

Certificate of Calibration - Wind Monitoring Station

Description: Yau Lai Estate, Bik Lai House

Manufacturer: <u>Davis Instruments</u>

Model No.: <u>Davis7440</u>

Serial No.: MC01010A44

Equipment No.: SA-03-04

Date of Calibration 17-Aug-2025

Next Due Date 17-Feb-2026

1. Performance check of Wind Speed

| Wind Sp | peed, m/s | Difference D (m/s) |
|-------------------------|-----------------------|--------------------|
| Wind Speed Reading (V1) | Anemometer Value (V2) | D = V1 - V2 |
| 0.0 | 0.0 | 0.0 |
| 1.5 | 1.5 | 0.0 |
| 2.5 | 2.4 | 0.1 |
| 4.0 | 3.9 | 0.1 |

2. Performance check of Wind Direction

| Wind Di | rection (°) | Difference D (°) |
|-----------------------------|---------------------------|------------------|
| Wind Direction Reading (W1) | Marine Compass Value (W2) | D = W1 - W2 |
| 0 | 0 | 0.0 |
| 90 | 90 | 0.0 |
| 180 | 180 | 0.0 |
| 270 | 270 | 0.0 |

Test Specification:

- 1. Performance Wind Speed Test The wind meter was on-site calibrated against the anemometer
- 2. Performance Wind Direction Test The wind meter was on-site calibrated against the marine compass at four direction

Calibrated by:

Wong Shing Kwai

Approved by:

Henry Leung





RECALIBRATION DUE DATE:

January 7, 2026

Certificate of Calibration

Calibration Certification Information

Cal. Date: January 7, 2025 Rootsmeter S/N: 438320 Ta: 293 °K

Operator: Jim Tisch Pa: 759.0 mm Hg

Calibration Model #: TE-5025A Calibrator S/N: 3864

| Run | Vol. Init (m3) | Vol. Final (m3) | ΔVol. (m3) | ΔTime (min) | ΔP (mm Hg) | ΔH (in H2O) |
|-----|-------------------|--------------------|---------------|----------------|---------------|----------------|
| 1 | 1 | 2 | 1 | 1.4590 | 3.2 | 2.00 |
| 2 | 3 | 4 | 1 | 1.0360 | 6.4 | 4.00 |
| 3 | 5 | 6 | 1 | 0.9160 | 8.0 | 5.00 |
| 4 | 7 | 8 | 1 | 0.8800 | 8.8 | 5.50 |
| 5 | 9 | 10 | 1 | 0.7270 | 12.7 | 8.00 |

| | | Data Tabula | tion | | |
|--------|----------|---|--------|----------|------------|
| Vstd | Qstd | $\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$ | | Qa | √∆H(Ta/Pa) |
| (m3) | (x-axis) | (y-axis) | Va | (x-axis) | (y-axis) |
| 1.0114 | 0.6932 | 1.4252 | 0.9958 | 0.6825 | 0.8787 |
| 1.0071 | 0.9721 | 2.0156 | 0.9916 | 0.9571 | 1.2427 |
| 1.0050 | 1.0971 | 2.2535 | 0.9895 | 1.0802 | 1.3893 |
| 1.0039 | 1.1408 | 2.3635 | 0.9884 | 1.1232 | 1.4572 |
| 0.9987 | 1.3737 | 2.8505 | 0.9833 | 1.3525 | 1.7574 |
| | m= | 2.08969 | | m= | 1.30853 |
| QSTD | b= | -0.02374 | QA | b= | -0.01464 |
| | r= | 0.99985 | | r= | 0.99985 |

| | Calculatio | ns | | | |
|--|--|-----|--|--|--|
| Vstd= | ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta) | Va= | ΔVol((Pa-ΔP)/Pa) | | |
| Qstd= | Vstd/∆Time | Qa= | Va/ΔTime | | |
| For subsequent flow rate calculations: | | | | | |
| Qstd= | $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$ | Qa= | $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$ | | |

| | Standard Conditions | |
|---------------|-------------------------------|---|
| Tstd: | 298.15 °K | |
| Pstd: | 760 mm Hg | |
| | Key | |
| ΔH: calibrate | or manometer reading (in H2O) | |
| ΔP: rootsme | ter manometer reading (mm Hg |) |
| Ta: actual ab | osolute temperature (°K) | |
| Pa: actual ba | arometric pressure (mm Hg) | |
| b: intercept | | |
| m: slope | | |

