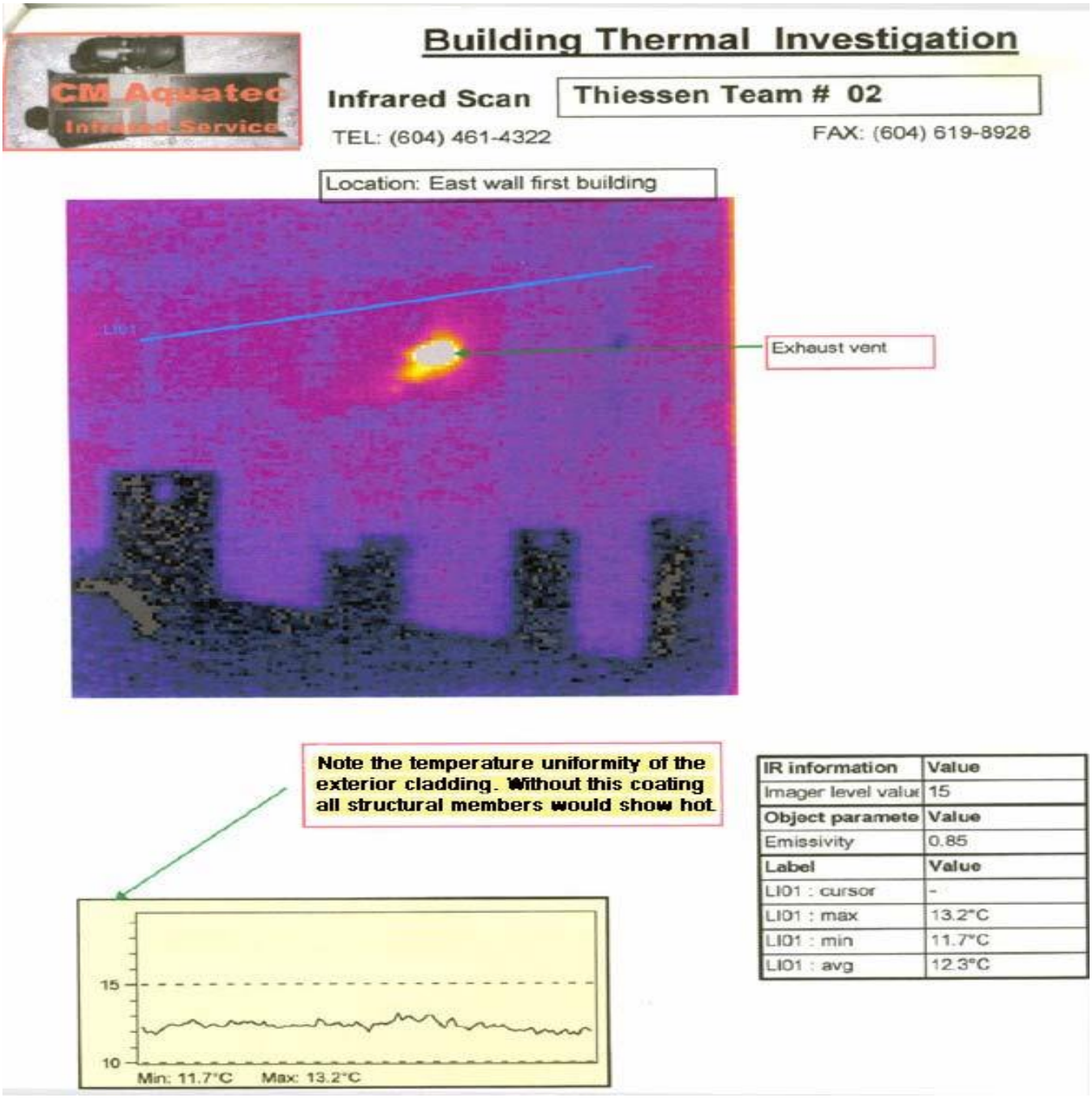
THIESSEN ROOF

LANGLEY 1999

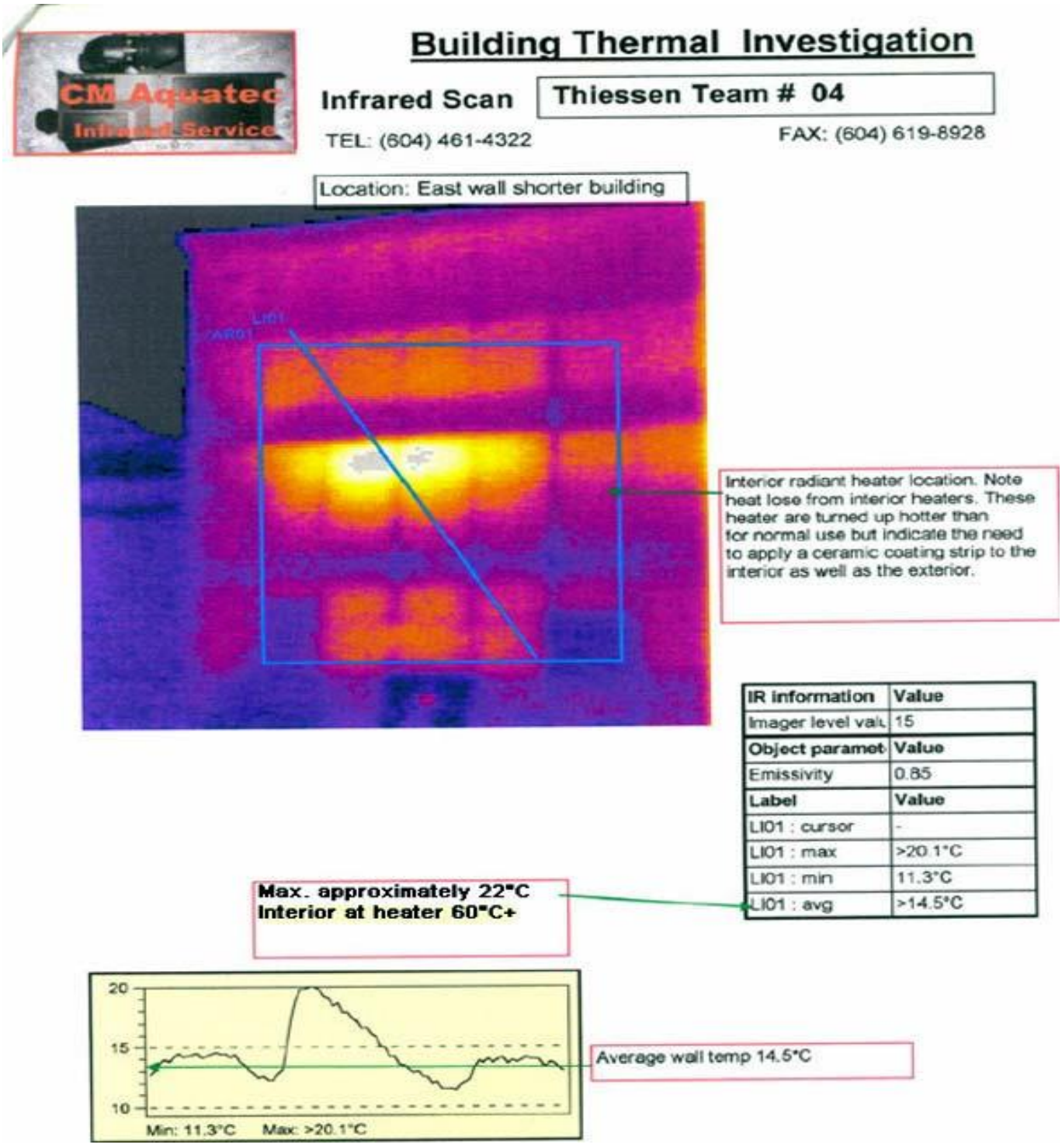
In addition to this major asset literally rusting away, the rust was also acting as a heat sponge and making it extremely uncomfortable for the employees. The roof was rustproofed first with **RUSTGRIP** ® **Rust and Biohazard Encapsulation** as a Primer and then Insulated with **SUPERTHERM** ® **Ceramic Thermal Barrier Coating *Engineered to Repel Heat***. After the coating was applied, the building was noticeably cooler and more comfortable, making it a much more productive environment. The staff in the uncoated building wanted theirs done too.

SUPERTHERM ® provides the added environmental benefit of a reduced HEAT ISLAND EFFECT.

