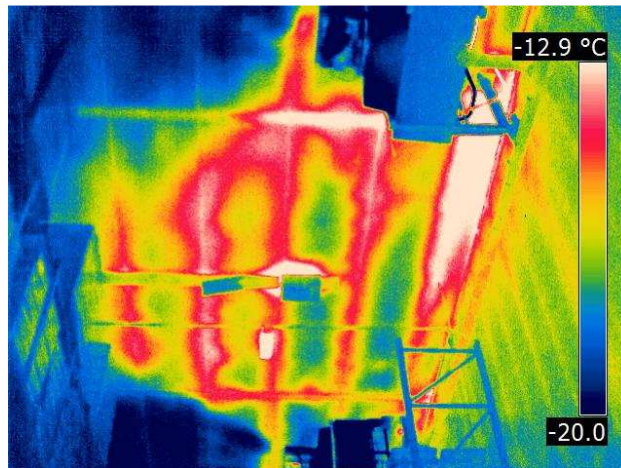


**Cold Store / Cold Room Thermographic Inspection**

**SAMPLE REPORT**

**By**

**Pixel Thermographics Ltd**



**Pixel Thermographics Ltd**

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Hulley Road  
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## Report Details

Client

Address / Building

Contact Person

Contact Person Address

Phone Number

Email Address

Thermographer

Thermographer Certification

ITC Level 2 Certified Thermographer

Survey Equipment

Flir Thermacam SC640 Infrared Camera  
Reporter 9.2 Software

	<b>Cold Store / Cold Room Thermographic Inspection SAMPLE REPORT</b>	<b>Date:</b>
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## INFORMATION

Thermal imaging within cold stores, cold rooms and freezers allows to detect and highlight the following anomalies:

- Missing insulation.
- Defective or wet insulation.
- Air ingress or air leakage.
- Energy wastage.

### Missing Insulation

Missing insulation will cause conductive losses from the equipment resulting in compressors and refrigeration plant to work harder to maintain temperatures. This is costly in terms of electricity usage but can also lead to condensation and deterioration of adjacent insulation due to condensation and moisture build up.

### Defective or Wet Insulation

Defective or wet insulation causes conductive losses from the equipment resulting in compressors and refrigeration plant to work harder to maintain temperatures. This is costly in terms of electricity usage but can also lead to further deterioration of adjacent insulating materials and condensation / frost build up.

### Air Ingress or Air Leakage

Air ingress into this type of equipment results in refrigeration equipment having to work harder to maintain temperature set points. Air leakage from a cold system also results in refrigeration equipment having to work harder resulting in higher energy costs.

### Energy Wastage

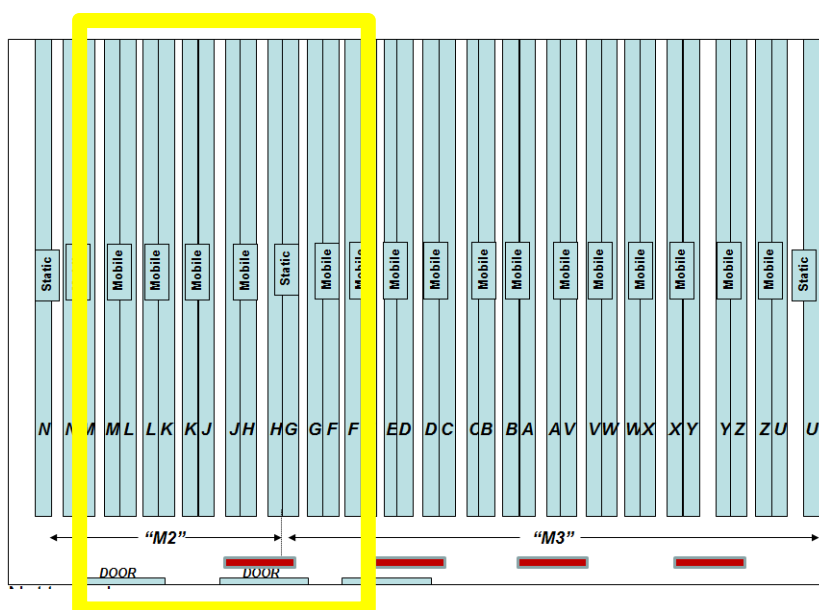
Any other anomalies identified by the Thermographer which are likely to have a negative impact on the operational efficiency of the equipment shall be highlighted and analysed within the report. This valuable information will allow the client to investigate or carry out remedial work or modifications to improve the effectiveness of the equipment.

## EXECUTIVE SUMMARY

The survey was carried out to inspect the cold store for areas of poor insulation performance.

