

微波斷層測試+ 紅外線熱像測試+表面濕度測量 濕度檢測報告一覽



[Redacted]

Test result for IRT is referred to Part 1 of Appendix 13.
Test summary for IRT is referred to Part 2 of Appendix 13.
Control reference for MC is referred to Part 1 of Appendix 14.
Test result for MC is referred to Part 2 of Appendix 14.
Test summary for MC is referred to Part 3 of Appendix 14.
Photo records for MC is referred to Part 4 of Appendix 14.

報告總結

3.0 Conclusions

- 3.1 Water seepage from above floor of [Redacted] i.e., ceiling of bedroom [Redacted] floor was confirmed according to the test results.
- 3.2 Water seepage from above floor of [Redacted] i.e., ceiling of bedroom [Redacted] floor was confirmed according to the test results.
- 3.3 Water seepage from above floor of [Redacted] i.e., ceiling of bedroom [Redacted] floor was confirmed according to the test results.
- 3.4 Water seepage from above floor of [Redacted] i.e., ceiling of balcony at [Redacted] was confirmed according to the test results.
- 3.5 Water seepage from parapet wall above floor of [Redacted] i.e., wall of [Redacted] was suspected according to the test results.
- 3.6 It is recommended to the client in seeking further advice from building professionals for remedy proposals.

4.0 Caveats

- 4.1 This report is only addressed to the area covered by the scope of service we provided in our contract and only represents the condition on days of test.
- 4.2 Neither the whole or any part of this report nor any reference thereto may be included in any documents, circulars or statement without our written approval if the form and context etc. which it will appears.

