

# Appendix F

The QA/QC Procedures and Results

HIGH VOLUME AIR SAMPLER  
SITE VISIT LOG SHEET

Site Name: R. E Site No.: AM1  
 Date of visit: 8-6-2004 Hour of Visit: 0930  
 Staff name: W. L. MAK / H. K. TANG HVAS S/N: 2198  
 Used filter paper no.: LR02 New filter paper no.: LR07  
 Type of filter: Glass-fibre

I. Ambient Conditions

Temperature,  $T_a = \frac{213 + 21.5}{304.5}$  K Pressure,  $P_a = 1008$  mb

II. Correction of manometer reading

Calibration orifice No.	Manometer reading at site conditions corresponds to $Q_{STD} = 40$ ft <sup>3</sup> /min. (inch H <sub>2</sub> O)
1534(04/2002)	$\Delta H_a = 18.0(T_a/P_a) = \underline{\hspace{2cm}}$
✓ 1535(09/2003)	$\Delta H_a = 18.2(T_a/P_a) = \underline{5.49}$

Manometer reading before calibration: ✓  
 Adjustment of flow controller (Y/N): 5.50  
 Manometer reading after calibration: 5.50

Note: Tolerance Limit of HVAS flow:  $\pm 1.0$  ft<sup>3</sup>/min. Corresponding limits for manometer :  $\pm 0.2$  inch H<sub>2</sub>O

III. General Conditions of HVAS

Replace new flow controller card.  
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IV. Remarks

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HIGH VOLUME AIR SAMPLER  
SITE VISIT LOG SHEET

Site Name: EG Site No.: AM2  
 Date of visit: 14-6-2004 Hour of Visit: 1105  
 Staff name: W L. MAK / HIK TSANG HVAS S/N: 2195  
 Used filter paper no.: LR05 New filter paper no.: LR08  
 Type of filter: Glass-fibre

I. Ambient Conditions

Temperature,  $T_a = \frac{273 + 29.5}{302.5}$  K Pressure,  $P_a = 1014$  mb

II. Correction of manometer reading

Calibration orifice No.	Manometer reading at site conditions corresponds to $Q_{STD} = 40 \text{ ft}^3/\text{min}$ . (inch $\text{H}_2\text{O}$ )
1534(04/2002)	$\Delta H_a = 18.0(T_a/P_a) = \underline{\hspace{2cm}}$
✓ 1535(09/2003)	$\Delta H_a = 18.2(T_a/P_a) = \underline{5.43}$

Manometer reading before calibration: 5.40  
 Adjustment of flow controller (Y/N): N  
 Manometer reading after calibration: 5.40

Note: Tolerance Limit of HVAS flow:  $\pm 1.0 \text{ ft}^3/\text{min}$ . Corresponding limits for manometer :  $\pm 0.2 \text{ inch H}_2\text{O}$

III. General Conditions of HVAS

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IV. Remarks

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PARTISOL TSP SAMPLER  
SITE VISIT LOG SHEET

Site Name: A.L. Site Number: Am 3  
Date of Visit: 14-6-04 Hour of Visit: 10:15  
Staff Name: W.L.MAK, H.K.TSING Partisol S/N: 200B 20550002  
Used Filter No.: PC01 New Filter No.: PC02  
Ambient temperature: 29.5 Ambient pressure: 1011

I. General Services

1. Replace control unit Large In-line Filter X
2. Clean the sample inlet head ✓
3. Clean sample tube X
4. Clean / Replace pump head X
5. Clean / Replace piston X

II. Operational Audits (3 months interval as recommended by manufacturer)

1. Temperature Check (Ambient temperature  $\pm 2^{\circ}\text{C}$ )

\_\_\_\_\_  $^{\circ}\text{C}$  Calibration: Y/N \_\_\_\_\_  $^{\circ}\text{C}$   
Before After

