

### **Exhibit 33 - Correlations Between Intake and River Temperatures**

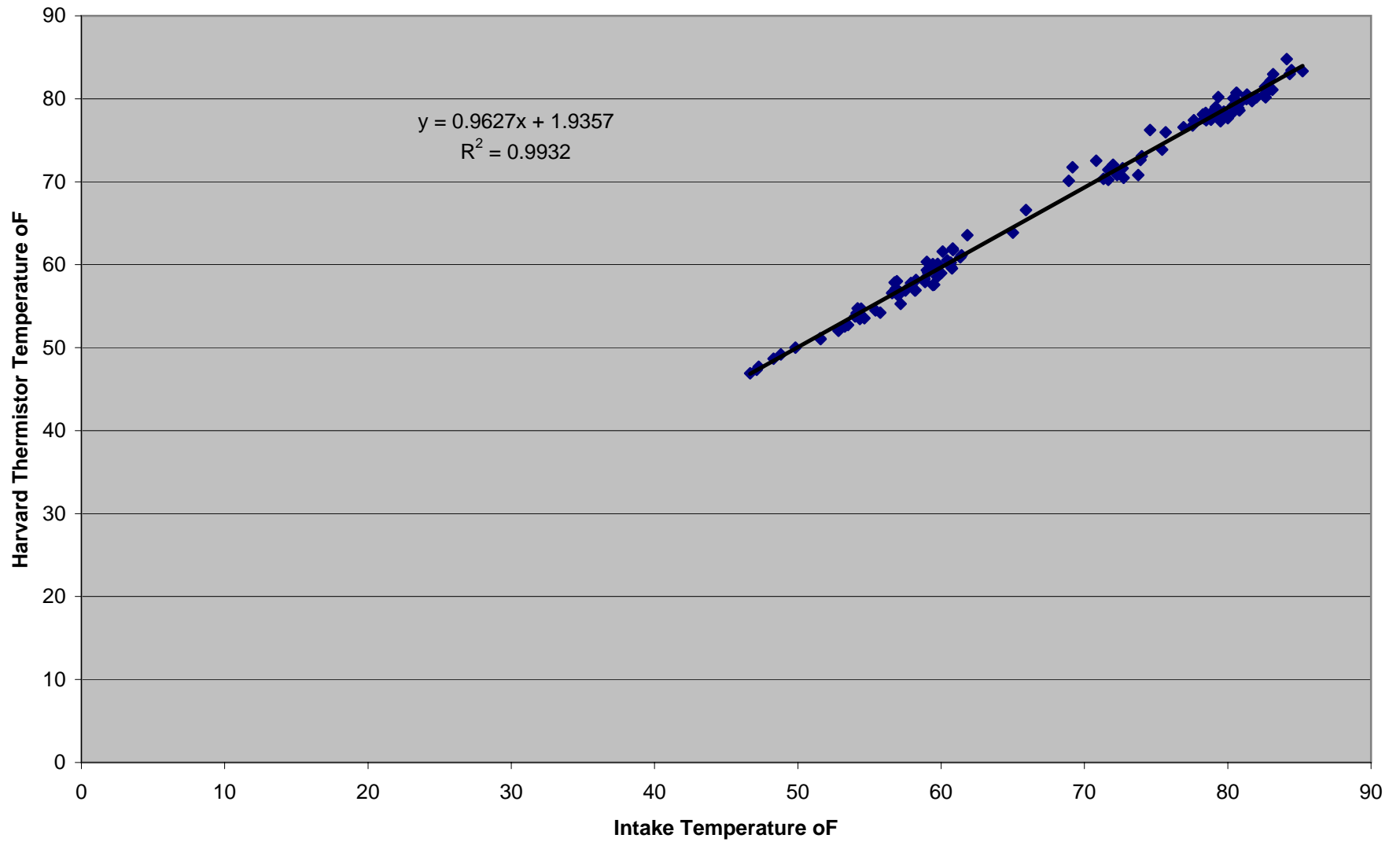
The existing thermistor data for each averaging period, 4-hour and 24-hour, were plotted against the intake data averaged over the same period (see figures 1 and 2 for Harvard thermistor (located on the Harvard Bridge) and Figures 3 and 4 for the Boston thermistor (located on the Boston shore of the ZPH near proposed monitoring station 3)). The best fit line of the form:

$$y = mx + b$$

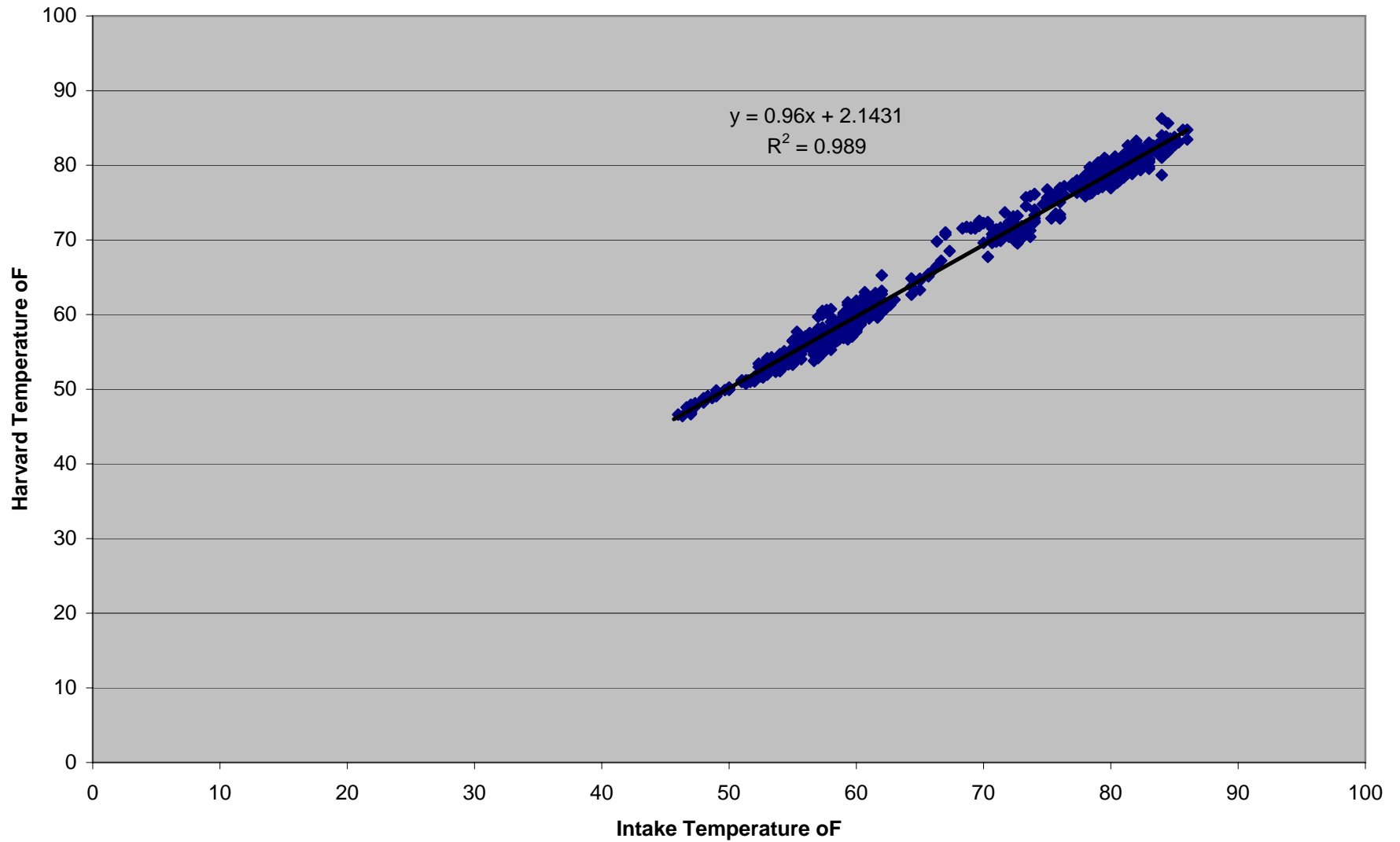
where y is the interpolated thermistor temperature, x is the intake temperature, and m and b are coefficients determined by a least squares method. A correlation coefficient is determined for each thermistor/intake relationship. All of the linear regressions fit the data well ( $R^2 > 0.95$ ). Therefore, the intake data and the relationship can be used with high confidence to predict river temperatures at the Boston (ZPH) and Harvard (upstream ambient) locations. This approach was used to fill gaps in the thermistor record due to instrument failure.