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

FAX: (513)467-9009

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA16034/05/0055

| Project No. | AM1 - Tin Hau | Temple | | | | | |
|--------------------------|---|-----------------|--------------------------------|------------------------|----------------------------------|---------------|--|
| Date: | 13-A | ug-25 | Next Due Date: | 13- | Oct-25 | Operator: | SK |
| Equipment No.: | A-0 | 1-05 | | | S2310 | | 10599 |
| | | | | | | | |
| | | | Ambient C | ondition | | | |
| Temperatur | re, Ta (K) | 303.1 | Pressure, Pa | (mmHg) | | 754.3 | |
| | | Or | ifice Transfer Star | ndard Informa | ntion | | |
| Serial | l No. | 3864 | Slope, mc | 0.05914 | Intercept | t, bc | -0.02377 |
| Last Calibra | ation Date: | 7-Jan-25 | r | nc x Qstd + bo | $c = [\Delta H \times (Pa/760)]$ |) x (298/Ta)] | 1/2 |
| Next Calibra | ation Date: | 7-Jan-26 | | | (Pa/760) x (298/7 | | |
| | | | | | | | |
| | <u> </u> | | Calibration of | TSP Sampler | | TELO | |
| Calibration | ΔH (orifice), | | rfice | Oatd (CEM) | AW (IIVC) : | HVS | 760) ** (200/T-)1 ^{1/2} |
| Point | in. of water | [ΔH x (Pa/76 | 50) x (298/Ta)] ^{1/2} | Qstd (CFM) X - axis | Δ W (HVS), in. of water | | 760) x (298/Ta)] ^{1/2} Y-axis |
| 1 | 13.0 | | 3.56 | 60.63 | 7.8 | | 2.76 |
| 2 | 10.0 | | 3.12 | 53.22 | 5.8 | | 2.38 |
| 3 | 7.0 | | 2.61 | 44.59 | 3.8 | | 1.93 |
| 4 | 5.0 | | 2.21 | 37.75 | 2.5 | | 1.56 |
| 5 | 2.6 | | 1.59 | 27.33 | 1.3 | | 1.13 |
| Slope , mw = Correlation | | 0 | .9988 | intercept, bw | -0.267 | 75 | |
| | | | Set Point Ca | lculation | | | |
| From the Regres | eld Calibration C sion Equation, the | mw x (| | | , - | | |
| Remarks: | et rome, w = (m | w x Qsiu + ow) | \(\lambda(\)\(\)\(\)\(\) | 147 270) | 3.37 | | |
| Conducted by: | Wong Sh | ing Kwai | Signature: | <i>(</i> 2) | <u></u> | Date: | 13-Aug-25 |
| Checked by: | Henry | Leung | Signature: | -lem | y day | Date: | 13-Aug-25 |

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA16034/08/0055

| Project No. | AM2 - Sai Tso V | Van Recreation | Ground | | | | |
|--|------------------------------------|------------------|-----------------------------------|--------------------------|--|------------|--|
| Date: | 13-Aı | ıg-25 | Next Due Date: | 13- | Oct-25 | Operator: | SK |
| Equipment No.: | A-01 | 1-08 | Model No.: | GS | S2310 | Serial No. | 1287 |
| | | | Ambient C | Condition | | | |
| Temperatur | re, Ta (K) | 303.1 | Pressure, Pa | | | 754.3 | |
| | | | | | | | |
| Serial | No | 3864 | Slope, mc | ndard Informa 0.05914 | Ation Intercept | t he | -0.02377 |
| Last Calibra | | 7-Jan-25 | | | $c = [\Delta H \times (Pa/760]]$ | | |
| Next Calibra | | 7-Jan-26 | | | $(Pa/760) \times (298/7)$ | | |
| | | • | • | | | /1 / | |
| | | | Calibration of | TSP Sampler | | | |
| Calibration | | Oı | fice | _ | | HVS | |
| Point | ΔH (orifice), in. of water | [ΔH x (Pa/76 | 50) x (298/Ta)] ^{1/2} | Qstd (CFM) X - axis | ΔW (HVS), in. of water | | 50) x (298/Ta)] ^{1/2} '-axis |
| 1 | 13.5 | | 3.63 | 61.77 | 8.4 | | 2.86 |
| 2 | 10.5 | | 3.20 | 54.53 | 6.5 | | 2.52 |
| 3 | 7.8 | | 2.76 | 47.05 | 4.3 | | 2.05 |
| 4 | 5.2 | | 2.25 | 38.49 | 2.5 | | 1.56 |
| 5 | 3.5 | | 1.85 | 31.65 | 1.4 | | 1.17 |
| Slope, mw = Correlation of *If Correlation C | coefficient* = | | .9993 | - - | -0.628 | | |
| | | | Set Point C | alculation | | | |
| From the TSP Fig From the Regress | | e "Y" value acco | | z (Pa/760) v (29 | 98/Ta)1 ^{1/2} | | |
| Therefore, Se | t Point; W = (m | | ² x (760 / Pa) x (' | | | | |
| Remarks: | | | | | | | |
| Checked by: | | | Signature: | 1 0 | X. X | Date: | 13-Aug-25 |
| Checked by: | Henry | Leung | Signature: | Tem | 7000/ | Date: | 13-Aug-25 |

