Second   S	Cal. Date: Equipment No.:		(AM1A)		Operator:	Shum Ka	m Yuen	
Ambient Condition   297.5   Pressure, Pa (mmHg)   759.2	Equipment No.:	15-Jun-11			Next Due Date:	15-Au	ıg-11	
Orifice Transfer Standard Information   No:   843   Slope, mc   2.00691   Intercept, bc   -0.0221.		A-001-53T			Serial No.	. 10216		
Orifice Transfer Standard Information   No:   843   Slope, mc   2.00691   Intercept, bc   -0.0221				Ambient	Condition			
No:   843   Slope, mc   2.00691   Intercept, bc   -0.0221	Temperatu	re Ta (K)	297.5				759.2	
No:   843   Slope, mc   2.00691   Intercept, bc   -0.0221	Temperata	10, 14 (19	207.0	1 1000010, 1	u (mming)		700.2	
Section Date:   8-Nov-10     mc x Qstd + bc = [DH x (Pa/760) x (298/Ta)]   1/2		•		Orifice Transfer St	andard Informatio	n		
Calibration of TSP Sampler   Orfice   HVS Flow Recorder	Serial	No:	843	Slope, mc	2.00691	Interce	ept, bc	-0.0221
Calibration of TSP Sampler           Office         HVS Flow Recorder           DH (orifice), in. of water         [DH x (Pa/760) x (298/Ta)] <sup>1/2</sup> [Ostd (m³/min) X axis         Flow Recorder Reading (CFM)         Continuous Flow Recorder Reading IC (CFM) Y-axis           10.3         3.21         1.61         55.0         55.02           6.4         2.53         1.27         42.0         42.01           4.7         2.17         1.09         34.0         34.01           3.5         1.87         0.94         31.0         31.01           2.2         1.48         0.75         22.0         22.01	Last Calibra	tion Date:	8-Nov-10					
Calibration of TSP Sampler   Orfice	Next Calibra	ation Date:	8-Nov-11		Qstd = {[DH x (F	Pa/760) x (298/Ta)] <sup>1</sup>	1/2 -bc} / mc	
Orfice         HVS Flow Recorder           DH (orifice), in. of water         [DH x (Pa/760) x (298/Ta)] <sup>1/2</sup> Qstd (m³/min) X axis         Flow Recorder Reading (CFM)         Continuous Flow Recorder Reading IC (CFM) Y-axis           10.3         3.21         1.61         55.0         55.02           6.4         2.53         1.27         42.0         42.01           4.7         2.17         1.09         34.0         34.01           3.5         1.87         0.94         31.0         31.01           2.2         1.48         0.75         22.0         22.01			50 10 10 10 10 10 10 10 10 10 10 10 10 10	0 19 (1	(TOD 0			
DH (orifice), in. of water         [DH x (Pa/760) x (298/Ta)] <sup>1/2</sup> Qstd (m³/min) X axis         Flow Recorder Reading (CFM)         Continuous Flow Recorder Reading IC (CFM) Y-axis           10.3         3.21         1.61         55.0         55.02           6.4         2.53         1.27         42.0         42.01           4.7         2.17         1.09         34.0         34.01           3.5         1.87         0.94         31.0         31.01           2.2         1.48         0.75         22.0         22.01					f ISP Sampler	LIVE	C Claw Boosdor	
in. of water [DH x (Pa/760) x (298/Ta)] 2 axis Reading (CFM) Reading IC (CFM) Y-axis  10.3 3.21 1.61 55.0 55.02  6.4 2.53 1.27 42.0 42.01  4.7 2.17 1.09 34.0 34.01  3.5 1.87 0.94 31.0 31.01  2.2 1.48 0.75 22.0 22.01	Resistance			Office		nvs		
6.4 2.53 1.27 42.0 42.01 4.7 2.17 1.09 34.0 34.01 3.5 1.87 0.94 31.0 31.01 2.2 1.48 0.75 22.0 22.01	Plate No.		[DH x (Pa/7	60) x (298/Ta)] <sup>1/2</sup>		St. ARTODA BARBANDER AND AND SEC.		
4.7     2.17     1.09     34.0     34.01       3.5     1.87     0.94     31.0     31.01       2.2     1.48     0.75     22.0     22.01	18	10.3		3.21	1.61	55.0	55.02	
3.5 1.87 0.94 31.0 31.01 2.2 1.48 0.75 22.0 22.01	13	6.4		2.53	1.27	42.0	42.01	
2.2 1.48 0.75 22.0 22.01 sion of Y on X	10	4.7		2.17	1.09	34.0	34.01	
sion of Y on X	7	3.5		1.87	0.94	31.0	31.01	
	5	2.2		1.48	0.75	22.0	22.01	
	Slope , mw = Correlation Coe	_	V.,		Intercept, bw =	-6.0	065	-
Set Point Calculation	Slope , mw = Correlation Coe	37.7709 fficient* =	V.,	ibrate.	-	-6.0	065	-
Set Point Calculation  d Calibration Curve, take Qstd = 1.30m³/min	Slope , mw = Correlation Coe If Correlation Co	37.7709 fficient* = efficient < 0.990,	check and recali	ibrate. Set Point	-	-6.0	065	
The state of the s	Slope , mw = Correlation Coe If Correlation Co From the TSP Fig.	37.7709  fficient* = efficient < 0.990,  eld Calibration Cu	check and recali	Set Point 1.30m³/min	-	-6.0	065	
d Calibration Curve, take Qstd = 1.30m <sup>3</sup> /min ion Equation, the "Y" value according to	Slope , mw = Correlation Coe If Correlation Coe From the TSP Fig.	37.7709  fficient* = efficient < 0.990,  eld Calibration Cu	check and recaling the control of th	Set Point 1.30m³/min rding to	Calculation		065	-
d Calibration Curve, take Qstd = 1.30m³/min	Slope , mw = Correlation Coe If Correlation Co From the TSP Fig.	37.7709  fficient* = efficient < 0.990,  eld Calibration Cu	check and recaling the control of th	Set Point 1.30m³/min rding to	Calculation		065	-
d Calibration Curve, take Qstd = 1.30m <sup>3</sup> /min ion Equation, the "Y" value according to	Slope , mw = Correlation Coe If Correlation Coe From the TSP Fie From the Regres	37.7709  fficient* = efficient < 0.990,  eld Calibration Cu sion Equation, the	rve, take Qstd = "Y" value accor	Set Point 1.30m³/min rding to  v x Qstd + bw = IC	Calculation  x [(Pa/760) x (298/			-
icient* = 0.9943								
	lope , mw = orrelation Coe	37.7709 fficient* =	V.,		Intercept, bw =	-6.0	065	-
The state of the s	Slope , mw = Correlation Coe If Correlation Co	37.7709 fficient* = efficient < 0.990,	check and recali	ibrate. Set Point	-	-6.0	065	-
d Calibration Curve, take Qstd = 1.30m³/min	Slope , mw = Correlation Coe If Correlation Coe From the TSP Fig.	37.7709  fficient* = efficient < 0.990,  eld Calibration Cu	check and recali	Set Point 1.30m³/min	-	-6.0	065	-
d Calibration Curve, take Qstd = 1.30m³/min	Slope , mw = Correlation Coe If Correlation Co From the TSP Fig.	37.7709  fficient* = efficient < 0.990,  eld Calibration Cu	check and recali	Set Point 1.30m³/min	-	-6.0	065	-
d Calibration Curve, take Qstd = 1.30m <sup>3</sup> /min ion Equation, the "Y" value according to	Slope , mw = Correlation Coe If Correlation Co From the TSP Fig.	37.7709  fficient* = efficient < 0.990,  eld Calibration Cu	check and recaling the control of th	Set Point 1.30m³/min rding to	Calculation		065	-
d Calibration Curve, take Qstd = 1.30m <sup>3</sup> /min ion Equation, the "Y" value according to	Slope , mw = Correlation Coe If Correlation Co From the TSP Fig.	37.7709  fficient* = efficient < 0.990,  eld Calibration Cu	check and recaling the control of th	Set Point 1.30m³/min rding to	Calculation		065	-
d Calibration Curve, take Qstd = 1.30m <sup>3</sup> /min ion Equation, the "Y" value according to  mw x Qstd + bw = IC x [(Pa/760) x (298/Ta)] <sup>1/2</sup>	Slope , mw = Correlation Coe If Correlation Coe From the TSP Fie From the Regres	37.7709  fficient* = efficient < 0.990,  eld Calibration Cu sion Equation, the	rve, take Qstd = "Y" value accor	Set Point 1.30m³/min rding to  v x Qstd + bw = IC	Calculation  x [(Pa/760) x (298/			-

