



Accredited Thermographers

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2015  
Thermographic Inspection  
**(Project Name & Location)**

*Date:*

*Issue:* 1A

*Ref:*

## Report Details

Issued By: Thermal Imaging Services  
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Thermographer: XXXXXXXXXXXXXXXX

Thermographer Accreditation No: AINDT – XXXXX

IR Camera: Manufacturer :-  
Serial No.:-  
Calibration Date :-

Client: XXXXXXXXXXXXXXXX

Client Representative: XXXXXXXXXXXXXXXX

Location: XXXXXXXXXXXXXXXX

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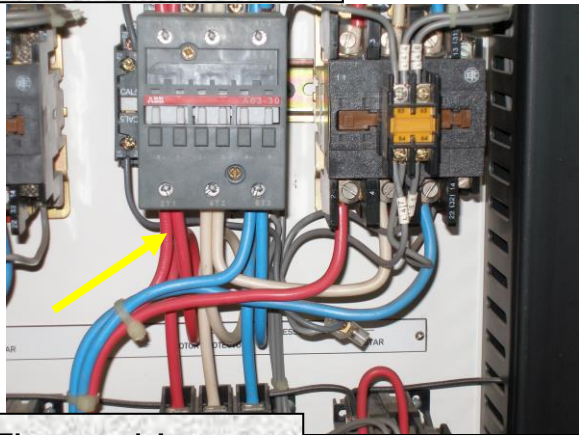
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**Inspected Equipment**  
**Mechanical Services Switchboard**  
**Located Level 4 Plant Room**

**Operator:**  
 Malcolm Rhind

Reference Image



Equipment	Compressor 3 Motor Starter
Equipment Type	ABB A-63
Additional Information	
Date	14/03/2011
Time	11:38 AM
Working conditions:	
Located within a non ventilated environment	


Thermal Image



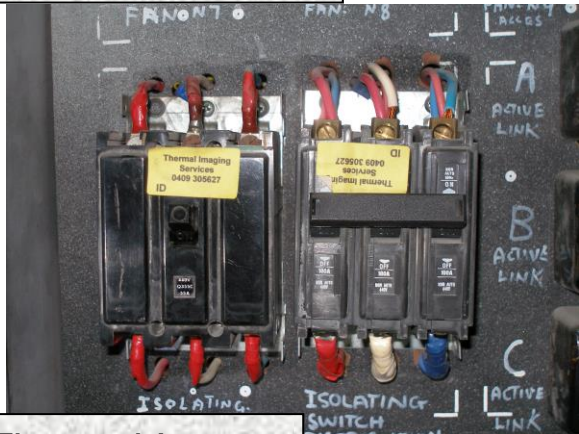
IR Image Details	
Image No.	
Emissivity	0.95
Spot 1	51.4°C
Spot 2	75.8°C
Area 1 Max.	75.8°C
Area 2 Max.	<unknown>
Background	36.0°C

<b>Description of Fault</b>	High resistance A phase load side termination.
<b>Priority Rating</b>	<b>2</b>
<b>Recommendation</b>	Re-scan within 12 months.

Previous Fault Description			
Date		Image	
Vol.		Code	
Page		Time	
Remedial Action Taken			
Authorised			

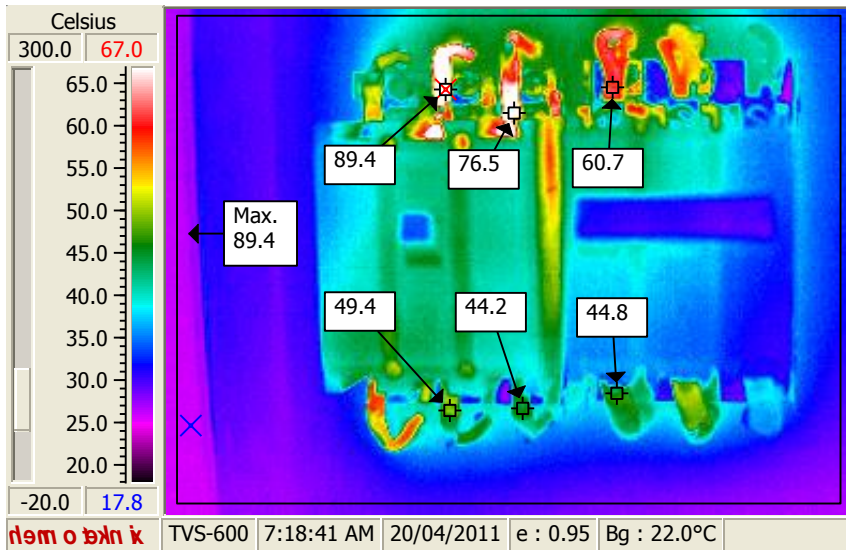
	<b>Inspected Equipment</b>	<b>Operator:</b>
	House Services Panel Located Level 3 Riser	Malcolm Rhind