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA16034/03/0055

| Project No. | AM3 - Yau Lai | Estate, Bik Lai | House | | | <u>-</u> | |
|------------------------|--|----------------------|--------------------------------|------------------------|--|---------------------------------------|-------------------------------------|
| Date: | 13-A | ug-25 | Next Due Date: | 13- | Oct-25 | Operator: | SK |
| Equipment No.: | A-0 | 01-03 | Model No.: | GS | S2310 | Serial No. | 10379 |
| | | | Ambient C | Condition | | | |
| Temperatur | re, Ta (K) | 303.1 | Pressure, Pa | | | 754.3 | |
| | | | | | | | |
| Caria1 | N. | | rifice Transfer Sta | 1 | I | . h.a | 0.02277 |
| Serial Last Calibra | | 3864 7-Jan-25 | Slope, mc | 0.05914 | Intercept $c = [\Delta H \times (Pa/760)]$ | | -0.02377 |
| Next Calibra | The state of the s | 7-Jan-25 7-Jan-26 | | | $(Pa/760) \times (298/7)$ | | |
| ricat Canon | ation Date. | | | Q514 ([211 A | (1 u/ 100) A (200) | (((((((((((((((((((| |
| | | | Calibration of | TSP Sampler | | | |
| Calibration | | 0 | rfice | | | HVS | |
| Point | ΔH (orifice), in. of water | [ΔH x (Pa/7 | 60) x (298/Ta)] ^{1/2} | Qstd (CFM) X - axis | ΔW (HVS), in. of water | | 0) x (298/Ta)] ^{1/2} -axis |
| 1 | 13.2 | | 3.59 | 61.09 | 8.5 | 2 | 2.88 |
| 2 | 10.3 | | 3.17 | 54.01 | 6.2 | 2 | 2.46 |
| 3 | 7.4 | | 2.69 | 45.84 | 4.0 | 1 | .98 |
| 5 | 5.5 3.3 | | 2.32 1.79 | 39.57 30.74 | 2.5 1.4 | | .17 |
| | 0.0574 coefficient* = Coefficient < 0.99 | | 0.9981 | Intercept, bw = - | -0.644 | 15 | |
| | | | Set Point C | alculation | | | |
| From the Regres | eld Calibration (sion Equation, the sion Equation, the sion Equation) the sion of the sion | ne "Y" value acc | | ` | 98/Ta)] ^{1/2} | | |
| Remarks: Conducted by: | Wong Sl | ning Kwai | Signature: | | <u></u> | Date: | 13-Aug-25 |
| Checked by: | Henry | Leung | Signature: | -lem | y Xon | Date: | 13-Aug-25 |

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA20003/55/033 CKL 2 - Flat 103 Cha Kwo Ling Village Project No. 4-Jul-25 Next Due Date: 4-Sep-25 Date: Operator: SK Equipment No.: A-01-55 Model No.: TE 5170 Serial No. 1956 **Ambient Condition** Temperature, Ta (K) 303.8 Pressure, Pa (mmHg) 754.1 **Orifice Transfer Standard Information** 0.05914 Intercept, bc 3864 Slope, mc -0.02377 Serial No. mc x Qstd + bc = $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ 7-Jan-25 Last Calibration Date: Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ Next Calibration Date: 7-Jan-26 **Calibration of TSP Sampler** Orfice Calibration $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ ΔH (orifice), Ostd (CFM) ΔW (HVS), in. $[\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}$ Point in. of water X - axis of water Y-axis 2.98 1 13.4 3.61 61.47 9.1 11.2 7.2 2 3.30 56.23 2.65 9.3 3.01 51.27 2.31 4 5.1 2.23 38.07 2.6 1.59 5 3.7 2.0 1.90 32.49 1.40 By Linear Regression of Y on X Slope , mw = 0.0551 Intercept, bw = -0.4575 Correlation coefficient* = 0.9969 *If Correlation Coefficient < 0.990, check and recalibrate. **Set Point Calculation** From the TSP Field Calibration Curve, take Qstd = 43 CFM From the Regression Equation, the "Y" value according to mw x Qstd + bw = $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Therefore, Set Point; W = $(\text{mw x Qstd} + \text{bw})^2 \times (760 / \text{Pa}) \times (\text{Ta} / 298) =$ 3.76 Remarks: Conducted by: Wong Shing Kwai Checked by: Henry Leung