Station	Sheung Wun Yiu (AM1A
Station	Officially Wall Tid (Alli)

Cal. Date:

15-Jun-11

Next Due Date:

15-Aug-11

Set Point (IC) 43.08

IC (CFM)	Qstd (m³/min)
24	0.794
25	0.821
26	0.847
27	0.874
28	0.900
29	0.927
30	0.953
31	0.980
32	1.006
33	1.033
34	1.059
35	1.086
36	1.112
37	1.139
38	1.165
39	1.192
40	1.218
72	1.045
41	1.245
42	1.271
43	1.297
44	1.324
45	1.350
46	1.377
47	1.403
48	1.430
49	1.456
50	1.483
51	1.509
52	1.536
53	1.562
54	1.589
55	1.615
56	1.642
57	1.668
58	1.695
59	1.721
60	1.748
61	1.774
62	1.801
63	1.827
64	1.853
65	1.880

Operator:

Choi wing ho

Shan Tong New Village (AM2)

Station

Cal. Date:	24-May-11			Next Due Date:	24-J	ul-11
quipment No.:	A-001-29T	29T Serial No. 10202				
<del> </del>	<del></del>		Ambien	: Condition		
Temperati	ure, Ta (K)	297		Pa (mmHg)		755.5
. топфотак	, , , , , , , , , , , , , , , , , ,	20,	11000010,	a (minig)		100.0
		(	Orifice Transfer S	tandard Informatio	)n	
Seria	ıl No:	843	Slope, mc	2.00691	Interce	ept, bc -0.021
Last Calibr	ation Date:	8-Nov-10		mc x Qstd + bc	= [DH x (Pa/760) x	(298/Ta)] <sup>1/2</sup>
Next Calibr	ration Date:	8-Nov-11		Qstd = {[DH x (	Pa/760) x (298/Ta)]	<sup>1/2</sup> -bc} / mc
			Calibration	of TSP Sampler		
		0	rfice		HV:	S Flow Recorder
Resistance	DII (arifica)			3		
Plate No.	DH (orifice), in. of water	[DH x (Pa/76	60) x (298/Ta)] <sup>1/2</sup>	Qstd (m³/min) X - axis	Flow Recorder Reading (CFM)	Continuous Flow Recorde Reading IC (CFM) Y-axis
18	10.8		3.28	1.65	48.0	47.94
13	8.0		2.82	1.42	42.0	41.95
10	5.4		2.32	1.17	34.0	33.96
7	4.2		2.05	1.03	28.0	27.96
5	2.5		1.58	0.80	22.0	21.97
y Linear Regre Iope , mw =	ession of Y on X 31.4651	<del>_</del>		Intercept, bw =	-3.3	763
orrelation Coe	efficient* =	0.9	946	_		
f Correlation Co	pefficient < 0.990,	check and recalit	orate.			
· · · · · · · · · · · · · · · · · · ·			Set Point	Calculation		
rom the TSP Fi	eld Calibration Cu	rve, take Qstd =	1.30m <sup>3</sup> /min			·
rom the Regres	sion Equation, the	e "Y" value accord	ling to			
•	•					
		mw	x Qstd + bw = IC	x [(Pa/760) x (298/	Ta)] <sup>1/2</sup>	
herefore Set P	oint: IC = ( mw x (	) x ( 76	Sn / Pa \ v / Ta / 20	98 )1 <sup>1/2</sup> =		27 50
110101070, 0001		aota · ow / x [( / c	7071 d / X ( 1d / 20	,O )j   –		37.30
Therefore, Set P	oint; IC = ( mw x C	Qstd + bw ) x [( 76	60 / Pa ) x ( Ta / 29	98 )] <sup>1/2</sup> =		37.58
Remarks:						
				1		
C Reviewer:	- he	tra	Signature <sup>.</sup>	100		Date 30 May 1

Station Shan Tong New Village (AM2)

Cal. Date:

24-May-11

Next Due Date:

24-Jul-11

Set Point (IC)

(IC) <u>37.58</u>

IC (CFM)	Qstd (m <sup>3</sup> /min)
24	0.870
25	0.902
26	0.934
27	0.965
28	0.997
29	1.029
sas er <b>30</b>	1,061
31	1.093
32	1.124
33	1.156
34	1.488
35	1.220
36	1.251
37	1.283
38	.1.315
39	1.347
40	1.379
41	1.410
42	1,442
43	1.474
44 -	1.506
45	1.537
46	1.569
47	1.601
<b>/0</b>	1 633
<b>48</b> 49	1.665
50	1.696
51	1.728
52	1.760
53	1.792
54	1,823
55	1.855
rangan ka <b>50</b> a kasa	1.887
57	1.919
58	1,951
59	1.982
60	2.014
61	2.046
62	2.078
63	2.110
64	2.141
65	2.173