Several thermal anomalies were identified and are summarized below:

- Areas of the cold store roof were identified where water ingress appears to have entered the roof insulation structure. This results in reduced insulating performance in these areas.
- General temperatures in the cold store in front of the access doors appear to be warmer due to warm air ingress from the continual use of the doors by the trucks. The diagram below shown the general area where higher surface temperatures were noted (highlighted in yellow):



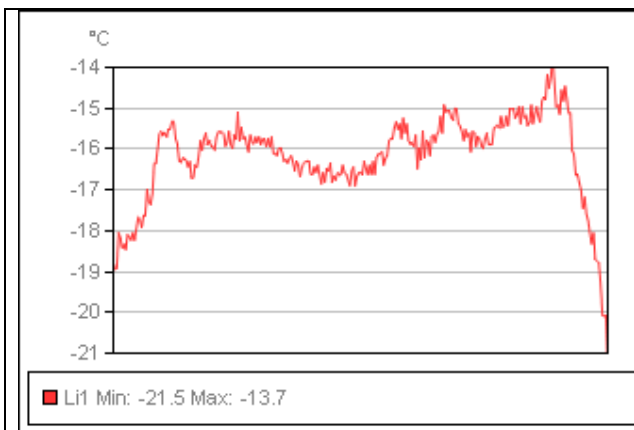
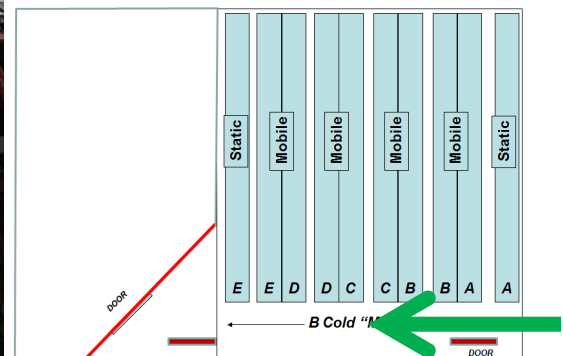
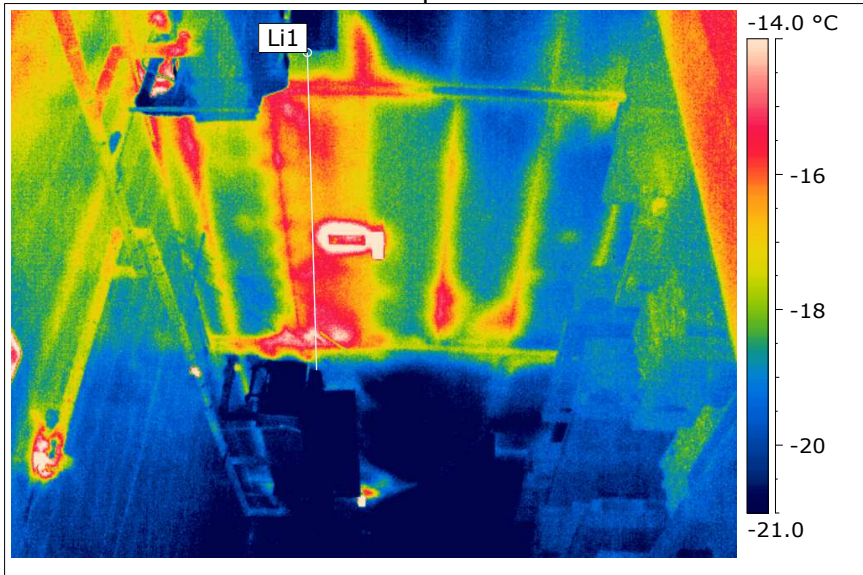
Additionally it was not clear as to whether the store is being used above its maximum rated capacity. If this is the case then it is likely that temperature set-points will be difficult to maintain – particularly during the summer months.

**The following pages contain images and analysis gathered during the course of the survey**

## INDEX OF IMAGES

<b>Area:</b>	<b>Page Number</b>
B Store - Roof Between Evaporators 5 & 6	6
A Store - Roof - Aisle M	7
A Store - Old Doorway	8
A Store - Roof - Between Evaporators 1 & 2	9
A Store - Roof - Roof Above Entrance Aisle Z	10
A Store - Roof - Aisle Q	11
A Store - Roof - Aisle L	12
A Store - Roof - Aisle K	13
A Store - Roof - Aisle J	14
A Store - Roof - Aisle H	15

