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#### File No. MA20003/04/0017

Project No.	KER 1 - Future	Residential De	velopment at Kerry Godov	wn			
Date:	10-N	Mar-23	Next Due Date:	10-May-23	Operator:	SK	
Equipment No.:	A-(	01-04	Model No.:	TE 5170	Serial No.	10595	
			Ambient Condit	tion			
Temperatu	ure, Ta (K)	295.4	Pressure, Pa (mm	Hg)	763.1		

Orifice Transfer Standard Information							
Serial No.	3864	Slope, mc 0.05928 Intercept, bc -0.03491					
Last Calibration Date:	16-Jan-23	mc x Qstd + bc = $[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$					
Next Calibration Date:	16-Jan-24	Qstd = { $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc					

	Calibration of TSP Sampler								
Calibration		Orfice			HVS				
Point	$\Delta H$ (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	$[\Delta W \ge (Pa/760) \ge (298/Ta)]^{1/2}$ Y-axis				
1	13.0	3.63	61.80	9.6	3.12				
2	10.5	3.26	55.60	7.2	2.70				
3	8.5	2.93	50.09	5.8	2.42				
4	5.6	2.38	40.77	3.5	1.89				
5	3.4	1.86	31.89	2.1	1.45				
Slope , mw = Correlation	<b>coefficient</b> < 0.990		Intercept, bw = -	-0.338	6				
		Set Point C urve, take Qstd = 43 CFM e "Y" value according to	alculation						
Therefore, Se	et Point; W = ( mv	$\mathbf{mw} \mathbf{x} \mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W} \mathbf{x}]$ $\mathbf{v} \mathbf{x} \mathbf{Qstd} + \mathbf{bw}^{2} \mathbf{x} (760 / Pa) \mathbf{x} (760 / Pa)$		98/Ta)] <sup>1/2</sup> 4.11					
Remarks:									
Conducted by:	Wong Shi	ng Kwai Signature:	k	火	Date: 10-Mar-23				

F: Checked by: Steppipment Chenty Leung Sunew MA20003\_202303 Signature: 01-04) - Centry May



#### File No. MA20003/44/0017

Project No.	KTD1 - Centre	of Excellence i	n Paediatrics (Children's H	Hospital)		
Date:	10-N	Mar-23	Next Due Date:	10-May-23	Operator:	SK
Equipment No.:	A-(	01-44	Model No.:	TE-5170	Serial No.	1316
			Ambient Condit	tion		
Temperatu	ure, Ta (K)	295.4	Pressure, Pa (mml	Hg)	763.1	
		0	Prifice Transfer Standard	l Information		

	Ornice Transfer Standard Information							
Serial No.	3864	Slope, mc	0.05928	Intercept, bc	-0.03491			
Last Calibration Date:	16-Jan-23	]	mc x Qstd + bc = $[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$					
Next Calibration Date:	16-Jan-24	Qstd = { $[\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2} \ -bc} / mc$						

		Calibration of	TSP Sampler		
Calibration		Orfice			HVS
Point	$\Delta H$ (orifice), in. of water	$[\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	$\frac{[\Delta W \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}}{Y-axis}$
1	13.1	3.64	62.04	9.9	3.17
2	11.0	3.34	56.90	7.8	2.81
3	8.8	2.99	50.95	6.0	2.47
4	6.1	2.49	42.52	4.0	2.01
5	3.6	1.91	32.80	2.4	1.56
Slope, mw =	ression of Y on X 0.0546 coefficient* =		Intercept, bw	-0.273	2
		0.9975	-		
	_0emcient < 0.99	o, check and recambrate.			
		Set Point C	alculation		
From the TSP F	ield Calibration C	urve, take Qstd = 43 CFM			
From the Regres	sion Equation, the	e "Y" value according to			
		mw x Qstd + bw = $[\Delta W]$	r (Da/760) v ()	$(12)^{1/2}$	
		$\lim_{n \to \infty} x \operatorname{Qstu} + \operatorname{Dw} - [\Delta w]_2$	X (1 a / 700) X (2)	70/1a)]	
Therefore, S	et Point; W = ( my	$(x + bw)^2 x (760 / Pa) x ($	Ta / 298 ) =	4.24	
Remarks:					
Conducted by:	Wong Shi	ng Kwai Signature:		2/-	Date: 10-Mar-23
	s\Equipment\Calibration]		1 0	Non	



