CIN@TECH 🤳

Certificate of Calibration - Wind Monitoring Station

Yau Lai Estate, Bik Lai House
Davis Instruments
Davis7440
<u>MC01010A44</u>
<u>SA-03-04</u>
<u>17-Feb-2025</u>
<u>17-Aug-2025</u>

1. Performance check of Wind Speed

Wind Sp	beed, m/s	Difference D (m/s)
Wind Speed Reading (V1)	Anemometer Value (V2)	D = V1 - V2
0.0	0.0	0.0
1.5	1.4	0.1
2.5	2.4	0.1
4.0	3.8	0.2

2. Performance check of Wind Direction

Wind Di	rection (°)	Difference D (°)
Wind Direction Reading (W1)	Marine Compass Value (W2)	$\mathbf{D} = \mathbf{W1} - \mathbf{W2}$
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



RECALIBRATION

DUE DATE:

January 7, 2026

Certificate of Calibration

			Calibration	Certificati	on Informat	tion		
Cal. Date:	January 7,	2025	Roots	meter S/N:	438320	38320 Ta: 293		
Operator:	Jim Tisch					Pa:	759.0	mm Hg
Calibration	Model #:	TE-5025A	Calil	brator S/N:	3864			-
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔН	
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(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	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$)(<u>Tstd</u>) Ta)		Qa	$\sqrt{\Delta H(Ta/Pa)}$	
	(m3)	(x-axis)	(y-ax	is)	Va -	(x-axis)	(y-axis)	
	1.0114	0.6932	1.425	52	0.9958	0.6825	0.8787	
	1.0071	0.9721	2.0156		0.9916	0.9571	1.2427	
	1.0050	1.0971	2.253	35	0.9895	1.0802	1.3893	
	1.0039	1.1408	2.363	35	0.9884	1.1232	1.4572	
	0.9987	1.3737	2.850		0.9833	1.3525	1.7574	
		m=	2.089			m=	1.30853	
	QSTD	b=	-0.023		QA	b=	-0.01464	
		r=	0.999	85		r=	0.99985	
				Calculatio				
			/Pstd)(Tstd/Ta	a)		ΔVol((Pa-Δl		
	Qstd=	Vstd/∆Time				Va/∆Time		
			For subsequ	ent flow ra	te calculatio	ns:		
	Qstd=	1/m ((√∆H(Pa <u>(Tstd</u> Pstd Ta))-b)	Qa=	1/m ((√∆H	l(Та/Ра))-b)	
		Conditions						
Tstd:	298.15			[RECA	LIBRATION	
Pstd:		mm Hg						4000
ALL calibrat		(ey er reading (i	2 H2O)				nnual recalibratio	
		er reading (in eter reading					Regulations Part 5	-
		perature (°K)	(111111g)				Reference Meth	
		essure (mm	Hg)				ended Particulate	
o: intercept					the	e Atmosphe	re, 9.2.17, page 3	30
•								

Tisch Environmental, Inc. 145 South Miami Avenue Village of Cleves, OH 45002

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File No. MA16034/05/0053

Project No.	AM1 - Tin Hau	1 Temple					
Date:	14-4	Apr-25	Next Due Date:	14-Jun-25	Operator:	SK	
Equipment No.:	ipment No.: A-01-05		Model No.:	GS2310	Serial No.	10599	
			Ambient Condit	ion			
Temperature, Ta (K)		295.6	Pressure, Pa (mm	Hg)	759.7		

Orifice Transfer Standard Information							
Serial No.	3864	Slope, mc	0.05914	Intercept, bc	-0.02377		
Last Calibration Date:	7-Jan-25	1	mc x Qstd + bc = $[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$				
Next Calibration Date:	7-Jan-26	Qstd = { $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc					

