WORKING PLAN

TITLE:
Fertilization of a "Poor Cedar Salal" Site on the Queen Charlotte Lowlands — A Screening Trial

OBJECTIVE:
To assess the growth response of 5 to 10 year old Western Red Cedar and Western Hemlock, growing on a "Poor Cedar Salal" site (CW10e 1 08) to fertilization with nitrogen, nitrogen and phosphorus, and phosphorus.

LOCATION:
Eight km North of Port Clements (Lot 424).

LAYOUT AND DESIGN:
A 4 x 4 completely randomized design with five replications will be used. Treatments are outlined in the following table:

<table>
<thead>
<tr>
<th>TREATMENT</th>
<th>N kg/ha</th>
<th>P kg/ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>0</td>
<td>75</td>
</tr>
<tr>
<td>C</td>
<td>225</td>
<td>0</td>
</tr>
<tr>
<td>D</td>
<td>225</td>
<td>75</td>
</tr>
</tbody>
</table>

Nitrogen will be applied as Urea and Phosphorus as triple super phosphate.

Individual 5 m radius plots (.008 ha) have been established and the heights and diameters of two Cw and two Hw per plot measured. Fertilizers will be manually broadcast in March 1988.

Foliage samples were collected in December 1987 and the results are attached. Nitrogen is very severely deficient in Cw and severely deficient in Hw. Other nutrients are adequate or slightly deficient.

Maps showing the location of the area, and fertilization plots within, are attached.

DATE OF TREATMENT AND ASSESSMENT:
December 1987 Plot layout, foliage sampling
March 1988 Fertilization
November 1988 1st year growth measurement and foliage samples
November 1989 2nd year growth measurement
November 1991 4th year measurement and foliage samples
1. Moisture determined by drying tissue at 105°C overnight.

2. Total Nitrogen, Phosphorus, Calcium, Magnesium, and Potassium were determined on a peroxide-sulfate acid digest. Total Phosphorus were measured colorimetrically, and the remaining calciums were measured on an atomic absorption spectrophotometer.

3. Total Copper, Zinc, Iron, and Manganese were determined on a dry ash using X-ray fluorescence.

4. Total Boron was determined on a dry ash using X-ray fluorescence.

<table>
<thead>
<tr>
<th>Fo</th>
<th>Available Sulfate (ppm)</th>
<th>S</th>
<th>Cu</th>
<th>Zn</th>
<th>Fe</th>
<th>Mn</th>
<th>B</th>
<th>Active Iron (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>31 390 033 33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>38 332 19 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>39 038 39</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tissue

Queen Charlotte Forest District

G. D. March 11/89

Pacific Soil Analysis Incorporated