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By: _____ Date: _____

STATE OF NEVADA
COMMISSION ON MINERAL RESOURCES
DIVISION OF MINERALS
400 W. King Street, Suite 106
Carson City, Nevada 89703
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<http://minerals.nv.gov>

Date Received	3/25/2025
API #	27-015-90164
County	Lander
Permit Number	1640
FOR DIVISION USE ONLY	

GEOHERMAL RESOURCE DEVELOPMENT PERMIT APPLICATIONName or Corporate/Business Name Nevada Bureau of Mines and Geology, University of Nevada, Reno

Nevada SOS Business ID Number _____

Street Address 1664 N Virginia St, MS 0178City Reno State NV Zip Code 89557

hereby makes application for a geothermal development permit, State of Nevada, Division of Minerals.

(If applicant is a corporation, show state and date of incorporation; if a partnership, list names of partners.)

The applicant is drilling these exploration wells with the permission of the landowner/leaseholder as shown in agreement letter attached. These holes are being drilled as a part of the Department of Energy grant DE-EE009254-the INGENIOUS project. RESPEC is the drilling engineer and drilling services oversight for the project.

This application is for a ☐ Domestic well ☐ Commercial well ☐ Industrial wellOther, specify: ☐ Observation well ☒ Thermal Gradient well ☐ Re-entry**Note:** Re-entry includes workover, deepening, or plugging back operations.Applicant is: ☐ Land Owner ☒ Lease HolderWell Name: 1-84 (Site M)Lease Name/No: Argenta Rise **Agreement with landowner attached Split Estate? ☐ Yes ☒ NoLand Type: ☐ Federal (BLM, USFS, etc.) ☒ Private ☐ StateLocation of Well:Domestic: Street: n/a

City: _____ County: _____

Commercial and Industrial:

SW ¼ of, SW ¼ in Section 6,
Township 30N, Range 46ESHL UTM Northing 512773 N; UTM Easting 4482940 E (NAD83 Datum)
BHL UTM Northing N; UTM Easting E (NAD83 Datum)County Lander

(If applicable, give street address below.)

Street: n/aCity: closest city is Battle MountainState: Nevada

Zip: _____

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

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: Bond is waived as Operator is a state agency with confirmed P&A Plan.

(Exempt for Domestic Class)

Bond Issued by: Serial No.

Geothermal Project Area (if applicable) #1627 Argenta Rise (Northern Reese River Valley)

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: March 29, 2025 (or after)

Signature of Applicant/Agent:

Date:

DocuSigned by:

James E. Faulds

AB28728FDC21444

24 Mar 2025 | 1:14 PM PDT

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 dholcomb@minerals.nv.gov
and
Crystal Cruson fluids@minerals.nv.gov

7. Additional Conditions/Comments

A.	Project Area #1627
B.	
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 4/4/2025 with the conditions noted above.
Date

Permit Number 1640

Administrator
Division of Minerals