Calibration of TSP Sampler									
Calibration		Orfice	HVS						
Point	ΔH (orifice), in. of water	$[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}$ Y-axis				
1	13.2	3.65	62.07	8.5	2.93				
2	10.1	3.19	54.35	6.3	2.52				
3	7.2	2.69	45.95	4.1	2.03				
4	5.0	2.24	38.36	2.7	1.65				
5	2.8	1.68	28.81	1.0	1.00				
By Linear Regression of Y on X Slope , mw =0.0573 Intercept, bw :0.6019 Correlation coefficient* =0.9987									
*If Correlation C	Coefficient < 0.990), check and recalibrate.							
		Set Point C	alculation						
From the TSP Fi	eld Calibration Cu	urve, take Qstd = 43 CFM							
From the Regres	sion Equation, the	"Y" value according to							
$mw x Qstd + bw = [\Delta W x (Pa/760) x (298/Ta)]^{1/2}$ Therefore, Set Point; W = (mw x Qstd + bw) ² x (760 / Pa) x (Ta / 298) =3.43									
Remarks:									
Conducted by:	Wong Shi	ng Kwai Signature:	K	N. Janj	Date: 14-Apr-25				
Checked by:	Henry I	Leung Signature:	-lem	J Xm J	Date: 14-Apr-25				



File No. MA16034/05/0054

Project No.	AM1 - Tin Hau	Temple							
Date:	13-Jun-25		13-Jun-25 Next Du		Next Due Date:	e: 13-Aug-25		Operator: SK	SK
Equipment No.:	A-0	1-05	Model No.:	GS	52310	Serial No.	10599		
			Ambient C	ondition					
Temperatur	re, Ta (K)	300.5	Pressure, Pa			754.4			
		Or	ifice Transfer Star	ndard Informa	ation				
Serial		3864	Slope, mc	0.05914	Intercept		-0.02377		
Last Calibra		7-Jan-25			$c = [\Delta H \times (Pa/760)]$				
Next Calibra	ation Date:	7-Jan-26		$Qstd = \{ \Delta H x $	(Pa/760) x (298/]	$[a)]^{-1} - bc \} / mo$			
		•	Calibration of						
		0	Calibration of T	i SP Sampler		HVS			
Calibration Point	ΔH (orifice), in. of water		50) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water	[ΔW x (Pa/76	0) x (298/Ta)] ^{1/2}		
1	13.1		3.59	61.12	8.4	2			
2	10.2		3.17	53.98	6.2	2	47		
3	7.1		2.64	45.10	4.0	1	.98		
4	5.1		2.24	38.29	2.6	1	.60		
5	2.7		1.63	27.97	1.3	1	.13		
By Linear Regr Slope , mw =		X		Intercent hw :	-0.389	1			
Correlation		- 0	.9989	intercept, ow	0.009	<u> </u>			
*If Correlation C									
	11011		Set Point Ca	alculation					
From the TSP Fi		-							
From the Regress	sion Equation, th	ie "Y" value acc	ording to						
		mw x Q	$\mathbf{D}\mathbf{std} + \mathbf{bw} = [\Delta \mathbf{W} \mathbf{x}]$	(Pa/760) x (29	98/Ta)] ^{1/2}				
	_ /	~	2	- (
Therefore, Se	et Point; W = (m	w x Qstd + bw)) ² x (760 / Pa) x (7	Fa / 298) =	3.63				
Remarks:									
Conducted by:	Wong Sh	ing Kwai	Signature:	R	火.	Date:	13-Jun-25		
Checked by:	Henry	Leung	Signature:	-lem	J Xm J	Date:	13-Jun-25		



File No. MA16034/08/0053

Project No.	AM2 - Sai Tso	Wan Recreation	n Ground				
Date:	14-4	Apr-25	Next Due Date:	14-Jun-25	Operator:	SK	
Equipment No.:	o.: <u>A-01-08</u>		Model No.:	GS2310	Serial No.	1287	
			Ambient Condit	ion			
Temperature, Ta (K) 295.6		295.6	Pressure, Pa (mml	759.7			

