

ThermalScope

Thermal Imaging Survey & Consultancy Services

ABN 67 840 727 352
PO Box 5027, Canning Vale South, Perth WA 6155
m – 0415 040 963 f – 08 9463 7808
e – brad@thermalscope.com.au

OCCUPATIONAL HEALTH & SAFETY
AND PREVENTATIVE MAINTENANCE INSPECTION

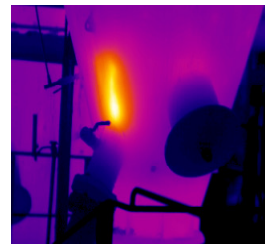
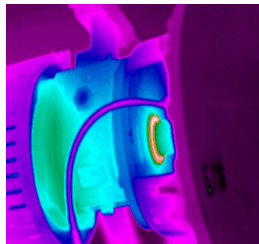
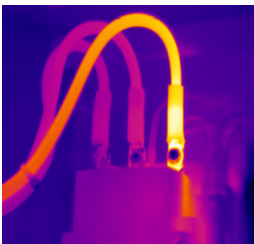
at

SURVEY AT YOUR SITE

SITE ADDRESS

INSPECTION DATE: 01/01/20xx

ELECTRICAL DISTRIBUTION BOARDS & NOMINATED EQUIPMENT



Site Address/Location: *Your Site Address Here*
Contact Person: *Site Responsible Person*
Consultant: Brad Simms
Job Quotation: #1234
Purchase Order: #0011
Next Survey Due Date: XX

Reports: 4
Priority 1 Reports: 3
Next Survey Due: XX
Camera Model: FLIR P620
Next Calibration Due: July 20xx

TERMS AND DEFINITIONS

TEMPERATURE:	Temperature is displayed in degrees centigrade.
FAULT TEMPERATURE:	Highest temperature of the area of concern (Sp1).
NORMAL TEMPERATURE:	Operating temperature of a similar component with the same status or temperature of the immediate surrounding area (Sp2 – Sp4).
TEMPERATURE RISE:	Where measured temperature is referenced against a known or priority temperature
THERMOGRAPH:	Thermography makes use of the infra red spectral band. A thermograph is a "map" charting the varying radiation of a body or source using in most cases the "Ironbow" colour palette.

TERMS AND DEFINITIONS

PRIORITY	SYMPTOM	RECOMMENDED ACTION
1	Critical overheating 75 degrees or greater	URGENT
2	Established overheating 20 - 75 degrees	AS SOON AS POSSIBLE
3	Initial overheating 5 - 20 degrees	MAINTENANCE

NOTE: This priority listing is used as a guideline only. For high absolute temperature measurements and for critical equipment the priority may be altered.

If thermographs are taken using emissivity of less than 1.00, the emissivity will be noted.
(For most applications, this will give the most conservative (lowest) temperature difference.)

DISCLAIMER

This report has been prepared by ThermalScope in accordance with the terms and conditions as detailed in the quotation, and agreed to by both parties upon offer and acceptance of an order for services per that quotation.

The test results shown herein are accurate at the time the test was affected. However, no responsibility can be accepted for variations in readings or liability for loss or damage whether consequential or otherwise and whether tort or in contract due to faults that were either not indicated by the test taken or occurred at a subsequent time.

To the extent that it can be shown that the test results were not accurate at the time of testing, this company's liability shall be restricted absolute to re-performance of the test and supply of new test results. Should you have any queries regarding this report or require additional copies of this report please contact ThermalScope.