End of Report

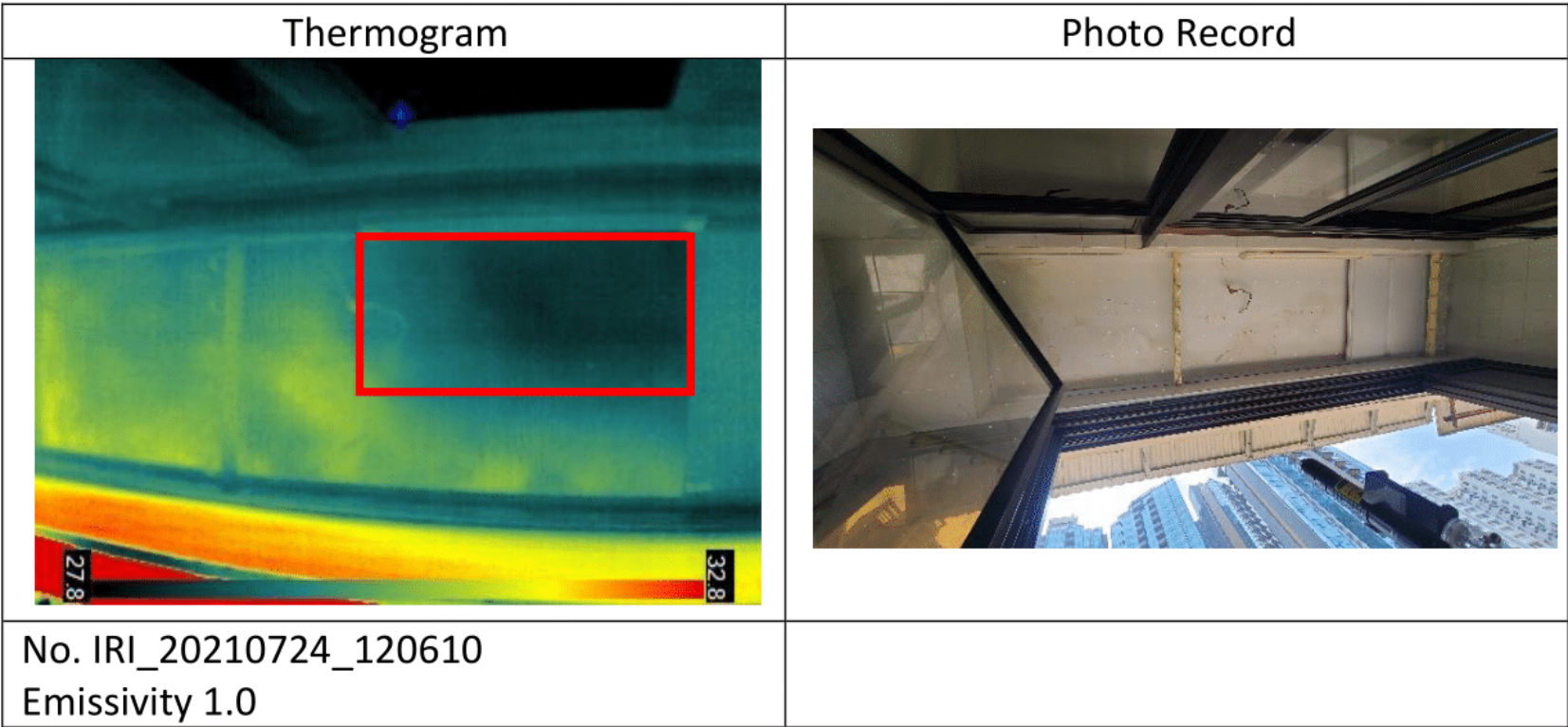
概括了經過三重測試
所發現的漏水位置，
及專業人士提供的建議。

紅外線熱像測試



Appendix 10: Infrared Thermography Test of Location 4

Part 1: Test result



- Indicated lower temperature zone

Part 2: Test summary
Low temperature zone was observed of Location 4.

表面濕度量度

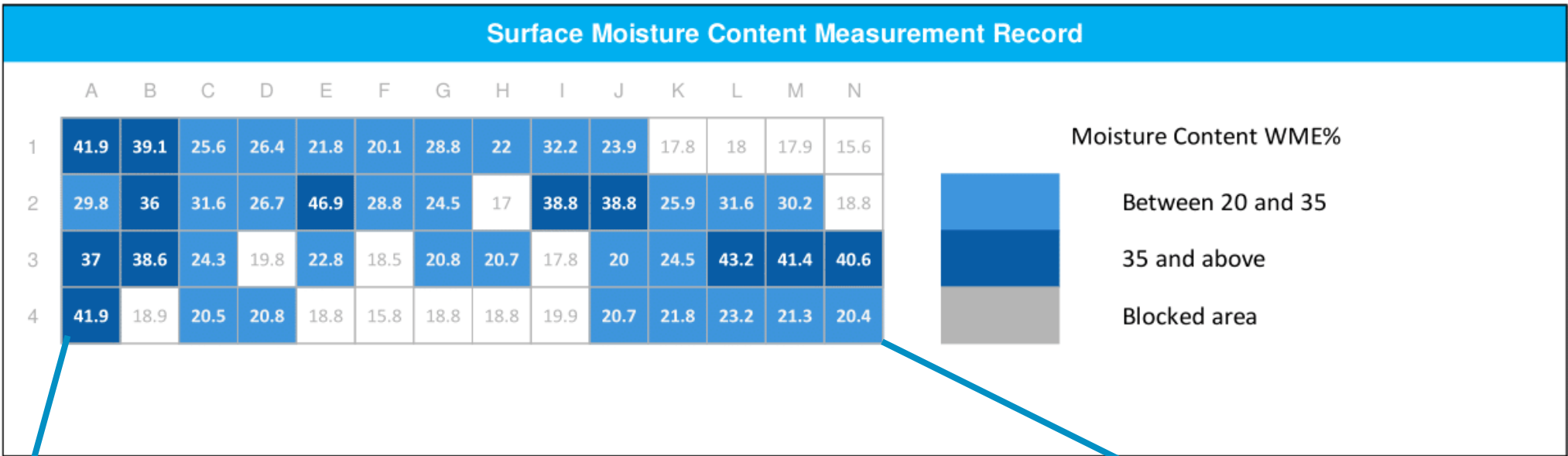


Appendix 11 Moisture Content Measurement of Location 4

Part 1: Control reference

Standard of dry is <= 35 WME% in accordance of the Joint Office (FEHD and BD) standard

Part 2: Test result



部分甲、乙分別為之前介紹過的紅外線及表面濕度測試。
測試範圍被分為正方形的小區塊，以分析每區塊的濕度數據
（見右方表格）。
淺藍格代表濕度20%-35%；
深藍格代表 >35%

From information provided by equipment manufacturer, concrete equilibrium moisture content in weight% is 2.4.