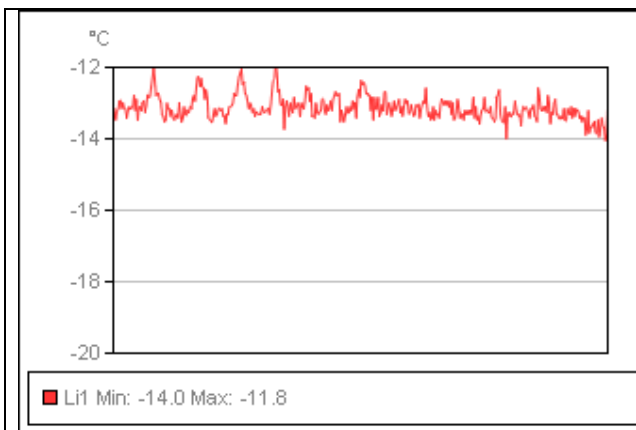
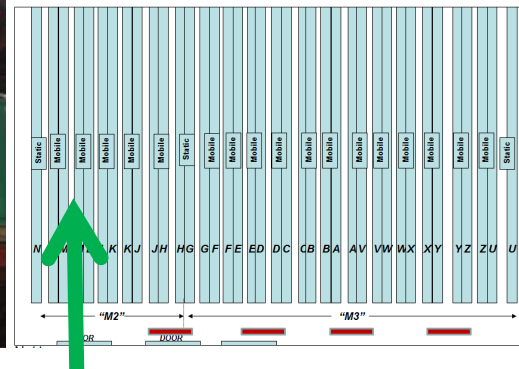
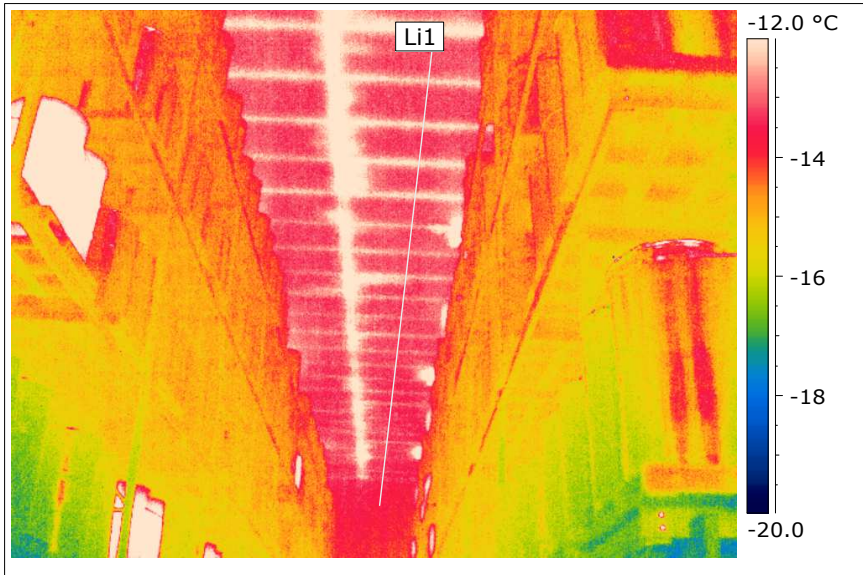
Area: B Store - Roof Between Evaporators 5 & 6



**Comments:**

Water ingress suspected within roof insulation resulting in ineffective insulation performance in this area.

Area: A Store - Roof - Aisle M



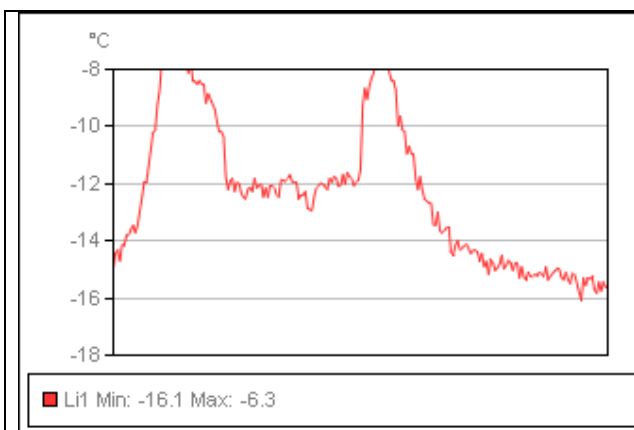
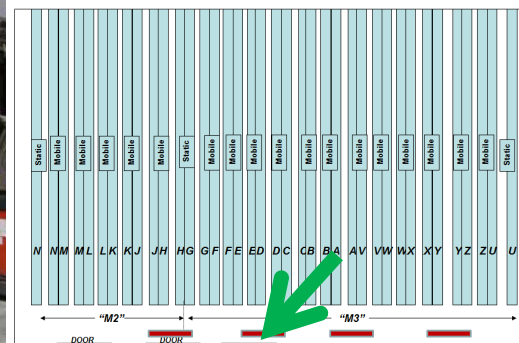
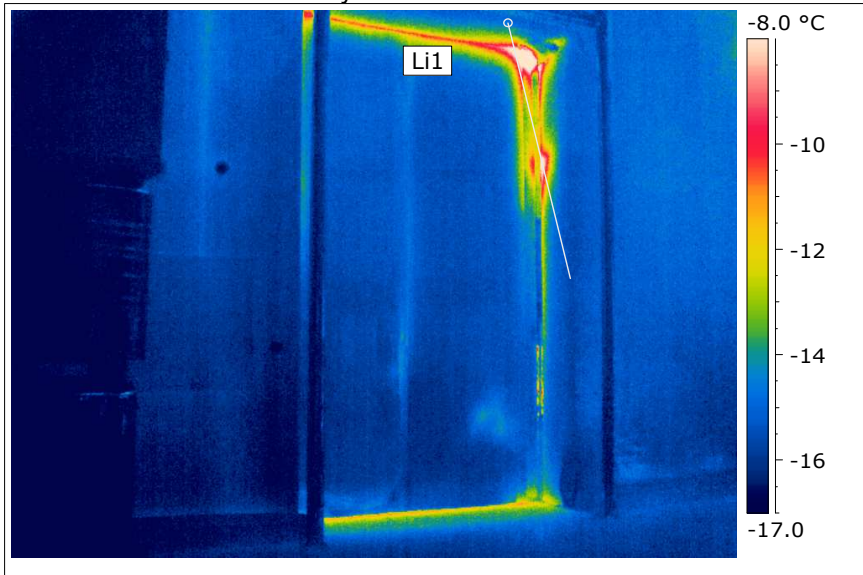
**Comments:**