Call Date:	Station	Shan Tong New \	/illage (AM2)		Operator:	Shum Ka	m Yuen	
Ambient Condition   Temperature, Ta (K)   304   Pressure, Pa (mmHg)   752.2	Cal. Date:	21-Jul-11		22 50	Next Due Date:	21-Se	p-11	<del>-</del> ,
Temperature, Ta (K)   304   Pressure, Pa (mmHg)   752.2	Equipment No.:	A-001-29T	Serial No. 10202					_
Orifice Transfer Standard Information		-		Ambient	Condition			
Serial No:   843   Slope, mc   2.00691   Intercept, bc   -0.022°	Temperatu	re, Ta (K)	304	Pressure, F	Pa (mmHg)		752.2	
Serial No:								
Last Calibration Date: 8-Nov-10   Mext Calibration Date: 8-Nov-11   Qstd = {[DH x (Pa/760) x (298/Ta)]}^{1/2} -bc} / mc				Orifice Transfer S	tandard Informatio	n		
Next Calibration Date: 8-Nov-11   Qstd = {[DH x (Pa/760) x (298/Ta)]}^{1/2} -bc} / mc	Serial	No:	843	Slope, mc	2.00691	Interce	ept, bc	-0.0221
Calibration of TSP Sampler	Last Calibra	ition Date:	8-Nov-10		mc x Qstd + bc	= [DH x (Pa/760) x	(298/Ta)] <sup>1/2</sup>	58
Note   HVS Flow Recorder	Next Calibra	ation Date:	8-Nov-11		Qstd = {[DH x (F	Pa/760) x (298/Ta)] <sup>1</sup>	<sup>/2</sup> -bc} / mc	
No.   Continuous Flow Recorder				0 W (/				
Resistance   Plate No.   DH (orifice), in. of water   [DH x (Pa/760) x (298/Ta)]^{1/2}   Qstd (m³/min) X   Flow Recorder   Reading IC (CFM)   Y-axis					of TSP Sampler	10.4		
Plate No.   DH (orifice), in. of water   [DH x (Pa/760) x (298/Ta)]   Plate No.   DH (orifice), in. of water   [DH x (Pa/760) x (298/Ta)]   Plate No.   Continuous Flow Recorder Reading (CFM)   Plate No.   Reading IC (CFM)   Plate No.   Reading IC (CFM)   Plate No.   No.   Plate No.   No.   Plate No.   Plate No.   No.   Plate N	Posistanas		C	ortice		HVS	Flow Recorder	
13	ACCOMMODE AND		[DH x (Pa/7)	60) x (298/Ta)] <sup>1/2</sup>	, ,	ACCUPATION OF CONTRACT PRODUCTIONS		
10 5.4 2.29 1.15 34.0 33.49 7 4.0 1.97 0.99 28.0 27.58 5 2.4 1.53 0.77 22.0 21.67  By Linear Regression of Y on X Slope , mw = 30.6369 Intercept, bw = -2.2523  Correlation Coefficient* = 0.9978  "If Correlation Coefficient < 0.990, check and recalibrate.  Set Point Calculation  From the TSP Field Calibration Curve, take Qstd = 1.30m³/min  From the Regression Equation, the "Y" value according to  mw x Qstd + bw = IC x [(Pa/760) x (298/Ta)] 1/2	18	10.6		3.21	1.61	48.0	47.2	8
7	13	7.7	V	2.73	1.37	40.0	39.4	0
5 2.4 1.53 0.77 22.0 21.67  By Linear Regression of Y on X  Slope , mw = 30.6369 Intercept, bw = -2.2523  Correlation Coefficient* = 0.9978  If Correlation Coefficient < 0.990, check and recalibrate.  Set Point Calculation  From the TSP Field Calibration Curve, take Qstd = 1.30m³/min  From the Regression Equation, the "Y" value according to  mw x Qstd + bw = IC x [(Pa/760) x (298/Ta)] <sup>1/2</sup>	10	5.4		2.29	1.15	34.0	33.4	9
5 2.4 1.53 0.77 22.0 21.67  By Linear Regression of Y on X  Slope , mw = 30.6369 Intercept, bw = -2.2523  Correlation Coefficient* = 0.9978  If Correlation Coefficient < 0.990, check and recalibrate.  Set Point Calculation  From the TSP Field Calibration Curve, take Qstd = 1.30m³/min  From the Regression Equation, the "Y" value according to  mw x Qstd + bw = IC x [(Pa/760) x (298/Ta)] <sup>1/2</sup>					0.99	28.0	27.5	8
By Linear Regression of Y on X  Slope , mw = 30.6369								
From the TSP Field Calibration Curve, take Qstd = 1.30m³/min  From the Regression Equation, the "Y" value according to  mw x Qstd + bw = IC x [(Pa/760) x (298/Ta)] <sup>1/2</sup>	Slope , mw = Correlation Coef	30.6369 fficient* =			Intercept, bw =	-2.2	523	_
From the Regression Equation, the "Y" value according to $mw \times Qstd + bw = IC \times [(Pa/760) \times (298/Ta)]^{1/2}$				Set Point	Calculation			
From the Regression Equation, the "Y" value according to $mw \ x \ Qstd + bw = IC \ x \left[ (Pa/760) \ x \ (298/Ta) \right]^{1/2}$	From the TSP Fie	eld Calibration Cu	rve, take Qstd =		THE REAL PROPERTY OF THE PROPERTY OF			
mw x Qstd + bw = IC x $[(Pa/760) \times (298/Ta)]^{1/2}$								
	Service Committee Committee	n carcana som Hannaran som en menom		0				
Therefore, Set Point; IC = ( mw x Qstd + bw ) x [( 760 / Pa ) x ( Ta / 298 )] <sup>1/2</sup> = 38.15			mw	x Qstd + bw = IC	x [(Pa/760) x (298/	Ta)] <sup>1/2</sup>		
Inererore, Set Point; IC = ( mw x Qsta + bw ) x [( 760 / Pa ) x ( 1a / 298 )] =	Th 5	int 10 /	\\	00 / D- \ / T . / 01	20.11/2_		00.45	
	inererore, Set Po	oint; IC = ( mw x C	usta + bw ) x [( 7	bu/Pa)x(Ia/29	98 )]=	,	38.15	_
							1278	
	Remarks:							
Remarks:								
Remarks:	i	1		3-2-6-8	Ĩ	<del></del>		
Remarks:	QC Reviewer:	Hilo shall		Signature:	Mike		Date:	Vil. II

Signature: \_

Shan Tong New Village (AM2) Station

Cal. Date:

21-Jul-11

Next Due Date:

21-Sep-11

Set Point (IC) <u>38.15</u>

IC (CFM)	Qstd (m³/min)
24	0.857
25	0.890
26	0.922
27	0.955
28	0.987
29	1.020
30	1.053
31	1.085
32	1.118
33	1.151
34	1.183
35	1.216
36	1.249
37	1.281
38	1.314
39	1.346
40	1.379
41	1.412
42	1,444
43	1.477
44	1.510
45	1.542
46	1.575
47	1.608
48	1.640
49	1.673
50	1.706
51	1.738
52	1.771
53	1.803
54	1.836
55 56	1.869
	1.901
57 58	1.934 1.967
59	1.999
60	2.032
61	2.052
62	2.097
63	2.130
64	2.163
65	2.195

Operator:

Choi wing ho

Riverain Bayside (AM3)

Station

Equipment No.:	24-May-11			Next Due Date:	24-Jı	ul-11
-	A-001-69T			Serial No.	71	6
		<del></del>				
				Condition		
Temperatur	re, Ia (K)	297	Pressure, I	Pa (mmHg)		755.5
	——————————————————————————————————————	, , , , , , , , , , , , , , , , , , ,	Naidhea Turaige o			Bargan Lington Will Hillands
Serial	No	843	Slope, mc	tandard Information 2.00691		ept, bc -0.021
Last Calibra		8-Nov-10	Slope, Inc		Interce = [DH x (Pa/760) x	
Next Calibra		8-Nov-11			- [DH X (Pai760) X Pai760) x (298/Ta)]	
- TOXE GUILDIG	aton Dato.	01107 11		ון א וומןן – מופש	arr 00 / X (290/1 a)]	-5077 1110
			Calibration of	of TSP Sampler		
	······································	0	rfice	<u> </u>	HV	S Flow Recorder
Resistance Plate No.	DH (orifice), in. of water	[DH x (Pa/76	50) x (298/Ta)] <sup>1/2</sup>	Qstd (m³/min) X axis	Flow Recorder Reading (CFM)	Continuous Flow Recorde Reading IC (CFM) <b>Y-axis</b>
18	10.5		3.24	1.62	50.0	49.94
13	8.5		2.91	1.46	46.0	45.94
10	6.4		2.53	1.27	40.0	39.95
7	4.5					
5 2.7 1.64 0.83 24.0 23						23.97
By Linear Regres	32.4101	· -	.000	Intercept, bw =	-1.7	559
Slope , mw = Correlation Coeff	32.4101 ficient* =	0.9	908 vrate.	Intercept, bw = _	-1.7	559
Slope , mw = Correlation Coeff	32.4101 ficient* =		rate.	_	-1.7	559
Slope , mw = Correlation Coeff If Correlation Coe	32.4101 ficient* = efficient < 0.990,		rate. Set Point	_		559
Slope , mw = Correlation Coeff If Correlation Coeff From the TSP Fiel	32.4101  ficient* = efficient < 0.990,	check and recalib	Set Point	_		559
Slope , mw = Correlation Coeff If Correlation Coeff From the TSP Fiel	32.4101  ficient* = efficient < 0.990,	check and recalib rve, take Qstd = 1 e "Y" value accord	Set Point  30m³/min ling to	Calculation		559
Slope , mw = Correlation Coeff If Correlation Coeff From the TSP Fiel	32.4101  ficient* = efficient < 0.990,	check and recalib rve, take Qstd = 1 e "Y" value accord	Set Point  30m³/min ling to	_		559
Correlation Coeff If Correlation Coeff From the TSP Fiel	32.4101  ficient* =  efficient < 0.990,  Id Calibration Cusion Equation, the	check and recalib rve, take Qstd = 1 e "Y" value accord mw s	Set Point  30m³/min ling to	Calculation  x [(Pa/760) x (298/1		40.43

Station Riverain Bayside (AM3)

Cal. Date: **24-May-11** 

Next Due Date: 24-Jul-11

Set Point (IC) <u>40.43</u>

IC (CFM)	Qstd (m³/min)
24	0.795
25	0.826
26	0.856
27	0.887
28	0.948
29	0.949
30	0.980
31	1.011
32	1.042
33	1.072
34	1,103
35	1.134
36	/ 1.165
37	1.196
38	1:227
39	1.258
40	1.288
41	1.319
42	1.350
43	1.381
43	1.412
45	1.443
45 46.	1,443
47	1.504
41	1.004
48	1,535
49	1.566
50	1.597
51	1.628
52	11659
53	1.689
54	1.720
55	1.751
56	= -=1.782
57	1.813
58	1.844
59	1.875
<b>60</b> 61	<b>1.905</b> 1.936
62	1.967
63	1. <b>96</b> 7 1.998
64	2.029
<b>6</b> 5	A Committee of the Comm
	2.060