Figures 5 - 8 depict time series of the data produced by applying each of the linear regression relationships with actual thermistor data. These graphs show that through the developed regression relations plant intake data is a reasonably good predictor of thermistor data for the full range of flows and heat loads covered in 2005. Because the results are so strong for these two stations, one downstream on the far side of the river and one more than a mile upstream, it can be anticipated with high confidence that the results would be similarly strong for any of the stations in the ZD or ZPH.

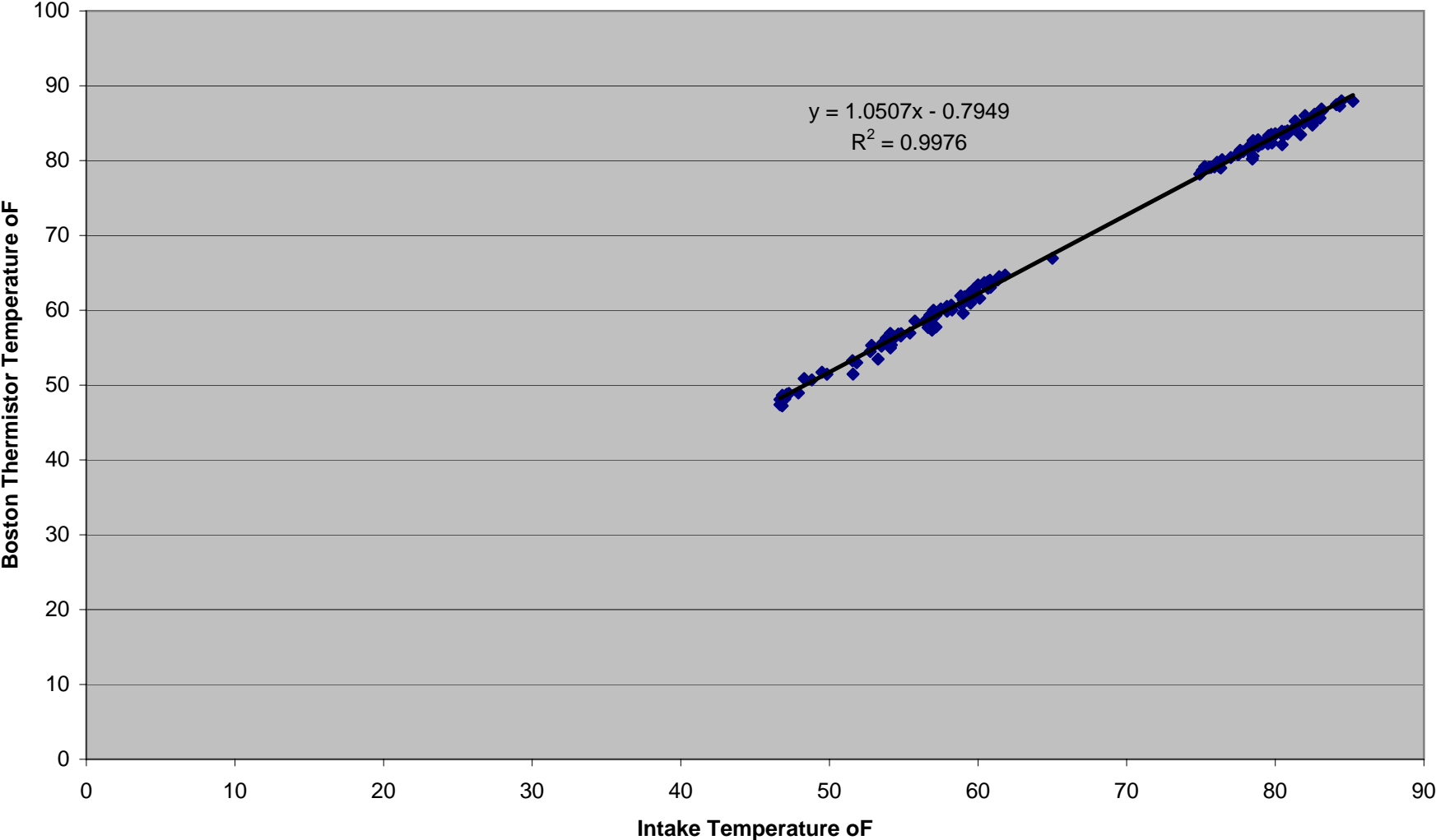
24-Hour Average 2005 Harvard Thermistor vs 24-Hour Average Intake Data