File No. MA20003/41/0017

						File No.	MA20003/41/001
Project No.	KTD 2D - Next	t to the SOR Offi	ce of Trunk Road	T2 in Kai Tak A	Area		
Date:	10-N	1ar-23	r-23 Next Due Date: 10-Ma		May-23	Operator:	SK
Equipment No.:	A-0	A-01-41 Model No.: 7		TE	5170	Serial No.	5280
			Ambient C	Condition			
Temperatu	re, Ta (K)	295.4	Pressure, Pa			763.1	
<b>I</b>			<u> </u>		<u>I</u>		
		Or	ifice Transfer Sta	ndard Inform	ation		
Serial	No.	3864	Slope, mc	0.05928	Intercept	t, bc	-0.03491
Last Calibra	ation Date:	16-Jan-23	1	mc x Qstd + bo	$c = [\Delta H x (Pa/760)]$	) x (298/Ta)]	1/2
Next Calibra	ation Date:	16-Jan-24		$Qstd = \{ [\Delta H x ] \}$	(Pa/760) x (298/	Га)] <sup>1/2</sup> -bc} / 1	nc
			Calibration of '	TSP Sampler			
Calibration		Or	fice	-		HVS	
Point	$\Delta H$ (orifice), in. of water	[ΔH x (Pa/76	[ΔH x (Pa/760) x (298/Ta)] <sup>1/2</sup>		$\Delta W$ (HVS), in. of water		760) x (298/Ta)] <sup>1/2</sup> <b>Y-axis</b>
1	13.6		3.71	63.20	9.9		3.17
2	11.2		3.37	57.41	8.5		2.93
3	9.2		3.05	52.08	6.5		2.56
4	6.8		2.62	44.86	4.4		2.11
5	3.8		1.96	33.68	2.4		1.57
By Linear Regr	ession of Y on I	X					
Slope, mw =			]	Intercept, bw :	-0.333	8	
•	coefficient* =	- 0	.9976	• /			
*If Correlation C	Coefficient < 0.9	90, check and red	calibrate.	-			
			Sat Daint C	abulation			
From the TSP Fi	ield Calibration	Curve, take Qstd	Set Point C: = 43 CFM				
		he "Y" value acco					
riom the Kegres	sion Equation, t	ne i value acco	ording to				
		mw x Q	$\mathbf{p}\mathbf{s}\mathbf{t}\mathbf{d} + \mathbf{b}\mathbf{w} = [\Delta \mathbf{W} \mathbf{x}]$	x (Pa/760) x (29	98/Ta)] <sup>1/2</sup>		
Therefore Se	et Point $W = (n)$	nw x Ostd + hw )	<sup>2</sup> x ( 760 / Pa ) x ( 7	$T_a / 298) =$	4.20		
110101010, 50					т.20		

Remarks:					
Conducted by:	Wong Shing Kwai	Signature:	KL.	Date:	10-Mar-23
Checked by:	Henry Leung	Signature:	fleng Kong	Date:	10-Mar-23

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File No. MA20003/18/019

Project No.	CKL 1 - Flat 1	21 Cha Kwo Lin	g Village				
Date:	4-N	Mar-23	Next Due Date:	4-May-23	Operator:	SK	
Equipment No.:	A-	01-18	Model No.:	TE 5170	Serial No.	0723	
			Ambient Cond	ition			
Temperatu	ıre, Ta (K)	292.6	Pressure, Pa (mml	Hg)	768.4		

Orifice Transfer Standard Information							
Serial No.	3864	Slope, mc	0.05928	Intercept, bc	-0.03491		
Last Calibration Date:	16-Jan-23	mc x Qstd + bc = $[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$					
Next Calibration Date: 16-Jan-24 $Qstd = \{ [\Delta H \ x \ (Pa/760) \ x \ (298/Ta) ]^{1/2} - bc \} / mc$							

