



ANNEX F

NOISE



ANNEX F1

CALIBRATION CERTIFICATES FOR NOISE

Certificate of Calibration

Certificate No. ATS25-066-CC003

Customer: **Envirotech Services Company**

Room 712, 7/F, My Loft,
9 Hoi Wing Road, Tuen Mun
N.T., Hong Kong

Unit-under-test (UUT):

Description: Precision Acoustic Calibrator

Manufacturer: Larson Davis

Type No.: CAL 200

Serial No.: 16878

Conditions during calibration:

Temperature: 26°C

Relative Humidity: 59%

Test Specifications: Calibration Check

Date of calibration: 15 July 2025

Test Results: All calibration points are within manufacturer's specification.

Certified by:



Mr. Y. T. LEUNG / Technical Manager
MIOA, MHKIOA, MHKIQEP

Issue Date: 15 July 2025

1. The instrument under test was allowed to stabilize in the laboratory for over 24 hours.

2. Calibration equipment:

Description:	Sound Analyzer	Reference Microphone
Manufacturer:	Brüel & Kjær	Brüel & Kjær
Type No.:	2270	4189
Serial No.:	3001883	2662797
Last Calibration Date:	11 March 2025	11 March 2025
Certificate No.:	AV250047	AV250047

The calibration equipment used for calibration is traceable to National Standards via Standards and Calibration Laboratory, the Government of the HKSAR.

3. The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted, if any, will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. Acoustic Testing Services Limited shall not be liable for any loss or damage resulting from the use of the equipment.

4. Calibration Results

Nominal value dB	Measured value dB	IEC 60942 Class 1 Tolerance Limits dB	Conclusion	Expanded Measurement Uncertainty of Reference Microphone B&K 4189 at 1000 Hz dB
94.00	93.75	± 0.25	PASS	0.20
114.0	113.75	± 0.25	PASS	0.20

All calibration points are within manufacturer's specification.

Certificate of Calibration

for

Description: *Sound Level Meter*
Manufacturer: *RION*
Type No.: *NL-52 (Serial No.: 00175561)*
Microphone: *UC-59 (Serial No.: 16651)*
Preamplifier: *NH-25 (Serial No.:65663)*

Submitted by:

Customer: *Envirotech Services Co.*
Address: *Rm. 712, 7/F., My Loft, 9 Hoi Wing Road,
Tuen Mun, Hong Kong*

Upon receipt for calibration, the instrument was found to be:

- Within (31.5Hz – 8kHz)
 Outside

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 07 January 2026

Date of calibration: 08 January 2026

Date of NEXT calibration: 07 January 2027

Calibrated by: *Voy*
Calibration Technician

Certified by: *Ng Yan Wa*
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: 08 January 2026

Certificate No.: APJ25-115-CC002



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1. Calibration Precaution:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

2. Calibration Conditions:

Air Temperature: 23.2 °C
 Air Pressure: 1006 hPa
 Relative Humidity: 47.2 %

3. Calibration Equipment:

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS

4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB	
30-130	dBA SPL	Fast	94	1000	94.0	±0.4	

Linearity

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB	
30-130	dBA SPL	Fast	94	1000	94.0	Ref	
			104		104.3	±0.3	

Time Weighting

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB	
30-130	dBA SPL	Fast	94	1000	94.0	Ref	
		Slow			94.0	±0.3	

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Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB	
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz			
30-130	dB	SPL	Fast	94	31.5	94.2	±2.0
					63	94.3	±1.5
					125	94.3	±1.5
					250	94.2	±1.4
					500	94.1	±1.4
					1000	94.0	Ref
					2000	93.8	±1.6
					4000	93.3	±1.6
					8000	91.6	+2.1; -3.1

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB	
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz			
30-130	dBA	SPL	Fast	94	31.5	54.8	-39.4±2.0
					63	68.1	-26.2±1.5
					125	78.1	-16.1±1.5
					250	85.5	-8.6±1.4
					500	90.9	-3.2±1.4
					1000	94.0	Ref
					2000	95.1	+1.2±1.6
					4000	94.3	+1.0±1.6
					8000	90.5	-1.1±2.1; -3.1

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB	
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz			
30-130	dBC	SPL	Fast	94	31.5	91.2	-3.0±2.0
					63	93.5	-0.8±1.5
					125	94.1	-0.2±1.5
					250	94.2	-0.0±1.4
					500	94.1	-0.0±1.4
					1000	94.0	Ref
					2000	93.7	-0.2±1.6
					4000	92.5	-0.8±1.6
					8000	88.6	-3.0 +2.1; -3.1



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5. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.05
	125 Hz	± 0.10
	250 Hz	± 0.10
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.



