

Certificate of Calibration - Wind Monitoring Station

Description: Yau Lai Estate, Bik Lai House

Manufacturer: <u>Davis Instruments</u>

Model No.: Davis7440

Serial No.: <u>MC01010A44</u>

Equipment No.: SA-03-04

Date of Calibration <u>17-Aug-2024</u>

Next Due Date <u>17-Feb-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	1.6	-0.1
2.5	2.3	0.2
4.0	4.0	0.0

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 15, 2025

Certificate of Calibration

Calibration Certification Information

Cal. Date: January 15, 2024

Rootsmeter S/N: 438320

Ta: 294

°K

Operator: Jim Tisch

Pa: 755.4

mm Hg

Calibration Model #: TE-5025A

Calibrator S/N: 3864

Run	Vol. Init Vol. Final (m3) (m3)		ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4380	3.3	2.00
2	3	4	1	1.0270	6.4	4.00
3	5	6	1	0.9180	8.0	5.00
4	7	8	1	0.8750	8.9	5.50
5	9	10	1	0.7230	12.9	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)					
1.0031	0.6975	1.4195	0.9956	0.6924	0.8823					
0.9989	0.9727	2.0075	0.9915	0.9655	1.2477					
0.9968	1.0858	2.2444	0.9894	1.0778	1.3950					
0.9956	1.1378	2.3539	0.9882	1.1294	1.4631					
0.9903	1.3697	2.8390	0.9829	1.3595	1.7645					
	m=	2.11196		m=	1.32248					
QSTD	b=	-0.05043	QA	b=	-0.03134					
	r=	0.99998	4 .	r=	0.99998					

	Calculatio	ns		
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:	
Qstd=	$1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$	Qa=	$1/m\left(\left(\sqrt{\Delta H(Ta/Pa)}\right)-b\right)$	

Standard Conditions								
Tstd:	298.15 °K							
Pstd: 760 mm Hg								
	Key							
ΔH: calibrator manometer reading (in H2O)								
ΔP: rootsme	ter manometer reading (mm Hg)							
	solute temperature (°K)							
Pa: actual ba	rometric 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

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

www.tisch-env.com

TOLL FREE: (877)263-7610 FAX: (513)467-9009

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



						File No. N	MA20003/18/027		
Project No.	CKL 1 - Flat 121	l Cha Kwo Ling	Village			_			
Date:	4-Jul-24		4-Jul-24		Next Due Date:	4-8	Sep-24	Operator:	SK
Equipment No.:	A-01	1-18			5170				
			Ambient	Condition					
Temperatur	re, Ta (K)	303.2	Pressure, Pa	(mmHg)		758.9			
		Oı	rifice Transfer Sta	andard Inform	nation				
Serial	No.	3864	Slope, mc	0.05976	Intercept	t, bc	-0.05018		
Last Calibra		15-Jan-24			$\mathbf{c} = [\Delta \mathbf{H} \times (\mathbf{Pa}/76$				
Next Calibra		14-Jan-25			x (Pa/760) x (298)				
-			Calibration of	TSP Sampler					
Calibration		Or	fice			HVS	1/2		
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	0) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	Δ W (HVS), in. of water		x (298/Ta)] ^{1/2} Y-		
1	13.6	,	3.65	61.97	9.4		3.04		
2	10.2	ĺ	3.16	53.78	7.3		2.68		
3	8.5	2.89		49.17	5.5		2.32		
4	6.2		2.47	42.12	3.6	1.88			
5	3.6		1.88	32.29	2.0	1.40			
By Linear Regr	ession of Y on X								
Slope, $mw = $		_]	Intercept, bw :	-0.458	<u> </u>			
Correlation of			9968	-					
If Correlation C	Coefficient < 0.99	0, check and rec	alibrate.						
			Set Point (Calculation					
From the TSP Fi	eld Calibration C	Curve, take Qstd							
From the Regress	sion Equation, th	e "Y" value acco	ording to						
				(D. 15(0)) (A	200 m > 1/2				
		mw x ($\mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W}]$	x (Pa//60) x (2	298/Ta)]				
Therefore, Se	et Point; W = (m	w x Qstd + bw)	² x (760 / Pa) x (′	Ta / 298) =	4.02				
,	, ,	,	, , ,	,					
Remarks:									
CHAIRS.									
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Canduck 11-	W Ol	:	Q! t	Xr	J	Deter	4 11 24		
Conducted by:	Wong Sh	ıng Kwai	Signature:		<i>)</i>	Date:	4-Jul-24		
Charlesd b	Hon	Loung	Signature:	10	Nog. 5	Date:	4 Jul 24		
Checked by:	Henry	Leung	Signature:	- Tem	7000	Date:	4-Jul-24		