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA20003/55/034 CKL 2 - Flat 103 Cha Kwo Ling Village Project No. 4-Sep-25 Next Due Date: 4-Nov-25 Date: Operator: SK Equipment No.: A-01-55 Model No.: TE 5170 Serial No. 1956 **Ambient Condition** 303.9 755.9 Temperature, Ta (K) Pressure, Pa (mmHg) **Orifice Transfer Standard Information** 0.05914 Intercept, bc 3864 Slope, mc -0.02377 Serial No. mc x Qstd + bc = $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ 7-Jan-25 Last Calibration Date: Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ Next Calibration Date: 7-Jan-26 **Calibration of TSP Sampler** Orfice Calibration $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ ΔH (orifice), Ostd (CFM) ΔW (HVS), in. $[\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}$ Point in. of water X - axis of water Y-axis 3.00 1 13.3 3.60 61.30 9.2 11.1 3.29 7.3 2 56.04 2.67 9.2 3.00 51.05 2.29 4 5.0 2.21 37.74 2.5 1.56 5 3.6 32.09 2.1 1.43 1.87 By Linear Regression of Y on X Slope, mw = 0.0549Intercept, bw = -0.4242 Correlation coefficient* = *If Correlation Coefficient < 0.990, check and recalibrate. **Set Point Calculation** From the TSP Field Calibration Curve, take Qstd = 43 CFM From the Regression Equation, the "Y" value according to mw x Qstd + bw = $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 3.84 Remarks: Conducted by: Wong Shing Kwai Checked by: Henry Leung



Certificate of Calibration

| Description: | Digital Dust Indicator | | Date of Calibration | 30-Jul-25 |
|---|--|-------------------------------|--------------------------------|-------------------------|
| Manufacturer: | Sibata Scientific Technology LTD. | | Validity of Calibration Record | 30-Sep-25 |
| Model No.: | LD-5R | | | |
| Serial No.: | 972777 | | | |
| Equipment No.: | SA-01-06 | Sensitivity _ | 0.001 mg/m3 | |
| High Volume Sa | mpler No.: <u>A-01-03</u> E | Before Sensitiv | rity Adjustment 645 | |
| Tisch Calibration | 1 Orifice No.: 3864 | After Sensitivit | y Adjustment 645 | |
| | Calib | ration of 1 h | ·TSP | |
| Calibration | Laser Dust Monitor | | HVS | |
| Point | Mass Concentration (μg/m ³ X-axis | 3) | Mass concentratio Y-axis | n (μg/m ³) |
| 1 | 76.0 | | 135.0 | |
| 2 | 56.0 | | 115.0 | |
| 3 | 52.0 | | 108.0 | |
| Average | 61.3 | | 119.3 | |
| _ | ession of Y on X | Interc | ept, bw = 52.8 | 065 |
| | | | | |
| | | Correlation Fa | actor | |
| Particaulate Con | | . 1 | 119.3 | |
| Particaulate Con | Set C centration by High Volume Sampler (μg centration by Dust Meter (μg/m³) | . 1 | 119.3 61.3 | |
| Particaulate Con Measureing time | Set Contration by High Volume Sampler (μg centration by Dust Meter (μg/m³) | . 1 | 119.3 | |
| Particaulate Con Measureing time Set Correlation F | Set Contration by High Volume Sampler (μg centration by Dust Meter (μg/m³) | y/m ³) | 119.3 61.3 | |
| Particaulate Con Measureing time Set Correlation F SCF = [K=High | Set Contration by High Volume Sampler (μg centration by Dust Meter (μg/m³) (, (min) Factor , SCF | y/m ³) | 61.3 60.0 | |
| Particaulate Con Measureing time Set Correlation F SCF = [K=High In-house method The Dust Monito | Set Contration by High Volume Sampler (μg centration by Dust Meter (μg/m³) (min) Factor , SCF Nolume Sampler / Dust Meter, (μg/m²) in according to the instruction manual: or was compared with a calibrated High | n3)] | 119.3 61.3 60.0 | enerate the Correlation |
| Particaulate Con Measureing time Set Correlation F SCF = [K=High In-house method The Dust Monito Factor (CF) betw | Set Contration by High Volume Sampler (µgontration by Dust Meter (µg/m³) (min) Factor, SCF (Nolume Sampler / Dust Meter, (µg/m²) (in according to the instruction manual: | w/m³) m3)] Volume Sampler. | 119.3 61.3 60.0 1.9 | enerate the Correlation |
| Particaulate Con Measureing time Set Correlation F SCF = [K=High In-house method The Dust Monito Factor (CF) betw Those filter pap Calibrated by: | Set Contration by High Volume Sampler (µgcentration by Dust Meter (µg/m³) (min) Factor , SCF Nolume Sampler / Dust Meter, (µg/n²) in according to the instruction manual: or was compared with a calibrated High veen the Dust Monitor and High Volume wers are weighted by HOKLAS labora | w/m³) m3)] Volume Sampler. | 119.3 61.3 60.0 1.9 | my Xvorg |