Orifice Transfer Standard Information								
Serial No.	3864	Slope, mc 0.05914 Intercept, bc -0.02377						
Last Calibration Date:	7-Jan-25	1	mc x Qstd + bc = $[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$					
Next Calibration Date:	7-Jan-26	Qstd = { $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc						

	Calibration of TSP Sampler								
Calibration		Orfice			HVS				
Point	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}$ Y-axis				
1	13.2	3.65	62.07	8.5	2.93				
2	10.1	3.19	54.35	6.1	2.48				
3	7.5	2.75	46.89	4.0	2.01				
4	5.2	2.29	39.11	2.5	1.59				
5	3.1	1.77	30.29	1.5	1.23				
Slope , mw = Correlation	coefficient* =	0.9967), check and recalibrate.	Intercept, bw = _	-0.479	0				
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 = $[\Delta W x (Pa/760) x (298/Ta)]^{1/2}$ Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) =									
Remarks:									
	Wong Shi Henry I	ng Kwai Signature Leung Signature	: :len	<u>у.</u> - 2007	Date: 14-Apr-25 Date: 14-Apr-25				



File No. MA16034/08/0054

Project No.	AM2 - Sai Tso	Wan Recreation	Ground				
Date:	13-Jun-25		Next Due Date: 13-A		Aug-25	Operator:	SK
Equipment No.:	A-0	01-08	Model No.:	GS	52310	Serial No.	1287
			Ambient C	ondition			
Temperatur	re, Ta (K)	300.5	Pressure, Pa			754.4	
		Or	ifice Transfer Sta	ndard Informa	ation		
Serial		3864	Slope, mc	0.05914	Intercept		-0.02377
Last Calibra		7-Jan-25			$c = [\Delta H \times (Pa/760)]$		
Next Calibra	ation Date:	7-Jan-26		$Qstd = \{ \Delta H x $	(Pa/760) x (298/]	[a)] -bc} / n	nc
		•	Calibration of '	TSP Samplar			
		Or	fice	isi sampici		HVS	
Calibration Point	ΔH (orifice), in. of water		50) x $(298/Ta)$] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water	[ΔW x (Pa/7	60) x (298/Ta)] ^{1/2} X-axis
1	13.3		3.62	61.58	8.3		2.86
2	10.3		3.18	54.24	6.4		2.51
3	7.7		2.75	46.95	4.2		2.03
4	5.0		2.22	37.92	2.4		1.54
5	3.4		1.83	31.34	1.2		1.09
Slope , mw = Correlation (*If Correlation C	coefficient* =		.9987	Intercept, bw = -	-0.721	0	
			Set Point C	alculation			
From the TSP Fi	eld Calibration	Curve, take Qstd	= 43 CFM				
From the Regres	sion Equation, t	he "Y" value acco	ording to				
		mw x C	\mathbf{S} ($\Delta \mathbf{W} = \mathbf{\Delta} \mathbf{W}$: (Pa/760) x (29	$(98/T_8)$] ^{1/2}		
			_		(), (, (,)]		
Therefore, Se	et Point; W = (n	nw x Qstd + bw)	² x (760 / Pa) x (7	Γa / 298) =	3.31		
Remarks:							
Conducted by:	Wong Sl	ning Kwai	Signature:	Ŕ	X.	Date:	13-Jun-25
2	ŭ	ž	- 0		e	· –	
Checked by:	Henry	Leung	Signature:	- lem	J Xm J	Date:	13-Jun-25

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File No. MA16034/03/0053

Project No.	AM3 - Yau La	M3 - Yau Lai Estate, Bik Lai House				
Date:	14-2	Apr-25	Next Due Date:	14-Jun-25	Operator:	SK
Equipment No.:	A-	01-03	Model No.:	GS2310	Serial No.	10379
			Ambient Condit	ion		
Temperatu	re, Ta (K)	295.6	Pressure, Pa (mml	Hg)	759.7	