ANNEX F2

MONITORING SCHEDULE FOR NOISE

Tung Chung New Town Extension (East) Noise Monitoring Schedule (April 2026)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Apr	2-Apr	3-Apr	4-Apr
				Noise Monitoring		
5-Apr	6-Apr	7-Apr	8-Apr	9-Apr	10-Apr	11-Apr
			Noise Monitoring			
12-Apr	13-Apr	14-Apr	15-Apr	16-Apr	17-Apr	18-Apr
		Noise Monitoring				
19-Apr	20-Apr	21-Apr	22-Apr	23-Apr	24-Apr	25-Apr
	Noise Monitoring					Noise Monitoring
26-Apr	27-Apr	28-Apr	29-Apr	30-Apr		
				Noise Monitoring		



ANNEX F3

MONITORING RESULTS FOR NOISE

Table F3.1 Data for Noise Monitoring at Station NMS-CA-1A during Normal Working Hours (0700-1900 hours)

Date & Time	L _{eq} (5min)	L ₁₀	L ₉₀	L _{eq} (30min)
2/4/2026 10:35	65.2	67.7	59.8	64.5
2/4/2026 10:40	64.8	66.8	60.3	
2/4/2026 10:45	63.0	65.4	58.2	
2/4/2026 10:50	66.0	68.1	59.9	
2/4/2026 10:55	63.3	66.1	57.9	
2/4/2026 11:00	63.9	67.2	58.4	
8/4/2026 10:43	69.7	70.7	60.9	66.5
8/4/2026 10:48	68.2	68.7	61.2	
8/4/2026 10:53	65.5	68.2	59.8	
8/4/2026 10:58	63.5	66.7	56.7	
8/4/2026 11:03	64.8	66.6	58.0	
8/4/2026 11:08	63.3	66.1	58.5	
14/4/2026 15:54	64.7	67.0	57.6	65.3
14/4/2026 15:59	64.6	67.5	58.3	
14/4/2026 16:04	68.1	70.4	60.6	
14/4/2026 16:09	65.8	68.1	60.6	
14/4/2026 16:14	63.8	65.9	60.0	
14/4/2026 16:19	63.0	65.2	60.0	
20/4/2026 10:16	69.0	71.2	63.3	66.7
20/4/2026 10:21	64.3	66.4	58.5	
20/4/2026 10:26	66.9	69.2	58.3	
20/4/2026 10:31	65.0	67.9	57.7	
20/4/2026 10:36	67.6	68.1	58.0	
20/4/2026 10:41	65.3	67.4	59.0	
25/4/2026 15:02	65.6	68.4	60.8	65.7
25/4/2026 15:07	66.4	69.7	60.3	
25/4/2026 15:12	64.9	68.0	59.1	
25/4/2026 15:17	66.8	69.6	61.5	
25/4/2026 15:22	64.6	67.5	60.1	
25/4/2026 15:27	65.4	68.9	60.7	
30/4/2026 15:00	65.9	68.7	60.8	64.9
30/4/2026 15:05	63.6	65.7	57.7	
30/4/2026 15:10	64.9	68.0	59.3	
30/4/2026 15:15	63.8	67.2	59.2	
30/4/2026 15:20	65.5	67.5	59.3	
30/4/2026 15:25	65.4	68.2	61.1	

