

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		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 Tabulation										
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						
70.0	r=	0.99985		r=	0.99985						

	Calculations								
Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	Va=	ΔVol((Pa-ΔP)/Pa)						
Qstd=	Vstd/∆Time	Qa=	Va/ΔTime						
	For subsequent flow ra	te calculatio	ns:						
$\mathbf{Qstd} = \frac{1}{m} \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right) \qquad \mathbf{Qa} = \frac{1}{m} \left(\left(\sqrt{\Delta H \left(Ta/Pa \right)} \right) - b \right)$									

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	Pa: actual barometric 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



						File No. N	4A20003/18/033
Project No.	CKL 1 - Flat 121	l Cha Kwo Ling	Village				
Date:	ı	1-25		4-8	Sep-25	Operator:	SK
	A-01				5170		
Equipment ivo	71-01	1-10	Wodel Ivo		7.5170	Schai ivo.	0725
			Ambient	Condition			
Temperatu	re, Ta (K)	303.8	Pressure, Pa	ı (mmHg)		754.1	
			rifice Transfer Sta	1			
Seria		3864	Slope, mc	0.05914	Intercept		-0.02377
Last Calibra		7-Jan-25			$c = [\Delta H \times (Pa/76)]$ $(Pa/760) \times (298)$		
Next Calibr	ration Date:	7-Jan-26		$Qsta = \{ \Delta H \}$	(Pa//00) X (298)	/1a)] -bc}/m	<u>. </u>
		•	Calibration of	f TSP Sampler			
C.17		Or	fice			HVS	
Calibration Point	ΔH (orifice), in. of water		0) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water	[ΔW x (Pa/760)	x (298/Ta)] ^{1/2} Y-
1	13.2		3.58	61.01	8.8	2	2.93
2	10.4	,	3.18	54.20	7.3	2	2.67
3	8.3	,	2.84	48.46	5.1	2	2.23
4	6.2	2	2.46	41.94	3.4	1	1.82
5	3.3		1.79	30.71	1.4	1	1.17
-	ression of Y on X						
Slope, mw =		_		Intercept, bw =	-0.667	72	
Correlation			9970	-			
*If Correlation (Coefficient < 0.99	0, check and rec	alibrate.				
			Set Point (Calculation			
From the TSP F	ield Calibration C	urve, take Qstd	= 43 CFM				
From the Regres	ssion Equation, th	e "Y" value acco	ording to				
		v. ($Qstd + bw = [\Delta W]$	v (Do/760) v (2	100/T ₀)1 ^{1/2}		
		mw x C	2810 + DW = 1/2W	X (Pa//00) X (2	.96/1a)j		
Therefore, S	et Point; W = (m	w x Qstd + bw)	² x (760 / Pa) x (Ta / 298) =	3.73		
Remarks:							
				Хr	<u>λ</u>	_	
Conducted by:	Wong Sh	ıng Kwai	Signature:			Date:	4-Jul-25
Checked by:	Henry	Leung	Signature:	\-lem	a Chon	Date:	4-Jul-25