Orifice Transfer Standard Information					
Serial No.	3864	Slope, mc	0.05914	Intercept, bc	-0.02377
Last Calibration Date:	7-Jan-25	mc x Qstd + bc = $[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$			
Next Calibration Date:	7-Jan-26	Qstd = { $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc			

Calibration of TSP Sampler							
Calibration	Orfice				HVS		
Point	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$\begin{bmatrix} \Delta W \ x \ (Pa/760) \ x \ (298/Ta) \end{bmatrix}^{1}$ Y-axis		
1	13.1	3.63	61.84	8.3	2.89		
2	10.0	3.17	54.08	6.3	2.52		
3	7.4	2.73	46.58	4.1	2.03		
4	5.0	2.24	38.36	2.4	1.56		
5	3.2	1.80	30.77	1.4	1.19		
Slope , mw =	By Linear Regression of Y on X Slope , mw = <u>0.0562</u> Intercept, bw : <u>-0.5643</u> Correlation coefficient* = <u>0.9988</u>						
*If Correlation C	Coefficient < 0.990), check and recalibrate.					
		Set Point C	alculation				
From the TSP Fi	eld Calibration Cu	urve, take Qstd = 43 CFM					
From the Regres	sion Equation, the	"Y" value according to					
Therefore, Se	et Point; W = (mv	$\mathbf{mw} \mathbf{x} \mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W} \mathbf{x}]$ w x Qstd + bw) ² x (760 / Pa) x (
Remarks:							
Conducted by:	Wong Shi	ng Kwai Signature:	k	火.	Date: 14-Apr-25		
Checked by:	Henry I	Leung Signature:	len	N- 7 X-7	Date: 14-Apr-25		



File No. MA16034/03/0054

Project No.	AM3 - Yau Lai	Estate, Bik Lai I	House				
Date:	13-Jun-25		Next Due Date: 13-A		Aug-25	Operator:	SK
Equipment No.:	A-0	1-03			52310		10379
			Ambient C	ondition			
Temperatu	re, Ta (K)	300.5	Pressure, Pa			754.4	
•	· · · ·		•				
		Or	ifice Transfer Star	ndard Informa	ation		
Serial	No.	3864	Slope, mc	0.05914	Intercept	t, bc	-0.02377
Last Calibra	ation Date:	7-Jan-25	n	nc x Qstd + bc	$c = [\Delta H x (Pa/760)]$) x (298/Ta)] ^{1/2}	2
Next Calibra	ation Date:	7-Jan-26		Qstd = $\{[\Delta H x]$	(Pa/760) x (298/	[a)] ^{1/2} -bc} / m	c
			• •				
			Calibration of T	FSP Sampler			
Calibration		0	fice			HVS	
Point	ΔH (orifice),	[AH x (Pa/76	0) x (298/Ta)] ^{1/2}	Qstd (CFM)	ΔW (HVS), in.	[ΔW x (Pa/76	0) x (298/Ta)] ^{1/2}
	in. of water		(0) X (290/10)]	X - axis	of water	Y	-axis
1	13.0		3.58	60.89	8.4		2.88
2	10.1		3.15	53.72	6.1		2.45
3	7.3	1	2.68	45.73	4.2		2.03
4	5.2		2.26	38.66	2.3	1	.50
5	3.1		1.75	29.94	1.3	1	.13
By Linear Regr Slope , mw = Correlation (*If Correlation C	0.0575 coefficient* =	0	.9973	ntercept, bw =	-0.633	5	
			Set Point Ca	lculation			
		Curve, take Qstd he "Y" value acc mw x Q		(Pa/760) x (29	98/Ta)] ^{1/2}		
Therefore, Se	et Point; W = (n	nw x Qstd + bw)	² x (760 / Pa) x (7	Γa / 298) =	3.43		
Remarks:							
Conducted by:	Wong Sl	ning Kwai	Signature:	R	X.	Date:	13-Jun-25
Checked by:	Henry	Leung	Signature:	-lem	J Xron J	Date:	13-Jun-25