It was noted that general surface temperatures in this area of the store appeared higher than other parts of the store.

It appears that the continual use of the entry doors in this area by trucks results in warm air ingress.



Area: A Store - Old Doorway



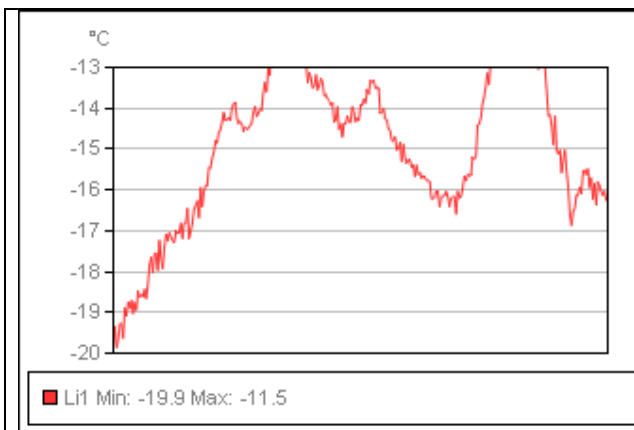
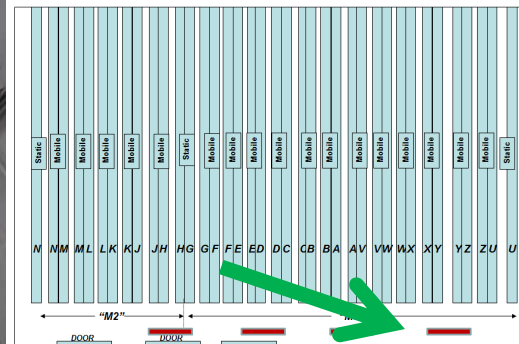
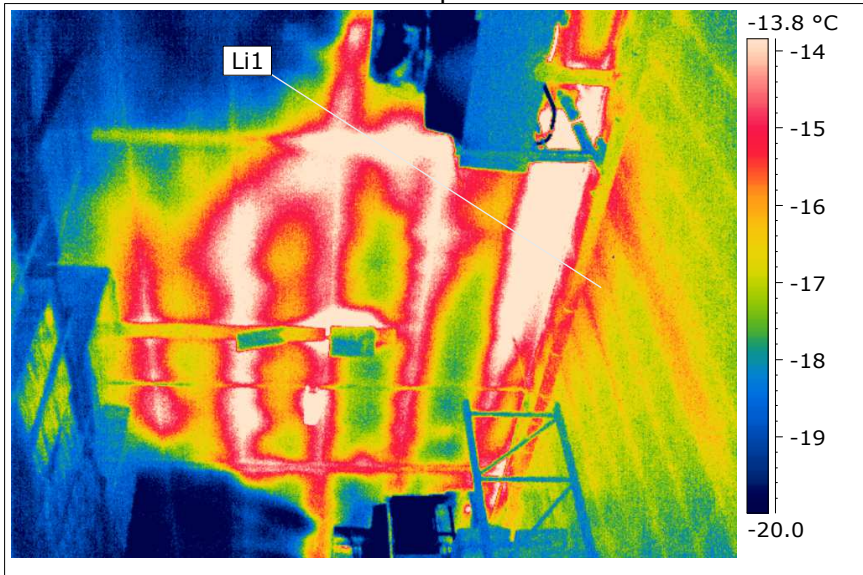
**Comments:**

Warm air ingress noted in various parts of this old door.

Recommendation is to add further sealant / insulation to help prevent this ingress.