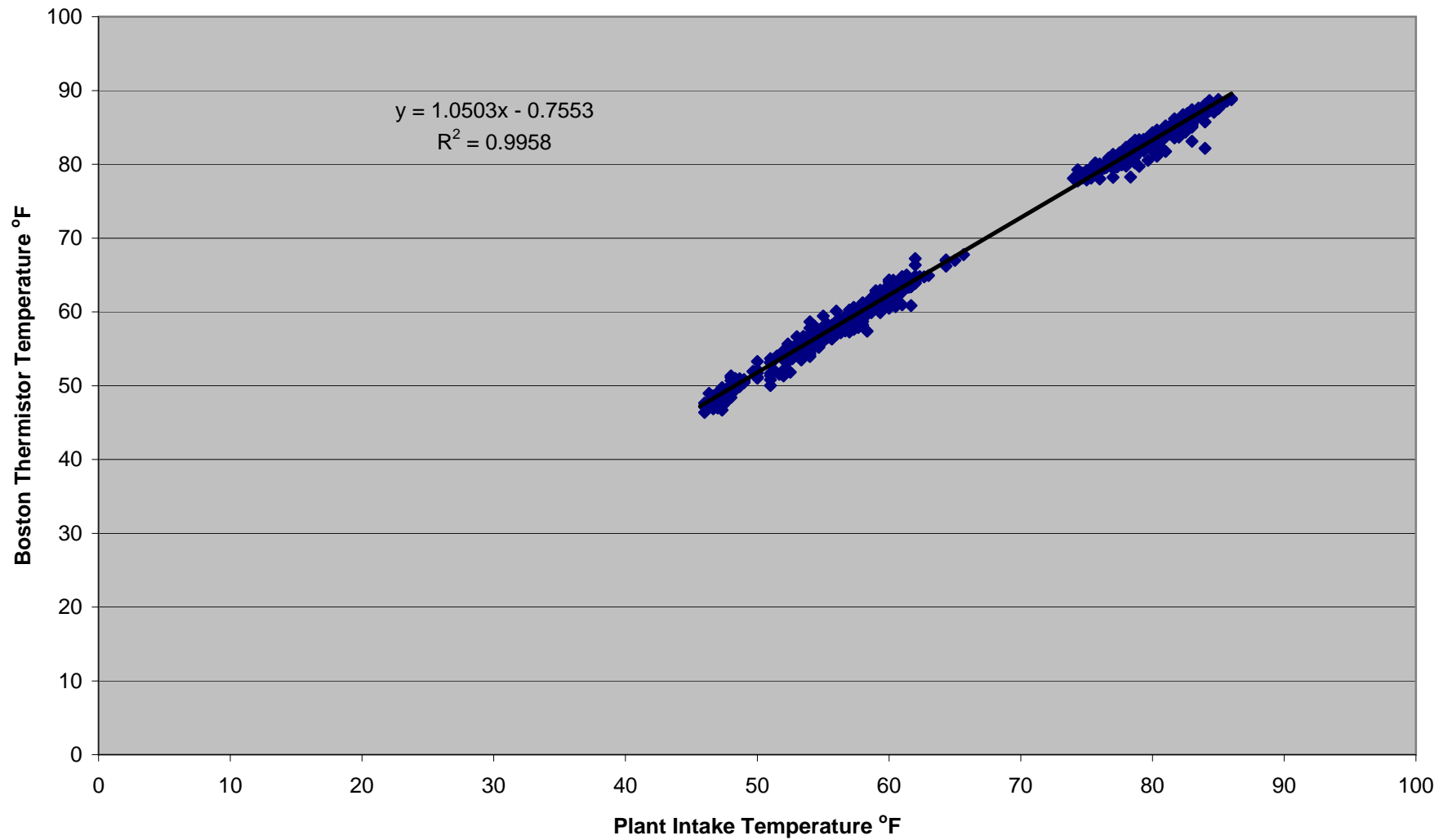
4-Hour Average 2005 Harvard Thermistor Temperature vs Intake Temperature for 2005