Certificate of Calibration

| Description: | Digital Dust Indicator | | Date of | of Calibration | 30-Jul-25 |
|--|---|--------------------------------------|---|-------------------------------------|---------------------|
| Manufacturer: | Sibata Scientific Technology LTD. | _ | Validity of Calibr | ation Record | 30-Sep-25 |
| Model No.: | LD-5R | | | | |
| Serial No.: | 972778 | | | | |
| Equipment No.: | SA-01-07 | Sensitivity | 0.001 mg/m3 | | |
| High Volume Sa | mpler No.: <u>A-01-03</u> | Before Sensiti | vity Adjustment | 735 CPM | |
| Tisch Calibration | n Orifice No.: 3864 | After Sensitivi | ty Adjustment | 735 CPM | |
| | Cai | libration of 1 h | r TSP | | |
| Calibration | Laser Dust Monitor | | | HVS | |
| Point | Mass Concentration (μg/: X-axis | m3) | Mas | s concentration (μ Y-axis | g/m^3) |
| 1 | 75.0 | | | 141.0 | |
| 2 | 63.0 | | | 118.0 | |
| 3 | 52.0 | | | 105.0 | |
| Average | 63.3 | | | 121.3 | |
| - | ression of Y on X | Interd | cept, bw = | 21.8665 | |
| | Se | t Correlation F | actor | | |
| | centration by High Volume Sampler (| $\mu g/m^3$ | | 121.3 | |
| | centration by Dust Meter (µg/m³) | | | 63.3 | |
| Measureing time | (min) | | | | |
| Vat ('orralation | | | | 60.0 | |
| | Factor , SCF h Volume Sampler / Dust Meter, (με | g/m3)] | 1.9 | 60.0 | |
| SCF = [K=Hig | Factor, SCF | | 1.9 | 60.0 | |
| SCF = [K=Hig In-house method The Dust Monito | Factor, SCF h Volume Sampler / Dust Meter, (µg l in according to the instruction manual or was compared with a calibrated Hig | ıl: gh Volume Samj | | | ate the Correlation |
| SCF = [K=High In-house method The Dust Monito Factor (CF) betw | Factor, SCF h Volume Sampler / Dust Meter, (µg | ıl: gh Volume Samj me Sampler. | oler and The result | | ate the Correlation |
| In-house method The Dust Monite Factor (CF) betw Those filter pap | Factor, SCF h Volume Sampler / Dust Meter, (µµ l in according to the instruction manual or was compared with a calibrated High ween the Dust Monitor and High Volum bers are weighted by HOKLAS laborated | ıl: gh Volume Samj me Sampler. | oler and The result Litimed) Approved by: | | y Over |

