STATE OF NEVADA RECEIVED COMMISSION ON MINERAL RESOURCES

DIVISION OF MINERALS

MAR 27 2014

400 W. King Street, Suite 106 Carson City, Nevada 89703 (775) 684-7040 | Fax (775) 684-7052

Division of Minerals

| Date Received | |
|---|---|
| API Number <u>27-001-9051</u> | 2 |
| County Churchiel | |
| Permit Number /35 7 FOR DIVISION USE ONLY | |
| I OIL DIVIDION OOF ONE | |

GEOTHERMAL RESOURCE DEVELOPMENT PERMIT APPLICATION

| Name or Corpora ORNI 43 LLC | ate/Business Name | | | | |
|---|---|--------------------------|--------------------------|-----------------------------|--|
| Street Address | 6225 Neil Road | | | | |
| City | Reno | State | NV Zip Code | 89511 | |
| hereby makes | application for a geotherma | l development permit, S | state of Nevada, Divis | sion of Minerals. | |
| (If applicant is | a corporation, show state ar | nd date of incorporation | ; if a partnership, list | names of partners.) | |
| | | | | | |
| This applicatio | n is for a Domestic | well Co | mmercial well | ⊠ Industrial well | |
| Other | specify: | ion well | ermal Gradient well | ☐ Re-entry | |
| Note: Re-entr | y includes workover, deepe | ning, or plugging back o | perations. | | |
| Applicant is: Location of We | Well Name: 56(45)-2 Lease Name/No: NVN-08 Land Type: ⊠ Fede | | Split Est □ Private | tate? ☐ Yes ⊠ No ☐ State | |
| | reet: | | 127 | | |
| С | ty: | | County: | | |
| 7 | vnship <u>21N</u> | SW (ω) / μ in | | P83 Datum) | |
| UII | M Northing 4391441 N | ; UTM Easting <u>4</u> | 40596 E (NAL | D83 Datum) | |
| Cou | unty Churchill | | | | |
| (If applicable, give street address below.) Street: City: | | | | | |
| Sta | N: | | Zip: | | |

| Operator's Name: ORNI 43 LLC | | | | | | | |
|--|--|--|--|--|--|--|--|
| Address: 6225 Neil Road | | | | | | | |
| City, St Zip: Reno, NV 89511 | | | | | | | |
| Drilling Contractor's Name: Geodrill | | | | | | | |
| Address: 4782 Hwy 111 | | | | | | | |
| City, St Zip: Brawley, CA 92227 | | | | | | | |
| Rotary Rig Description: | | | | | | | |
| Hole Size: 26" Casing Size: 22-1/2 Weight/Gauge: 114.9 lb/ft / B | | | | | | | |
| Estimated Well Head Temperature: _330 F | | | | | | | |
| Size of BOP: ☐ 2000 psi ☐ 3000 psi ☐ 5000 psi | | | | | | | |
| Planned Use of Geothermal Resource: | | | | | | | |
| Energy Production - Tungsten Mountain | | | | | | | |
| Planned Disposal of Spent Geothermal Fluid: | | | | | | | |
| Injection | | | | | | | |
| Type and Amount of Bond: BLM Nationwide Bond. NDOM \$75,000 (Exempt for Domestic Class) | | | | | | | |
| Bond Issued by: BofA CD Serial No. | | | | | | | |
| The Source of the Proposed Geothermal Resource is: | | | | | | | |
| Tungsten Mountain | | | | | | | |
| (List name of hot spring, geologic formation(s) or other source.) | | | | | | | |
| Total Depth to be Drilled: 4640' TVD 5500 WD | | | | | | | |
| Drilling will Commence On or Before: April 14 th , 2014 | | | | | | | |
| Signature of Applicant/Agent: | | | | | | | |
| Date: March 26 th , 2014 | | | | | | | |

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 : | Lowell PriceIprice@govmail.state.nv.us |
|----|---|--|
| | | and |
| | | Lindalwells@govmail.state.nv.us |

7. Additional Conditions/Comments

| A. | Under | Pro wet | area | Rervit | 1293. | |
|----|-------|---------|------|---|-------------------|--|
| B. | | | | *************************************** | • 20 <u>0</u> 000 | |
| C. | | | | | | |

PERMIT APPROVAL

with the conditions noted above.

Administrator Division of Minerals