STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
800 NE Oregon Street #28, Portland OR 97232

APPLICATION FOR PERMIT TO DRILL AN OIL OR GAS WELL

(To be accompanied by a $250 permit fee, a surety bond conditioned as provided by law, and evidence of mineral rights ownership or lease.) This application becomes a permit to drill when signed and dated by DOGAMI in box below.

In compliance with rules and regulations pursuant to ORS 520, application is hereby made for permit to drill a gas well (an oil well) to be known as: IW 22H-22-65

NW Natural Northwest Natural Gas Company
(Company or Operator) (Lease)

IW 22d H-22-65
(Well No.)

Sec. 22 T. 6N R. 5W Surveyed Coordinates (if directional, BHL & SHL):
BHL: 2240' South & 250' West
of the N 1/4 corner, sec. 22; T6N; R5W SHL: 2290' North & 1910' East of the SW corner Sec. 22; T6N; R5W

Wildcat: (or) Field Name: Calvin Creek-AI's Pool
County: Columbia
Elevation of ground above sea level: 581 feet, which is 16 feet
All depth measurements are taken from Kelly Bushing above ground.

Lessor (Mineral Owner): Longview Fibre Co.
Address: P. O. Box 667 Longview, WA 98630

Surface Owner: Longview Fibre Co.
Address: P. O. Box 667 Longview, WA 98630

Lessee: Northwest Natural Gas Company
Address: 220 Northwest Second Ave. Portland, OR 97209

We propose to the use the following strings of casings 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/Type</th>
<th>Depth</th>
<th>Amount of Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-1/2&quot;</td>
<td>13-3/8&quot;</td>
<td>54.50#</td>
<td>H-40</td>
<td>350 feet</td>
<td>250 sx</td>
</tr>
<tr>
<td>12-1/4&quot;</td>
<td>8 5/8&quot;</td>
<td>32#</td>
<td>J-55</td>
<td>1800 feet</td>
<td>775 sx</td>
</tr>
</tbody>
</table>

Geologic Objectives: Clark and Wilson Sand
Proposed Depth: 2800' MD 1375' TVD

Company/Operator: NW Natural

DOGAMI approved (date) 12/19/97
Notify DOGAMI 24 hours prior to BOP tests
by: [Signature]

Date: November 17, 1997
SEND WELL COMMUNICATION TO:
Name: Todd A. Thomas
Address: 220 Northwest 2nd Ave.
         Portland, OR 97209
Phone:(day) 503/226-4211 ext. 4686 (night) 503/848-2947

Signature
Position: Storage Development Engineer

[Stamp]: RECEIVED DEC 5 1997

[Stamp]: DOGAMI Portland

[Stamp]: [algo]