Digital Dust Indicator



Date of Calibration 30-Jul-25

Certificate of Calibration

Description:

| Tisch Calibration Orifice No.: 3864 After Sensitivity Adjustment 739 Calibration of 1 hr TSP Calibration Point Mass Concentration (μg/m3) Mass concentration (μg/m3) | CPM |
|--|---|
| Equipment No.: SA-01-09 Sensitivity 0.001 mg/m3 High Volume Sampler No.: A-01-03 Before Sensitivity Adjustment 739 Tisch Calibration Orifice No.: 3864 After Sensitivity Adjustment 739 Calibration of 1 hr TSP Calibration Point Mass Concentration (μg/m3) Mass concentration (μg/m3) 1 76.0 76.0 2 62.0 62.0 3 56.0 56.0 | HVS ntration (μg/m³) 7-axis 134.0 113.0 |
| High Volume Sampler No.: A-01-03 Before Sensitivity Adjustment 739 Tisch Calibration Orifice No.: 3864 After Sensitivity Adjustment 739 Calibration of 1 hr TSP Calibration Point Mass Concentration (μg/m3) Mass concentration (μg/m3) 1 76.0 2 62.0 3 56.0 | HVS ntration (μg/m³) 7-axis 134.0 113.0 |
| Tisch Calibration Orifice No.: 3864 After Sensitivity Adjustment 739 Calibration of 1 hr TSP Calibration Point Mass Concentration (μg/m3) Mass concentration (μg/m3) 1 76.0 2 62.0 3 56.0 3 56.0 3 56.0 3 56.0 3 56.0 3 56.0 3 56.0 3 3 56.0 3 < | HVS ntration (μg/m³) 7-axis 134.0 113.0 |
| | HVS ntration (μg/m³) 7-axis 134.0 113.0 |
| Calibration Point Laser Dust Monitor Mass Concentration (μg/m3) Mass concentration 1 76.0 2 62.0 3 56.0 | ntration (μg/m³) 7-axis 134.0 113.0 |
| Calibration Point Mass Concentration (μg/m3) Mass concentration (μg/m3) 1 76.0 2 62.0 3 56.0 | ntration (μg/m³) 7-axis 134.0 113.0 |
| Point Mass Concentration (μg/m3) Mass concentration (μg/m3) 1 76.0 2 62.0 3 56.0 | 7-axis 134.0 113.0 100.0 |
| 1 76.0 2 62.0 3 56.0 | 134.0 113.0 100.0 |
| 2 62.0 3 56.0 | 113.0 |
| | 100.0 |
| Average 64.7 | 15.7 |
| | |
| By Linear Regression of Y on X Slope , mw = 1.6646 Intercept, bw = Correlation coefficient* = 0.9958 | 8.0253 |
| Set Correlation Factor | |
| Particaulate Concentration by High Volume Sampler (µg/m³) | 115.7 |
| Particaulate Concentration by Dust Meter (μg/m³) | 64.7 |
| Measureing time, (min) | 60.0 |
| Set Correlation Factor , SCF SCF = [K=High Volume Sampler / Dust Meter, (µg/m3)] | |
| In-house method in according to the instruction manual: | |
| The Dust Monitor was compared with a calibrated High Volume Sampler and The result was us Factor (CF) between the Dust Monitor and High Volume Sampler. Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed) | d to generate the Correlation |
| Calibrated by: Approved by: Technical Officer (Wong Shing Kwai) Project Man | leny (Xoy) ger (Henry Leung) |

Digital Dust Indicator



30-Jul-25

Date of Calibration

Certificate of Calibration

Description:

| - | | | | | | |
|---|------------------|--|-------------------|------------------------|---------------------|----------------------|
| Manufacturer: | Sibata Scient | ific Technology LTD. | _ | Validity of Calib | ration Record | 30-Sep-25 |
| Model No.: | LD-5R | | | | | |
| Serial No.: | 972781 | | | | | |
| Equipment No.: | SA-01-10 | | Sensitivity | 0.001 mg/m3 | _ | |
| High Volume Sa | mpler No.: | A-01-03 | Before Sensitiv | rity Adjustment | 734 CPM | |
| Tisch Calibration | n Orifice No.: | 3864 | After Sensitivit | y Adjustment | 734 CPM | |
| | | Ca | libration of 1 hr | TSP | | |
| Calibration | | Laser Dust Monitor | | | HVS | |
| Point | M | fass Concentration (μg/ | m3) | Mas | ss concentration (µ | ug/m³) |
| | | X-axis | | | Y-axis | |
| 1 | | 75.0 | | | 132.0 | |
| 2 | | 66.0 | | | 115.0 | |
| 3 | | 55.0 | | | 101.0 | |
| Average | | 65.3 | | 116.0 | | |
| Slope , mw = Correlation co | | 99 0.9936 | | ept, bw = | 15.3953 | |
| | | Se | t Correlation Fa | ictor | | |
| Particaulate Concentration by High Volume Sampler (µg/m³) | | | | 116.0 | | |
| Particaulate Con | centration by I | Dust Meter (μg/m ³) | | 65.3 | | |
| Measureing time | e, (min) | | | 60.0 | | |
| Set Correlation I | Factor, SCF | | | | | |
| SCF = [K=High Volume Sampler / Dust Meter, (µg/m3)] 1.8 | | | | | | |
| In-house method | l in according t | to the instruction manua | al: | | | |
| Factor (CF) betw | veen the Dust I | ed with a calibrated Hig Monitor and High Volu Ited by HOKLAS labo | me Sampler. | | was used to gener | rate the Correlation |
| Calibrated by: | | ong Shing Kwai) | _ | Approved by: Projec | Ct Manager (Henry | Leung) |