Summary of Inspection

At Your Site

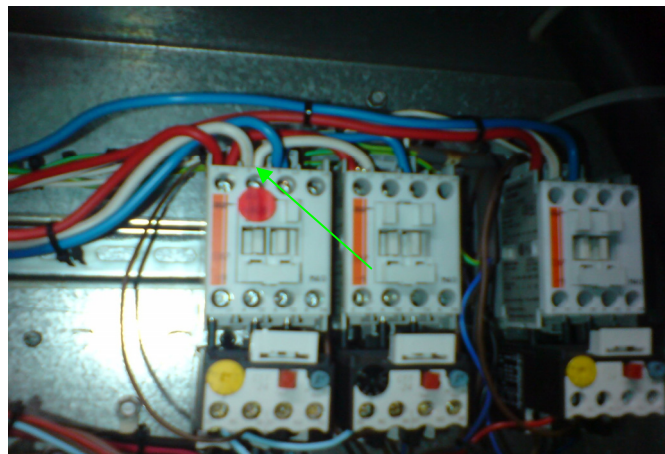
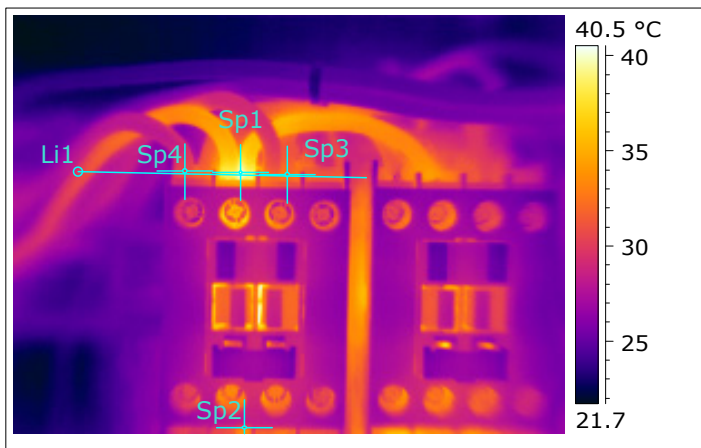
A Summary of the survey that was carried out will be written here outlining any other issues that were found during the survey period that were perhaps not captured by Infra Red images, such as damaged property or missing labels on items that were surveyed. Also outlined will be the scope of the survey and any other relevant information.

Survey & Report Conducted by:

Brad Simms – ThermalScope

Area Chiller Plant Room
Equipment Chiller 1 – Condenser Fan
Device Contactor

REP No'
1



Date	5/05/2010
Image Time	5:02:02 PM
Filename	IR_2010-05-05_0003.jpg

Sp1 Temperature	40.0 °C
Sp2 Temperature	33.4 °C
Sp3 Temperature	32.3 °C
Sp4 Temperature	30.7 °C



PHASE	LOAD
RED	14A
WHITE	14A
BLUE	13A

PRIORITY	
3	
RECOMMENDATION	MAINTENANCE

Comments

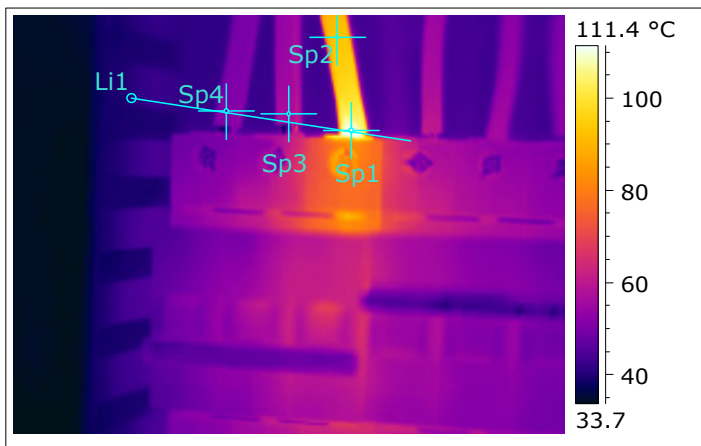
Initial overheating at termination.
 Check termination.
 Check load conditions.

Repairer's notes

Repaired By	Date	Comments

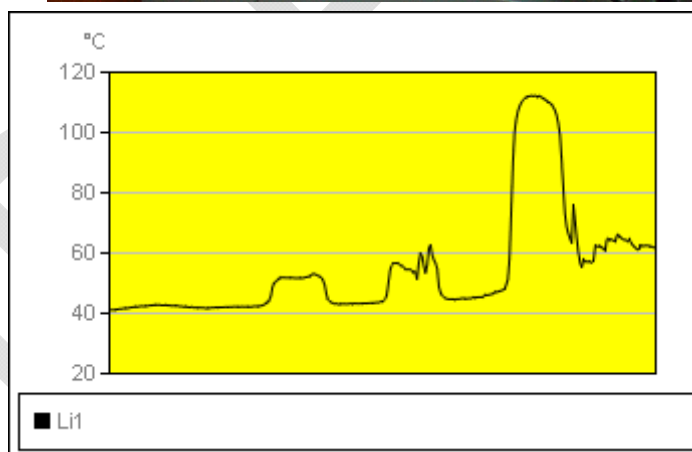
Area | Top Plant Room
Equipment | MCC 2B
Device | Circuit Breaker – HC 1