2. Pressure Check (Ambient pressure  $\pm 20$  mbar)(factor = 0.000987)

\_\_\_\_\_ mbar Calibration: Y/N \_\_\_\_\_ mbar  
Before After

3. Flow Check (16.7  $\pm$  1.1 litre/min)

\_\_\_\_\_ l/min Calibration: Y/N \_\_\_\_\_ l/min  
Before After

III. Remarks

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MINI VOLUME AIR SAMPLER  
SITE VISIT LOG SHEET

Site Name: TYV Site No.: AM4

Date of visit: 14-6-04 Hour of Visit: 11:40

Staff name: H.K. ISANON MINIVOL S/N: 903

Used filter paper no.: MG 80 New filter paper no.: MG 81

Type of filter: ~~Cellulose~~ / Glass-fibre  
(Delete as appropriate)

I. Calibration is performed by using Drycal DC-2 Flow Calibrator

5 Sl/min set point is recommended

4.985 Before 4.985 After

II. General Service of Mini Vol Air Sampler

1. Clean Rotameter: X
2. Clean / ~~replace~~ Pump Valves: ✓
3. Clean / ~~replace~~ Pump Diaphragms: ✓
4. Clean Impaction Inlet: ✓
5. Replace Timer Battery Every 6 months: X
6. Replace Inlet Filter: ✓

III. Remarks

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**THE HONGKONG ELECTRIC CO., LTD.**  
**LAMMA POWER STATION EXTENSION**  
**TEOM 1400A CONTINUOUS DUST MONITOR**  
**DATA QUALITY ASSURANCE LOG SHEET**

Month : June

Year : 2004

Reservoir (AM1)					
Date	Frequency (Hz) (230 – 260)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (l/min) (0.94 – 1.06)	Aux. Flow (l/min) (14.67 – 16.67)
5/6/2004	254.83	0.38	4	1.00	15.68
11/6/2004	236.57	0.43	4	1.00	15.68
17/6/2004	254.35	0.37	4	1.00	15.69
23/6/2004	234.21	0.47	4	1.00	15.71
29/6/2004	234.24	0.32	4	1.00	15.70

East Gate (AM2)					
Date	Frequency (Hz) (230 – 250)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (l/min) (0.94 – 1.06)	Aux. Flow (l/min) (14.67 – 16.67)
5/6/2004	246.43	0.50	4	0.99	15.66
11/6/2004	246.60	0.70	4	1.00	15.64
17/6/2004	248.06	0.47	4	1.00	15.64
23/6/2004	247.86	0.41	4	0.99	15.64
29/6/2004	247.69	0.62	4	1.00	15.63

Ash Lagoon (AM3)					
Date	Frequency (Hz) (230 – 260)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (l/min) (0.94 – 1.06)	Aux. Flow (l/min) (14.67 – 16.67)
5/6/2004	255.11	0.29	4	1.00	15.64
11/6/2004	254.77	0.30	4	0.99	15.63
17/6/2004	254.33	0.33	4	1.00	15.63
23/6/2004	254.43	0.29	4	0.99	15.63
29/6/2004	253.73	0.27	4	0.99	15.64

Maintenance Record			
	Reservoir	East Gate	Ash Lagoon
TEOM Filter Exchange	✓	✓	✓
Clean TSP Inlet	✓	✓	✓
Replace flow in-line filter			
Pump Repair			
Leak Check			
Flow Audit		✓	
Flow Controller Calibration			
A/C filter cleaning	✓	✓	✓

Remarks:

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Prepared by : \_\_\_\_\_

Checked by : \_\_\_\_\_

THE HONGKONG ELECTRIC CO., LTD.  
LAMMA POWER STATION EXTENSION  
NOISE MONITORING STATION  
SITE VISIT LOG SHEET

Location Ash Lagoon/Ching Lam\*

Date 11-6-04 Time 10:20

Equipment Rion NA-27/B&K 2238F\* Sound Level Meter

Serial Number 00111465/00111466/00111467/2343838/2356907\*

Staff Attended W. L. MAK, H. K. TSANG, C. H. CHAN.