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



						File No. N	/IA20003/18/028				
Project No.	CKL 1 - Flat 12	1 Cha Kwo Ling	, Village			_					
Date:	4-Sep-24		4-Sep-24		4-Sep-24		Next Due Date: 4-Nov-24		Jov-24	24 Operator:	
Equipment No.:	A-0				5170						
			•								
			Ambient	Condition							
Temperatu	re, Ta (K)	302.7	Pressure, Pa	(mmHg)		751.8					
Q : 1	137		rifice Transfer Sta	1		. 1	0.05010				
Serial		3864 15 Jan 24	Slope, mc	0.05976	Intercept $c = [\Delta H \times (Pa/76)]$		-0.05018				
Last Calibra Next Calibra		15-Jan-24 14-Jan-25			к (Pa/760) x (298						
Next Canon	ation Date.	14-Jan-23		Qstu – ([ΔH 2	(1 a/ 100) A (2)0	/1a)j -bcj/iii					
			Calibration of	f TSP Sampler							
Calibration		Or	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	- , ,	x (298/Ta)] ^{1/2} Y- axis				
1	13.7		3.65	61.96	9.3		3.01				
2	10.3		3.17	53.84	7.2		2.65				
3	8.6		2.89	49.27	5.4		2.29				
4	6.3		2.48	42.29	3.5		1.85				
5	3.7		1.90	32.60	1.9	1.36					
Bv Linear Regr	ession of Y on Y	x									
Slope, mw =				Intercept, bw :	-0.549)1					
Correlation			.9969	_							
*If Correlation C	Coefficient < 0.99	90, check and red	calibrate.	_							
			C-4 D-1-4	7-11-4							
From the TSP Fi	eld Calibration (Curve, take Qstd		Calculation							
		ne "Y" value acco									
	— 1 ,		_								
		mw x	$\mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W}]$	x (Pa/760) x (2	298/Ta)] ^{1/2}						
Therefore Se	et Point: W = (m	nw x Ostd + bw)	² x (760 / Pa) x (Ta / 298) =	3.87						
1110101010, 5	(1	Qua ,	(/ 00 / 1 / 1 (
Remarks:											
Comarky.											
Conducted by:	Wone Cl	sing Vwei	Cianatura	, Xr	γ	Data	4 San 24				
Londucted by:	Wong Sh	iiig K wai	Signature		<i>)</i>	Date:	4-Sep-24				
Checked by:	Цапет	Leung	Signature:	1_0	X 927	Date:	4-Sep-24				
Checked by.	11Cill y	Louing	. Signature.	Lem	70.0-1	Daic.	7-50p-2 1				

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA20003/55/027 Project No. CKL 2 - Flat 103 Cha Kwo Ling Village 4-Jul-24 Next Due Date: 4-Sep-24 Date: Operator: SK Equipment No.: A-01-55 Model No.: TE 5170 Serial No. 1956 **Ambient Condition** 303.2 Temperature, Ta (K) Pressure, Pa (mmHg) 758.9 **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 1 13.5 3.64 61.75 9.5 3.05 2.71 2 11.3 3.33 56.57 7.5 3.04 51.67 2.41 4 5.5 2.32 39.72 3.1 1.74 32.29 2.1 1.44 5 3.6 1.88 By Linear Regression of Y on X Slope , mw = 0.0551 Intercept, bw : -0.3959 Correlation coefficient* = 0.9974 *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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) = 3.97$ Remarks: Conducted by: Wong Shing Kwai Checked by: Henry Leung

