcomb@minerals.nv.gov</u> and Crystal Cruson ......fluids@minerals.nv.gov
- 7. Additional Conditions/Comments

| Α. | Sumps to be fenced on three sides |
|----|-----------------------------------|
| В. | Project Area #1627                |
| C. |                                   |

This permit does not extend the permittee the right of ingress and egress on public, private or corporate lands.

The issuance of this permit does not waive the requirements that the permit holder obtain other permits from State, Federal, and local agencies.

## **PERMIT APPROVAL**

Approved **10/21/2024** with the conditions noted above.

Date

Permit Number \_\_\_\_\_ 1620

Administrator Division of Minerals