Figure F3.1 Graphical Presentation for Noise Monitoring at Station NMS-CA-1A

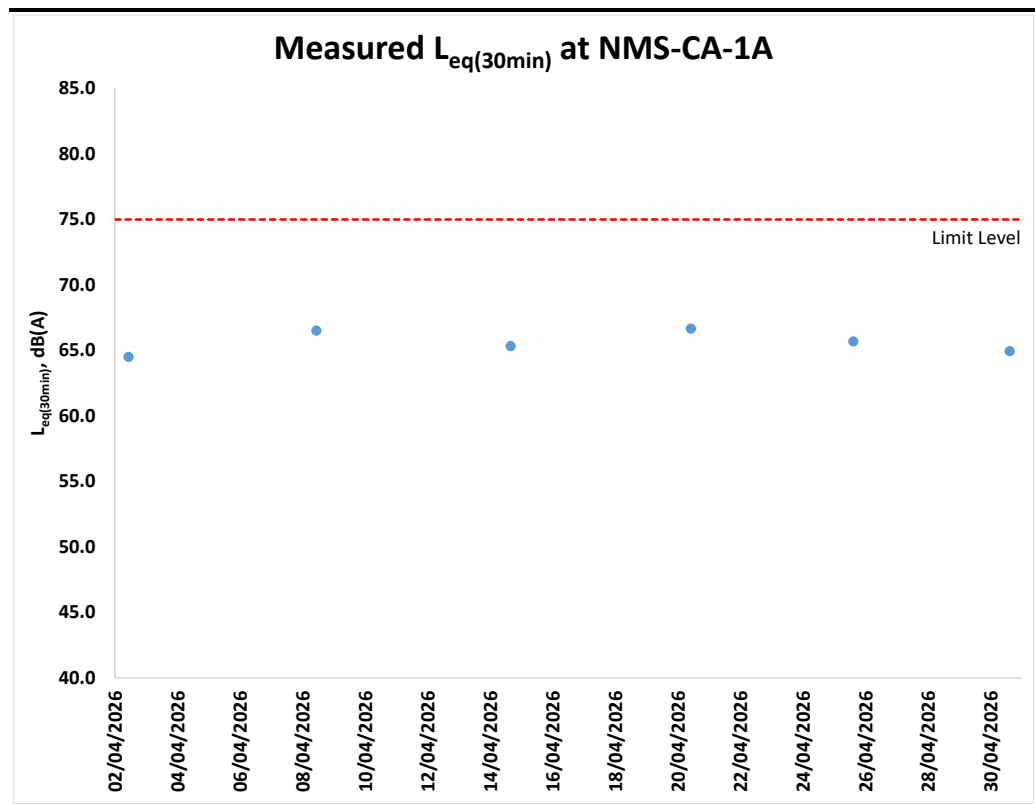
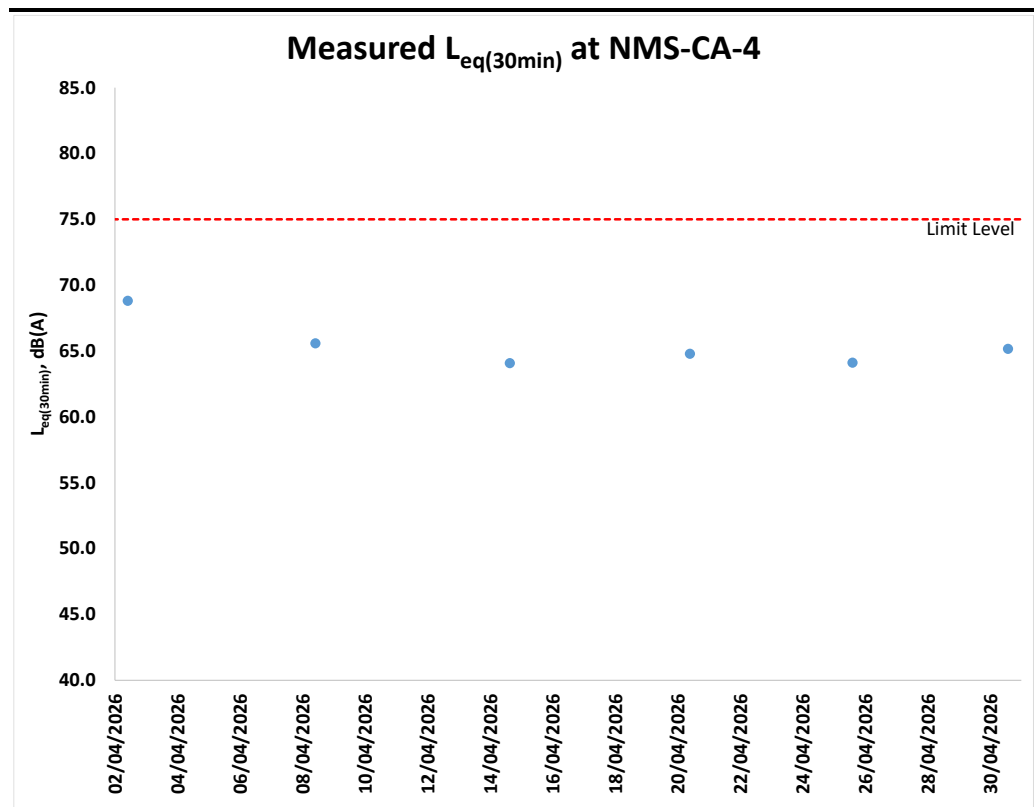