Station	Riverain Bayside	(AM3)		Operator:	Shum Ka	nm Yuen	
Cal. Date:	21-Jul-11			Next Due Date:	21-Se	p-11	=
quipment No.:	A-001-69T			Serial No.	71	6	-
1-			Ambient	Condition			
Temperatu	ire, Ta (K)	304	Pressure, F	Pa (mmHg)		752.2	
		(	Orifice Transfer S	tandard Informatio	n		
Seria	l No:	843	Slope, mc	2.00691	Interce		-0.0221
Last Calibra	ation Date:	8-Nov-10			= [DH x (Pa/760) x		
Next Calibr	ation Date:	8-Nov-11		Qstd = {[DH x (	Pa/760) x (298/Ta)]	<sup>1/2</sup> -bc} / mc	
		•					
				f TSP Sampler			
Desistance		0	rfice		HVS	S Flow Recorder	
Resistance Plate No.	DH (orifice), in. of water	[DH x (Pa/76	60) x (298/Ta)] <sup>1/2</sup>	Qstd (m³/min) X - axis	Flow Recorder Reading (CFM)	Continuous Flor Reading IC (CF	
18	10.2		3.15	1.58	52.0	51.2	2
13	8.3		2.84	1.43	46.0	45.3	1
10	6.2		2.45	1.23	38.0	37.4	3
7	4.3		2.04	1.03	32.0	31.5	2
5	2.5		1.56	0.79	24.0	23.6	4
Slope , mw = Correlation Coe	34.6911 fficient* =		9957 prate.	Intercept, bw =	-4.1	697	-
			Set Point	Calculation			
rom the TSP Fi	eld Calibration Cu	rve. take Ostd =		Odiculation			
	sion Equation, the						
•							
		mw	x Qstd + bw = IC	x [(Pa/760) x (298/	Γa)] <sup>1/2</sup>		
				20 12/2			
neretore, Set P	oint; IC = ( mw x (	ustd + bw ) x [( 7	60 / Pa ) x ( Ta / 29	98 )]''~=		41.55	_
			O STANSON AND ADDRESS OF THE PROPERTY OF THE P				
Remarks:							
		345					
	1			N.			
		1 1		n.l		00	

Station	Riverain Bayside (AM3)

Cal. Date: 21-Jul-11

Next Due Date: 21-Sep-11

Set Point (IC) 41.55

IC (CFM)	Qstd (m³/min)
24	0.812
25	0.841
26	0.870
27	0.898
28	0.927
29	0.956
30	0.985
31	1.014
32	1.043
33	1.071
34	1.100
35	1.129
36	1.158
37	1.187
38	1.216
39	1.244
40	1.273
40	1.213
41	1.302
42	1.331
43	1.360
44	1.389
45	1.417
46	1.446
47	1.475
48	1.504
49	1.533
50	1.561
51	1.590
52	1.619
53	1.648
54	1.677
55	1.706
56	1.734
57	1.763
58	1.792
59	1.821
60	1.850
61	1.879
62	1.907
63	1.936
64	1.965
65	1.994

Operator:

Choi wing ho

Tai Kwong Secondary School (AM4)

Station

Cal. Date:	24-May-11			Next Due Date:	24-J	ul-11	-
Equipment No.:	A-001-70T			Serial No.	102	10273	
			Ambien	t Condition			
Temperatu	ire, Ta (K)	297		Pa (mmHg)		755.3	
					ta night the setting the		,
			The state of the s	Standard Informatio			
Seria		843	Slope, mc	2.00691	Y	ept, bc	-0.021
Last Calibra		8-Nov-10			= [DH x (Pa/760) x		
Next Calibra	ation Date:	8-Nov-11		Qstd = {[DH x (F	Pa/760) x (298/Ta)]	"bc} / mc	
			Calibration (	of TSP Sampler			
		C	Orfice		HV	S Flow Recorder	
Resistance Plate No.	DH (orifice), in. of water	[DH x (Pa/7)	60) x (298/Ta)] <sup>1/2</sup>	Qstd (m³/min) X - axis	Flow Recorder Reading (CFM)	Continuous Flow Reading IC (CFI	
18	11.0	<del></del>	3.31	1.66	55.0	54.92	)
13	9.0		3.00	1.50	50.0	49.93	}
10	6.2		2.49	1.25	41.0	40.94	
7	4.4		2.09	1.05	35.0	34.95	;
5	2.8		1.67	0.84	27.0	26.96	)
ly Linear Regre llope , mw =	ssion of Y on X			Intercept, bw =	-1.4	331	
orrelation Coe	fficient* =	0.9	9991	-			-
f Correlation Co	efficient < 0.990	, check and recalil	orate.	_			
		**	Cat Dalat	o various			
rom the TSP Fie	eld Calibration C	urve, take Qstd =		Calculation	······································	<u> </u>	<u> </u>
		ne "Y" value accor					
. o.,, a., o., tog, oo	oron aquation, tr	io i valuo accon	ung to				
		mw	x Qstd + bw = IC	x [(Pa/760) x (298/1	[a)] <sup>1/2</sup>		
horofers O.C.	aint 10 - 1	0-14 / 5- / 1/ 7/	00 (D- \	20.11/2			
nererore, Set Po	oint; IC = ( mw x	)] X ( Wa + DISL	60 / Pa ) x ( Ta / 29	ap )]=		42.89	-
Remarks:							
							<del> </del>
	1	<del>~</del>		i			
C Reviewer	~ 07	Ha	Signature:	~ INF -		Date: < 30 M	m. /1

Station	Tai Kwong Secondary School (AM4	.)

Cal. Date: <u>24-May-11</u>

Next Due Date: 24-Jul-11

Set Point (IC) <u>42.89</u>

IC (CFM)	Qstd (m³/min)
24	0.747
25	0.776
44 <b>26</b> 30 442	0.806
27	0.835
28	0.865
29	0.894
30	0.923
31	0.953
32	0.982
33	1.011
34	1.041
35	1.070
36	1.100
37	1.129
38	1.158
39	1.188
40	1.217
41	1.246
42	1.276
43	1.305
44	1.385
45	1.364
46	1.393
47	1.423
48	1.452
49	1.481
50	1.511
51	1.540
52	1.570
53	1.599
54	:1.628
55	1.658
56	1.687
57	1.716
58	1.746
59	1.775
60 61	1.805
61 62	1.834
<b>62</b>	1.863
63 64	1.893
64 65	1.922
65	1.951

Station	Tai Kwong Secor	ndary School (AM	4)	Operator:	Shum Ka	ım Yuen	
al. Date:	21-Jul-11	Next Due Date: 21-Sep-11				p-11	
quipment No.:	A-001-70T			Serial No.	102	?73	
			Ambient	Condition			
Temperatu	re, Ta (K)	304	Pressure, I	Pa (mmHg)		752.2	
				-			
		(	Orifice Transfer S	tandard Informatio	n		
Serial	No:	843	Slope, mc	2.00691	Interce	ept, bc	-0.0221
Last Calibra	ation Date:	8-Nov-10		mc x Qstd + bc	= [DH x (Pa/760) x	(298/Ta)] <sup>1/2</sup>	
Next Calibra	ation Date:	8-Nov-11		Qstd = {[DH x (I	Pa/760) x (298/Ta)]	<sup>1/2</sup> -bc} / mc	
		inc					
			Calibration of	f TSP Sampler			
		0	rfice		HVS	S Flow Record	er
Resistance Plate No.	DH (orifice), in. of water	[DH x (Pa/76	50) x (298/Ta)] <sup>1/2</sup>	Qstd (m³/min) X - axis	Flow Recorder Reading (CFM)		Flow Recorder (CFM) Y-axis
18	10.4		3.18	1.59	50.0	4:	9.25
13	7.7		2.73	1.37	42.0	4	1.37
10	5.9		2.39	1.20	36.0	3	5.46
7	4.1		1.99	1.00	30.0	2	9.55
5	2.6		1.59	0.80	24.0	2	3.64
lope , mw =	32.3160	_	0075	Intercept, bw =	-2.7	780	
orrelation Coef	<del>-</del>	2.75	975	<del>-</del>			
f Correlation Co	efficient < 0.990,	check and recalib	orate.				
1921975555555555555			0.5.	01.10	HARRIST MARKET HE STATE OF THE		Sold Sold with the William
rom the TCD Fig	old Calibratian Cu	rve, take Qstd = 1		Calculation			
rom the Regres	sion Equation, the	e "Y" value accord	ling to				
		mw	v Ostd + hw = IC	х [(Pa/760) x (298/	Ta)1 <sup>1/2</sup>		
		III.W	A GOLG : DIV 10	X [(1 4/100) X (200/	1 4/]		
herefore, Set Po	oint; IC = ( mw x 0	Qstd + bw ) x [( 76	60 / Pa ) x ( Ta / 29	98 )] <sup>1/2</sup> =		39.83	
					,	NV9. 55	<del></del>
				7	-0		
Remarks:							
		1		1.1		No.	
QC Reviewer:	Hike ish	ek	Signature:	tike		Date:	Jul-11