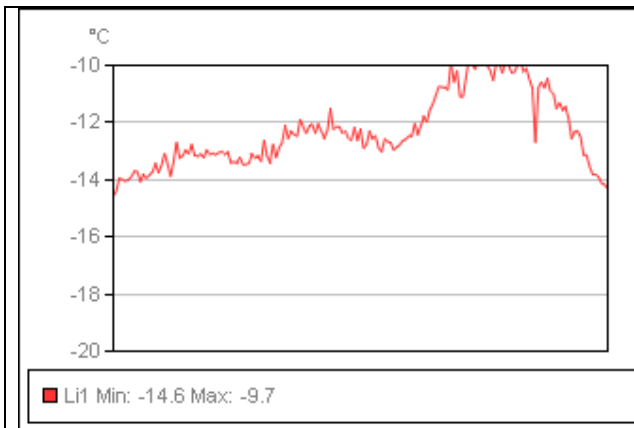
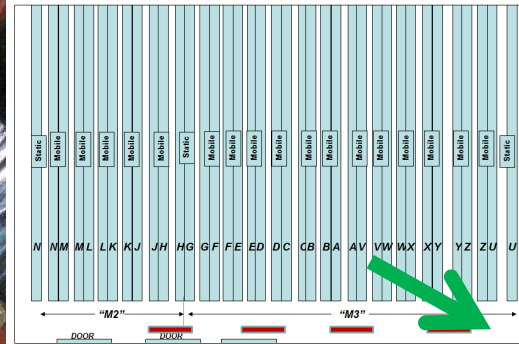
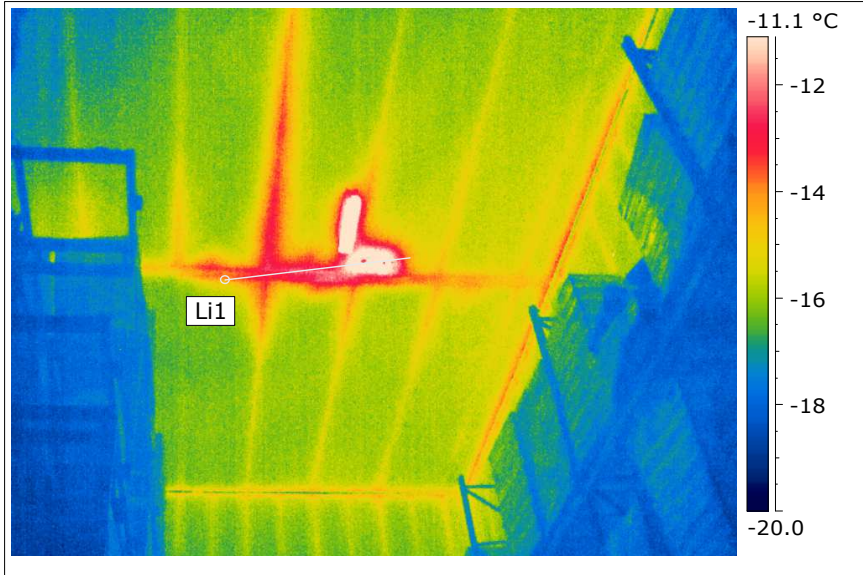
Area: A Store - Roof - Between Evaporators 1 & 2



**Comments:**

Water ingress suspected within roof insulation resulting in ineffective insulation performance in this area.

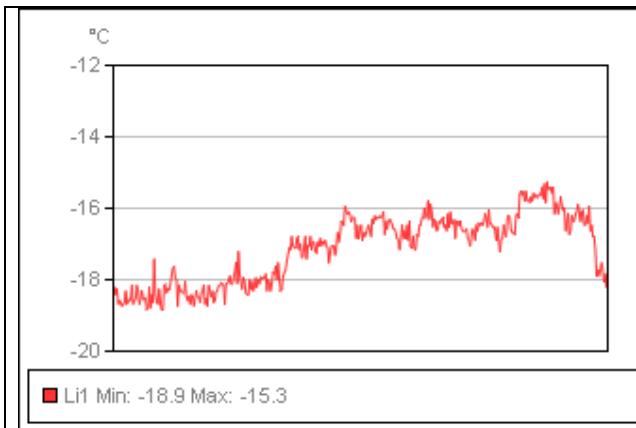
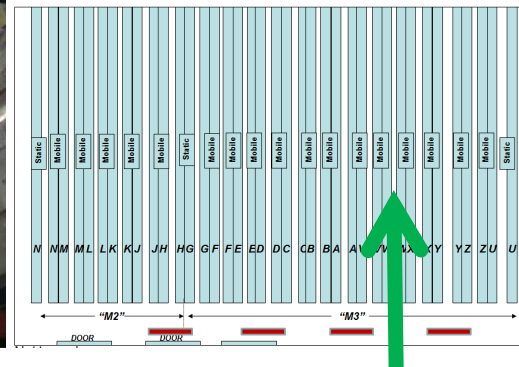
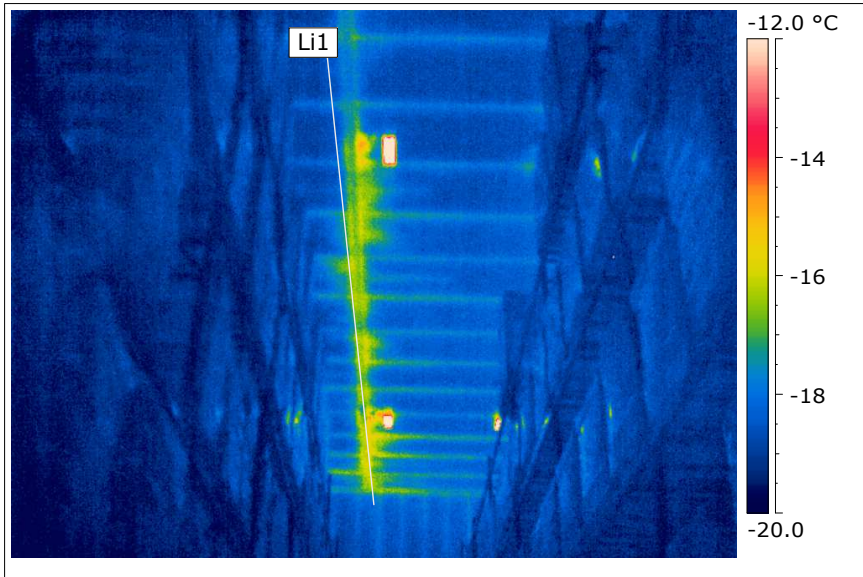
Area: A Store - Roof - Roof Above Entrance Aisle Z



