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**Calibration Report**  
of  
**High Volume Air Sampler**

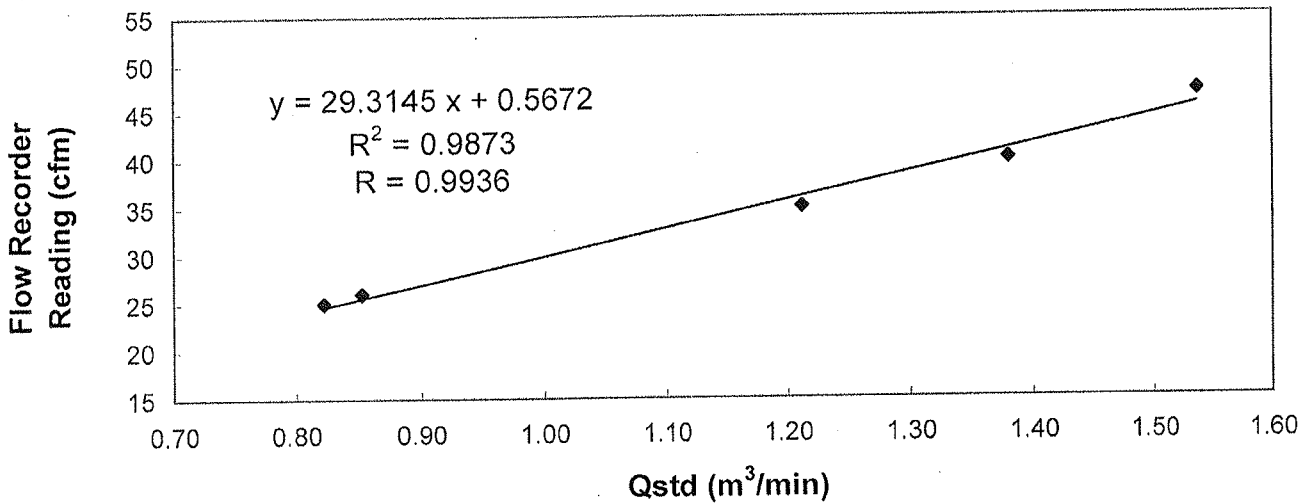
Manufacturer : Graseby GMW Date of Calibration : 11 January 2014

Serial No. : 9795 ( ET / EA / 003 / 18 ) Calibration Due Date : 10 March 2014

Method : Five-point calibration by using standard calibration kit Tisch TE-5025A refer to the Operations Manual

Results	Flow recorder reading (cfm)	47	40	35	26	25
	Qstd (Actual flow rate, m <sup>3</sup> /min)	1.54	1.38	1.21	0.85	0.82
	Pressure :	760.56 mm Hg			Temp. :	292 K

**Sampler 9795 Calibration Curve**  
Site: Tuen Mun (A1)

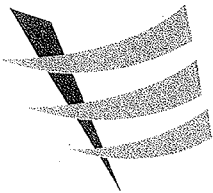


Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies\* / does not comply\* with the specified requirements and is deemed acceptable\* / unacceptable\* for use.

Calibrated by : MAK Kei Wai  
MAK, Kei Wai  
(Assistant Supervisor)

Checked by : LAW, Sau Yee  
LAW, Sau Yee  
(Senior Environmental Officer)