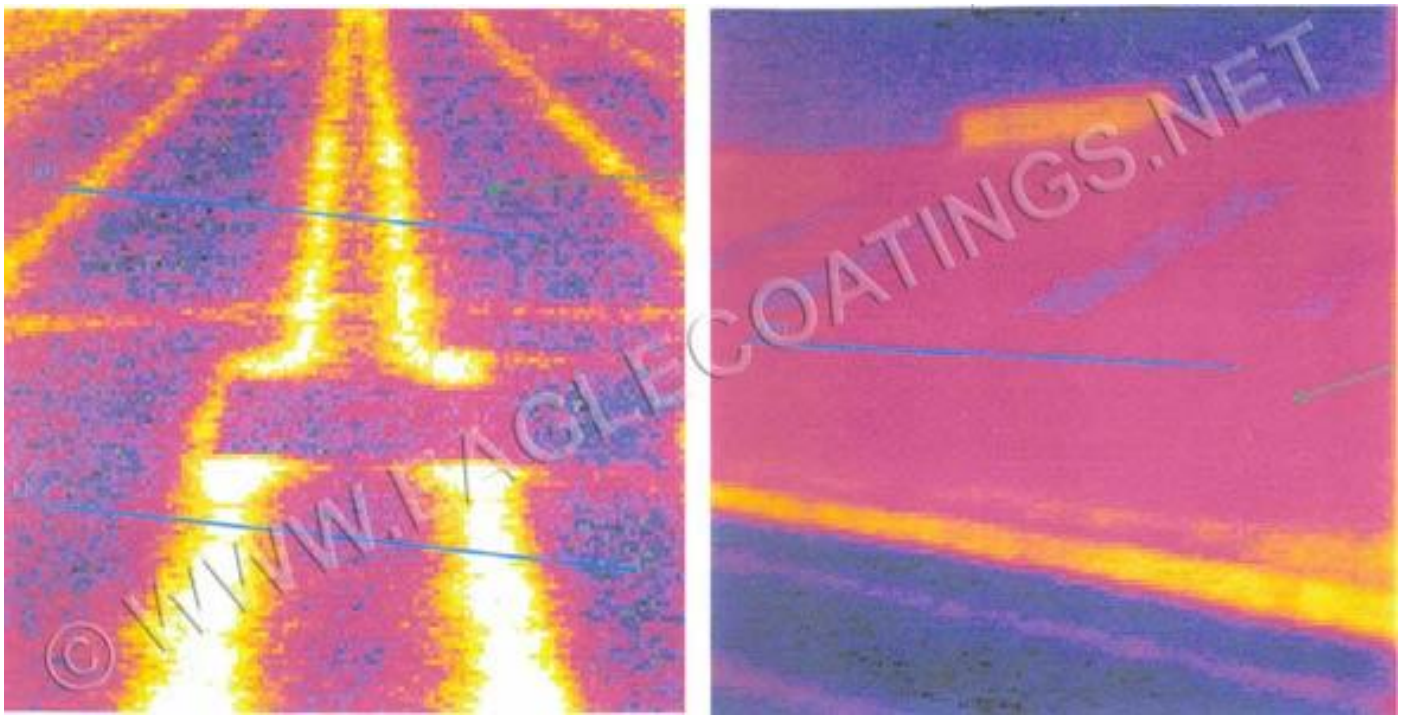
These infrared scans were performed by Mr. Cliff Matheson, President of CM Aquatec, to demonstrate the effectiveness of SUPERTHERM ® in not only keeping the ***heat OUT in the summer*** but also holding the ***heat IN during the winter*** (November 2000). Even though the SUPERTHERM ® was only coated on the outside and consequently the interior metal substrate would absorb heat, when the heat *via* backside conduction reached the SUPERTHERM ® it was repelled.



As a further service to our valued customer, several areas of significant heat loss and energy efficiencies were identified by CM Aquatec.



THERMAL BRIDGING



Uncoated roof insulated with fiberglass **Roof with no fiberglass but insulated with SUPERTHERM ®**

Which Would You Prefer?

NOTE: In the application shown above on the right-hand side, a **Ceramic Thermal Barrier Coating** was applied to the exterior only and the heat source was coming from the interior side. Consequently, there was 100% absorptance of the heat into the interior side of the metal roof. That 100% absorptance then transferred through the metal roof *via* conduction and consequently only the 2 non conductive ceramics contained in the **Ceramic Thermal Barrier Coating** were in effect. The 2 reflective ceramics were not being utilized and therefore a **Ceramic Thermal Barrier Coating** in this orientation only provides half the thermal benefit.

If a **Ceramic Thermal Barrier Coating** had been applied to the interior side and thus facing the heat source**,** all four ceramics would have been in effect and the full thermal benefit would have been realized.

Of course, the optimum application of this technology would be to coat both sides of the substrate so that the heat absorbed by either side would be reduced. In that case the substrate itself could add to the thermal benefit and the thermal benefit would be even greater.