**Comments:**

Water ingress suspected within roof insulation resulting in ineffective insulation performance in this area.

Area: A Store - Roof - Aisle Q

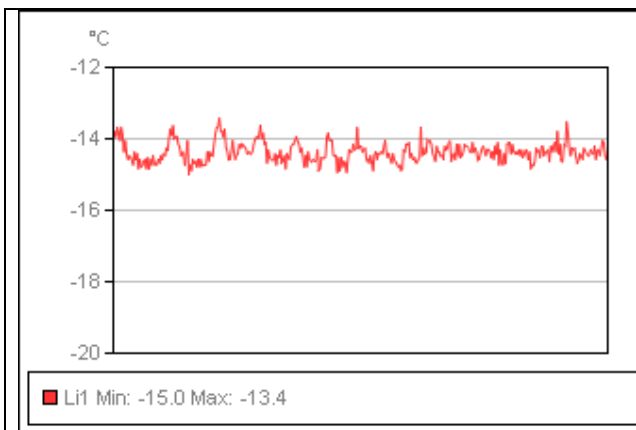
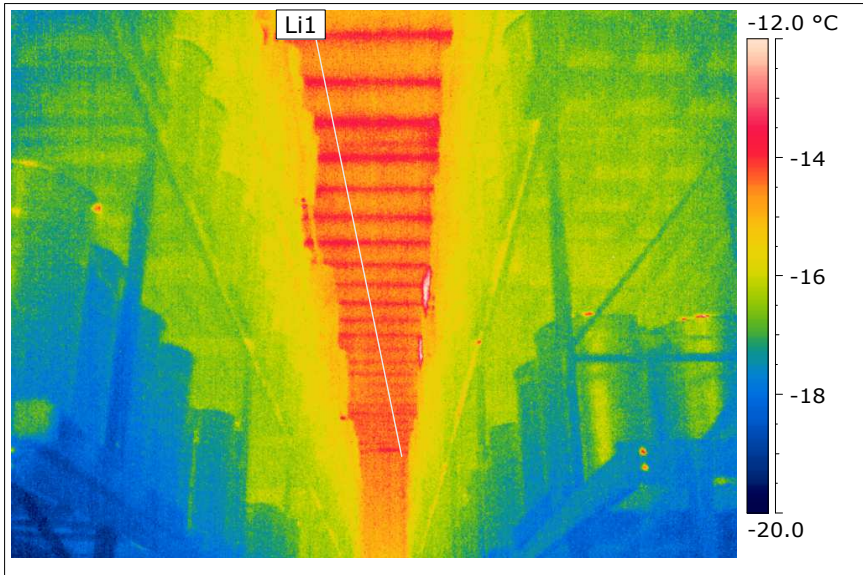


**Comments:**

Water ingress suspected within roof insulation resulting in slight reduction in insulation performance in this area.