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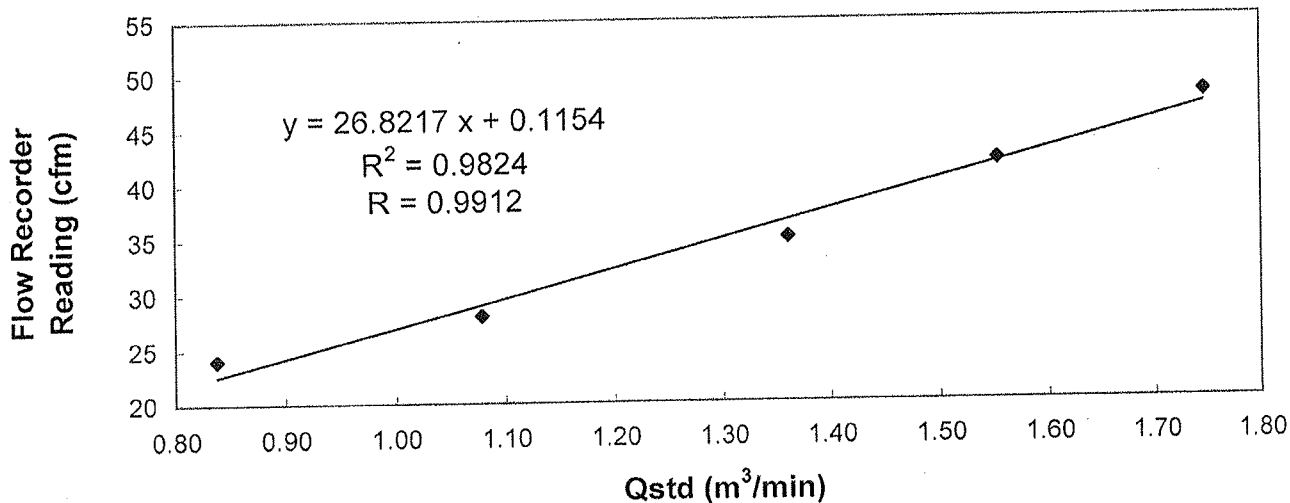
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**Calibration Report**  
of  
**High Volume Air Sampler**

Manufacturer : Graseby GMW Date of Calibration : 11 January 2014  
Serial No. : 9864 ( ET / EA / 003 / 19 ) Calibration Due Date : 10 March 2014  
Method : Five-point calibration by using standard calibration kit Tisch TE-5025A refer to the Operations Manual

Results	Flow recorder reading (cfm)	47	42	35	28	24
	Qstd (Actual flow rate, m <sup>3</sup> /min)	1.75	1.55	1.36	1.08	0.84
	Pressure : 760.56 mm Hg	Temp. : 292 K				

**Sampler 9864 Calibration Curve**  
Site: Tuen Mun (A2)



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies\* / does not comply\* with the specified requirements and is deemed acceptable\* / unacceptable\* for use.

Calibrated by : MAK, Kei Wai  
MAK, Kei Wai  
(Assistant Supervisor)

Checked by : LAW, Sau Yee  
LAW, Sau Yee  
(Senior Environmental Officer)



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AIR POLLUTION MONITORING EQUIPMENT  
 ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - May 13, 2013 Rootmeter S/N 0438320 Ta (K) - 296  
 Operator Tisch Orifice I.D. - 2511 Pa (mm) - 753.11

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER	ORFICE
					DIFF Hg (mm)	DIFF H2O (in.)
1	NA	NA	1.00	1.4400	3.2	2.00
2	NA	NA	1.00	1.0110	6.4	4.00
3	NA	NA	1.00	0.9030	7.9	5.00
4	NA	NA	1.00	0.8630	8.8	5.50
5	NA	NA	1.00	0.7110	12.7	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
0.9934	0.6898	1.4125	0.9957	0.6915	0.8866
0.9892	0.9784	1.9976	0.9915	0.9807	1.2539
0.9871	1.0931	2.2334	0.9894	1.0957	1.4019
0.9860	1.1425	2.3424	0.9883	1.1452	1.4703
0.9808	1.3794	2.8251	0.9831	1.3827	1.7732
Qstd slope (m) = 2.05038			Qa slope (m) = 1.28391		
intercept (b) = -0.00442			intercept (b) = -0.00277		
coefficient (r) = 0.99995			coefficient (r) = 0.99995		
y axis = SQRT[H2O(Pa/760)(298/Ta)]			y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

$$Vstd = \text{Diff. Vol} [ (Pa - \text{Diff. Hg}) / 760 ] (298/Ta)$$

$$Qstd = Vstd/Time$$

$$Va = \text{Diff Vol} [ (Pa - \text{Diff Hg}) / Pa ]$$

$$Qa = Va/Time$$

For subsequent flow rate calculations:

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

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