Station	Tai Kwong Secondary School (AM4)

21-Jul-11

Cal. Date:

Next Due Date: 21-Sep-11

Set Point (IC) <u>39.83</u>

IC (CFM)	Qstd (m³/min)
24	0.829
25	0.860
26	0.891
27	0.921
28	0.952
29	0.983
30	1.014
31	1.045
32	1.076
33	1.107
34	1.138
35	1.169
36	1.200
37	1.231
38	1.262
39	1.293
40	1.324
74	4.055
41	1.355
42	1.386
43	1.417
44	1.448
45	1.478
46	1.509
47	1.540
48	1.571
49	1.602
50	1.633
51	1.664
52	1.695
53	1.726
54	1.757
55	1.788
56	1.819
57	1.850
58	1.881
59	1.912
60	1.943
61	1.974
62	2.005
63	2.035
64	2.066
65	2.097



TISCH ENVIROMENTAL, INC. 145 SOUTH MIAMI AVE. VILLAGE OF CLEVES, OH 45002 513.467.9000 877.263.7610 TOLL FREE 513.467.9009 FAX WWW.TISCH-ENV.COM

#### AIR POLLUTION MONITORING EQUIPMENT

# ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - No Operator	ov 08, 2010 Tisch	Rootsmeter Orifice I.I		833620 0843	Ta (K) - Pa (mm) -	754.38
PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1 2 3 4 5	NA NA NA NA	NA NA NA NA NA	1.00 1.00 1.00 1.00 1.00	1.4030 0.9880 0.8850 0.8440 0.6970	3.2 6.4 7.9 8.8 12.7	2.00 4.00 5.00 5.50 8.00

#### DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
1.0087 1.0044 1.0023 1.0012 0.9959	0.7189 1.0166 1.1325 1.1862 1.4289	1.4234 2.0130 2.2506 2.3604 2.8468		0.9957 0.9915 0.9894 0.9883 0.9831	0.7097 1.0036 1.1180 1.1710 1.4105	0.8799 1.2443 1.3912 1.4591 1.7597
Qstd slop intercept coefficie	t (b) = ent (r) =	2.00691 -0.02214 0.99996		Qa slope intercept coefficie	(b) =	1.25670 -0.01369 0.99996
y axis =	SQRT [H20 (I	Pa/760)(298/	ra)]	v axis =	SORT [H2O (7	Ta/Pa)l

y axis = SQRT[H2O(Ta/Pa)]

### CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta) Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa]

Qa = Va/Time

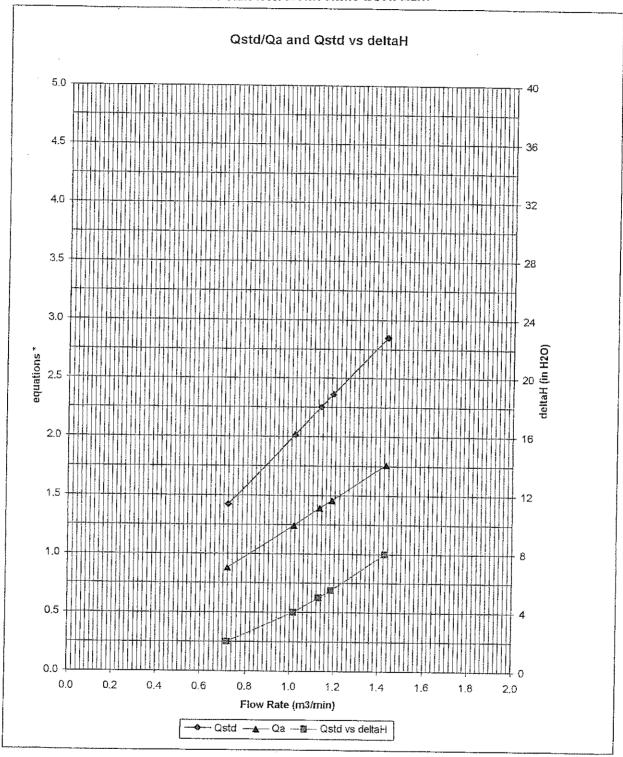
For subsequent flow rate calculations:

Qstd =  $1/m\{ [SQRT(H2O(Pa/760)(298/Ta))] - b\}$  $Qa = 1/m\{[SQRT H2O(Ta/Pa)] - b\}$ 



TISCH ENVIROMENTAL, INC. 145 SOUTH MIAMI AVE. VILLAGE OF CLEVES, OH 45002 513.467.9000 877.263.7610 TOLL FREE 513.467.9009 FAX WWW.TISCH-ENV.COM

#### AIR POLLUTION MONITORING EQUIPMENT



\* y-axis equations:

Qstd series:

$$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$$

Qa series:

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

#0843

Type:	acturer/Brand:			Laser Du SIBATA	ıst Monii	tor		
Model			· · · · · · · · · · · · · · · · · · ·	LD-3				
	nent No.:		A.005.07a			<del></del>		
	ivity Adjustment	Scale Setti		557 CPN				
OCHSIL	ivity Adjustment	Ocaic Octi	<u>'</u>	007 01 11		· · · · · · · · · · · · · · · · · · ·		
Opera	tor:		AMMARA	Mike She	k (MSKN	1)		
Standa	rd Equipment							
Equipr	ment:	Rupj	orecht & Pat	tashnick	TEOM®			
Venue	:		erport (Pui Y	'ing Seco	ndary Sc	chool)		
Model		_Serie	es 1400AB					
Serial	No:	Cont		AB21989				
		Sens		00C14365	59803	K₀: <u>12500</u>		
Last C	alibration Date*:	_4 Ju	ne 2011					<del></del>
*Remar	ks: Recommend	ed interval	for hardwar	e calibrat	tion is 1 y	/ear		
Calibra	tion Result							
Seneit	ivity Adjustment	Scale Sett	ing /Bofore i	Calibratio	m).	<i>557</i> CP	ħΛ	
	ivity Adjustment		•		,	557 CP		
OCHSIL	avity Adjustment	Ocale Octi	ing (Aiter O	anoration,				
Hour	Date	Ti	me	Amh	pient	Concentration <sup>1</sup>	Total	Count/
, 1001	(dd-mm-yy)		, , , ,	Cond		(mg/m <sup>3</sup> )	Count <sup>2</sup>	Minute <sup>3</sup>
	(22 )))			Temp	R.H.	Y-axis		X-axis
		,		(°C)	(%)			
1	05-06-11	09:30	- 10:30	31.3	67	0.04118	1540	25.67
2	05-06-11	10:30	- 11:30	31.3	67	0.04354	1637	27.28
3	05-06-11	11:30	- 12:30	31.3	67	0.04633	1730	28.83
4	05-06-11	12:30	- 13:30	31.4	66	0.04271	1603	26.72
Note:	1. Monitoring of	lata was m	easured by	Rupprecl	ht & Pata	shnick TEOM®		
	<ol><li>Total Count</li></ol>							
	3. Count/minut	te was calc	ulated by (T	otal Cou	nt/60)			
D 17.	<b>,</b> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
	ar Regression of	Y or X	0.0040				,	
	(K-factor):		0.0016					
Correi	ation coefficient:		0.9958		<del></del>			
Validit	y of Calibration F	Record:	4 June 20	)12	-			
Remark	(S)		_					
			<del></del>					
					_			
QC Re	eviewer: YW F	- ung	Signa	ture: 🖖	$\sqrt{}$	Date	e: <u>8 June</u>	2011

