

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.: <u>SA-03-04</u>

Date of Calibration <u>17-Feb-2025</u>

Next Due Date <u>17-Aug-2025</u>

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	1.4	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)		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	$\sqrt{\Delta H(Ta/Pa)}$						
(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						

	Calculations							
	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						
	or manometer reading (in H2O)						
	ter manometer reading (mm Hg)						
	solute temperature (°K)						
	arometric pressure (mm Hg)						
	b: intercept						
m: slope	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. N	MA20003/18/030
Project No.	CKL 1 - Flat 12	1 Cha Kwo Ling	Village				
Date:					1ar-25	Operator:	SK
	A-0		1		5170		
Equipment 110	71-0	1-10			73170	Deriai No.	0723
			Ambient	Condition			
Temperatur	re, Ta (K)	292.7	Pressure, Pa	(mmHg)		765.4	
	T		rifice Transfer Sta	1		<u> </u>	
Serial		3864	Slope, mc	0.05976	Intercept		-0.05018
Last Calibra		15-Jan-24			$c = [\Delta H \times (Pa/76)] \times (Pa/760) \times (298)$		
Next Calibra	ation Date:	14-Jan-25		$Qsta = \{ [\Delta H X] \}$	(Pa//60) X (298/	/1a)j -bc}/m	<u>c</u>
		•	Calibration of	TSP Sampler			
Callbard's a		Or	fice			HVS	
Calibration Point	ΔH (orifice), in. of water		50) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water		x (298/Ta)] ^{1/2} Y-
1	13.4		3.71	62.87	9.0		3.04
2	10.3	,	3.25	55.22	7.2	,	2.72
3	8.2		2.90	49.36	5.3	,	2.33
4	6.2		2.52	43.03	3.6		1.92
5	3.1		1.78	30.67	1.6		1.28
Bv Linear Regr	ression of Y on Y	ζ.					
Slope, mw =				Intercept, bw :	-0.445	58	
Correlation		0.	.9978	- /			
*If Correlation C	Coefficient < 0.99	0, check and rec	calibrate.	_			
			Set Point (Calculation			
	eld Calibration (-					
From the Regres	sion Equation, th	ne "Y" value acco	ording to				
		mw x ($\mathbf{Qstd} + \mathbf{bw} = [\mathbf{\Delta W}]$	x (Pa/760) x (2	(98/Ta)] ^{1/2}		
Therefore, Se	et Point; $W = (m)$	w x Qstd + bw)	2 x (760 / Pa) x (Ta / 298) =	3.76	<u> </u>	
Remarks:							
				(A	21		
Conducted by:	Wong Sh	ing Kwai	Signature:		火-	Date:	4-Jan-25
				1 -			
Checked by:	Henry	Leung	Signature:	-lem	2 Xon	Date:	4-Jan-25