Part 2: Test result

Sensor: R1 30mm

Microwave Concrete Sub-layer Moisture Content Measurement Record (R1M 31317 - 30mm)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	5.4	8.9	4.2	2	8.2	5.5	4.7	3.9	3.4	5.7	5.6	6.1	6.8	6.9
2	6.5	8.5	5.2	4.8	7.1	2.5	5.3	6.1	6.7	7.4	7	6.1	7.6	6.8
3	4.8	8.2	5.2	7.1	7.1	5.3	5.9	4.3	5.2	7.4	6.6	6.5	7.5	6.9
4	4.6	4.9	3.2	7.1	7.2	5	4.7	4.8	5.6	3.5	5.2	1.8	7	6.6

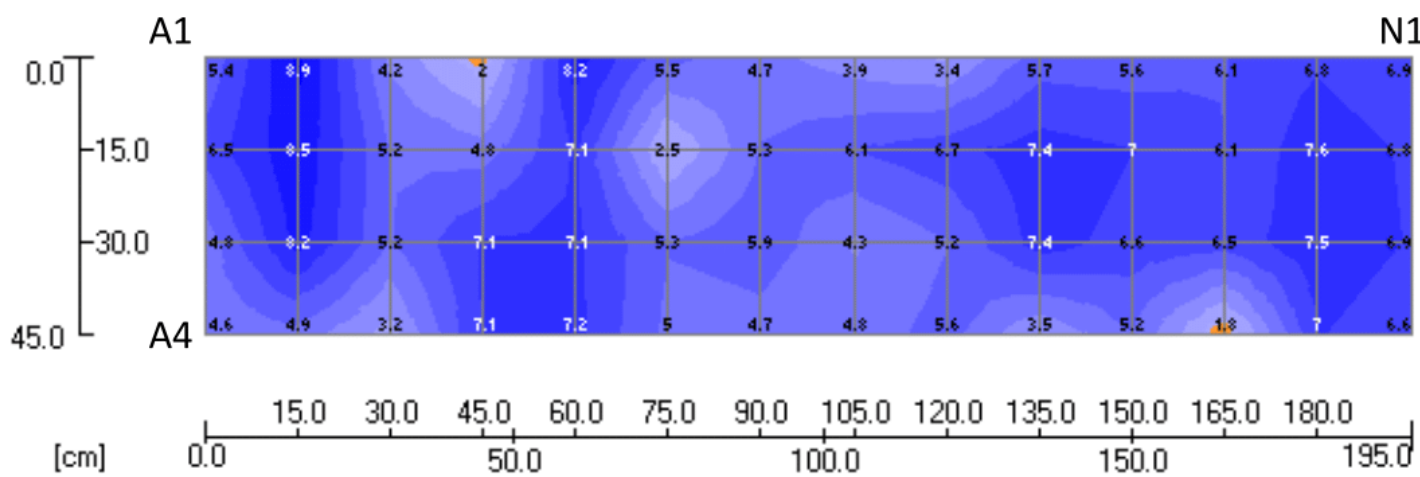
Moisture Content (%)

