



# ATLANTIC TESTING LABORATORIES, Limited

September 11, 1997

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Attn: Mr. Jack Hammer

Re: Performance Evaluation of  
ThermoMiSer™  
Plattsburgh, NY  
ATL Report No. CT1433N-1-8-97

5866 State Route 31  
Cicero, NY 13039  
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Gentlemen:

At the request of Mr. Jack Hammer, representing Intellidyne, LLC, our representative was at the referenced project to observe and document the performance of a ThermoMiSer™ that had been installed on May 14, 1997.

The test location was a residence in Plattsburgh, NY selected by Cellu-Spray, a member of Affordable Comfort Housing Performance Association. The site was selected based on the overnight temperature of approximately 30 to 35° F and a daytime temperature of approximately 50 to 55° F. The residence was a new multi-level home, located on a hill-top with all sides exposed. The home was installed with an oil fired Hydronic heating system with four zones. A ThermoMiSer™ was installed, wired in series between the aquastat and burner, and the temperature sensor was strapped on to the boiler out-flow water pipe and insulated.

In order to acquire data, both with and without the ThermoMiSer™, a time-clock was used. The time clock, not only switched between the recording instruments, as described below, but also put the ThermoMiSer™ in and out of the electric circuit. Electric run-time meters and pulse counters were used to record the actual run-time and the number of "starts" of the burner. There are two pairs of timers and counters, one pair dedicated for those days when the ThermoMiSer™ was in-circuit, and the other pair for those days when the ThermoMiSer™ was out-of-circuit.

Omega Engineering data loggers were used to record the temperatures within the space at the primary (living room) thermostat location. The data loggers monitored how many minutes the burner was running and how many cycles the burner ran. The results of the five week test were as follows:

	ThermoMiSer™ ON	ThermoMiSer™ OFF	% Reduction
<b>Minutes Burning</b>	1288.3	1510.0	14.7
<b>Burning Cycles</b>	279	341	18.2

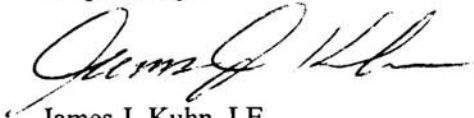
A temperature monitor was also placed in the house to detect any significant changes. The

monitor showed no measurable temperature fluctuation. The resident was also asked if they noticed any changes in the temperature, they indicated, they had noticed no change.

The amount of temperature data collected is very extensive and is not included in this report for that reason, but is available for review upon request.

Please contact our office should you have any questions or if we can be of further service.

Respectfully,

A handwritten signature in black ink, appearing to read "James J. Kuhn". The signature is fluid and cursive, with a large initial "J" and "K".

James J. Kuhn, I.E.  
Manager  
Construction Materials Engineering

JJK/sp