Reference Image



Equipment	Fan Isolating Switch & DB-2 Isolating Switch
Equipment Type	Quicklag Q355C & Q3100CN
Additional Information	
Date	20/04/2011
Time	07:18 AM
Working conditions:	Located within a non ventilated environment

Thermal Image



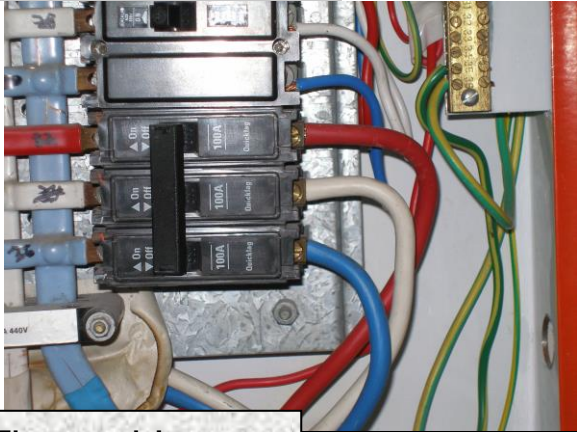
IR Image Details	
Image No.	
Emissivity	0.95
Spot 1	49.4°C
Spot 2	89.4°C
Area 1 Max.	89.4°C
Area 2 Max.	<unknown>
Background	22.0°C

<b>Description of Fault</b>	High resistance terminations. Variation in line and load side temperatures
<b>Priority Rating</b>	<b>2</b>
<b>Recommendation</b>	Inspect contact surfaces and re-terminate. Ensure tunnel terminals are securely fitted to circuit breaker housings

<b>Previous Fault Description</b>			
Date		Image	
Vol.		Code	
Page		Time	
<b>Remedial Action Taken</b>			

	<b>Inspected Equipment</b>	<b>Operator:</b>
	DB-8A Located Level 4 Riser	Malcolm Rhind

**Reference Image**



Equipment	Main Switch
Equipment Type	Quicklag Q3100C
Additional Information	Loading A Phase – 89 Amperes B Phase – 32 Amperes C Phase – 38 Amperes
Date	2/05/2011
Time	08:41 AM
Working conditions:	
Located within a ventilated environment	


**Thermal Image**



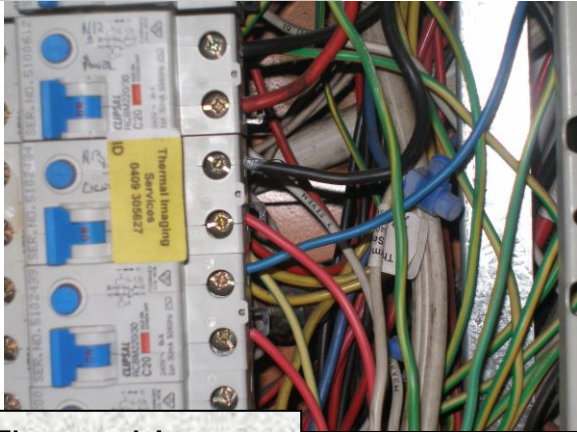
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Spot 1	31.3°C
Spot 2	68.0°C
Area 1 Max.	68.0°C
Area 2 Max.	<unknown>
Background	25.0°C

<b>Description of Fault</b>	High resistance A phase connection. Unbalanced load
<b>Priority Rating</b>	<b>2</b>
<b>Recommendation</b>	Ensure runnel terminal is securely fitted to circuit breaker housing. Re-tension termination. Re-distribute load over adjacent phases.

<b>Previous Fault Description</b>			
Date		Image	
Vol.		Code	
Page		Time	
<b>Remedial Action Taken</b>			
Authorised			