≥ 2.4

Blocked area

微波斷層測試

2D Plot of microwave concrete sub-layer tomography of Sensor R1-30mm



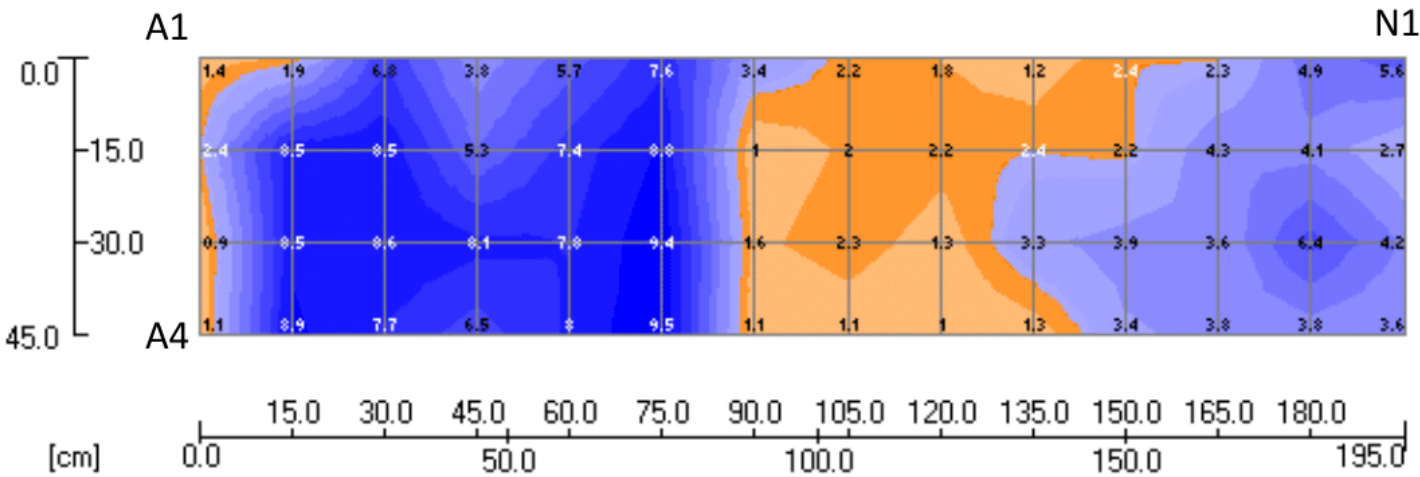
2D濕度分佈圖

Sensor: R2 70mm

Microwave Concrete Sub-layer Moisture Content Measurement Record (R2M 31357 - 70mm)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	1.4	1.9	6.8	3.8	5.7	7.6	3.4	2.2	1.8	1.2	2.4	2.3	4.9	5.6
2	2.4	8.5	8.5	5.3	7.4	8.8	1	2	2.2	2.4	2.2	4.3	4.1	2.7
3	0.9	8.5	8.6	8.1	7.8	9.4	1.6	2.3	1.3	3.3	3.9	3.6	6.4	4.2
4	1.1	8.9	7.7	6.5	8	9.5	1.1	1.1	1	1.3	3.4	3.8	3.8	3.6