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NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Report No. : 00964 | Issue Date : 30 Dec 2024

Application No. : HP00820

Certificate of Calibration

Applicant : Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Sound Level Calibrator.

Equipment No.: : N-16-01

Manufacturer: : Hangzhou Aihua Instruments Co., Ltd.

Other information : Model No.

| Model No. | AWA6021A |
|------------|----------|
| Serial No. | 1023253 |

Date Received : 27 Dec 2024

Test Period : 30 Dec 2024 to 30 Dec 2024

Test Requested : Performance checking for Sound Level Calibrator

Test Method : The Sound Level Meter and Calibrator has been calibrated in accordance with

the documented procedures and using standard and instrument which are

recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius

Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark : 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

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Report No. : 00964 | Issue Date : 30 Dec 2024

Application No. : HP00820

Certificate of Calibration

Measuring equipment

| Description | Sound Calibrator |
|---------------|------------------|
| Manufacturer | Brüel & Kjær |
| Model No. | TYPE 4231 |
| Serial No. | 2326353 |
| Equipment No. | N-02-01 |

| Description | Sound Meter |
|----------------|-----------------|
| Manufacturer | BSWA Technology |
| Model No. | BSWA 308 |
| Serial No. | 570183 |
| Microphone No. | 570605 |
| Equipment No. | N-12-01 |

Test Result

| Reference value, dB | Indication value, dB | Deviation, dB | Allowed deviation, dB |
|---------------------|----------------------|---------------|-----------------------|
| 94.0 | 94.3 | + 0.3 | ± 0.3 |
| 114.0 | 114.3 | + 0.3 | ± 0.5 |

Note

- : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.

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Report No. : 01015 Issue Date : 04 Feb 2025

Application No. : HP00868

Certificate of Calibration

Applicant : Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Sound Level Calibrator.

Equipment No.: : N-16-02

Manufacturer: : Hangzhou Aihua Instruments Co., Ltd.

Other information : Model No.

Model No. AWA6021A
Serial No. 1023064

Date Received : 28 Jan 2025

Test Period : 03 Feb 2025 to 04 Feb 2025

Test Requested : Performance checking for Sound Level Calibrator

Test Method : The Sound Level Meter and Calibrator has been calibrated in accordance with

the documented procedures and using standard and instrument which are

recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius

Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark : 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Report No. : 01015 Issue Date : 04 Feb 2025

Application No. : HP00868

Certificate of Calibration

Measuring equipment

| Description | Sound Calibrator |
|---------------|------------------|
| Manufacturer | Brüel & Kjær |
| Model No. | TYPE 4231 |
| Serial No. | 2326353 |
| Equipment No. | N-02-01 |

| Description | Sound Meter |
|----------------|-------------|
| Manufacturer | SVANTEK |
| Model No. | SVAN 977 |
| Serial No. | 92677 |
| Microphone No. | 10352 |
| Equipment No. | N-14-01 |

Test Result

| Reference value, dB | Indication value, dB | Deviation, dB | Allowed deviation, dB |
|---------------------|----------------------|---------------|-----------------------|
| 94.0 | 94.2 | + 0.2 | ± 0.3 |
| 114.0 | 114.3 | + 0.3 | ± 0.5 |

Note

- : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.