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



						File No. N	MA20003/18/031
Project No.	CKL 1 - Flat 12:	1 Cha Kwo Ling	Village				
Date:					May-25	Operator:	SK
	A-01				5170		
Equipment 110	71-0	1-10	Wiodel Ivo		7.5170	Deriai No.	0723
			Ambient	Condition			
Temperatu	re, Ta (K)	287.5	Pressure, Pa	ı (mmHg)		764.8	
	T		rifice Transfer St	1			
Serial		3864	Slope, mc	0.05914	Intercept		-0.02377
Last Calibra		7-Jan-25			$c = [\Delta H \times (Pa/76)] \times (Pa/760) \times (298)$		
Next Calibra	ation Date:	7-Jan-26		$\mathbf{Qsta} = \{ \mathbf{L} \mathbf{\Delta} \mathbf{H} \mathbf{X} \}$	K (Pa/700) X (298)	/1a)] -bc}/m	<u> </u>
		•	Calibration of	f TSP Sampler			
Callback and		Or	fice	<u> </u>		HVS	
Calibration Point	ΔH (orifice), in. of water		0) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water	· ·) x (298/Ta)] ^{1/2} Y- axis
1	13.2	,	3.71	63.14	9.1	,	3.08
2	10.4		3.29	56.09	7.3	,	2.76
3	8.3		2.94	50.15	5.4		2.37
4	6.1	<u>'</u>	2.52	43.05	3.7		1.96
5	3.0		1.77	30.31	1.6		1.29
By Linear Regr Slope , mw = Correlation		_	9991	Intercept, bw :	-0.397	70	
	coefficient < 0.99	-		_			
'II Correlation C	Joennelent < 0.99	o, check and rec	anorate.				
			Set Point (Calculation			
From the TSP Fi	eld Calibration C	Curve, take Qstd	= 43 CFM				
From the Regres	sion Equation, th	e "Y" value acco	ording to				
		v. ($\mathbf{Qstd} + \mathbf{bw} = [\mathbf{\Delta W}]$	v. (Do/760) v. (2	000/Ta)1 ^{1/2}		
		mw x C	$\mathbf{v}_{\mathbf{M}} = \mathbf{v}_{\mathbf{M}} + \mathbf{n}_{\mathbf{M}}$	X (Fa/700) X (2	290/1a)j		
Therefore, Se	et Point; W = (m	w x Qstd + bw)	² x (760 / Pa) x (Ta / 298) =	3.78		
Remarks:							
				<u></u>			
Conducted by:	Wong Sh	ing Kwai	Signature	·	火-	Date:	6-Mar-25
Checked by:	Henry	Leung	Signature:	- lem	y Olony	Date:	6-Mar-25

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA20003/55/030 Project No. CKL 2 - Flat 103 Cha Kwo Ling Village 4-Jan-25 Next Due Date: 6-Mar-25 Operator: SK Date: Equipment No.: A-01-55 Model No.: TE 5170 Serial No. 1956 **Ambient Condition** 292.7 Temperature, Ta (K) Pressure, Pa (mmHg) 765.4 **Orifice Transfer Standard Information** 0.05976 Intercept, bc 3864 Slope, mc Serial No. -0.05018 $mc \times Ostd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ Last Calibration Date: 15-Jan-24 Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ 14-Jan-25 Next Calibration Date: **Calibration of TSP Sampler** Orfice Calibration $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ ΔH (orifice), Ostd (CFM) ΔW (HVS), in. $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ Point in. of water X - axis of water Y-axis 3.07 1 13.6 3.73 63.33 9.2 11.2 2.74 2 3.39 57.55 7.3 3.04 51.67 5.7 2.42 4 5.3 2.33 39.85 2.6 1.63 3.6 32.99 1.8 5 1.92 1.36 By Linear Regression of Y on X Slope , mw = 0.0581 Intercept, bw : -0.6068 Correlation coefficient* = 0.9980 *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 = $(\text{mw x Qstd} + \text{bw})^2 \text{ x} (760 / \text{Pa}) \text{ x} (\text{Ta}/298) =$ 3.49 Remarks: Conducted by: Wong Shing Kwai Checked by: Henry Leung

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA20003/55/031 Project No. CKL 2 - Flat 103 Cha Kwo Ling Village 6-Mar-25 Next Due Date: 6-May-25 Date: Operator: SK Equipment No.: A-01-55 Model No.: TE 5170 Serial No. 1956 **Ambient Condition** Temperature, Ta (K) 287.5 Pressure, Pa (mmHg) 764.8 **Orifice Transfer Standard Information** 0.05914 Intercept, bc 3864 Slope, mc -0.02377 Serial No. $mc \times Ostd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ 7-Jan-25 Last Calibration Date: Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ 7-Jan-26 Next Calibration Date: **Calibration of TSP Sampler** Orfice Calibration $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ ΔH (orifice), Ostd (CFM) ΔW (HVS), in. $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ Point in. of water X - axis of water Y-axis 1 13.5 3.75 63.85 9.1 3.08 7.2 2.74 2 11.0 3.39 57.68 9.1 3.08 52.50 5.6 2.42 4 5.1 2.31 39.40 2.6 1.65 1.9 5 3.8 1.99 34.07 1.41 By Linear Regression of Y on X Slope , mw = 0.0571 Intercept, bw : -0.5684 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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) = 3.42$ Remarks: Conducted by: Wong Shing Kwai Checked by: Henry Leung