</

2D Plot of microwave concrete sub-layer tomography of Sensor R1-30mm

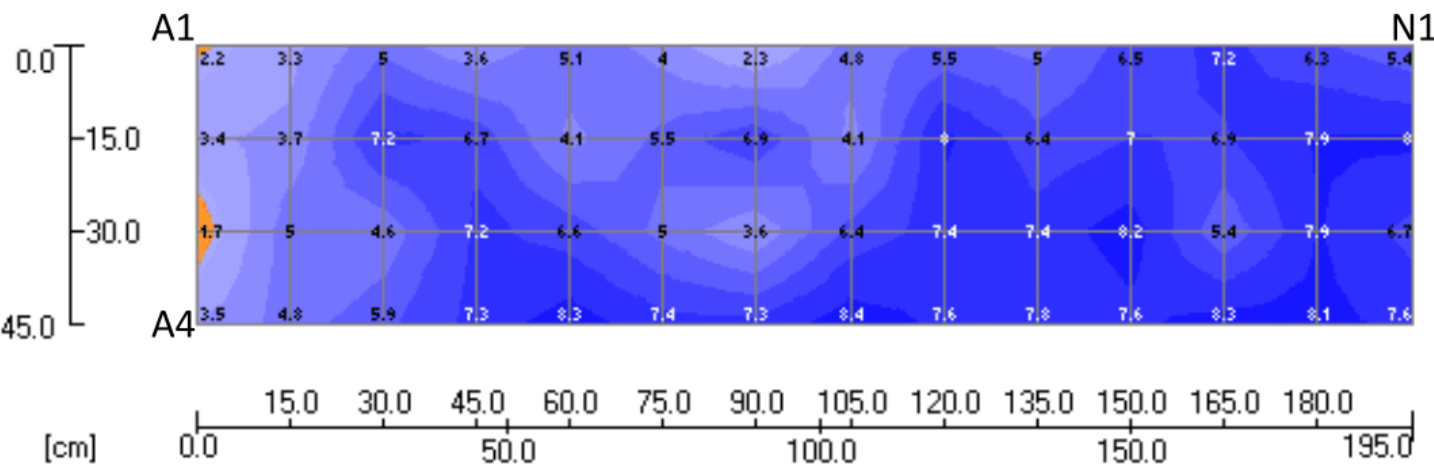


Sensor: DM 110mm

Microwave Concrete Sub-layer Moisture Content Measurement Record (DM 31542 - 110mm)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	2.2	3.3	5	3.6	5.1	4	2.3	4.8	5.5	5	6.5	7.2	6.3	5.4
2	3.4	3.7	7.2	6.7	4.1	5.5	6.9	4.1	8	6.4	7	6.9	7.9	8
3	1.7	5	4.6	7.2	6.6	5	3.6	6.4	7.4	7.4	8.2	5.4	7.9	6.7
4	3.5	4.8	5.9	7.3	8.3	7.4	7.3	8.4	7.6	7.8	7.6	8.3	8.1	7.6

Moisture Content (%)
≥ 2.4
Blocked area

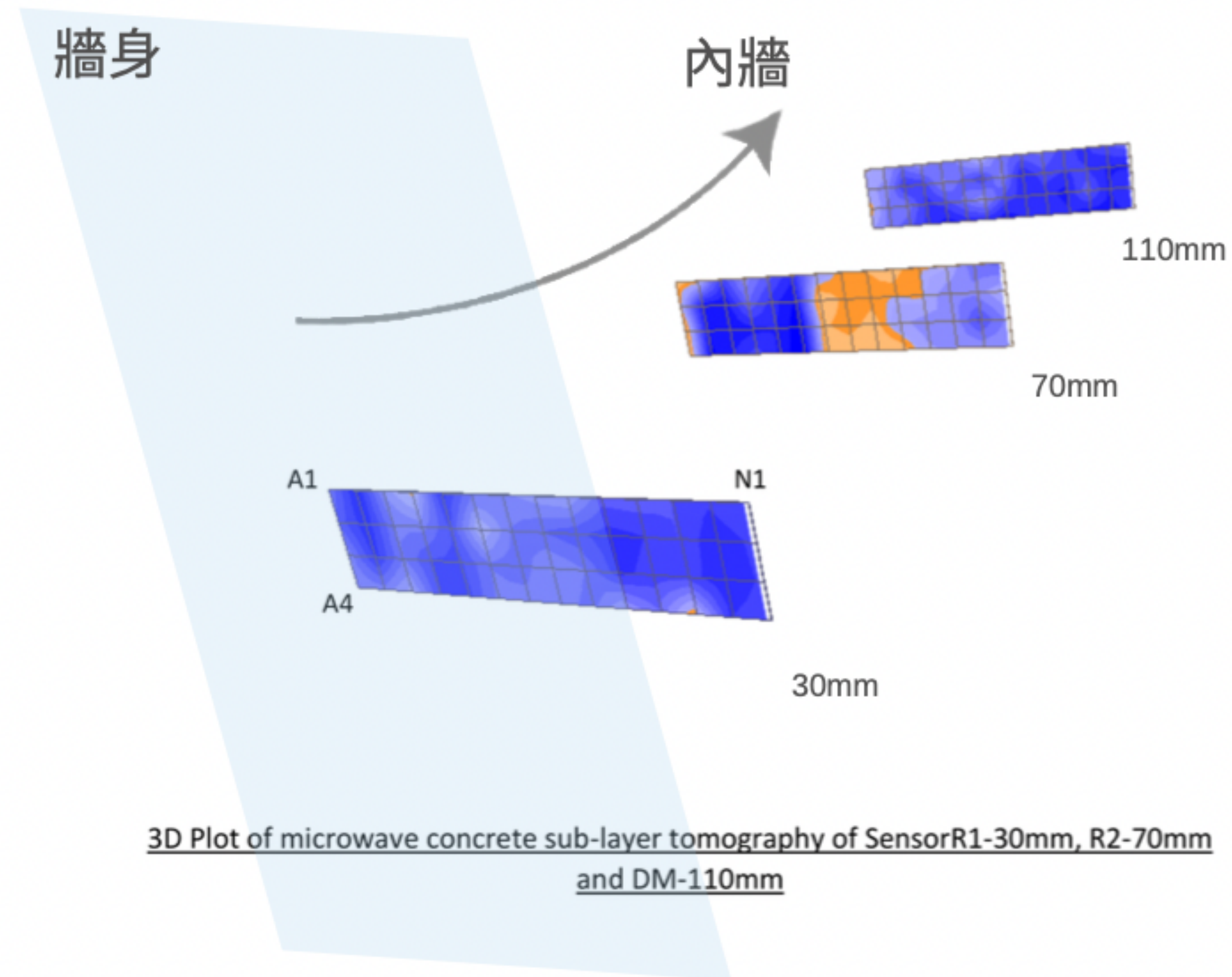
2D Plot of microwave concrete sub-layer tomography of Sensor DM 110mm