REP No'
2



Date	6/05/2010
Image Time	8:08:12 AM
Filename	IR_2010-05-06_0008.jpg

Sp1 Temperature	111.6 °C
Sp2 Temperature	93.1 °C
Sp3 Temperature	57.1 °C
Sp4 Temperature	51.7 °C



PHASE	LOAD
RED	25A
WHITE	24A
BLUE	24A

PRIORITY	
1	
RECOMMENDATION	URGENT

Comments

Established overheating at termination.
Priority level upgraded due to fault condition exceeding V75 thermal limits of cable.
Check termination.
Check load conditions.
Visible damage evident on cable.

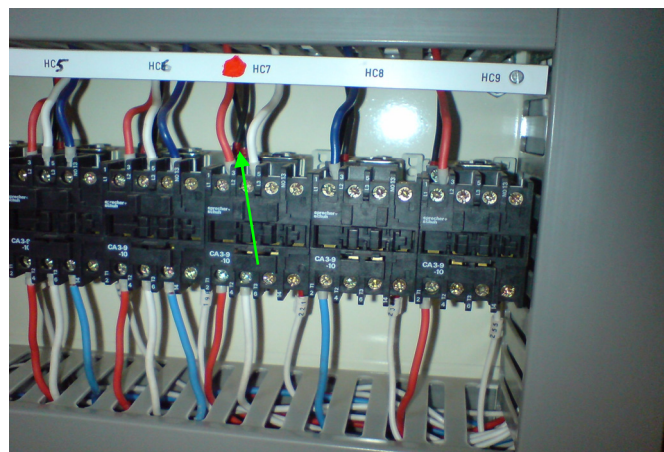
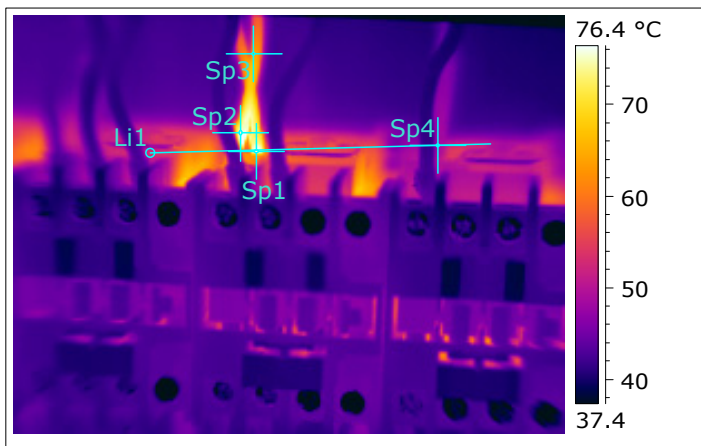
*Circuit Breaker HC 1 was switched off electrical staff when this fault was found.

Repairer's notes

Repaired By	Date	Comments

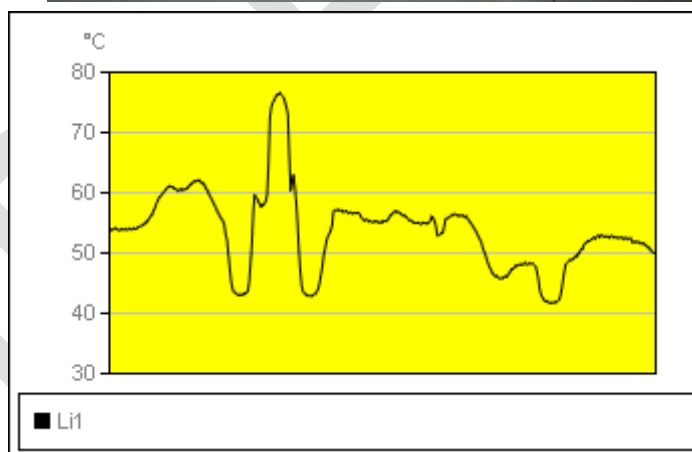
Area Main Plant Room
Equipment MCC 2B
Device Contactor – HC 7

REP No'
3



Date	6/05/2010
Image Time	8:17:25 AM
Filename	IR_2010-05-06_0010.jpg

Sp1 Temperature	76.5 °C
Sp2 Temperature	76.3 °C
Sp3 Temperature	64.4 °C
Sp4 Temperature	48.8 °C