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Report No. : 00870 Issue Date : 14 Oct 2024

Application No. : HP00731

Certificate of Calibration

Applicant : Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : N-08-12

Manufacturer: : SVANTEK

Other information :

| Model No. | SVAN 957 |
|----------------|----------|
| Serial No. | 23851 |
| Microphone No. | 22391 |

Date Received : 07 Oct 2024

Test Period : 09 Oct 2024 to 09 Oct 2024

Test Requested : Performance checking for Sound Level Meter

Test Method : The Sound Level Calibrator has been calibrated in accordance with the

documented procedures and using standard and instrument which are

recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius

Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark: 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

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Application No. : HP00731

Certificate of Calibration

Measuring equipment

| Description | Sound Calibrator |
|---------------|------------------|
| Manufacturer | Brüel & Kjær |
| Model No. | TYPE 4231 |
| Serial No. | 2326353 |
| Equipment No. | N-02-01 |

Test Result

| Reference value, dB | Indication value, dB | Deviation, dB | Allowed deviation, dB |
|---------------------|----------------------|---------------|-----------------------|
| 94.0 | 94.0 | ± 0.0 | ± 1.5 |
| 114.0 | 114.2 | + 0.2 | ± 1.5 |

Note

- : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.

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Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Application No. : HP00732

Certificate of Calibration

Applicant : Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : N-12-02

Manufacturer: : BSWA Technology

Other information :

| Model No. | BSWA 308 |
|----------------|----------|
| Serial No. | 570187 |
| Microphone No. | 590079 |

Date Received : 07 Oct 2024

Test Period : 09 Oct 2024 to 09 Oct 2024

Test Requested : Performance checking for Sound Level Meter

Test Method : The Sound Level Calibrator has been calibrated in accordance with the

documented procedures and using standard and instrument which are

recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius

Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark: 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

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Application No. : HP00732

Certificate of Calibration

Measuring equipment

| Description | Sound Calibrator |
|---------------|------------------|
| Manufacturer | Brüel & Kjær |
| Model No. | TYPE 4231 |
| Serial No. | 2326353 |
| Equipment No. | N-02-01 |

Test Result :

| Reference value, dB | Indication value, dB | Deviation, dB | Allowed deviation, dB |
|---------------------|----------------------|---------------|-----------------------|
| 94.0 | 93.9 | - 0.1 | ± 1.5 |
| 114.0 | 113.7 | - 0.3 | ± 1.5 |

Note

- : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.

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Report No. : 01074 Issue Date : 19 Mar 2025

Application No. : HP00912

Certificate of Calibration

Applicant : Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : N-12-03

Manufacturer: : BSWA Technology

Other information :

| Model No. | BSWA 308 |
|----------------|----------|
| Serial No. | 570188 |
| Microphone No. | 570608 |

Date Received : 17 Mar 2025

Test Period : 18 Mar 2025 to 18 Mar 2025

Test Requested : Performance checking for Sound Level Meter

Test Method : The Sound Level Calibrator has been calibrated in accordance with the

documented procedures and using standard and instrument which are

recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius

Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark: 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

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Report No. : 01074 Issue Date : 19 Mar 2025

Application No. : HP00912

Certificate of Calibration

Measuring equipment

| Description | Sound Calibrator |
|---------------|------------------|
| Manufacturer | Brüel & Kjær |
| Model No. | TYPE 4231 |
| Serial No. | 2326353 |
| Equipment No. | N-02-01 |

Test Result

| Reference value, dB | Indication value, dB | Deviation, dB | Allowed deviation, dB |
|---------------------|----------------------|---------------|-----------------------|
| 94.0 | 93.9 | - 0.1 | ± 1.5 |
| 114.0 | 114.0 | ± 0.0 | ± 1.5 |

Note

- : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.

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Report No. : 01075 | Issue Date : 19 Mar 2025

Application No. : HP00913

Certificate of Calibration

Applicant : Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : N-12-04

Manufacturer: : BSWA Technology

Other information : Model No

| Model No. | BSWA 308 |
|----------------|----------|
| Serial No. | 580238 |
| Microphone No. | 570605 |

Date Received : 17 Mar 2025

Test Period : 18 Mar 2025 to 18 Mar 2025

Test Requested : Performance checking for Sound Level Meter

Test Method : The Sound Level Calibrator has been calibrated in accordance with the

documented procedures and using standard and instrument which are

recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius

Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark: 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

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Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Report No. : 01075 Issue Date : 19 Mar 2025

Application No. : HP00913

Certificate of Calibration

Measuring equipment

| Description | Sound Calibrator |
|---------------|------------------|
| Manufacturer | Brüel & Kjær |
| Model No. | TYPE 4231 |
| Serial No. | 2326353 |
| Equipment No. | N-02-01 |

Test Result

| Reference value, dB | Indication value, dB | Deviation, dB | Allowed deviation, dB |
|---------------------|----------------------|---------------|-----------------------|
| 94.0 | 94.2 | + 0.2 | ± 1.5 |
| 114.0 | 114.1 | + 0.1 | ± 1.5 |

Note

- : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.