Area: A Store - Roof - Aisle L

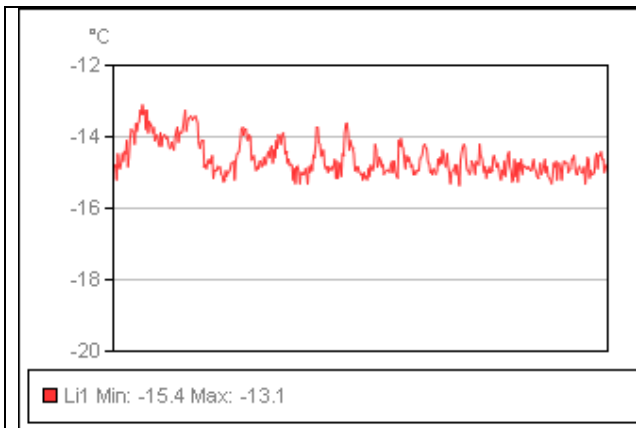
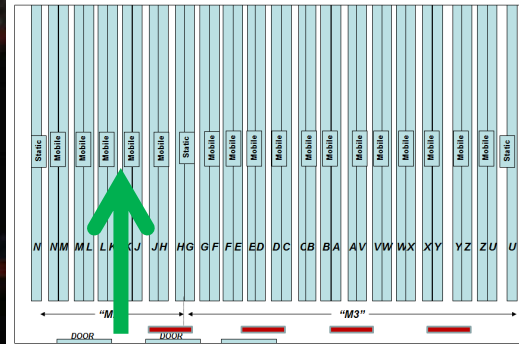
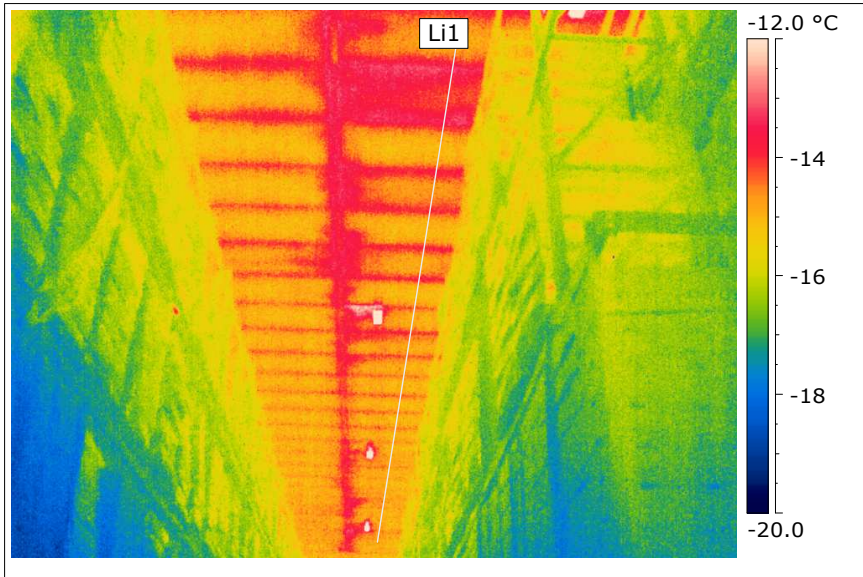


**Comments:**

It was noted that general surface temperatures in this area of the store appeared higher than other parts of the store.

It appears that the continual use of the entry doors in this area by trucks results in warm air ingress.

Area: A Store - Roof - Aisle K

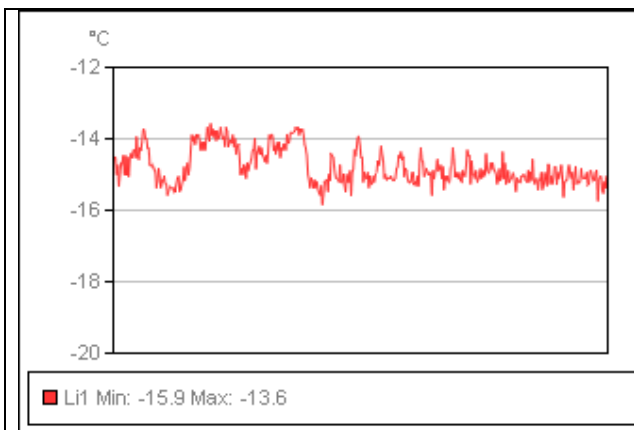
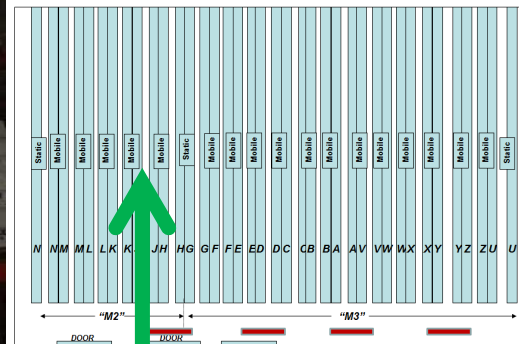
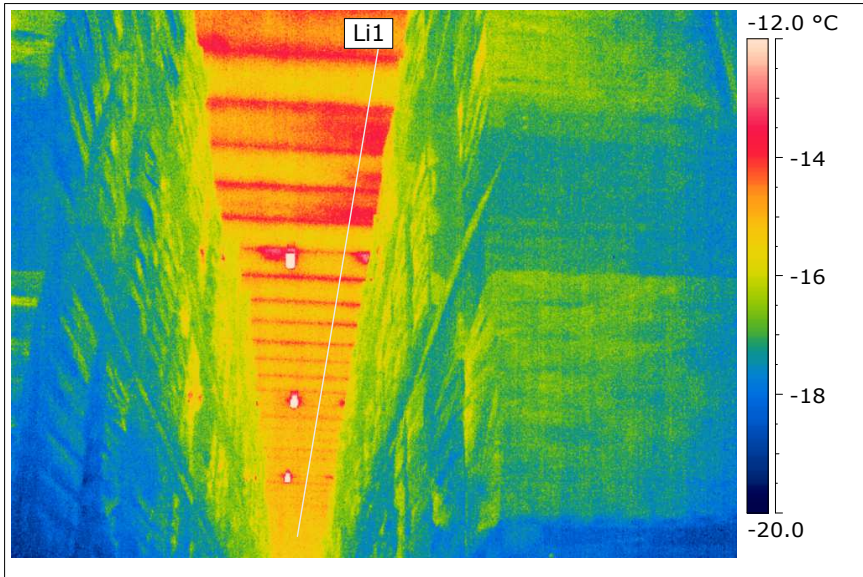