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File No. MA20003/55/032

Project No.	CKL 2 - Flat 1	03 Cha Kwo Lin	ig Village			
Date:	6-N	lay-25	Next Due Date:	6-Jul-25	Operator:	SK
Equipment No.:	A-	01-55	Model No.:	TE 5170	Serial No.	1956
			Ambient Condit	ion		
Temperatu	ıre, Ta (K)	300.7	Pressure, Pa (mmI	Hg)	759.1	

Orifice Transfer Standard Information					
Serial No.	3864	Slope, mc	0.05914	Intercept, bc	-0.02377
Last Calibration Date:	7-Jan-25	mc x Qstd + bc = $[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$			
Next Calibration Date:	7-Jan-26	Qstd = { $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc			

Calibration of TSP Sampler						
Calibration		Orfice	HVS			
Point	ΔH (orifice), in. of water	$[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}$ Y-axis	
1	13.6	3.67	62.44	9.0	2.98	
2	11.1	3.31	56.45	7.0	2.63	
3	9.2	3.02	51.43	5.8	2.40	
4	5.2	2.27	38.76	2.8	1.66	
5	3.8	1.94	33.20	2.0	1.41	
Slope , mw = Correlation	By Linear Regression of Y on X Slope , mw =0.0543 Intercept, bw :0.4130 Correlation coefficient* =0.9995 *If Correlation Coefficient < 0.990, check and recalibrate.					
		Set Point C urve, take Qstd = 43 CFM e "Y" value according to mw x Qstd + bw = [ΔW 3		98/Ta)] ^{1/2}		
Therefore, Set Point; W = $(mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = 3.73$						
Remarks:						
Conducted by:	Wong Shi	ng Kwai Signature:	X	<u>у</u>	Date: 6-May-25	
Checked by:	Henry I	Leung Signature:	-lem	1 X27	Date: 6-May-25	



Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Laser Dust Mo	nitor		Date of	of Calibration	30-May-25
Manufacturer:			Validity of Calibra	ation Record	30-Jul-25	
Model No.:	LD-3B					
Serial No.:	2Y6194					
Equipment No.:	SA-01-02		Sensitivity	0.001 mg/m3		
High Volume Sa	mpler No.:	A-01-03	Before Sensit	tivity Adjustment	578	
Tisch Calibration	n Orifice No.:	3864	After Sensitiv	vity Adjustment	578	
		Calibra	tion of 1 hr T	SP		
Calibration		Laser Dust Monitor			HVS	
Point	Total Count	Count / Minute X-axis		Mass concentration (µg/m ³) Y-axis		
1	4000	75.0		142.0		
2	3600	63.0			116.0	
3	3000	55.0			102.0	
Aver	rage	64.3		120.0		
By Linear Regr Slope , mw =	ression of Y on 2.01		Inter	cept, bw =	-9.5132	2
Correla	ation coefficien	t* =0.998	84			
Set Correlation I SCF = [K=Higl		pler / Dust Meter, (µ g/m3)]	· .	1.9		

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Limited)

Calibrated by:

Technical Officer (Wong Shing Kwai)

Approved by: ~ an Project Manager (Henry Leung)



Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Digital Dust Indicator		Date of Calibration	30-May-25
Manufacturer:	Sibata Scientific Technology LTD.	Validity of	of Calibration Record	30-Jul-25
Model No.:	LD-5R			
Serial No.:	8Y2374			
Equipment No.:	SA-01-04	Sensitivity 0.001 m	ng/m3	
High Volume Sa	mpler No.: <u>A-01-03</u>	Before Sensitivity Adjust	tment 652	
Tisch Calibration	n Orifice No.: <u>3864</u>	After Sensitivity Adjustn	nent <u>652</u>	

