

# **Southbridge Tire Company, Inc.**

## **Geothermal Heating and Cooling**

**136 Central Street, Southbridge, MA 01550**

**508-764-6164 ♦ 508-765-0978**



*Climate Smart  
Solutions*

## **Why We Prefer Closed Loop To Open Loop Geothermal Systems**

Water quality does not become an issue. Hardness, arsenic, radon, turbidity etc will not affect the Ghex heat transfer. See attached water quality standards. This means consistently clean water circulating through the unit heat exchanger, contributing to a longer life with fewer repairs and lower overall cost of operation.

Since the well is sealed from bottom to top with Thermal Grout, no testing will be required. With an open loop, testing may become more involved and more expensive over time, as regulations are added.

Static level of the water in an open loop well can effect the heat production of the well. With a closed loop, the heat production is based on the surrounding soil far more than on the water table. Many factors can affect the static well level, including rainfall, new building in the area, and shifts in the faults in the underground rock formations.

Pump failure in an open loop system takes place outdoors and 450 feet below ground adding to the difficulty and expense of the repair. With closed loop, the pump is in the utility room. There is nothing to service outdoors and below ground. There is only pipe with a life expectancy of 200 years.

There is some savings on installation costs and a small savings on annual costs provided that heavy bleeding is not required, but we think the risk of future maintenance costs and possible regulation make the open system a second choice in applications up to 15 tons. Most homes are four to six tons.

*Energy Matters—Treat Your Earth Good*