						File No. N	MA20003/18/034
Project No.	CKL 1 - Flat 12	l Cha Kwo Ling	Village				
Date:	4-Sep-25			: 4-N	Jov-25	Operator:	SK
	A-0		Model No.:		5170		
Equipment 140	A-0	1-10	Wiodel Ivo.		7.5170	Schai No.	0723
			Ambient	Condition			
Temperatu	re, Ta (K)	303.9	Pressure, Pa	ı (mmHg)		755.9	
			rifice Transfer St				
Serial		3864	Slope, mc	0.05914	Intercep		-0.02377
Last Calibra		7-Jan-25			$c = [\Delta H \times (Pa/76)]$		
Next Calibrate	ation Date:	7-Jan-26		$Qstd = \{ \Delta H \}$	x (Pa/760) x (298	/Ta)] - bc} / mo	<u>c</u>
		•	Calibration of	f TSP Sampler			
G 17 - 2		Or	fice	. 151 Samplet		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/760)	x (298/Ta)] ^{1/2} Y-axis
1	13.1		3.57	60.84	8.9	2	2.95
2	10.5		3.20	54.51	7.2	2	2.65
3	8.2		2.83	48.22	5.0	2	2.21
4	6.1		2.44	41.65	3.5	1	1.85
5	3.4		1.82	31.19	1.5	1	1.21
-	ression of Y on X	ζ.		T-44 h	0.633		
Slope, mw =		-		Intercept, bw =	-0.632	26	
Correlation	Coefficient < 0.99		.9990	_			
TI COITCIALION C	20e111clent \ 0.95	o, check and rec	canorate.				
			Set Point (Calculation			
From the TSP Fi	ield Calibration C	Curve, take Qstd	= 43 CFM				
From the Regres	ssion Equation, th	ie "Y" value acce	ording to				
			$Qstd + bw = [\Delta W]$	(Da/7(0) (2	100/Ta)11/2		
		mw x •	$Qsta + bw = \Delta w $	X (Pa//60) X (2	298/1a)j		
Therefore, Se	et Point; W = (m	w x Qstd + bw)	² x (760 / Pa) x (Ta / 298) =	3.77		
Remarks:							
Conducted by:	Wong Sh	ing Kwai	Signature	. //	<u></u>	Date:	4-Sep-25
·					V. s. r	. <u> </u>	
Checked by:	Henry	Leung	Signature	: \-lem	, Don	Date:	4-Sep-25



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



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

5-POINT CALIBRATION DATA SHEET



File No. MA20003/04/0031

Project No.	KER 1 - Future	Residential Dev	elopment at Kerry (Godown			
Date:	11-J	ul-25	Next Due Date:	11-	Sep-25	Operator:	SK
Equipment No.:	A-0	1-04	Model No.:	TE	E 5170	Serial No.	10595
			Ambient C	ondition			
Temperatu	re, Ta (K)	300.9	Pressure, Pa			749.2	
		Or	ifice Transfer Star	ndard Informa	ation		
Serial	No.	3864	Slope, mc	0.05914	Intercept		-0.02377
Last Calibra	ation Date:	7-Jan-25			$c = [\Delta H \times (Pa/760)]$		
Next Calibra	ation Date:	7-Jan-26	($Qstd = \{ [\Delta H \ x]$	(Pa/760) x (298/	Γa)] ^{1/2} -bc} / m	c
			Calibration of	TSP Sampler			
Calibration	AII (a.::£:)		fice	O-41 (CDA)	AM (IBIO) ;	HVS	(000/22.)31/2
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	$(50) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water		50) x (298/Ta)] ^{1/2} '-axis
1	12.6		3.51	59.71	8.3		2.85
2	10.5		3.20	54.54	7.1		2.63
3	8.5		2.88	49.11	5.2		2.25
4	5.3		2.27	38.87	2.8		1.65
5	3.6		1.87	32.10	2.1		1.43
Slope , mw = Correlation	coefficient = 0.99	0	.9951	Intercept, bw =	-0.355	56	
ii Conciation C	ocmelent < 0.95	o, check and rec	anoraic.				
			Set Point Ca	alculation			
	eld Calibration C						
From the Regres	sion Equation, th	ne "Y" value acco	ording to				
		mw x C	$\mathbf{pstd} + \mathbf{bw} = [\mathbf{\Delta W} \ \mathbf{x}]$	(Pa/760) x (29	$98/Ta) ^{1/2}$		
				() (.			
Therefore, Se	et Point; W = (m	w x Qstd + bw)	2 x (760 / Pa) x (7	Γa / 298) =	3.92		
Remarks:							
Conducted by	Wana Ol	ina Vvvc	C:	X	oγ -	Data	11 Jul 25
Conducted by:	wong Sh	ing Kwai	Signature:			Date:	11-Jul-25
Checked by:	Henrv	Leung	Signature:	\-Pa.	Mon	Date:	11-Jul-25

