



# CARAPACE<sup>®</sup>

## Case Study - 2008

### Location Info:

Nearest City/Town: Carnarvon, ON  
 Latitude: 45°02'43"N  
 Longitude: 78°41'53"W  
 Elevation (above sea level): 1,090'

### Lake Info:

Lake Bed: Sand  
 Obstructions: None  
 4' water depth: 110' from shoreline  
 10' water depth: 150' from shoreline  
 20' water depth: 170' -180' from shoreline

### Property Info:

Elevation (above lake level): 30' – 40'  
 Terrain: Rock  
 Shoreline: Rock

### Product Info:

Product: **CARAPACE<sup>®</sup>**, 1" Rural (ID controlled), 240 volt, 5w@50°F  
 System Length: 270' (90' on land, 180' into the lake)  
 Pipe Insulation on land: Yes (90')  
 Pipe Insulation in lake: None  
 Ground Coverage: None (could not bury)  
 Thermostat: Yes  
 Thermostat Setting: 50°F (10°C)  
 Sensor Location: 45' from building on pipe under insulation (coldest spot)

### Test Results:

**CARAPACE<sup>®</sup>** was powered on Nov 10'07.  
**CARAPACE<sup>®</sup>** was shut down on April 25'08  
 70 Days of Recorded Temperatures from Nov 10'07 to April 25'08  
 Coldest Recorded Temperature: -27.4°F (-33°C)  
 Warmest Recorded Temperature: 48.2°F (9°C)  
 Average Temperature: 17.7°F (-8°C)  
 Kilowatt usage: 1,821 kw/h  
 Price per kw/h (April 2008): \$0.05  
 Cost for entire **CARAPACE<sup>®</sup>** operation: \$91.05

### Disclaimer:

Energy consumption will change depending on product selection, application, location and climate.  
 This case study should be used as an example only.



### FOR MORE INFORMATION

Contact a Heat-Line<sup>®</sup> technical specialist:  
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