Table F3.2 Data for Noise Monitoring at Station NMS-CA-4 during Normal Working Hours (0700-1900 hours)

Date & Time	L _{eq} (5min)	L ₁₀	L ₉₀	L _{eq} (30min)
2/4/2026 9:59	68.6	70.1	65.3	68.8
2/4/2026 10:04	69.3	72.1	65.0	
2/4/2026 10:09	69.5	71.6	66.5	
2/4/2026 10:14	69.2	71.2	66.4	
2/4/2026 10:19	68.6	70.4	65.5	
2/4/2026 10:24	67.3	69.3	65.3	
8/4/2026 10:05	65.1	67.2	62.9	65.6
8/4/2026 10:10	64.6	66.7	62.6	
8/4/2026 10:15	64.4	66.1	62.6	
8/4/2026 10:20	64.4	66.3	62.3	
8/4/2026 10:25	66.2	68.2	63.1	
8/4/2026 10:30	67.7	69.8	64.4	
14/4/2026 15:18	63.9	66.0	61.8	64.1
14/4/2026 15:23	63.5	65.0	61.9	
14/4/2026 15:28	63.6	65.2	61.7	
14/4/2026 15:33	64.4	66.3	61.7	
14/4/2026 15:38	64.7	66.3	62.2	
14/4/2026 15:43	64.2	65.8	62.1	
20/4/2026 9:37	65.1	66.6	63.1	64.8
20/4/2026 9:42	64.8	66.3	62.7	
20/4/2026 9:47	64.0	65.4	62.3	
20/4/2026 9:52	65.2	67.2	63.2	
20/4/2026 9:57	64.9	66.6	63.0	
20/4/2026 10:02	64.6	66.6	62.6	
25/4/2026 14:22	63.7	65.2	61.9	64.1
25/4/2026 14:27	64.7	66.2	62.7	
25/4/2026 14:32	65.7	67.6	62.9	
25/4/2026 14:37	62.9	64.5	61.1	
25/4/2026 14:42	63.2	65.0	61.3	
25/4/2026 14:47	63.8	65.4	62.1	
30/4/2026 13:47	64.7	66.4	62.5	65.2
30/4/2026 13:52	64.3	65.4	62.2	
30/4/2026 13:57	65.5	66.8	64.0	
30/4/2026 14:02	65.2	66.2	63.9	
30/4/2026 14:07	66.2	67.5	64.0	
30/4/2026 14:12	64.8	66.2	63.1	

Figure F3.2 Graphical Presentation for Noise Monitoring at Station NMS-CA-4





ANNEX F4

EVENT AND ACTION PLAN FOR NOISE

Annex F4 *Event and Action Plan for Construction Noise*

Event	Action			
	ET	IEC	ER	Contractor
Action Level Exceedance	<ol style="list-style-type: none"> 1. Notify IEC, ER and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC and ER; 2. Implement noise mitigation proposals.
Limit Level Exceedance	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.