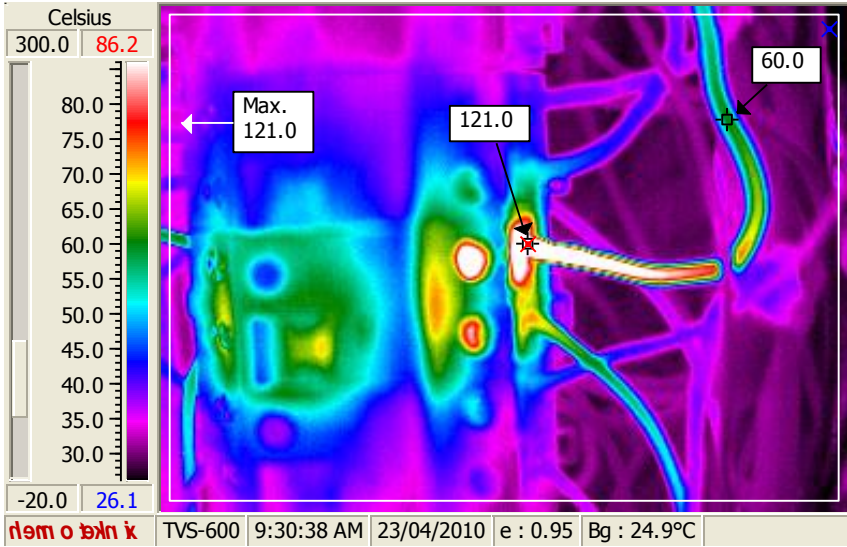
	<b>Inspected Equipment</b>	<b>Operator:</b>
	DB-3 Located Warehouse Ramp	Malcolm Rhind

**Reference Image**



Equipment	Circuit Breaker 89-90
Equipment Type	Hager
Additional Information	Neutral Conductor
Date	23/04/2010
Time	09:30 AM
Working conditions:	
Located within a ventilated environment	

**Thermal Image**



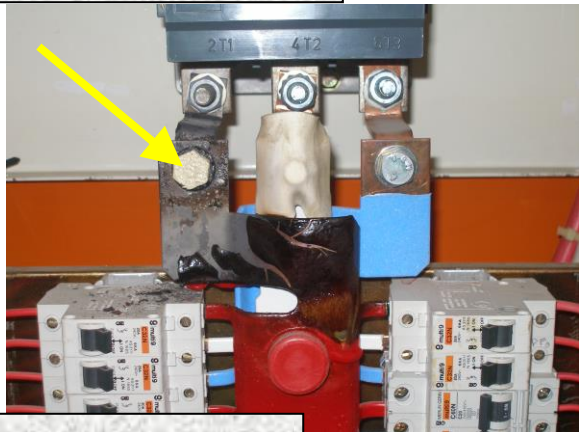
IR Image Details	
Image No.	
Emissivity	0.95
Spot 1	121.0°C
Spot 2	60.0°C
Area 1 Max.	121.0°C
Area 2 Max.	<unknown>
Background	25.0°C

<b>Description of Fault</b>	High resistance termination.
<b>Priority Rating</b>	<b>1</b>
<b>Recommendation</b>	Make good cable end and re-terminate

<b>Previous Fault Description</b>			
Date		Image	
Vol.		Code	
Page		Time	
<b>Remedial Action Taken</b>			
Authorised			

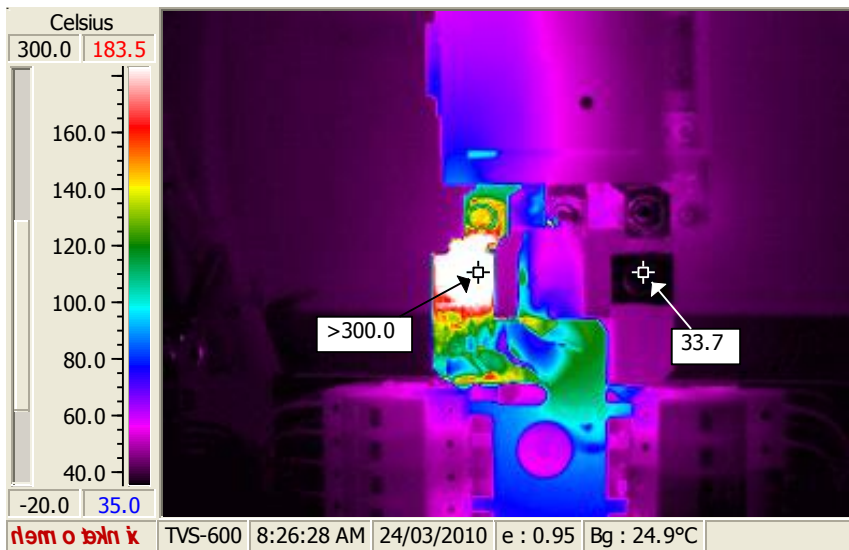
	<b>Inspected Equipment</b>	<b>Operator:</b>
	DB-4.4 Located Level 1 Riser	Malcolm Rhind

**Reference Image**



Equipment	A phase circuit breaker chassis
Equipment Type	Merlin Gerin
Additional Information	
Date	24/03/2010
Time	08:26 AM
Working conditions:	Located within a non ventilated environment.