5-POINT CALIBRATION DATA SHEET



File No. MA20003/04/0032

Project No.	KER 1 - Future		_				
Date:	11-Se	ep-25	Next Due Date:	11-1	Nov-25	Operator:	SK
Equipment No.:			_	TE	E 5170	Serial No.	10595
			Ambient C	ondition			
Temperatur	re, Ta (K)	302.5	Pressure, Pa			758.3	
	-						
		Or	ifice Transfer Star	ndard Informa	ation		
Serial	No.	3864	Slope, mc	0.05914	Intercept		-0.02377
Last Calibra	ntion Date:	7-Jan-25			$c = [\Delta H \times (Pa/760)]$		
Next Calibra	ation Date:	7-Jan-26		$Qstd = \{ [\Delta H \ x]$	(Pa/760) x (298/	Γa)] ^{1/2} -bc} / m	c
		•					
			Calibration of	TSP Sampler			
Calibration		Oı	fice	ı		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/} - axis
1	12.5		3.51	59.67	8.2		2.84
2	10.6		3.23	54.98	7.2		2.66
3	8.4		2.87	48.99	5.3		2.28
4	5.5		2.33	39.72	2.9		1.69
5	3.4		1.83	31.31	2.0		1.40
By Linear Regr Slope, mw = Correlation		_	.9943	Intercept, bw =	-0.332	28	
*If Correlation C				•			
			Set Point Ca	alculation			
From the TSP Fig		_	= 43 CFM				
rioni me Regres	sion Equation, th	c i value acco	nung w				
		mw x ($\mathbf{Qstd} + \mathbf{bw} = [\mathbf{\Delta W} \ \mathbf{x}]$	(Pa/760) x (29	$[98/Ta)]^{1/2}$		
Therefore, Se	et Point; W = (m	w x Qstd + bw)	² x (760 / Pa) x (7	Га / 298) =	3.93		
Remarks:							
ixemarks.							
,							
Conducted by:	Wong Sh	ing Kwai	Signature:	X		Date:	11-Sep-25
· ·							•
Checked by:	Henry	Leung	Signature:	1-0	- Mar	Date	11-Sen-25

5-POINT CALIBRATION DATA SHEET



File No. MA20003/44/0030

Project No.	KTD1 - Centre	of Excellence in	Paediatrics (Childr	en's Hospital)		_	
Date:	11-J	ul-25	Next Due Date:	11-	Sep-25	Operator:	SK
Equipment No.:	A-0	1-44		TE		Serial No.	1316
			Ambient C	ondition			
Temperatu	re, Ta (K)	300.9	Pressure, Pa			749.2	
		Or	ifice Transfer Star	ndard Informa	ation		
Serial	No.	3864	Slope, mc	0.05914	Intercept		-0.02377
Last Calibra	ation Date:	7-Jan-25			$c = [\Delta H \times (Pa/760]]$		
Next Calibra	ation Date:	7-Jan-26	($Qstd = \{ [\Delta H \ x]$	(Pa/760) x (298/7	Γa)] ^{1/2} -bc} / m	ıc
			6				
			Calibration of	ISP Sampler		111/0	
Calibration	ΔH (orifice),		fice	Qstd (CFM)	AW (III/O) :-	HVS	60) x (298/Ta)] ^{1/2}
Point	in. of water	[ΔH x (Pa/76	$(50) \times (298/Ta)]^{1/2}$	X - axis	ΔW (HVS), in. of water		60) x (298/1a)] Z -axis
1	13.4		3.62	61.56	9.1		2.98
2	11.4		3.34	56.81	7.3		2.67
3	9.5		3.05	51.90	5.6		2.34
4	6.2		2.46	42.00	3.7		1.90
5	3.6		1.87	32.10	2.1		1.43
Slope , mw = Correlation	coefficient* =	0	.9961	Intercept, bw =	-0.258	36	
*If Correlation C	Coefficient < 0.99	90, check and rec	ealibrate.				
			Set Point Ca	alculation			
	eld Calibration C sion Equation, th	ne "Y" value acco		(Pa/760) x (29	98/Ta)] ^{1/2}		
Therefore, Se	et Point; W = (m	w x Qstd + bw)	² x (760 / Pa) x (7	Га / 298) =	3.94		
Remarks:							
Conducted by:	Wong Sh	ing Kwai	Signature:	K	X -	Date:	11-Jul-25
Checked by:	Henry	Leung	Signature:	\-la	, X27	Date:	11-Jul-25