測試分別使用三種深度探頭：
30mm/ 70mm/ 110mm，
分別量度建築物料結構內部不同深度的濕度。

左圖表格中的藍格
以及2D濕度分佈圖的藍色，
均反映該區塊濕度含量高於標準。

3D濕度分佈圖



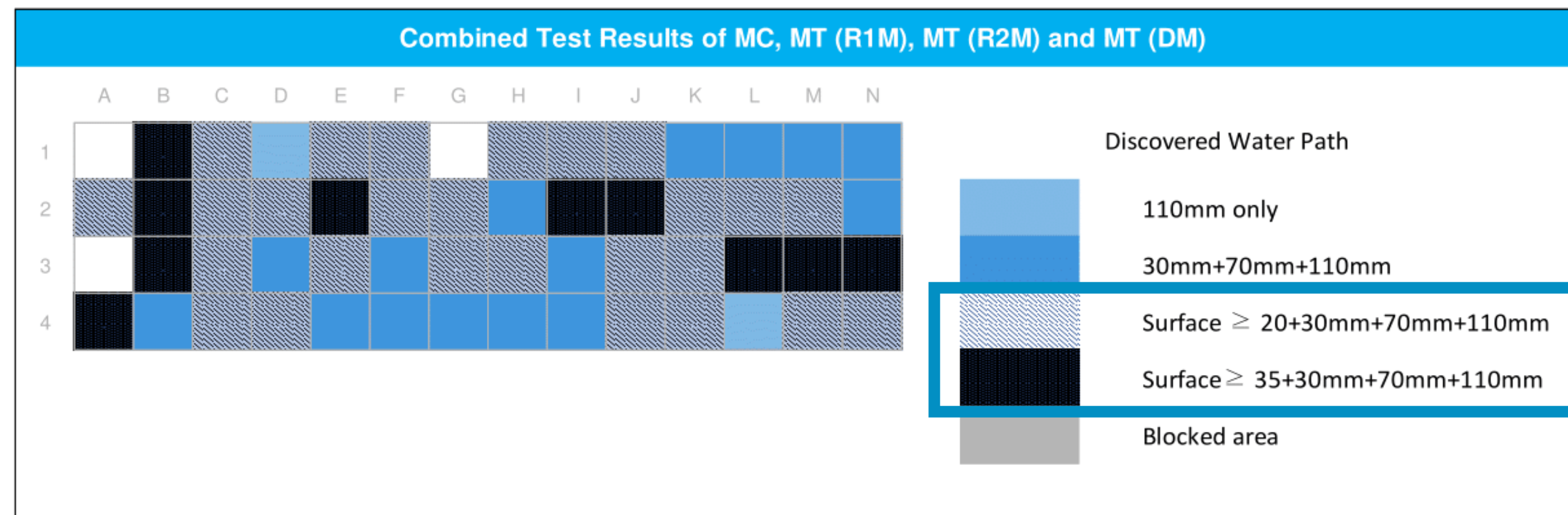
3D濕度分佈圖能更具體地反映結構內部「斷層」出現滲漏的區域及程度，有助日後對症下藥處理問題。

小知識——微波斷層測試原理：

微波探頭所輸出的電場令水分子產生振動，同時吸收及反射能量。微波探頭接收的能量越大，代表當中水分含量越高。



Part 3: Test summary



濕度 >20% (國際標準)
濕度 >35% (滲水辦標準)

Water infiltration was observed at gridline-B and gridline-N to gridline-C and gridline-H.

經過三款深度探頭進行微波斷層測試，
花紋格及黑格均代表該區塊出現明顯水源。
以B欄為例，出現連續三個黑格，代表該處滲漏問題甚為嚴重，必須儘快處理。