Туре:				Laser D	ict Mar	itor		
	cturer/Brand:		٠,	SIBATA	ust MOI	moi		
Model No.:			-	LD-3		-	÷	
	Equipment No.:			A.005.08	a			
	ity Adjustment	Scale Setting	g: _	702 CP	Vİ			
Operato	or:	-	-	Mike She	ek (MSK	(M) .		
Standard	ł Equipment					<del></del>	•	
Equipm	ent:			tashnick				·····
Venue:				Ying Sec	ondary S	School)		
Model N		700 A N. D A C C C C C C C	1400AB	0.450.400	00000			***************************************
Serial N	lo:	Contro		0AB2198		V . 401		<del></del>
i set Ce	libration Date*:	Senso 4 June		00C1436	59803	K <sub>o</sub> : <u>12</u>	500	
Lasi Ca	ilibration bate.	4 June	2011					
*Remarks	s: Recommend	led interval fo	or hardwa	re calibra	ition is 1	year		
Calibrati	on Result							
				·····		****		
	ity Adjustment					702	CPM	
Sensitiv	rity Adjustment	Scale Settin	g (After C	alibration	:):	702	CPM	
	·	<u> </u>					γ	
Hour	Date	Tim	е	Amb		Concentration 3	Total	Count/
	(dd-mm-yy)			Cond		(mg/m <sup>3</sup> )	Count <sup>2</sup>	Minute <sup>3</sup>
	g.			Temp (°C)	R.H.	Y-axis		X-axis
1	02-07-1	09:00 -	10:00	31.1	(%) 70	0.04313	1607	26.78
2	02-07-11	10:00 -	11:00	31.1	70	0.04137	1550	25.83
3	02-07-11	11:00 -	12:00	31.2	71	0.04552	1713	28.55
4	02-07-11	12:00 -	13:00	31.2	71	0.04736	1771	29.51
Note:	1. Monitoring of	data was me	asured by	Ruppred	ht & Pa	tashnick TEOM®	***************************************	<u> </u>
	2. Total Count	was logged	by Laser	Dust Mor	itor			
	3. Count/minu	te was calcul	ated by (	Total Cou	int/60)			
By Lincor	· Regression of	·VarV		,				
•	Kegression of K-factor):	1017	0.0016					
	tion coefficient:	_	0.9949					
		<del>-</del>		40				
validity	of Calibration F	tecora:	1 July 20	12		-		
Remarks								
Kemana	•			·····				<del> </del>
		i						
		_			Μ		_	
QC Rev	iewer: YW l	-ung	Signa	ature:	0.17	' I	Date: 4	July 2011

Type:			i	Laser Du	ıst Monit	tor		
Manu	facturer/Brand:			SIBATA				
Mode			*****	LD-3				
Equipment No.:				A.005.09				
Sensi	tivity Adjustment	Scale Setting	g: _	797 CPN	<u> </u>			
Opera	ntor:			Mike She	k (MSKN	A)		
Standa	rd Equipment						- A PAPER AND A PA	
Equip	ment:	Ruppr	echt & Pai	tashnick <sup>*</sup>	TEOM®			
Venue			port (Pui Y			chool)	<u></u>	<del></del>
Model	No.:		1400AB	<del></del>				
Serial	No:	Contro	ol: 140	AB21989	99803			
		Senso	************	00C14365	59803	K₀: <u>1250</u>	)	
Last C	Calibration Date*:	4 June	2011					
*Remar	ks: Recommend	ed interval fo	or hardwar	e calibrat	tion is 1 y	year		
Calibra	tion Result						.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	tivity Adjustment tivity Adjustment						PM PM	
Hour	Date	Tim	Time Ambient			Concentration	Total	Count/
	(dd-mm-yy)		Condition		(mg/m³) Count²		Minute <sup>3</sup>	
				Temp (°C)	R.H. (%)	Y-axis		X-axis
1	05-06-11	13:30 -	14:30	31.4	66	0.04416	1758	29.30
2	05-06-11	14:30 -	15:30	31.5	66	0.04752	1889	31.48
3	05-06-11	15:30 -	16:30	31.5	66	0.04371	1748	29.13
4	05-06-11	16:30 -	17:30	31.5	67	0.04543	1808	30.13
Note:	Monitoring of 2. Total Count     Count/minut	was logged	by Laser [	Dust Mon	itor	ashnick TEOM®		
	ar Regression of	Y or X						
	(K-factor):	_	0.0015		<del></del>			
Correl	lation coefficient:	_	0.9953		······································			
Validit	y of Calibration F	Record:	4 June 20	)12				•
Remark	(SI							
				-				
		,			11/	<i>'</i>		<del>,</del>
QC R	eviewer: YW F	Fung	Signa	ture:		Da	te: 8 June	e 2011

Type: Laser Dust Monitor										
Manuf	acturer/Brand:			SIBATA						
Model				LD-3						
	ment No.:			A.005.11a						
Sensit	ivity Adjustment	Scale Setting	): <u> </u>	799 CPN	1					
Opera	tor:		_!	Mike She	k (MSKN	1)				
Standa	rd Equipment									
Equipr			cht & Pat			1 . 1	·····			
Venue		****	ort (Pui Y	ing Seco	naary Sc	inooi)	····	<del></del>		
Model Serial		Control	1400AB	AB21989	0803	· · · · · · · · · · · · · · · · · · ·				
Senai	NO.	Sensor		0C14365		K <sub>o</sub> : 12500		enermit mm		
Last C	alibration Date*:	4 June	******	0014300	9003	N <sub>o</sub> . <u>72300</u>		Management of the Control of the Con		
2001	,							anders and the second		
*Remar	ks: Recommend	ed interval fo	r hardwar	e calibrat	ion is 1 y	/ear				
Calibra	tion Result		w				,			
					*					
	ivity Adjustment		• •		•	_799 CP				
Sensit	ivity Adjustment	Scale Setting	g (After Ca	alibration)	:	_799 CP	M			
<del> </del>				,		1				
Hour	Date	Time	9	Amb		Concentration <sup>1</sup>	Total	Count/		
	(dd-mm-yy)			Conc		(mg/m³)	Count <sup>2</sup>	Minute <sup>3</sup> X-axis		
				Temp (°C)	R.H. (%)	Y-axis		A-axis		
1	02-07-11	09:30 -	10:30	31.1	70	0.04305	1718	28.63		
2	02-07-11	10:30 -	11:30	31.1	71	0.04257	1703	28.38		
3	02-07-11	11:30 -	12:30	31.2	71	0.04424	1763	29.38		
4	02-07-11	12:30 -	13:30	31.2	71	0.04632	1855	30.92		
Note:						shnick TEOM®				
	<ol><li>Total Count</li></ol>									
	3. Count/minut	te was calcul	ated by (T	otal Cou	nt/60)					
Dulina	ar Dagragaian of	VarV								
	ar Regression of		0.0015							
	(K-factor): ation coefficient:		0.9961							
Cone	ation coefficient.		0.8301							
Validit	y of Calibration F	Record:	1 July 201	12						
Remark	(S:									
			***************************************	,						
						·				
L		·				:				
		_	<b>.</b>		ħ,			0044		
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Type:				Laser Du	ıst Moni	tor		
Manufacturer/Brand:				SIBATA				
Model No.:			handan	LD-3B				
Equipment No.:				A.005.12				
Sensitivity Adjustment Scale Setting:			ng:	805 CPN	1			
Opera	tor.			Mike She	k (MSKN	1)		
Standar	rd Equipment							
Equipr	n amf	Dun	orecht & Pat	toohniak '	TEOM®			
Venue			rport (Pui Y			chool)		-
Model			s 1400AB	ing seco	nual y ot	31001)		***************************************
Serial		Cont		)AB21989	วดลดจ	a dalaman addina carata con a carata anno mara dalam and anno en difficiente a carata dalam del del del del ca		·
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Last C	alibration Date*:		lay 2010	10014000	2000	170. 12000		
<u>-</u>			-	***		• •		· ·
*Remarl	ks: Recommend	ed interval	for hardwar	e calibrat	tion is 1 y	/ear		
Calibra	tion Result							
	ivity Adjustment					<u>805</u> CF		
Sensit	ivity Adjustment	Scale Setti	ng (Atter Ca	alibration	):	<u>805</u> CF	'M	
	Deta		me	T Amal		Concontration	Tatal	
Hour	Date		me		oient dition	Concentration <sup>1</sup> (mg/m <sup>3</sup> )	Total Count <sup>2</sup>	Count/ Minute <sup>3</sup>
	(dd-mm-yy)				,	Y-axis	Count	1
				Temp (°C)	R.H. (%)	T-axis		X-axis
1	24-10-10	12:30	- 13:30	26.6	68	0.07973	2984	49.73
2	24-10-10		- 14:30	26.6	69	0.08356	3144	52.40
3	24-10-10		- 16:30	26.7	69	0.08867	3338	55.63
4	24-10-10		- 17:30	26.7	68	0.09234	3449	57.48
Note:						ashnick TEOM®	, 0710	1 07.10
	2. Total Count					Johnsk 120m		
	3. Count/minut							
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By Linea	ar Regression of	Y or X						
	(K-factor):		0.0016					
Correla	ation coefficient:		0.9962		·····			
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OC Pa	eviewer: YW F	-una	Signal	ture:	1	, Date	e: 25 Oct	£ 2010
C(C) 1/C	TVICTORI. IVV I	ung	Jiyilal		X	Date	s. <u>20 00</u>	. 2010
					- //			