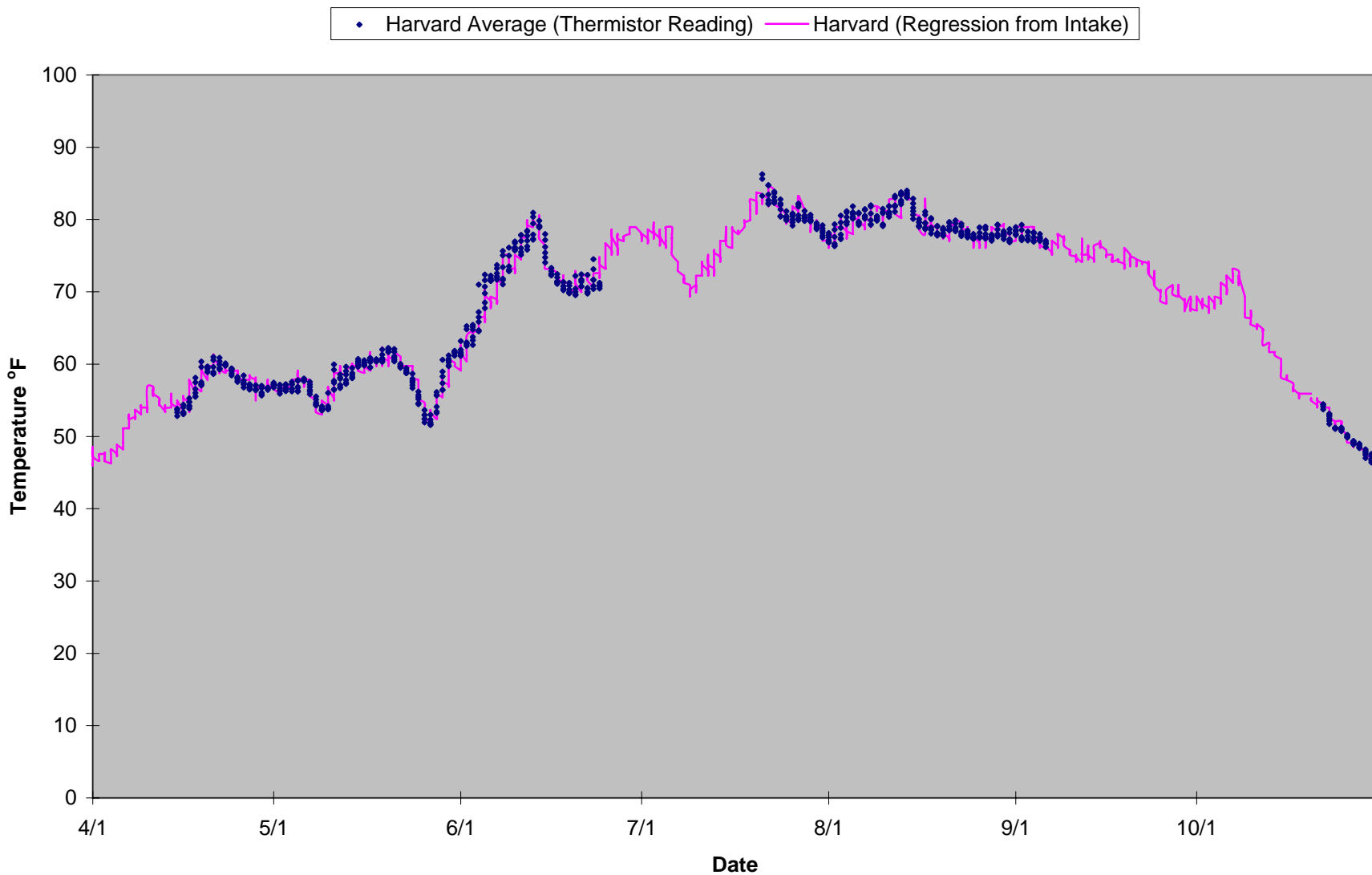
24-Hour Average 2005 Boston Thermistor Temperature vs 24-Hour Average Intake Temperature