	Calibration of 1	hr TSP	
Calibration	Laser Dust Monitor	HVS	
Point	Mass Concentration (µg/m3)	Mass concentration ($\mu g/m^3$)	
Tohit	X-axis	Y-axis	
1	77.0	133.0	
2	65.0	120.0	
3	53.0	104.0	
Average	65.0	119.0	
Correlation co	efficient* = 0.9982 Set Correlation	Factor	
Particaulate Con	centration by High Volume Sampler ($\mu g/m^3$)	119.0	
	centration by Dust Meter ($\mu g/m^3$)	65.0	
Measureing time		60.0	
Set Correlation I			
SCF = K=Hig	n Volume Sampler / Dust Meter, (µg/m3)]	1.8	
	actor , SCF 1 Volume Sampler / Dust Meter, (μg/m3)]	1.8	

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Technical Officer (Wong Shing Kwai)

Calibrated by:



Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Digital Dust Indicator		Date	of Calibration	30-May-25
Manufacturer:	Sibata Scientific Technology LTD.	_	Validity of Calibi	ration Record	30-Jul-25
Model No.:	LD-5R				
Serial No.:	8Y2373				
Equipment No.:	SA-01-05	Sensitivity	0.001 mg/m3	-	
High Volume Sa	mpler No.: A-01-03	Before Sensiti	vity Adjustment	657	
Tisch Calibratio	n Orifice No.: 3864	After Sensitiv	ity Adjustment	657	
Equipment No.: High Volume Sa	SA-01-05 mpler No.: <u>A-01-03</u>	Before Sensiti	vity Adjustment		

	Calibration of 1	hr TSP		
Calibration	Laser Dust Monitor	HVS		
Point	Mass Concentration (µg/m3)	Mass concentration ($\mu g/m^3$)		
	X-axis	Y-axis		
1	73.0	132.0		
2	63.0	114.0		
3	55.0	103.0		
Average	63.7	116.3		
Slope , mw = Correlation co		rcept, bw =13.2664		
	Set Correlation	Factor		
Particaulate Con	centration by High Volume Sampler (µg/m ³)	116.3		
Particaulate Con	centration by Dust Meter ($\mu g/m^3$)	63.7		
Measureing time	, (min)	60.0		
Set Correlation F	actor, SCF			
SCF = [K=Higl				

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Technical Officer (Wong Shing Kwai)

Calibrated by:



<u>Certificate of Calibration</u>

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Digital Dust Indicator		Date of	of Calibration	30-May-25
Manufacturer:	Sibata Scientific Technology LTD.	_	Validity of Calibration Record		30-Jul-25
Model No.:	LD-5R				
Serial No.:	972777				
Equipment No.:	SA-01-06	Sensitivity	0.001 mg/m3		
High Volume Sa	ampler No.: A-01-03	Before Sensiti	vity Adjustment	645	
Tisch Calibratio	n Orifice No.: 3864	After Sensitivi	ty Adjustment	645	
	Ca	libration of 1 h	r TSP		
	Logon Duct Monitor			IIVS	

Calibration	Laser Dust Monitor	HVS
Point	Mass Concentration (µg/m3)	Mass concentration ($\mu g/m^3$)
I onne	X-axis	Y-axis
1	75.0	133.0
2	61.0	117.0
3	53.0	105.0
Average	63.0	118.3
By Linear Regress Slope , mw = Correlation coeff	1.2581	Intercept, bw = <u>39.0753</u>
Slope , mw =	<u>1.2581</u> ficient* = <u>0.9973</u>	
Slope , mw = Correlation coeff	<u>1.2581</u> ficient* =0.9973 Set Corr	relation Factor
Slope , mw = Correlation coeff Particaulate Concer	<u>1.2581</u> ficient* =0.9973 Set Corr htration by High Volume Sampler (μg/m ³	relation Factor
Slope , mw = Correlation coeff Particaulate Concer	<u>1.2581</u> ficient* =0.9973 Set Corr	relation Factor
Slope , mw = Correlation coeff Particaulate Concer	1.2581 ficient* = 0.9973 Set Corr htration by High Volume Sampler ($\mu g/m^3$)	relation Factor
Slope , mw = Correlation coeff Particaulate Concer Particaulate Concer	1.2581 Ficient* = 0.9973 Set Corr ntration by High Volume Sampler ($\mu g/m^3$) ntration by Dust Meter ($\mu g/m^3$) nin)	relation Factor