5-POINT CALIBRATION DATA SHEET



File No. MA20003/55/028 Project No. CKL 2 - Flat 103 Cha Kwo Ling Village 4-Sep-24 Next Due Date: 4-Nov-24 Operator: SK Date: Equipment No.: A-01-55 Model No.: TE 5170 Serial No. 1956 **Ambient Condition** Temperature, Ta (K) 302.7 Pressure, Pa (mmHg) 751.8 **Orifice Transfer Standard Information** 0.05976 Intercept, bc -0.05018 3864 Slope, mc Serial No. mc x 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 13.6 3.64 61.74 9.4 3.03 1 11.4 3.33 56.60 7.4 2.68 51.20 3.01 6.0 2.42 4 5.6 2.34 39.92 2.9 1.68 5 3.6 1.87 32.17 2.0 1.40 By Linear Regression of Y on X Slope , mw = 0.0562 Intercept, bw : -0.4760 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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 3.87 Remarks: Signature: Date: 4-Sep-24

Signature: Date: 4-Sep-24 Conducted by: Wong Shing Kwai Checked by: Henry Leung

5-POINT CALIBRATION DATA SHEET



File No. MA20003/04/0025

Project No.	KER 1 - Future	Residential Deve	elopment at Kerry (Godown				
Date:	10-J	ul-24	Next Due Date:	10-	Sep-24	24 Operator:		
Equipment No.:	A-0	01-04	Model No.:	TE	E 5170	Serial No.	10595	
			Ambient C	ondition				
Temperatu	re, Ta (K)	303.6	Pressure, Pa			756.5		
-								
		Or	ifice Transfer Star	ndard Informa	tion			
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 (298/7	Γa)] ^{1/2} -bc} / m	c	
			G 111 41 65	EGD G				
	<u> </u>		Calibration of	ISP Sampler		IIVO		
Calibration	ΔH (orifice),		fice	Qstd (CFM)	ΔW (HVS), in.	HVS	50) x (298/Ta)] ^{1/2}	
Point	in. of water	[ΔH x (Pa/76	(60) x (298/Ta)] ^{1/2}	X - axis	of water		50) x (298/1a)] Z-axis	
1	13.4		3.62	61.39	9.0		2.97	
2	10.6		3.22	54.69	7.1		2.63	
3	8.6		2.90	49.35	5.3		2.28	
4	5.5		2.32	39.63	3.4	1.82		
5	3.7		1.90	32.66	2.1	1.43		
Slope , mw = Correlation	coefficient* =		.9989	Intercept, bw	-0.306	56		
*If Correlation C	Coefficient < 0.99	90, check and rec	alibrate.					
			Set Point Ca	alculation				
		Curve, take Qstd ne "Y" value acco						
		mw x Q	$\mathbf{pstd} + \mathbf{bw} = [\Delta \mathbf{W} \ \mathbf{x}]$	(Pa/760) x (29	08/Ta)] ^{1/2}			
Therefore, Se	et Point; W = (m	nw x Qstd + bw)	² x (760 / Pa) x (7	Γa / 298) =	4.03			
Remarks:								
Conducted by:	Wong Sh	ning Kwai	Signature:	<i>\text{\text{?}}</i>	<u> </u>	Date:	10-Jul-24	
Checked by:	Henry	Leung	Signature:	\-Pa.	2 Xon	Date:	10-Jul-24	