1. Calibration

Acoustic calibrator used Rion NC-74

Calibration level before adjustment (dB(A)) 93.8

Calibration level after adjustment (dB(A)) 94

2. Weather Conditions

a. ~~Sunny/fine/cloudy/showery/heavy rain\*~~

b. ~~Strong wind/breeze/calm\*~~

3. Remark/Observation

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Note: \* - Please delete where inappropriate

THE HONGKONG ELECTRIC CO., LTD.  
LAMMA POWER STATION EXTENSION  
NOISE MONITORING STATION  
SITE VISIT LOG SHEET

Location Ash Lagoon/~~Ching Lam~~\*

Date 14-6-04 Time 10:35

Equipment Rion NA-27/~~B&K 2238F~~\* Sound Level Meter

Serial Number 00111465/00111466/00111467/2343838/2356907\*

Staff Attended W.L. MAK, H.K. TSANG

1. Calibration

Acoustic calibrator used Rion NC-74

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2. Weather Conditions

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3. Remark/Observation

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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Note: \* - Please delete where inappropriate



## Equipment Calibration Record

Site: Lamma Power Station Extension – Supply and Installation of 275 kV Communication Submarine and Land Cables with Accessories for Lamma-Cyberport Circuits

Noise Equipment Used: Rion NL-14 sound level meter

Calibrator Used: B&K 4231 sound level calibrator

Measurement Location: N4 – Pak Kok Tsui No. 2

Date	Calibration Level before Measurement (dB(A))	Calibration Level after Measurement (dB(A))	Calibrated by
03/06/2004	94.0	94.0	T. M. Fung
07/06/2004	94.0	94.0	T. M. Chan
10/06/2004	94.0	94.0	T. M. Chan
14/06/2004	94.0	94.0	T. M. Fung
17/06/2004	94.0	94.0	T. M. Chan
21/06/2004	94.0	94.0	T. M. Chan

Measurement Location: N5 – Pak Kok Tsui No. 8

Date	Calibration Level before Measurement (dB(A))	Calibration Level after Measurement (dB(A))	Calibrated by
03/06/2004	94.0	94.0	T. M. Fung
07/06/2004	94.0	94.0	T. M. Chan
10/06/2004	94.0	94.0	T. M. Chan
14/06/2004	94.0	94.0	T. M. Fung
17/06/2004	94.0	94.0	T. M. Chan
21/06/2004	94.0	94.0	T. M. Chan

Note: Measurement accepted as valid only if the calibration levels from before and after the noise measurement agreed to within 1.0 dB.



Approved by: DANIEL SUM

Date: 30 June 2004

### Equipment Calibration Record

Site: Civil works for 275kV Cable Route from Lamma Island to Cyberport

Noise Equipment Used: RION NL - 14

Calibrator Used: RION KC - 73

Measurement Location: N4 - Pak Kok Tsui No. 2

Date	Calibration Level before Measurement (dB(A))	Calibration Level after Measurement (dB(A))	Calibrated by
25/6/04	94.2	94.2	ESTHER LUK

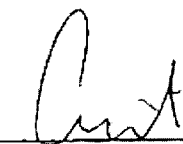
Measurement Location: N5 - Pak Kok Tsui No. 8

Date	Calibration Level before Measurement (dB(A))	Calibration Level after Measurement (dB(A))	Calibrated by
25/6/04	94.1	94.2	ESTHER LUK

Note: Measurement accepted as valid only if the calibration levels from before and after the noise measurement agreed to within 1.0 dB.

Approved by: 

Date: 25/6/04

Inspected by: 

Date: 25/6/04

### Equipment Calibration Record

Site: Lamma Power Station Extension - Supply and Installation of 275 kV Communication Submarine and Land Cables with Accessories for Lamma-Cyberport Circuits

Noise Equipment Used: RION N2 - 14

Calibrator Used: RION NC - 73


Measurement Location: N4 - Pak Kok Tsui No. 2

Date	Calibration Level before Measurement (dB(A))	Calibration Level after Measurement (dB(A))	Calibrated by
29/6/04	94.1	94.1	ESTHER LUK
3/7/04	94.2	94.1	ESTHER LUK

Measurement Location: N5 - Pak Kok Tsui No. 8


Date	Calibration Level before Measurement (dB(A))	Calibration Level after Measurement (dB(A))	Calibrated by
29/6/04	94.2	94.2	ESTHER LUK
3/7/04	94.2	94.2	ESTHER LUK

Note: Measurement accepted as valid only if the calibration levels from before and after the noise measurement agreed to within 1.0 dB.

Approved by:   
SIMON LIU

Date: 3/7/04

Inspected by:

  
Simon STHo  
Assistant Engineer  
H/E/POC 3/7/04