5-POINT CALIBRATION DATA SHEET



File No. MA20003/44/0031

Project No.	KTD1 - Centre	of Excellence in	Paediatrics (Childr	en's Hospital)			
Date:	11-S	ep-25	Next Due Date:	11-1	Nov-25 Operator:		SK
	A-0			TE	2-5170	Serial No.	1316
			Ambient C	ondition			
Temperatu	re, Ta (K)	302.5	Pressure, Pa	(mmHg)		758.3	
	<u>. </u>		ifice Transfer Stai				
Serial		3864	Slope, mc	0.05914	Intercept		-0.02377
Last Calibra		7-Jan-25			$c = [\Delta H \times (Pa/760)]$ $(Pa/760) \times (298/7)$		
Next Calibr	ration Date:	7-Jan-26	<u> </u>	$Qsta = \{ \Delta H x$	(Pa//00) X (298/.	1 a) -bc} / n	nc .
		·	Calibration of	ΓSP Sampler			
Calibration		Or	fice	F		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		760) x (298/Ta)] ^{1/2} Y-axis
1	13.3		3.62	61.54	9.2		3.01
2	11.3		3.33	56.75	7.2		2.66
3	9.6		3.07	52.34	5.5		2.33
4	6.1		2.45	41.81	3.8		1.93
5	3.5		1.85	31.76	2.0		1.40
Slope , mw = Correlation	coefficient < 0.99	0	.9925	Intercept, bw =	-0.259	<u>)1</u>	
			Set Point Ca	laulation			
From the Regres	ield Calibration C ssion Equation, th et Point; W = (m	mw x (= 43 CFM	(Pa/760) x (29	98/Ta)] ^{1/2} 3.92		
Remarks:				h	~ l		
Conducted by:	Wong Sh	ing Kwai	Signature:		<u> </u>	Date:	11-Sep-25
Checked by:	Henry	Leung	Signature:	\-lem	, Xon	Date:	11-Sep-25



File No. MA20003/41/0030 KTD 2D - Next to the SOR Office of Trunk Road T2 in Kai Tak Area Project No. 11-Jul-25 Next Due Date: 11-Sep-25 Operator: SK Date: Equipment No.: _____ A-01-41 Model No.: TE 5170 Serial No. 5280 **Ambient Condition** 749.2 Temperature, Ta (K) 300.9 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 3.03 1 13.6 3.64 62.02 9.4 11.4 8.2 2.83 2 3.34 56.81 9.6 3.06 52.17 6.1 2.44 4 7.2 2.65 45.23 4.2 2.02 5 4.2 2.3 2.02 34.64 1.50 By Linear Regression of Y on X Slope , mw = 0.0578 Intercept, bw = -0.5358 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 = $(\text{mw x Qstd} + \text{bw})^2 \times (760 / \text{Pa}) \times (\text{Ta}/298) =$ 3.89 Remarks: Signature: Date: 11-Jul-25

Signature: Date: 11-Jul-25 Conducted by: Wong Shing Kwai

Checked by: Henry Leung



File No. MA20003/41/0031 KTD 2D - Next to the SOR Office of Trunk Road T2 in Kai Tak Area Project No. 11-Sep-25 Next Due Date: 11-Nov-25 Operator: SK Date: Model No.: TE 5170 Serial No. 5280 Equipment No.: A-01-41 **Ambient Condition** 302.5 Temperature, Ta (K) Pressure, Pa (mmHg) 758.3 **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 3.02 1 13.8 3.68 62.68 9.3 11.5 2 3.36 57.25 8.3 2.86 9.7 3.09 52.61 6.2 2.47 4 7.3 2.68 45.70 4.3 2.06 5 4.3 2.1 1.44 2.06 35.16 By Linear Regression of Y on X Slope , mw = 0.0598 Intercept, bw = -0.6600 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 = $(\text{mw x Qstd} + \text{bw})^2 \times (760 / \text{Pa}) \times (\text{Ta}/298) =$ 3.71 Remarks: Signature: Date: 11-Sep-25

Signature: Date: 11-Sep-25 Conducted by: Wong Shing Kwai

Checked by: Henry Leung