

東業德勤測試顧問有限公司

ETS-TESTCONSULT LIMITED

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Calibration Report of High Volume Air Sampler

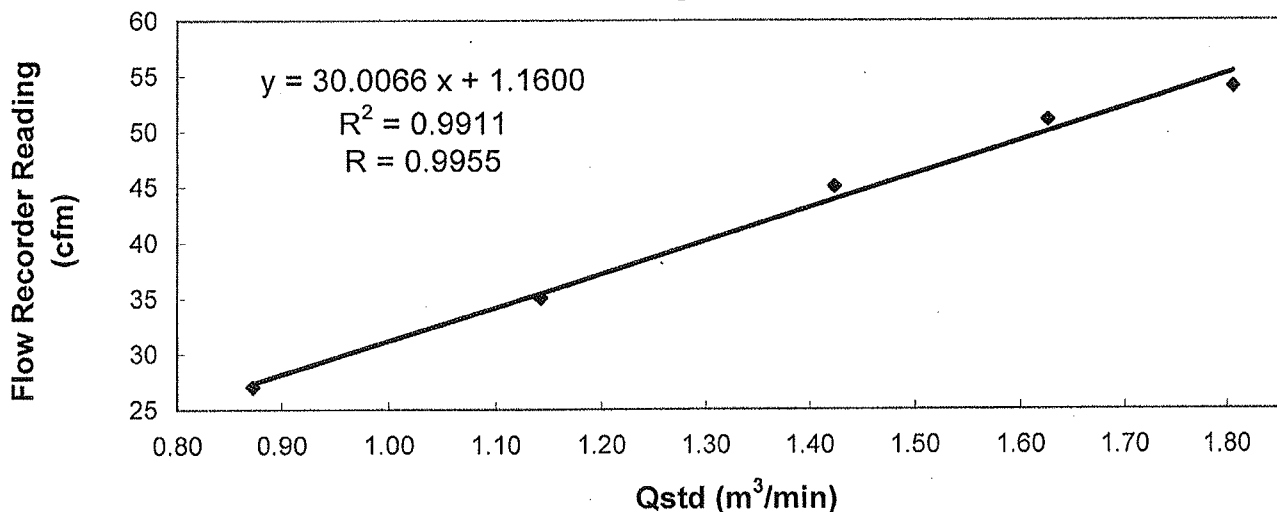
Manufacturer : Graseby GMW Date of Calibration : 03 January 2014

Serial No. : 10581 (ET / EA / 003 / 22) Calibration Due Date : 02 March 2014

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

Results	Flow recorder reading (cfm)	54	51	45	35	27
	Qstd (Actual flow rate, m ³ /min)	1.81	1.63	1.42	1.14	0.87
	Pressure : 763.56 mm Hg	Temp. : 290 K				

Sampler 10581 Calibration Curve
Site: Tseung Kwan O A-1




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 :


TANG, Chung Hang
(Site Technician)

Checked by :


LAW, Sau Yee
(Senior Environmental Officer)

- END OF REPORT -



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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

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

$$Qstd = Vstd / \text{Time}$$

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

$$Qa = Va / \text{Time}$$

For subsequent flow rate calculations:

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

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