Model	acturer/Brand: No.: ment No.:			Laser Du SIBATA LD-3B A.005.13a		dor		
Sensitivity Adjustment Scale Setting:			ting:	643 CPN	1			
Opera	tor:			Mike She	k (MSKN	1)		
Standar	rd Equipment							
Equipr Venue Model	1.	Cyl		Patashnick ī ii Ying Seco. B		chool)	Appellula Abdolf 114 4 v 8 mm.	
Serial		Cor Ser	ntrol:1	- 140AB21989 1200C14365		K <sub>o</sub> : 12500		
*Remarl	ks: Recommend	ed interva	al for hardv	vare calibrat	ion is 1 y	/ear		÷
Calibra	tion Result							
	ivity Adjustment ivity Adjustment					643 CF		
Hour	Date (dd-mm-yy)	,	Time	Amb Cond Temp (°C)		Concentration <sup>1</sup> (mg/m <sup>3</sup> ) <b>Y-axis</b>	Total Count <sup>2</sup>	Count/ Minute <sup>3</sup> X-axis
1	05-06-11	11:00	- 12:0		67	0.04513	1933	32.21
2	05-06-11	12:00	- 13:0		67	0.04392	1833	31.38
3	05-06-11	13:00 14:00	- 14:0 - 15:0		66 66	0.04751 0.04476	2042 1918	34.03 31.97
Note:	1. Monitoring of 2. Total Count 3. Count/minut	lata was r was logg	measured ed by Lase	by Rupprecl er Dust Mon	nt & Pata itor	ashnick TEOM®	1	J
Slope	ar Regression of (K-factor): ation coefficient:	~	0.0014 0.9978			÷		
Validit	y of Calibration F	Record:	4 June	2012				
Remark	s:				^			
QC Re	eviewer: YW f	ung	Sig	ınature:	4	Dat	e: 8 June	e 2011



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Tel (852) 2873 6860 Fax: (852) 2555 7533



## CERTIFICATE OF CALIBRATION

Certificate No.:

11CA0317 06-01

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2

Item tested

Description: Manufacturer: Sound Level Meter (Type 1)

B & K

2238

2285692/N.009.04

Microphone **B&K** 

4188 2250420

Adaptors used:

Type/Model No.:

Item submitted by

Serial/Equipment No.:

Customer Name:

AECOM ASIA CO., LTD

Address of Customer:

Request No.: Date of request:

17-Mar-2011

Date of test:

26-Mar-2011

Reference equipment used in the calibration

Description:

Model:

Serial No.

Expiry Date:

Traceable to:

Multi function sound calibrator Signal generator

B&K 4226 DS 360

2288444 33873

10-Jan-2012 28-Jun-2011

CIGISMEC CEPREI

Signal generator

DS 360

61227

24-Jun-2011

CEPREI

Ambient conditions

Temperature:

(22 ± 1) °C  $(60 \pm 5) \%$ 

Relative humidity Air pressure:

 $(1005 \pm 5) hPa$ 

### Test specifications

- The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 1. and the lab calibration procedure SMTP004-CA-152
- 2. The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.
- 3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

#### Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate

/Feng Jun Qi

Actual Measurement data are documented on worksheets.

Huang Jian M

Approved Signatory:

Date:

29-Mar-2011

Company Chop:

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

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Form No CARP152-1/Issue 1/Rev.C/01/02/2007



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## CERTIFICATE OF CALIBRATION

Certificate No.:

10CA1105 01

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2

Item tested

Description:

Sound Level Meter (Type 1)

Microphone

Manufacturer: Type/Model No.: B & K 2238 B & K 4188

Serial/Equipment No.:

2238 2255688

2141430

Adaptors used:

-

---

Item submitted by

Customer Name:

AECOM ASIA CO., LTD.

Address of Customer:

-

Request No.: Date of request:

05-Nov-2010

Date of test:

08-Nov-2010

Reference equipment used in the calibration

Description:

Model:

Serial No.

Expiry Date:

Traceable to:

Multi function sound calibrator Signal generator Signal generator B&K 4226 DS 360

DS 360

2288444 33873 61227 12-Jan-2011 28-Jun-2011 24-Jun-2011 CIGISMEC CEPREI CEPREI

Ambient conditions

Temperature:

Air pressure:

(21 ± 1) °C

Relative humidity:

 $(60 \pm 5) \%$  $(1000 \pm 5) \text{ hPa}$ 

Test specifications

 The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.

2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.

3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

## Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory:

Date: 09-Nov-2010

Company Chop:

H<u>uang Jian Mi</u>d/Fend Jun Qi

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

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Form No.CARP152-1/Issue 1/Rev.C/01/02/2007



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Tel : (852) 2873 6860 Fax : (852) 2555 7533



### CERTIFICATE OF CALIBRATION

Certificate No.:

11CA0711 01-04

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2

Item tested

Description:

Acoustical Calibrator (Class 1)

Manufacturer:

B & K BK4231

Type/Model No.: Serial/Equipment No.:

1790985 / N.004.01

Adaptors used:

Yes

Item submitted by

Curstomer:

AECOM ASIA CO. LTD.

Address of Customer:

-

Request No.: Date of receipt:

11-Jul-2011

Date of test:

11-Jul-2011

#### Reference equipment used in the calibration

Description: Lab standard microphone Preamplifier Measuring amplifier Signal generator Digital multi-meter Audio analyzer	Model: B&K 4180 B&K 2673 B&K 2610 DS 360 34401A 8903B	Serial No. 2341427 2239857 2346941 61227 US36087050 GB41300350	Expiry Date: 18-May-2012 14-Dec-2011 15-Dec-2011 30-May-2012 09-Dec-2011 27-May-2012	Traceable to: SCL CEPREI CEPREI CEPREI CEPREI CEPREI CEPREI
Audio analyzer	8903B	GB41300350	27-May-2012	CEPREI
Universal counter	53132A	MY40003662	30-May-2012	CEPREI

#### **Ambient conditions**

Temperature:

22 ± 1 °C

Relative humidity:

55 ± 5 %

Air pressure:

990 ± 5 hPa

## Test specifications

- The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.
- 2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference
  pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure
  changes.

#### Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on page 2 of this certificate.

Approved Signatory:

Huang Jian Mm/Feng Jun Qi

13-Jul-2011.

Company Chop:

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration are carry no implication regarding the long-term stability of the instrument.

@ Soils & Materials Engineering Co., Ltd.

Form No.CARP156-1/Issue 1/Rev.D/01/03/2007



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Tel: (852) 2873 6860 Fax: (852) 2555 7533



## CERTIFICATE OF CALIBRATION

Certificate No.:

10CA0803 01

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2

Item tested

Description:

Sound Level Meter (Type 1)

Manufacturer: RION CO., LTD. Type/Model No.:

NL-31

00320528 / N.007.03A

Microphone RION CO., LTD.

