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DIVISION OF MINERALS

STATE OF NEVADA
COMMISSION ON MINERAL RESOURCES
DIVISION OF MINERALS
400 W. King Street, Suite 106
Carson City, Nevada 89703
(775) 684-7040 | Fax (775) 684-7052
http://minerals.nv.gov

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|-----------------------|--------------|
| Date Received | 11/30/20 |
| API Number | 27-001-90545 |
| County | Churchill |
| Permit Number | 1501 |
| FOR DIVISION USE ONLY | |

GEOTHERMAL INJECTION WELL PERMIT APPLICATION

The applicant

ORNI 32 LLC

Name (or Corporate/Business Name)

Street Address 6140 Plumas Street

City Reno State NV Zip Code 89511

Telephone 775-356-9029

Email mhanneman@ormat.com

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

Applicant is: Land Owner Lease Holder

Well Name: 14A-8

Lease Name/No: NVN-092479 Split Estate? Yes No

Land Type: Federal (BLM, USFS, etc.) Private State

Type and Amount of Bond: NDOM bond \$75,000
(Exempt for Domestic Class)

Bond Issued by: Bank of America (CD)

Serial No.

Well Location: SW 1/4, NW 1/4, Section 8

Township 22N, Range 35E, County Churchill

UTM Northing 4405114 N; UTM Easting 407563 E (NAD83 Datum)

Operator's:

Name: ORNI 32 LLC

Address: 6140 Plumas Street

City, St Zip: Reno, NV 89519

Drilling Contractor's:

Name: Geo-drill

Address: 4782 Hwy 111

City, St Zip: Brawley, CA 92227

Telephone: 775-356-9029

Hole Size: 12.25 Casing Size: 9.625 Weight/Gauge: 36#

Size of BOP: 2000 psi 3000 psi 5000 psi

Rotary Description:

Identify or locate the sources of the fluids which will be injected:

Existing production well 23A-8 in the Dixie Meadows geothermal resource

Estimated average daily volume of fluids injected 7.5 million gallons.

Maximum daily volume of fluids injected 10 million gallons.

Estimated maximum injected pressure 600 psi, temperature 170 °F

List proposed metering equipment, pipelines and safety devices that will be used to prevent accidental pollution:

To be determined if development moves forward.

Total Depth to be Drilled: 5,500 feet

Drilling will Commence On: 9/1/2020

Is this well location under an Underground Injection Permit?

If so, provide NDEP Permit number UNEV No

I certify this information to be true, correct, and complete and that no pertinent matter inquired about in this application has been omitted.

Signature of Applicant/Agent: Mark Hanneman

Print Name: Mark Hanneman

Date: 7-15-2020

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 geothermal injection 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 Price.....lprice@minerals.nv.gov
and
Valerie Kneefel.....vkneefel@minerals.nv.gov
7. Additional Conditions/Comments

| | |
|----|--|
| A. | |
| 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 11/30/2020 with the conditions noted above.
Date

Permit Number 1501



Administrator
Division of Minerals