5-POINT CALIBRATION DATA SHEET



File No. MA20003/04/0028

Project No.	KER 1 - Future	Residential Deve	elopment at Kerry (Godown			
Date:	11-J:	11-Jan-25 Next Due Date:		13-1	Mar-25	Operator:	SK
Equipment No.:	A-0	1-04	Model No.:	TE	E 5170	Serial No.	10595
			Ambient C	ondition			
Temperatu	re, Ta (K)	289.6	Pressure, Pa			771.8	
•	•			, ,			
		Or	ifice Transfer Star	ndard Informa	tion		
Serial	No.	3864	Slope, mc	0.05976	Intercept		-0.05018
Last Calibra	ation Date:	15-Jan-24			$c = [\Delta H \times (Pa/760]]$		
Next Calibra	ation Date:	14-Jan-25		$Qstd = \{ [\Delta H \ x] $	(Pa/760) x (298/7	Γa)] ^{1/2} -bc} / m	c
	I		Calibration of	ΓSP Sampler			
Calibration	177 / 177 ·	Or	fice			HVS	1/
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	13.1		3.70	62.75	8.6		3.00
2	10.9	:	3.37	57.31	7.0		2.70
3	8.6		3.00	51.00	5.3		2.35
4	5.3		2.35	40.22	3.1		1.80
5	3.8		1.99	34.19	2.4		1.58
By Linear Regr Slope , mw =		K	1	Intercept, bw :	-0.179	00	
	coefficient* =	- 0	.9981	• ,			
*If Correlation C	Coefficient < 0.99	90, check and rec	calibrate.	•			
			Set Point Ca	alculation			
From the TSP Fi	eld Calibration (Curve, take Qstd					
From the Regres	sion Equation, th	ne "Y" value acco	ording to				
					1/2		
		mw x Q	$\mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W} \ \mathbf{x}]$	(Pa/760) x (29	98/Ta)] ^{1/2}		
Therefore, Se	et Point; W = (m	nw x Qstd + bw)	² x (760 / Pa) x (7	Γa / 298) =	3.76		
Remarks:							
				. 1.	_1		
Conducted by:	Wong Sh	ning Kwai	Signature:	X	} \	Date:	11-Jan-25
	,, one br		_ Signaturo.		, -	Zuic.	11 0411 20
Checked by:	Henry	Leung	Signature:	\-Pa	Mon	Date:	11-Jan-25

5-POINT CALIBRATION DATA SHEET



File No. MA20003/04/0029

Project No.	KER 1 - Future	Residential Deve	elopment at Kerry (Godown		_	
Date:	13-M	Iar-25	Next Due Date:	13-1	13-May-25		SK
Equipment No.:	A-0	1-04	Model No.:	TE	E 5170	Serial No.	10595
			Ambient C	ondition			
Temperatu	re, Ta (K)	297.3	Pressure, Pa			760.1	
•	•			·			
		Or	ifice Transfer Star	ndard Informa	ation		
Serial	l 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
	l		Calibration of 7	TSP Sampler		TTTO	
Calibration	ΔH (orifice),		fice	Octd (CEM)	AW (IIVG) :	HVS	50) x (298/Ta)] ^{1/2}
I OIIIt	in. of water	[ΔH x (Pa/76	50) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	Δ W (HVS), in. of water		50) x (298/1a)] 7 -axis
1	13.0		3.61	61.44	8.5		2.92
2	10.8		3.29	56.04	7.2		2.69
3	8.7		2.95	50.34	5.6		2.37
4	5.1		2.26	38.64	3.2		1.79
5	3.9		1.98	33.84	2.2		1.49
Slope , mw =	cession of Y on Y 0.0518 coefficient* =	_	. 9990	Intercept, bw :	-0.238	32	
*If Correlation C	Coefficient < 0.99	90, check and rec	calibrate.				
			Set Point Ca	alculation			
From the TSP Fi	eld Calibration (Curve, take Qstd					
From the Regres	sion Equation, th	ne "Y" value acco	ording to				
				(D. (E.(0)) (A)	20/57 > 1/2		
		mw x ($\mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W} \ \mathbf{x}]$	(Pa/760) x (29	98/Ta)]***		
Therefore, Se	et Point; W = (m	w x Qstd + bw)	² x (760 / Pa) x (7	Γa / 298) =	3.94		
_							
Remarks:							
				. 1 .	. 1		
Conducted by:	Wong Sh	ning Kwai	Signature:		<u> </u>	Date:	13-Mar-25
Checked by:	Henry	Leung	Signature:	\-Pa.	2 (X2)	Date:	13-Mar-25