PHASE	LOAD
RED	N/A
WHITE	N/A
BLUE	N/A

PRIORITY	
1	
RECOMMENDATION	URGENT

Comments

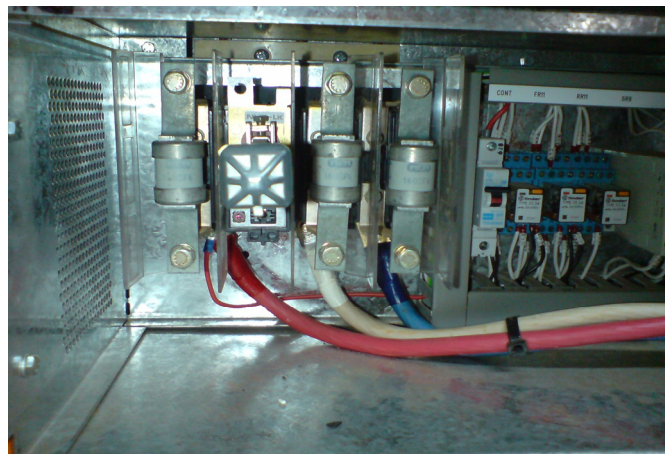
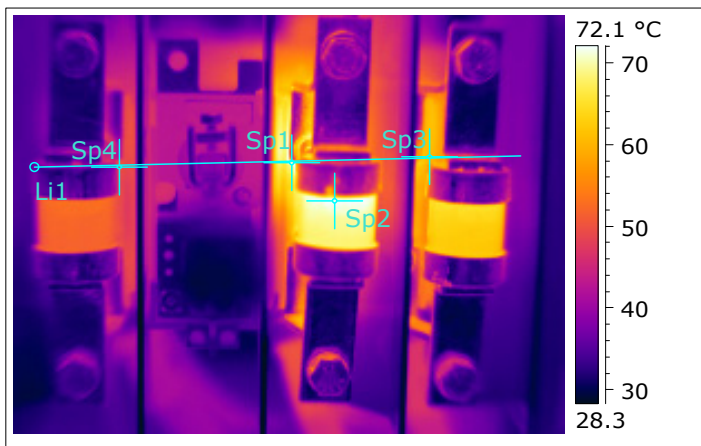
Established overheating at termination on top side of coil.
Priority level upgraded due to fault condition exceeding V75 thermal limits of cable.
Check termination.
Check bootlace crimp connections.
Check for heat damage to cable.

Repairer's notes

Repaired By	Date	Comments

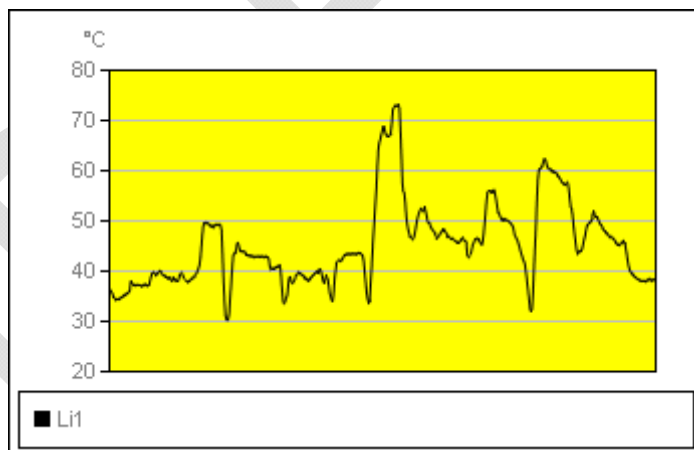
Area Main Plant Room
Equipment MCC 2A
Device CFS – Fan 2

REP No'
4



Date	6/05/2010
Image Time	8:26:55 AM
Filename	IR_2010-05-06_0012.jpg

Sp1 Temperature	73.0 °C
Sp2 Temperature	72.0 °C
Sp3 Temperature	60.0 °C
Sp4 Temperature	49.6 °C



PHASE	LOAD
RED	44A
WHITE	43A
BLUE	44A

PRIORITY	
1	
RECOMMENDATION	URGENT

Comments

Established overheating at termination.
Priority level upgraded due to line side fault conditions.
Check load conditions on circuit.
Check connection of fuse.
Check connections of mounting chassis for fuse system.
Check condition of fuse.

Repairer's notes

Repaired By	Date	Comments

Substation 001

FEB MAY AUG OCT

[illegible]