5-POINT CALIBRATION DATA SHEET



File No. MA20003/04/0026

Project No.	KER 1 - Future	Residential Deve	elopment at Kerry (Godown				
Date:	e: 11-Sep-24 ipment No.: A-01-04		11-Sep-24 Next Due Date:		12-]	12-Nov-24		SK
Equipment No.:			Model No.:	TE	E 5170	Serial No.	10595	
			Ambient C	ondition				
Temperatu	re, Ta (K)	303.4	Pressure, Pa	(mmHg)		756.1		
	•				-			
		Or	fice 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 (298/7	Γa)] ^{1/2} -bc} / m	c	
	ı		Calibration of	TSP Sampler	T			
Calibration		Or	fice	T		HVS		
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	0) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water		50) x (298/Ta)] ^{1/} '-axis	
1	13.1	:	3.58	60.71	8.8		2.93	
2	10.7		3.23	54.95	7.0		2.62	
3	8.7	<u>'</u>	2.92	49.63	5.2		2.25	
4	5.6	<u>'</u>	2.34	39.98	3.3		1.80	
5	3.8		1.93	33.08	2.0	1.40		
By Linear Regr Slope , mw =	ression of Y on Y	X .]	Intercept, bw :	-0.428	34		
_	coefficient* =		.9988	• /				
		90, check and rec	alibrate.	•				
			Set Point Ca	alculation				
From the TSP Fi	eld Calibration (Curve, take Qstd	= 43 CFM					
From the Regres	sion Equation, th	ne "Y" value acco	ording to					
_	_				1/2			
		mw x Q	$\mathbf{pstd} + \mathbf{bw} = [\Delta \mathbf{W} \ \mathbf{x}]$	(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) =	3.86			
Remarks:								
					1			
Conducted by:	Wone Cl	ning Vive:	Q:anatura.	X	Ͻ Ϳ	Datas	11-Sep-24	
Conducted by:	wong Sr	ning Kwai	Signature:		<i>)</i>	Date:	11-Sep-24	
Checked by:	Henry	Leung	Signature:	1-Pa.	a Mon	Date:	11-Sep-24	

5-POINT CALIBRATION DATA SHEET



File No. MA20003/44/0024

Project No.	KTD1 - Centre	of Excellence in	Paediatrics (Childr	en's Hospital)				
Date:	10-Jul-24		Next Due Date: 10-Sep-		ep-24 Operator:		SK	
Equipment No.:	A-0	01-44		TE		Serial No.	1316	
			Ambient C	ondition				
Temperatu	re, Ta (K)	303.6	Pressure, Pa			756.5		
•	•							
		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 (298/7	Γa)] ^{1/2} -bc} / m	c	
	<u> </u>		Calibration of 7	TSP Sampler		****		
Calibration	ΔH (orifice),		fice	Octd (CEM)	AW (IIVC) :	HVS	50) x (298/Ta)] ^{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		50) x (298/1a)] ' -axis	
1	13.8		3.67	62.28	9.7		3.08	
2	11.2		3.31	56.19	7.5		2.71	
3	9.1		2.98	50.74	5.7		2.36	
4	6.4		2.50	42.68	3.9	1.95		
5	3.8		1.93	33.08	2.2	1.47		
Slope , mw =	coefficient* =	<u> </u>	. 9986	Intercept, bw :	-0.381	.9		
*If Correlation C	Coefficient < 0.99	90, check and rec	calibrate.	•				
			Set Point Ca	alculation				
		Curve, take Qstd		· (P9/76M) v (20	98/T2)1 ^{1/2}			
Therefore, Se	et Point; W = (m		² x (760 / Pa) x (7		4.02			
Remarks:								
Conducted by:	Wong Sh	ning Kwai	Signature:	<u> </u>	<u></u>	Date:	10-Jul-24	
			8					
Checked by:	Henry	Leung	Signature:	\-P=	- Kon	Date:	10-Jul-24	

5-POINT CALIBRATION DATA SHEET



Date: 11-Sep-24

File No. MA20003/44/0025 Project No. KTD1 - Centre of Excellence in Paediatrics (Children's Hospital) 11-Sep-24 Next Due Date: 11-Nov-24 Operator: SK Date: Model No.: TE-5170 Equipment No.: A-01-44 Serial No. <u>1316</u> **Ambient Condition** Temperature, Ta (K) 303.4 756.1 Pressure, Pa (mmHg) **Orifice Transfer Standard Information** 0.05976 -0.05018 Serial No. 3864 Slope, mc Intercept, bc $mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ 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), Qstd (CFM) ΔW (HVS), in. Point $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ in. of water X - axis of water Y-axis 1 13.9 3.69 62.51 9.6 3.06 2 11.3 3.32 56.44 7.4 2.69 3 9.2 3.00 51.01 5.5 2.32 4 6.5 2.52 43.01 3.8 1.93 3.8 1.93 33.08 2.1 1.43 By Linear Regression of Y on X Slope , mw = _ 0.0552 Intercept, bw : -0.4294 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 Ostd + bw = $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Therefore, Set Point; W = $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 3.86 Remarks:

Conducted by: Wong Shing Kwai

Checked by: Henry Leung

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA20003/41/0025 KTD 2D - Next to the SOR Office of Trunk Road T2 in Kai Tak Area Project No. 10-Jul-24 Next Due Date: 10-Sep-24 Operator: SK Date: Equipment No.: _____ A-01-41 Model No.: TE 5170 Serial No. 5280 **Ambient Condition** Temperature, Ta (K) 303.6 Pressure, Pa (mmHg) 756.5 **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 62.73 1 14.0 3.70 9.6 3.06 8.4 2.86 2 11.5 3.35 56.93 9.5 3.05 51.82 6.4 2.50 2.62 4 7.0 44.60 4.5 2.10 2.2 1.47 5 3.8 1.93 33.08 By Linear Regression of Y on X Slope , mw = 0.0554 Intercept, bw :____ -0.3617 Correlation coefficient* = 0.9975 *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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 4.18 Remarks: Conducted by: Wong Shing Kwai

Checked by: Henry Leung

5-POINT CALIBRATION DATA SHEET



File No. MA20003/41/0025

Project No.	KTD 2D - Next	to the SOR Offic	ce of Trunk Road T	2 in Kai Tak A	ırea				
Date:	11-S	11-Sep-24		11-1	Nov-24	Operator:	SK		
		01-41		TE	E 5170	Serial No.	5280		
			Ambient C	ondition					
Temperatur	re, Ta (K)	303.4	Pressure, Pa	(mmHg)		756.1			
	I		ifice Transfer Star		ntion	T			
Serial		3864	Slope, mc	0.05976	Intercept	,	-0.05018		
Last Calibra		15-Jan-24			$c = [\Delta H \times (Pa/760)]$				
Next Calibra	ation Date:	14-Jan-25		$2std = \{ \Delta H x \}$	(Pa/760) x (298/7	[a)]"" -bc} / n	nc		
			Calibration of T	CCD Commission					
		Or	Calibration of T	isr sampler		HVS			
Calibration Point	ΔH (orifice),		(0) x (298/Ta)] ^{1/2}	Qstd (CFM)	ΔW (HVS), in.		760) x (298/Ta)] ^{1/2}		
1 OIIIt	in. of water	[ΔH x (Pa//6	00) x (298/1a)]	X - axis	of water		Y-axis		
1	14.2		3.73	63.17	9.5		3.05		
2	11.4		3.34	56.69	8.2		2.83		
3	9.6		3.06	52.09	6.2		2.46		
4	7.0		2.62	44.60	4.4		2.07		
5	3.9		1.95	33.51	2.1	1.43			
By Linear Regr	ession of V on V	V							
Slope, mw =		•	ī	ntercent, bw :	-0.423	9			
	coefficient* =		.9964	and copt, an					
		90, check and rec							
		,							
			Set Point Ca	lculation					
From the TSP Fi	eld Calibration (Curve, take Qstd	= 43 CFM						
From the Regress	sion Equation, th	ne "Y" value acco	ording to						
		e- C	$\mathbf{pstd} + \mathbf{bw} = [\Delta \mathbf{W} \ \mathbf{x}]$	(Do /760) -: (20	10/T ₀)1 ^{1/2}				
		mw x Ç	$\mathbf{ysta} + \mathbf{Dw} = \mathbf{L} \mathbf{\Delta w} \mathbf{x}$	(Pa//60) X (25	78/1a)]				
Therefore, Se	et Point; W = (m	nw x Qstd + bw)	² x (760 / Pa) x (7	Ta / 298) =	4.00				
							_		
Remarks:									
Kemarks.									
a	***		a.	X	λc	.	44.9		
Conducted by:	Wong Sh	ning Kwai	Signature:	1\		Date:	11-Sep-24		
C1 1 11	**	T	a:	\ 0	~	.	11.0 24		
Checked by:	Henry	Leung	Signature:	ten	J May	Date:	11-Sep-24		