**UNIVERS STATES DEPARTMENT OF THE INTERIOR**
**BUREAU OF LAND MANAGEMENT**

**GEOTHERMAL DRILLING PERMIT**

The Bureau of Land Management (BLM) requires this form or other BLM approved forms to be prepared and filed in triplicate with requisite attachments with the authorized officer. The authorized officer must approve this permit prior to any lease operation.

1a. Type of Work:  
☐ Drill New Well  ☐ Redrill  ☐ Deepen  ☐ Plug Back  ☐ Directionally Drill  ☐ Other

1b. Well Type:  
☐ Production  ☐ Injection  ☐ Heat Exchange  ☐ Observation  ☐ Water Supply  ☑ Exploratory

1c. Well Status:  
New well

2. Name of Lessee/Operator: Trans-Pacific Geothermal Corporation

3. Address of Lessee/Operator: 1901 Harrison, Ste 1590, Oakland CA 94612

4. Location of Well:  
At surface: 3709'E, 224'S of NW corner of Sec 10, T19S, R45E

5. Distance from Proposed Location to Nearest Property or Lease Line: 6777'

6. Distance from Proposed Location to Nearest Well, or Previously Applied for Well Location on this Lease: 4114'

7. Field or Area: Vale

8. Permit No.: G-180

9. Unit Agreement Name: OR36951

10. Well No.: TGC 61-10

11. Permit No.: 36-045-90025


14. County: Malheur

15. State: Oregon

16. Approx. Starting Date: 4/1/95

17. Acres Assigned (Well Spacing): 40

18. Drilling Media and Characteristics:  
☐ Air  ☐ Water  ☐ Mud  ☐ Foam  ☐ Other

19. Proposed Depth:  
Estimated: 5000'  
Measured: 5000'  
True Vertical: 5000'

20. Elevations:  
Estimated: 2570'  
Reference Datum: GR  
Final

21. Existing and/or Proposed Casing and Cementing Program (List existing program first, followed by proposed program, and separate by a sufficient space to clearly distinguish the two programs)

<table>
<thead>
<tr>
<th>SIZE OF HOLE</th>
<th>SIZE OF CASING</th>
<th>WEIGHT PER FOOT</th>
<th>COUPLING (Collars &amp; Threads)</th>
<th>GRADE</th>
<th>SETTING DEPTH</th>
<th>QUANTITY OF CEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 1/4&quot;</td>
<td>10&quot;</td>
<td>0.375&quot;wall</td>
<td>welded</td>
<td>n/a</td>
<td>±30</td>
<td>8 cubic ft.</td>
</tr>
<tr>
<td>8 3/4&quot;</td>
<td>7&quot;</td>
<td>23 lb/ft</td>
<td>BT&amp;C</td>
<td>K-55</td>
<td>±500</td>
<td>113 cubic' (50% excess)</td>
</tr>
<tr>
<td>6 1/4&quot;</td>
<td>4 1/2&quot;</td>
<td>10.5 lb/ft</td>
<td>ST&amp;C</td>
<td>K-55</td>
<td>±3000</td>
<td>467 cubic' (50% excess)</td>
</tr>
<tr>
<td>HMQ 3.85&quot;</td>
<td>3 1/2&quot;</td>
<td>7.7 lb/ft</td>
<td>Buttress</td>
<td>K-55</td>
<td>±2900</td>
<td>not cemented</td>
</tr>
</tbody>
</table>

22. Proposed Work Summary

The Proposed well to be drilled at the Vale Geothermal Prospect is an exploratory well designed for the purpose of exploring for and testing a possible hot water reservoir at a depth of 3000' - 5000' below surface. The well will be drilled using slmhole rotary and coring methods. Temperatures of 300°F are expected below a depth of 3000'. Upon completion, the well will be injection and/or flow tested. A detailed drilling program is provided in Attachment A.

23.  
**President**  
Signed  
Title  
Date  
(Title for Federal use)

 Approved by  
Title  
Date  
(See instructions on reverse side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.