5-POINT CALIBRATION DATA SHEET



File No. MA20003/44/0027

Project No.	KTD1 - Centre	of Excellence in	Paediatrics (Childr	en's Hospital)		_	
Date:	11-Ja	an-25	Next Due Date: 13-		Mar-25	Operator:	SK
Equipment No.:	A-0	01-44	Model No.:	TE	E-5170	Serial No.	1316
			Ambient C	ondition			
Temperatu	re, Ta (K)	289.6	Pressure, Pa			771.8	
•	•			·			
		Or	ifice Transfer Star	ndard Informa	ation		
Serial	l No.	3864	Slope, mc	0.05976	Intercept		-0.05018
Last Calibra	ation Date:	15-Jan-24			$c = [\Delta H \times (Pa/760)]$		
Next Calibra	ation Date:	14-Jan-25		$Qstd = \{ [\Delta H \ x] $	(Pa/760) x (298/	$[\Gamma a]^{1/2}$ -bc $\}$ / m	ıc
			Calibratian of	FCD Complex			
	l	Or	Calibration of T	15P 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/7)	60) x (298/Ta)] ^{1/2} 7-axis
1	13.7		3.78	64.15	9.6		3.17
2	11.3		3.44	58.34	7.4		2.78
3	9.0		3.07	52.16	5.6		2.42
4	6.2		2.55	43.43	3.5		1.91
5	3.5		1.91	32.84	2.0		1.45
	0.0551 coefficient* =	_	.9971	Intercept, bw :	-0.419	92	
		yo, encer and rec	anorate.				
			Set Point Ca	alculation			
		Curve, take Qstd					
From the Regres	sion Equation, th	ne "Y" value acco	ording to				
		mw x Q	$\mathbf{pstd} + \mathbf{bw} = [\mathbf{\Delta W} \ \mathbf{x}]$	(Pa/760) x (29	$[98/Ta]^{1/2}$		
Th f C.	- Deins W. (or		² x (760 / Pa) x (]				
Therefore, Se	et Point; w = (m	iw x Qsta + bw)	x (/60 / Pa) x (]	1a / 298) =	3.64		
Remarks:							
	-						
Conducted by:	Wong Sh	ning Kwai	Signature:	<u> </u>	<u> </u>	Date:	11-Jan-25
Checked by:	Henry	Leung	Signature:	1-Pa	, Mors	Date:	11-Jan-25