**Comments:**

It was noted that general surface temperatures in this area of the store appeared higher than other parts of the store.

It appears that the continual use of the entry doors in this area by trucks results in warm air ingress.

Area: A Store - Roof - Aisle J



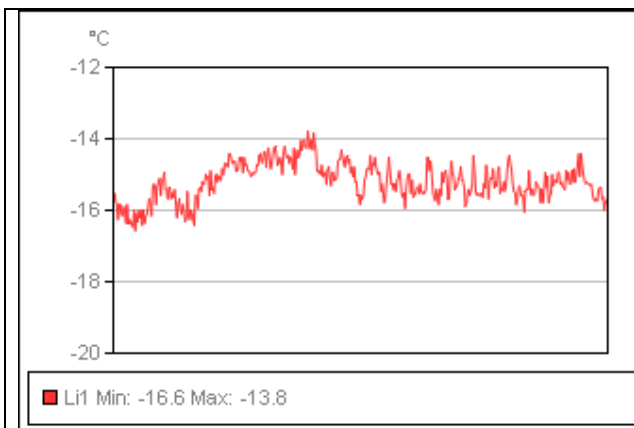
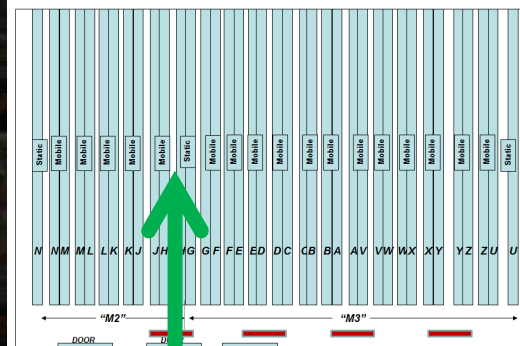
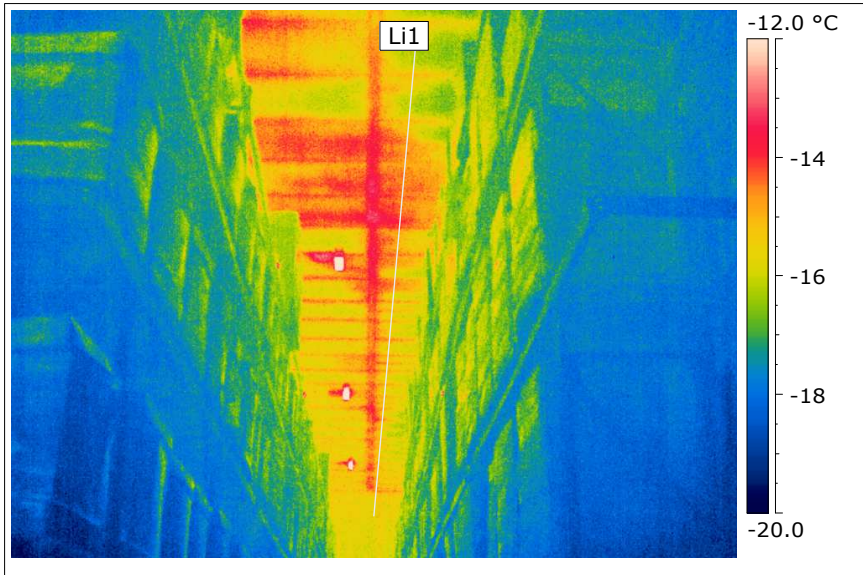
**Comments:**

It was noted that general surface temperatures in this area of the store appeared higher than other parts of the store.

It appears that the continual use of the entry doors in this area by trucks results in warm air ingress.



Area: A Store - Roof - Aisle H



**Comments:**

It was noted that general surface temperatures in this area of the store appeared higher than other parts of the store.

It appears that the continual use of the entry doors in this area by trucks results in warm air ingress.