Wood Gun 4000 gallon storage tank
Frohling with 1600 gallon storage tank
Alder Harvest
Firewood Processing Crew
High Efficiency Fireplace Insert
<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Propane</th>
<th>Wood Gasification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adds to Fossil Carbon Loading</td>
<td>Yes</td>
<td>No (ambient carbon)</td>
</tr>
<tr>
<td>Creates Local Jobs</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Enhances Wildlife Habitat</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Annual Cost 2012-13</td>
<td>$67,000 est.</td>
<td>$44,000 ($18,000 wood + $12,000 loan payment, $10,000 labor, $3,600 electricity)</td>
</tr>
<tr>
<td>Byproducts</td>
<td>Hazardous Waste (Refinery)</td>
<td>Fertilizer</td>
</tr>
</tbody>
</table>
Deep Portage Gasifier Project Investments

Provides: 100% of Heat for 62,000 sq. ft. of buildings
50% of Domestic Hot Water of Main Building
100% of Domestic Hot Water of Interpretive Center

2009  E3 Building + Garn (3,200 H2O storage) + Woodgun  $136,000 DEED Grant
       $100,000 Local Bank
       $68,000 Deep Portage Foundation
       Subtotal  $304,000

2011  4000 gallon H2O storage  $40,000 Dept. of Energy

2009-12 Wood Sheds (10)  $13,000 Deep Portage Foundation

2011  Froling Installation (1650 gallons H2O storage)  $43,000 Deep Portage Foundation

Total  $400,000

* Quote for Ground Source Heat Pump for just the main building was $500,000.
• The majority of the fuelwood that is delivered to Deep Portage is purchased from FSC certified, Cass County managed forest land.

• For each $100 a logger spends purchasing timber from Cass County managed land, the local taxing districts receive the following *(5-year average)*:

  | Township        | $ 7.69 |
  | School District | $15.39 |
  | County General Revenue | $15.39 |

• Of the $44,000 cost for wood gasification $40,000 goes directly into the local economy.

• If we still used propane, what percent of the $67,000 would be directed into the local economy?

• What is the carbon footprint of locally sourced fuelwood compared to the carbon footprint of propane?
The ash-enriched virgin soil produced some phenomenal crops in the period following the 1910 fire. Above: rutabagas and oats. Right: products from the burnt-over district, 1912.