APPLICATION FOR PERMIT TO DRILL A GEOFHERMAL WELL
(To be accompanied by a $25.00 permit fee for new wells only and a surety bond conditioned as provided by law.)

Department of Geology and Mineral Industries
Portland, Oregon 97201

In compliance with rules and regulations pursuant to ORS 522 (Chapter 776 OL 1971) application is hereby made for permit to drill
a (new well / prospect well): Northwest Natural Gas Co.

Well No. 7A in NE4 of sec. 15, T. 2S, R. 8E, W. B. & M., Old Maid Flat Field, Clackamas County.

This well is 2460 feet (N) (S) of the line and 2091 feet (E) (W) of the line of Sect. 15.

(Give location from section or other legal subdivision lines or corners; cross out wrong directions.)

Elevation of ground above sea level is 2760 feet. All depth measurements are taken from top of Surface csg. 0, which is 0 above ground.

The lessee is Northwest Natural Gas Company

The lessor is

LOCATE WELL CORRECTLY

We propose to use the following strings of casing and to land or cement them as herein indicated:

<table>
<thead>
<tr>
<th>Size of hole</th>
<th>Size of casing</th>
<th>Weight in pounds per foot</th>
<th>Grade and type</th>
<th>New or second hand</th>
<th>Depth</th>
<th>Landed or cemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>26&quot;</td>
<td>16&quot;</td>
<td></td>
<td></td>
<td></td>
<td>Max. 100'</td>
<td>To Surface</td>
</tr>
<tr>
<td>14-3/4&quot;</td>
<td>10-3/4&quot;</td>
<td>40.5 #/ft</td>
<td>K55</td>
<td>New</td>
<td>1000'</td>
<td>200 ft.3</td>
</tr>
<tr>
<td>9-3/4&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>800' to 3200'</td>
<td></td>
</tr>
<tr>
<td>9-3/4&quot;</td>
<td>7-5/8&quot;</td>
<td>26.4 #/ft</td>
<td>K55</td>
<td>Liner</td>
<td>800' to 3200'</td>
<td>W/packers</td>
</tr>
</tbody>
</table>

Method of drilling: rotary X, cable ____, other ____.

Proposed objectives:
Drill and test structure and fluids to 5000'. The liner will be run if required to complete testing.

Northwest Natural Gas Co.

By: W.F. Covert, Exploration Supervisor

Send communications regarding well to:
Name ___________
Address 123 N.W. Flanders
Portland, Oregon 97209

(Submit in triplicate)