

# Appendix D

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Calibration Certificate for  
Construction Noise Monitoring  
Equipment

Report no.: 212769CA223056(1)

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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

	Meter	Microphone	Preamplifier
Model No.	CEL-63X	CE-251	CEL-495
Serial No.	4181568	03133	003967

 Equipment ID : N/A  
 Next Calibration Date : 03-Jan-2024  
 Specification Limit : EN 61672-1: 2003 Class 1  
 Next Calibration Date : 03-Jan-2024

### Laboratory Information

#### Details of Reference Equipment -

 Description : B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)  
 Equipment ID. : R-108-1

 Date of Receipt UUT : 30-Dec-2022  
 Date of Calibration : 04-Jan-2023  
 Calibration Location : Calibration Laboratory of FTS  
 Method Used : By direct comparison  
 Ambient Temperature : 20±2 °C  
 Relative Humidity : <80% R.H.

### Calibration Results :

Parameters	Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	1.5
	2000Hz	1.4
	1000Hz	0.2
	500Hz	-3.3
	250Hz	-8.6
	125Hz	-16.0
	63Hz	-26.1
Differential level linearity	94dB-104dB	0.0
	104dB-114dB	0.0

### Remarks :

- The equipment used in this calibration is traceable to recognized National Standards.
- The mean value is the average of four measurements.
- For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast
- The UUT does comply with EN 61672-1: 2003 Class 1 sound level meter for the above measurement.
- The values given in this Calibration Certificate only relate to unit under test and the values measured at the time of the test. Any uncertainties will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling or the capability of any other laboratory to repeat the measurement.

 Checked by : [Signature] Date : 11-1-2023 Certified by : [Signature] Date : 11-1-2023  
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

\*\* End of Report \*\*

Report no.: 212769CA233154(1)

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**CALIBRATION CERTIFICATE OF SOUND CALIBRATOR****Client Supplied Information**

Client : Materialab Consultants Ltd.

Project : Calibration Services

Details of Unit Under Test, UUT -

Description : Sound Calibrator  
Manufacturer : Casella (Model CEL-120/1)  
Serial No. : 2092809  
Equipment ID : N/A

Next Calibration Date : 29-May-2024

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 Receipt UUT : 17-May-2023

Date of Calibration : 30-May-2023

Calibration Location : Calibration Laboratory of FTS Ambient Temperature : 20±2 °C


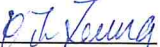
Method Used : By direct comparison Relative Humidity : &lt;80% R.H.

**Calibration Results :**

Parameters (Setting of UUT)	Mean Value (error of measurement)	Specification Limit(dB)
94dB	-0.1 dB	±0.4dB
114dB	-0.2 dB	

**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. The equipment under test does comply with the specification limit.
4. 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 quoted will not include allowances for the environmental changes, variation and shock during transportation, or the capability of any other laboratory to repeat the measurement.

Checked by :  Date : 6-6-2023 Certified by :  Date : 8-6-2023

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

Leung Kwok Tai (Assistant Manager)

\*\* End of Report \*\*