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by:

Technical Officer (Wong Shing Kwai)



Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Digital Dust Indicator	Date	of Calibration	30-May-25	
Manufacturer:	Sibata Scientific Technology LTD.	Validity of Calib	Validity of Calibration Record 30-		
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 Sensitivity Adjustment	735 CPM		
Tisch Calibration	n Orifice No.: <u>3864</u>	After Sensitivity Adjustment	735 CPM		
	Ca	libration of 1 hr TSP			
Calibration	Laser Dust Monitor		HVS		
Point	Mass Concentration (µg/n X-axis	m3) Mas	Mass concentration (µg/m ³) Y-axis		
1	77.0		142.0		
2	64.0		119.0		
3	53.0		104.0		
Average	64.7		121.7		
By Linear Regr Slope , mw = Correlation co	ression of Y on X <u>1.5889</u> pefficient* = <u>0.9973</u>	Intercept, bw =	18.9169		
	Se	t Correlation Factor			
Particaulate Con	centration by High Volume Sampler ((µg/m ³)	121.7		
Particaulate Con	centration by Dust Meter ($\mu g/m^3$)		64.7		
Measureing time	e, (min)		60.0		
Set Correlation I	Factor, SCF				

In-house method in according to the instruction manual:

SCF = [K=High Volume Sampler / Dust Meter, (µg/m3)]

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by:

Approved by:

Technical Officer (Wong Shing Kwai)

Project Manager (Henry Leung)

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Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Digital Dust Indicator		Date	of Calibration	30-May-25
Manufacturer:	Sibata Scientific Technology LTD.	_	Validity of Calibr	ation Record	30-Jul-25
Model No.:	LD-5R				
Serial No.:	972780				
Equipment No.:	SA-01-09	Sensitivity	0.001 mg/m3		
High Volume Sa	mpler No.: <u>A-01-03</u>	Before Sensitiv	vity Adjustment	739 CPM	
Tisch Calibration	n Orifice No.: <u>3864</u>	After Sensitivi	ty Adjustment	739 CPM	
	Cal	libration of 1 h	r TSP		
Calibration	Laser Dust Monitor			HVS	2
Point	Mass Concentration (µg/n X-axis	m3)	Mas	s concentration (µ Y-axis	ıg/m ³)
1	75.0		137.0		
2	61.0			114.0	
3	55.0			101.0	
Average	63.7			117.3	
By Linear Regr Slope , mw = Correlation co	ession of Y on X <u>1.7722</u> pefficient* = <u>0.9977</u>	Interc	cept, bw =	4.5063	
	Set	t Correlation F	actor		
Particaulate Con	centration by High Volume Sampler ($\mu g/m^3$)	117.3		
Particaulate Con-	centration by Dust Meter ($\mu g/m^3$)		63.7		
Measureing time	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 used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by:

Approved by: _____

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Technical Officer (Wong Shing Kwai)

Project Manager (Henry Leung)



Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Digital Dust Indicator	Date	e of Calibration	30-May-25	
Manufacturer:	Sibata Scientific Technology LTD.	Validity of Calil	bration Record	30-Jul-25	
Model No.:	LD-5R				
Serial No.:	972781				
Equipment No.:	SA-01-10	Sensitivity 0.001 mg/m3	_		
High Volume Sa	ampler No.: <u>A-01-03</u>	Before Sensitivity Adjustment	734 CPM		
Tisch Calibration	n Orifice No.: <u>3864</u>	After Sensitivity Adjustment	734 CPM		
	Ca	libration of 1 hr TSP			
Calibration	Laser Dust Monitor	r	HVS		
Point Mass Concentration (µg/ X-axis		(m3) Ma	Mass concentration $(\mu g/m^3)$ Y-axis		
1	76.0		133.0		
2	67.0		116.0		
3	57.0		102.0		
Average	66.7		117.0		
	ression of Y on X 	Intercept, bw =	8.5129		
	Se	t Correlation Factor			
Particaulate Con	ncentration by High Volume Sampler ($(\mu g/m^3)$	117.0		
Particaulate Con	acentration by Dust Meter ($\mu g/m^3$)		66.7		
Measureing time	e, (min)		60.0		
Set Correlation I	Factor, SCF				

In-house method in according to the instruction manual:

SCF = [K=High Volume Sampler / Dust Meter, (µg/m3)]

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by:

Approved by: _____

Technical Officer (Wong Shing Kwai)

Project Manager (Henry⁴Leung)

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Rm 1904, Technology Park 18 On Lai Street, Shatin NT, Hong Kong Tel: +852 3841 4388 Website: https://www.hpct.com.hk



: 00736 Issue Date : 28 Jun 2024 Report No. Application No. : HP00592 **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. AWA6021A Serial No. 1023253 : 27 Jun 2024 Date Received Test Period : 28 Jun 2024 to 28 Jun 2024 : Performance checking for Sound Level Calibrator **Test Requested** 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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Lee Wai Kit Laboratory Manager

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Issue Date : 28 Jun 2024

Report No.:00736Application No.:HP00592

Certificate of Calibration

Measuring

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Sound Calibrator	
Brüel & Kjær	
TYPE 4231	
2326353	
N-02-01	
Sound Meter	
BSWA Technology	
BSWA 308	
570183	
570605	
N-12-01	

Test Result

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.1	+ 0.1	± 0.3
114.0	114.1	+ 0.1	± 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. AWA602	1A					
	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 a	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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Lee Wai Kit Laboratory Manager

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: 04 Feb 2025

Issue Date

Report No.:01015Application No.:HP00868

<u>Certificate of Calibration</u>

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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Issue Date : 14 Oct 2024

Report No.:00870Application 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

Lee Wai Kit Laboratory Manager

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Issue Date : 14 Oct 2024

Report No.:00870Application 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.

Report No.

Rm 1904, Technology Park 18 On Lai Street, Shatin NT, Hong Kong Tel: +852 3841 4388 Website: https://www.hpct.com.hk

: 00871



Issue Date : 14 Oct 2024

Application No.HP00732ApplicantCertificate of CalibrationApplicantSample DescriptionFamily DescriptionSubmitted 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

Lee Wai Kit Laboratory Manager

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Issue Date : 14 Oct 2024

Report No.:00871Application 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.

Report No.

Rm 1904, Technology Park 18 On Lai Street, Shatin NT, Hong Kong Tel: +852 3841 4388 Website: https://www.hpct.com.hk

: 01074



Issue Date : 19 Mar 2025

: HP00912 Application No. **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	7 Mar 2025	
Test Period	8 Mar 2025 to 18 Mar 2025	
Test Requested	erformance checking for Sound	Level Meter
Test Method		een calibrated in accordance with the g standard and instrument which are rer, or equivalent.
Test conditions	oom Temperature: 22-25 degree elative Humidity: 35-70%	2 Celsius
Test Result	efer 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.

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

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

Lee Wai Kit Laboratory Manager

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Issue Date : 19 Mar 2025

Report No.:01074Application 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.

Report No.

Rm 1904, Technology Park 18 On Lai Street, Shatin NT, Hong Kong Tel: +852 3841 4388 Website: https://www.hpct.com.hk

: 01075



Issue Date : 19 Mar 2025

: HP00913 Application No. **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. **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

Lee Wai Kit Laboratory Manager

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Issue Date : 19 Mar 2025

Report No.:01075Application 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.