Appendix D

Calibration Certificate for
Construction Noise Monitoring
Equipment





FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Report no.: 212769CA221660

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CALIBRATION CERTIFICATE OF SOUND LEVEL METER

Client Supplied Information

Client: Fugro Technical Services Ltd.

Project: Calibration Services

Details of Unit Under Test, UUT

Description

Sound Level Meter

Manufacturer

Casella

Model No.

Meter Microphone Preamplifier CEL-63X CE-251 CEL-495 0873599 02374 003916

Serial No. Equipment ID

N/A

Next Calibration Date

13-Jul-2023

Specification Limit

EN 61672-1: 2003 Class 1

Laboratory Information

Details of Reference Equipment -

Description

B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)

Equipment ID. R-108-1 Date Receipt of UUT: 13-Jul-2022 Date of Calibration : 14-Jul-2022

Calibration Location: Calibration Laboratory of FTS

Ambient Temperature : 20±2 °C

Method Used

: By direct comparison

Relative Humidity

<80% R.H.

As Received

As Returned

: Functional / Within specs

: Complies with the specification limits (EN61672-1:2003 Class 1)

Calibration Results:

Parameters		Mean Value (dB)	Specification Limit(dB)		
	4000Hz	1.6	2.6	to	-0.6
A-weigthing	2000Hz	1.3	2.8	to	-0.4
	1000Hz	0.0	1.1	to	-1.1
frequency	500Hz	-3.3	-1.8	to	-4.6
response	250Hz	-8.8	-7.2	to	-10.0
	125Hz	-16.2	-14.6	to	-17.6
	63Hz	-26.2	-24.7	to	-27.7
Differential level	94dB-104dB	0.0	± 0.6		
linearity	104dB-114dB	0.0	± 0.6		

Remarks:

- 1. The equipment used in this calibration is traceable to recognized National Standards.
- 2. For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast
- 3. The mean value is the average of four measurements.
- 4. A general inspection of the item has been carried out and found the item is in good working conditions.
- 5. The result reported on this certificate apply only to the unit under test as received. Fugro has not been responsible for the sampling stage

CA-R-297 (22/07/2009)

Checked by: SUF Date: 14-7-2022 Certified by: FJ Joung Date: 15.7-7022

Leung Kwok Tai (Asşistant Manager)

** End of Report **



FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Report no.: 212736CA221775 Page 1 of 1

CALIBRATION CERTIFICATE OF SOUND CALIBRATOR

Client: Fugro Technical Services Ltd.

Project: Calibration Services

Client Supplied Information

Details of Unit Under Test, UUT

Description

Acoustic Calibrator

Manufacturer

Casella (Model CEL-120/1)

Serial No.

: 5230758

Equipment ID

N/A

Next Calibration Date : 27-Jul-2023

Specification Limit

: EN 60942: 2003 Class 1

Laboratory Information

Details of Calibration Equipment

Description

Reference Sound level meter

Equipment ID. :

R-119-2

Date of UUT receipt: 25-Jul-2022

Date of Calibration :

28-Jul-2022

Ambient Temperature: 20±2 °C

Calibration Location: Calibration Laboratory of FTS

Method Used

: By direct comparison

Relative Humidity

:<80% R.H.

Calibration Results:

- 2	Calibration Results .						
Parameters (Setting of UUT)		Mean Value (error of measurement)	Specification Limit(dB)				
	94dB	-0.2 dB	±0.4dB				
Γ	114dB	0.2 dB	±0.4dB				

Remarks:

- 1. The equipment used in this calibration is traceable to recognized National Standards.
- 2. The mean value is the average of four measurements.
- 3. A general inspection of the item has been carried out and found the item is in good working conditions. The values given in this Calibration Certificate only relate to the unit-under-test and the values measured at the time of the test. Any uncertainties will not include allowances for the environmental changes, variation and shock during transportation, or the capability of any other laboratory to repeat the

____ Date: /- \int - 2022 Certified by: \(\frac{but Joung}{Loung Monager} \) Date: \(\frac{5}{2} - \frac{1}{5} - \frac{5}{20} \)

Leung Wook Tai (Assistant Manager) Checked by : MIA CA-R-297 (22/07/2009)