5-POINT CALIBRATION DATA SHEET



File No. MA20003/44/0028

Project No.	KTD1 - Centre	of Excellence in	Paediatrics (Childr	en's Hospital)		_	
Date:	13-N	1ar-25	r-25 Next Due Date: 13-May-25		Operator:	SK	
Equipment No.:	A-0	01-44	Model No.:	TE	E-5170	Serial No.	1316
			Ambient C	ondition			
Temperatu	re, Ta (K)	297.3	Pressure, Pa			760.1	
		Or	ifice Transfer Star	ndard Informa	ation		
Serial	l 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/	Ta)] ^{1/2} -bc} / m	ic
			Calibration of 7	FCD Camplar			
		O ₂	fice	isi sampier		HVS	
Calibration Point	ΔH (orifice), in. of water		60) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water	[ΔW x (Pa/7	60) x (298/Ta)] ^{1/2} Y -axis
1	13.5		3.68	62.61	9.1		3.02
2	11.4		3.38	57.56	7.5		2.74
3	9.3		3.05	52.03	5.7		2.39
4	6.0		2.45	41.87	3.6		1.90
5	3.6		1.90	32.52	2.0		1.42
Slope , mw =	ression of Y on 2 0.0531 coefficient* =	_		Intercept, bw :	-0.324	14	
		90, check and rec	.9991 calibrate.				
			Set Point Ca	alculation			
		Curve, take Qstd he "Y" value acco 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) =	3.83		
Remarks:							
Condon 11	- W 0	live Kan	6:	, Xr	<u> </u>	Б.,	12 M 25
Conducted by:	Wong Sl	ning Kwai	Signature:		<i>)</i>	Date:	13-Mar-25
Checked by:	Henry	/ Leung	Signature:	1-Pa	, Mor	Date:	13-Mar-25

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA20003/41/0027 KTD 2D - Next to the SOR Office of Trunk Road T2 in Kai Tak Area Project No. Next Due Date: 13-Mar-25 Operator: Date: SK Equipment No.: A-01-41 Model No.: TE 5170 Serial No. 5280 **Ambient Condition** Temperature, Ta (K) 289.6 Pressure, Pa (mmHg) 771.8 **Orifice Transfer Standard Information** 0.05976 3864 Slope, mc Intercept, bc -0.05018 Serial No. $mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ Last Calibration Date: 15-Jan-24 Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ Next Calibration Date: 14-Jan-25 **Calibration of TSP Sampler** Orfice HVS Calibration $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ ΔH (orifice), Ostd (CFM) ΔW (HVS), in. Point $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ in. of water X - axis of water Y-axis 13.9 1 3.81 64.61 9.5 3.15 11.7 8.2 2.93 2 3.50 59.35 3.20 54.39 6.2 2.55 4 7.2 2.74 46.74 4.3 2.12 5 2.1 4.3 2.12 36.31 1.48 By Linear Regression of Y on X Slope, mw = 0.0600Intercept, bw : -0.6898 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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 3.41 R

Remarks:				
-				
Conducted by:	Wong Shing Kwai	Signature:	Date:	11-Jan-25
Checked by:	Henry Leung	Signature:		11-Jan-25

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA20003/41/0028

Project No.	KTD 2D - Next	to the SOR Offi	ce of Trunk Road T	2 in Kai Tak A	Area		
Date:	13-Mar-25		Next Due Date:	13-May-25		Operator:	SK
Equipment No.:	A-0	A-01-41 Model No.: TE 5170		E 5170	Serial No.	5280	
			Ambient C	ondition			
Temperatur	re Ta (K)	297.3				760.1	
Temperatur	ic, 14 (11)	271.5	Tressure, ru	(111111115)		700.1	
		Or	ifice Transfer Star	ndard Informa	ation		
Serial	No.	3864			0.05914 Intercept,		-0.02377
Last Calibration Date:		7-Jan-25	7-Jan-25		$c = [\Delta H \times (Pa/760)]$) x (298/Ta)] ¹	1/2
Next Calibration Date:		7-Jan-26	Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$				
ı			Calibration of	TSP Sampler	Ī		
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		760) x (298/Ta)] ^{1/2} Y-axis
1	13.8		3.72		9.6	3.10	
2	11.6		3.41		8.5	2.92	
3	9.6		3.10		6.3	2.51	
4	7.1		2.67		4.4	2.10	
5	4.1		2.03	34.68	2.3	1.52	
By Linear Regre Slope, mw = Correlation C	0.0570 coefficient* =	0	.9972	intercept, bw	- 0.471	0	
			Set Point Ca	lculation			
From the TSP Fig From the Regress Therefore, Se	sion Equation, tl	mw x (98/Ta)] ^{1/2}		
Remarks:				la			
Conducted by:	Wong Sl	ning Kwai	Signature:		<u> </u>	Date:	13-Mar-25
Checked by: Henry Leung		Signature:	\-len	y Xong	Date:	13-Mar-25	