	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	$\Delta W$ (HVS), in. of water	$[\Delta W \ge (Pa/760) \ge (298/Ta)]^{1/2}$ Y- axis		
1	12.8	3.63	61.83	9.9	3.19		
2	10.2	3.24	55.26	7.9	2.85		
3	8.4	2.94	50.20	5.7	2.42		
4	6.1	2.51	42.87	3.6	1.93		
5	3.3	1.84	31.69	1.8	1.36		
Slope , mw = Correlation	coefficient* =	0.9962 ), check and recalibrate.	Intercept, bw <del>-</del> -	-0.670	10		
Errow the TSD E	ald Calibratian C	Set Point (	Calculation				
		arve, take Qstd = 43 CFM					
From the Regres	sion Equation, the	e "Y" value according to					
Therefore, Se	et Point; W = ( mv	$\mathbf{mw} \mathbf{x} \mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W}]$ w x Qstd + bw) <sup>2</sup> x ( 760 / Pa ) x (		298/Ta)] <sup>1/2</sup> 3.95			
Remarks:							
Conducted by:	Wong Shi	ng Kwai Signature:	R	yL.	Date: 4-Mar-23		
Checked by:	Henry I	Leung Signature:	lem	y drong	Date: 4-Mar-23		

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File No. MA20003/55/018

Project No.	CKL 2 - Flat 1	03 Cha Kwo Lir	ng Village			
Date:	4-N	/lar-23	Next Due Date:	4-May-23	Operator:	SK
Equipment No.:	A-	01-55	Model No.:	TE 5170	Serial No.	1956
			Ambient Condit	ion		
Temperature, Ta (K) 292.6		Pressure, Pa (mml	Hg)	768.4		

Orifice Transfer Standard Information					
Serial No.	3864	Slope, mc	0.05928	Intercept, bc	-0.03491
Last Calibration Date:	16-Jan-23	1	mc x Qstd + bo	$c = [\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]$	] <sup>1/2</sup>
Next Calibration Date:	16-Jan-24		$Qstd = \{ [\Delta H x] \}$	(Pa/760) x (298/Ta)] <sup>1/2</sup> -bc} /	mc

Calibration of TSP Sampler						
Calibration	Orfice			HVS		
Point	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	$[\Delta W \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}$ Y-axis	
1	13.2	3.69	62.78	10.4	3.27	
2	11.0	3.37	57.36	8.4	2.94	
3	8.8	3.01	51.37	6.4	2.57	
4	5.4	2.36	40.37	3.2	1.82	
5	3.0	1.76	30.24	1.8	1.36	
By Linear Regression of Y on X Slope , mw = 0.0600 Intercept, bw = -0.5162 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					
Therefore, Set Point; $W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = 4.14$						
Remarks:						
Conducted by:	Wong Shi	ng Kwai Signature:	k	y Koz	Date: 4-Mar-23	
Checked by:	Henry I	Leung Signature:		g Xog	Date: 4-Mar-23	

# CINGTECH

#### **Certificate of Calibration - Wind Monitoring Station**

Description:	Yau Lai Estate, Bik Lai House
Manufacturer:	Davis Instruments
Model No.:	<u>Davis7440</u>
Serial No.:	<u>MC01010A44</u>
Equipment No.:	<u>SA-03-04</u>
Date of Calibration	<u>18-Feb-2023</u>
Next Due Date	<u>18-Aug-2023</u>

#### 1. Performance check of Wind Speed

Wind Speed, m/s		Difference D (m/s)	
Wind Speed Reading (V1)	Anemometer Value (V2)	D = V1 - V2	
0.0	0.0	0.0	
1.2	1.3	-0.1	
2.5	2.5	0.0	
3.8	3.9	-0.1	

#### 2. Performance check of Wind Direction

Wind Direction (°)		Difference D ( <sup>°</sup> )	
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

Calibrated by: \_\_\_\_\_\_ Approved by: \_\_\_\_\_\_\_ Henry/Leung