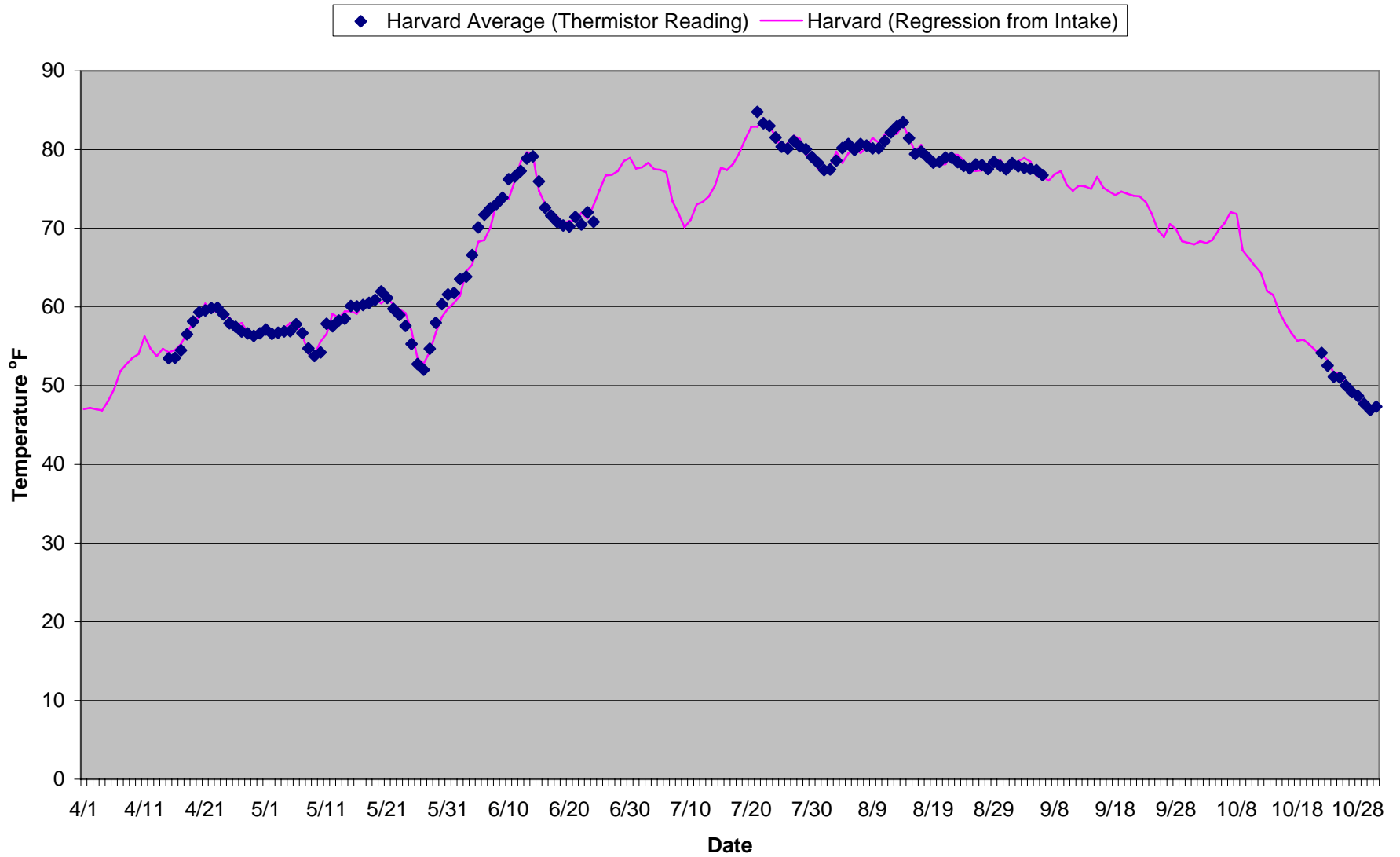
**4-Hour Average 2005 Boston Thermistor Temperature vs 4-Hour Average Plant Intake Temperature**