**Thermal Image**



IR Image Details	
Image No.	
Emissivity	0.95
Spot 1	300.0°C
Spot 2	33.7°C
Area 1 Max.	300.0°C
Area 2 Max.	<unknown>
Background	25.0°C

<b>Description of Fault</b>	High resistance A phase connection to circuit breaker chassis
<b>Priority Rating</b>	<b>1</b>
<b>Recommendation</b>	Replace circuit breaker chassis and make good connection hardware and conductor.

<b>Previous Fault Description</b>			
Date		Image	
Vol.		Code	
Page		Time	
<b>Remedial Action Taken</b>			
Authorised			



## List of Reported Items

Switchboard	Equipment	Fault	Priority/Recommendation
Mechanical Services Switchboard Located Level 4 Plant Room	Compressor 3 Motor Starter	High resistance A phase load side termination was detected	<b>2</b> Termination re-tensioned during inspection
House Services Panel Located Level 3 Riser	Fan Isolating Switch & DB-2 Isolating Switch	High resistance terminations. Variation in line and load side temperatures	<b>2</b> Inspect contact surfaces and re-terminate. Ensure tunnel terminals are securely fitted to circuit breaker housings
DB-8A Located Level 4 Riser	Main Switch	High resistance A phase connection.  Unbalanced load	<b>2</b> Ensure runnel terminal is securely fitted to circuit breaker housing. Re-tension termination.  Re-distribute load over adjacent phases.
DB-3 Located Warehouse Ramp	Circuit Breaker 89-90	High resistance termination.	<b>1</b> Make good cable end and re-terminate
DB-4.4 Located Level 1 Riser	A phase circuit breaker chassis	High resistance A phase connection to circuit breaker chassis	<b>1</b> Replace circuit breaker chassis and make good connection hardware and conductor.

## List of Inspected Assets

Location	Switchboard	Fault	Comment
Main Switch Room	Main Switchboard	Nil	
	PFC Unit 1	Nil	
	PFC Unit 2	Nil	
	Unmarked DB	Nil	
Admin. Block Data Recovery Room	UPS DB	Nil	
	By Pass Switch	Nil	
Located Level 1 Riser	DB-4.4	✓	
Under Art Department (Building Void)	DB-7	Nil	
	DB-8	Nil	
	Compressor Load Centre	Nil	
Under Administration Block	DB-5	Nil	
	Air Conditioning Sub Board	Nil	
Warehouse Ramp	DB-3	✓	
	DB-3A	Nil	
Warehouse Mezzanine	MCC	Nil	
Warehouse (Adj. Loading Dock)	DB-3C	Nil	
Warehouse Customer Service	DB-3D	Nil	
Warehouse (Rear Wall)	DB-6	Nil	
	DB-3CB	Nil	
Workshop	Sub Board	-	No load
Located Level 4 Riser	DB-8A	✓	
Level 4 Plant Room	Mechanical Services Switchboard	✓	
House Services Panel Located Level 3 Riser	Fan Isolating Switch & DB-2 Isolating Switch	✓	
Data Room	DB	Nil	
	UPS By Pass Switch	Nil	
Book Fare Warehouse	DB-1	Nil	
Level 1 Admin. New Media	DB-2	Nil	
	DB-3	Nil	
	DB-3 (Special Purpose)	Nil	
Level 1 Comms. Room New Media	UPS -1 Sub Board	Nil	
	UPS -2 Sub Board	Nil	



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A.B.N. 21 005 040 835

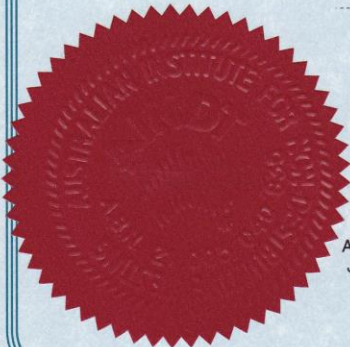
***Malcolm Rhind***

*IS CERTIFIED IN ACCORDANCE WITH  
AS3998-2006/ISO 9712:2005*

*FOR*

**Infrared Thermographic Testing**

INDUSTRIAL SECTOR	Multi-Industry
LEVEL	2
REGISTRATION NO.	2067
ISSUE DATE	27 May 2010
EXPIRY DATE	27 May 2015
ISSUE NUMBER	1
ENDORSEMENTS	----



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Australia and New Zealand.  
Acc. No. P2120700AM

FEDERAL PRESIDENT

CHAIRMAN CERTIFICATION BOARD

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