UC-53A

Adaptors used:

88783

Item submitted by

Serial/Equipment No.:

**Customer Name:** 

AECOM ASIA CO., LTD.

Address of Customer: Request No.:

Date of request:

03-Aug-2010

Date of test:

05-Aug-2010

### Reference equipment used in the calibration

Description: Multi function sound calibrator Model: B&K 4226 Serial No. 2288444

**Explry Date:** 12-Jan-2011

CIGISMEC **CEPRE!** 

Signal generator Signal generator DS 360 **DS 360**  33873 61227

28-Jun-2011 24-Jun-2011

CEPRE

Traceable to:

#### Ambient conditions

Temperature: Relative humidity:

Air pressure:

22 ± 1 °C  $60 \pm 5 \%$ 1000 ± 5 hPa

Test specifications

- 1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580; Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.
- The electrical tests were performed using an electrical signal substituted for the microphone which was removed and 2, replaced by an equivalent capacitance within a tolerance of ±20%.
- The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference 3, between the free-field and pressure responsess of the Sound Level Meter.

### Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

lin/F

eng Jun Qi

Actual Measurement data are documented on worksheets.

Huang Jier

Approved Signatory:

Date:

06-Aug-2010

Company Chop:

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

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Form No.CARP152-1/issue 1/Rev.C/01/02/2007



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Tel: (852) 2873 6860 Fax: (852) 2555 7533



## CERTIFICATE OF CALIBRATION

Certificate No.:

10CA0728 02-02

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2

Item tested

Description:

Acoustical Calibrator (Class 1)

Manufacturer:

Rion Co., Ltd.

Type/Model No.: Serial/Equipment No.: NC-73 10307223 / N-004-08

Adaptors used:

...

Item submitted by

Curstomer:

AECOM ASIA CO., LTD.

Address of Customer:

Request No.:

Date of request:

28-Jul-2010

Date of test:

29-Jul-2010

#### Reference equipment used in the calibration

Description:	Model:	Serial No.	Explry Date:	Traceable to:
Lab standard microphone	B&K 4180	2412857	02-Jul-2011	SCL
Preamplifier	B&K 2673	2239857	15-Dec-2010	CEPREI
Measuring amplifier	B&K 2610	2346941	11-Dec-2010	CEPREI
Signal generator	DS 360	61227	24-Jun-2011	CEPREI
Digital multi-meter	34401A	US36087050	03-Dec-2010	CIGISMEC
Audio analyzer	8903B	GB41300350	07-Dec-2010	CEPREI
Universal counter	53132A	MY40003662	05-Jul-2011	CEPREI

### Ambient conditions

Temperature:

22 ± 1 °C

Relative humidity:

60 ± 5 %

Air pressure:

1000 ± 5 hPa

#### Test specifications

- The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B
  and the lab calibration procedure SMTP004-CA-156.
- 2. The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- 3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

#### **Test results**

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on page 2 of this certificate.

Approved Signatory:

Date:

29-Jul-2010

Company Chop:

ENGINE 解合試験 有限公司 ENGINE ROSE OTROSE OTR

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

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Form No.CARP155-1/Issue 1/Rev.D/01/03/2007



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Tel : (852) 2873 6860 Fax: (852) 2555 7533



## CERTIFICATE OF CALIBRATION

Certificate No.:

11CA0711 01-05

Page:

of

2

Item tested

Description:

Acoustical Calibrator (Class 1)

Manufacturer:

Ríon Co., Ltd.

Type/Model No.:

NC-73

Serial/Equipment No.:

10307223 / N.004.08

Adaptors used:

Item submitted by

Curstomer:

AECOM ASIA CO. LTD.

Address of Customer:

Request No.: Date of receipt:

11-Jul-2011

Date of test:

13-Jul-2011

#### Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2412857	18-May-2012	SCL
Preamplifier	B&K 2673	2239857	14-Dec-2011	CEPREI
Measuring amplifier	B&K 2610	2346941	15-Dec-2011	CEPREI
Signal generator	DS 360	61227	30-May-2012	CEPREI
Digital multi-meter	34401A	US36087050	09-Dec-2011	CEPREI
Audio analyzer	8903B	GB41300350	27-May-2012	CEPREI
Universal counter	53132A	MY40003662	30-May-2012	CEPREI

#### **Ambient conditions**

Temperature: Relative humidity: 22 ± 1 °C  $55 \pm 5 \%$ 

Air pressure:

990 ± 5 hPa

### **Test specifications**

- The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B 1, and the lab calibration procedure SMTP004-CA-156.
- 2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- 3. The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

#### Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions,

Details of the performed measurements are presented on page 2 of this certificate.

Huang Jian

Approved Signatory:

nÆerlg Jun Qi

Company Chop:

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibra carry no implication regarding the long-term stability of the instrument.

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Form No,CARP156-1/(ssue 1/Rev.D/01/03/2007



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# CERTIFICATE OF CALIBRATION

Certificate No.:

11CA0317 06-02

Page:

Item tested

Description:

Acoustical Calibrator (Class 1)

Manufacturer:

Rion Co., Ltd.

Type/Model No.:

NC-73

Serial/Equipment No.:

10186482/N.004.09

Adaptors used:

Item submitted by

Curstomer:

AECOM ASIA CO., LTD.

Address of Customer: Request No .:

Date of request:

17-Mar-2011

Date of test:

26-Mar-2011

## Reference equipment used in the calibration

Description: Lab standard microphone Preamplifier Measuring amplifier Signal generator Digital multi-meter Audio analyzer Universal counter	Model: B&K 4180 B&K 2673 B&K 2610 DS 360 34401A 8903B 53132A	Serial No. 2412857 2239857 2346941 61227 US36087050 GB41300350 MY40003662	Expiry Date: 02-Jul-2011 14-Dec-2011 15-Dec-2011 24-Jun-2011 09-Dec-2011 28-Jun-2011 05-Jul-2011	Traceable to: SCL CEPREI CEPREI CEPREI CEPREI CEPREI CEPREI CEPREI
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### **Ambient conditions**

Temperature:

22 + 1 °C

Relative humidity:

60 ± 5 %

Air pressure:

1005 ± 5 hPa

### Test specifications

- The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B 1. and the lab calibration procedure SMTP004-CA-156.
- The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique. 2,
- The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference 3, pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

#### Test results

Details of the performed measurements are presented on page 2 of this certificate.

dng Jun Qi

Approved Signatory:

Date:

29-Mar-2011

Company Chop:

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

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Tel: (852) 2873 6860 Fax: (852) 2555 7533



# CERTIFICATE OF CALIBRATION

Certificate No.:

10CA0831 03-02

Page:

of

2

Item tested

Description:

Acoustical Calibrator (Class 1)

Manufacturer:

Rion Co., Ltd. NC-73

Type/Model No.: Serial/Equipment No.:

10307216

Adaptors used:

Item submitted by

Curstomer:

AECOM ASIA CO., LTD.

Address of Customer:

Request No.:

Date of request:

26-Aug-2010

Date of test:

31-Aug-2010

## Reference equipment used in the calibration

Description: Lab standard microphone Preamplifier Measuring amplifier Signal generator Digital multi-meter Audio analyzer Universal counter	Model: B&K 4180 B&K 2673 B&K 2610 DS 360 34401A 8903B 53132A	Serial No. 2412857 2239857 2346941 61227 US36087050 GB41300350 MY40003662	Expiry Date: 02-Jul-2011 15-Dec-2010 11-Dec-2010 24-Jun-2011 03-Dec-2010 07-Dec-2010 05-Jul-2011	Traceable to: SCL CEPREI CEPREI CEPREI CIGISMEC CEPREI CEPREI
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#### **Ambient conditions**

Temperature:

22 ± 1 °C

Relative humidity:

60 ± 5 %

Air pressure:

995 ± 5 hPa

## Test specifications

- The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.
- The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique. 2.
- The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure 3, changes.

#### Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions

Details of the performed measurements are presented on page 2 of this certificate.

n/Feng Jun Qi

Approved Signatory:

Date:

02-Sep-2010

Company Chop:

Comments: The results reported in his certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

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Form No.CARP156-1/issue 1/Rev.D/01/03/2007