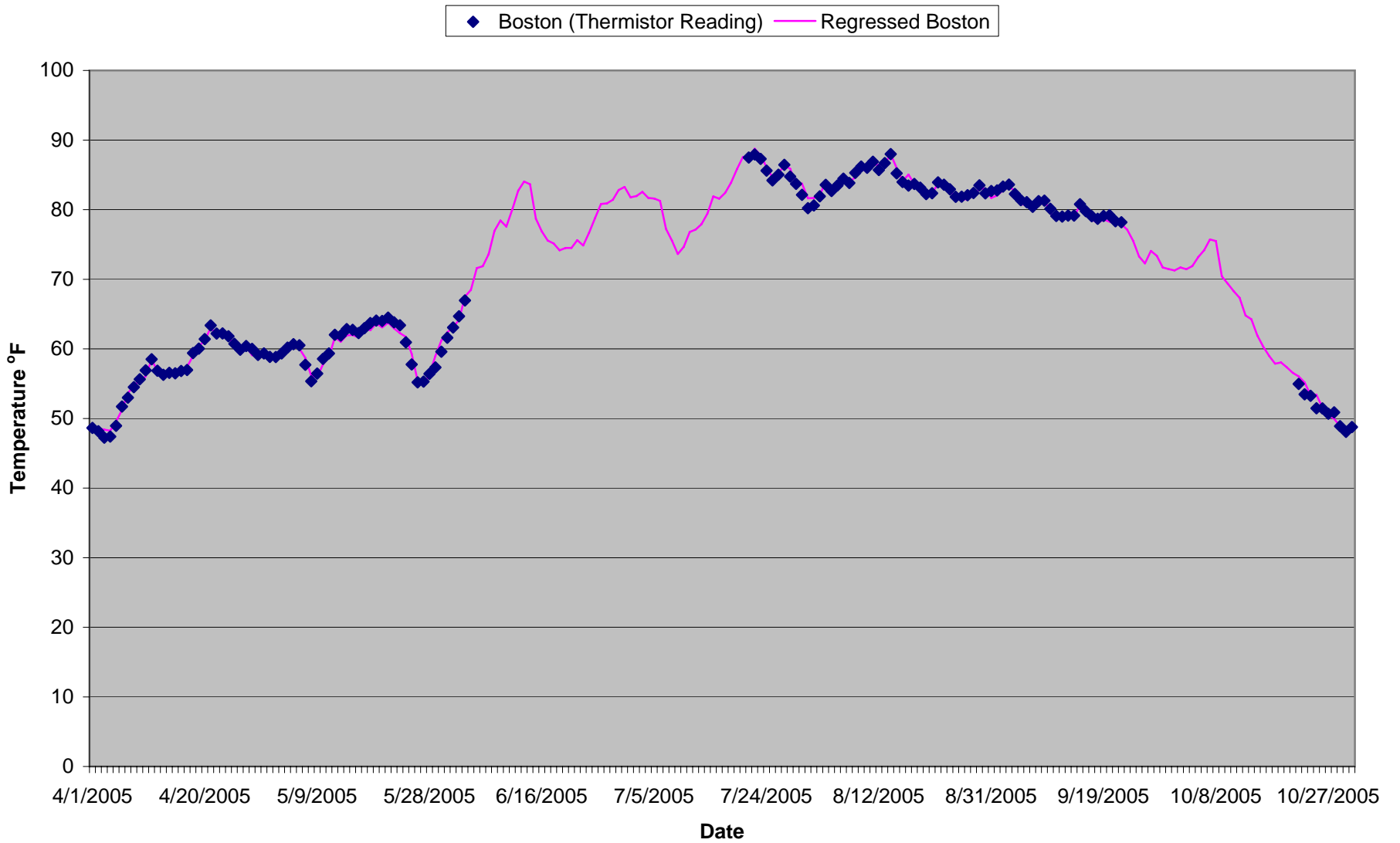
### 4-Hour Average 2005 Harvard Thermistor Temperature



### 24-Hour Harvard Thermistor Temperature for 2005



### 24-Hour Average Boston Thermistor for 2005





### 4-Hour Average Boston Thermistor Temperature for Spring and Summer 2005

