

Appendix E Environmental Monitoring Data for Air and Noise

Appendix E
Air Quality Monitoring Results and their Graphical Presentation

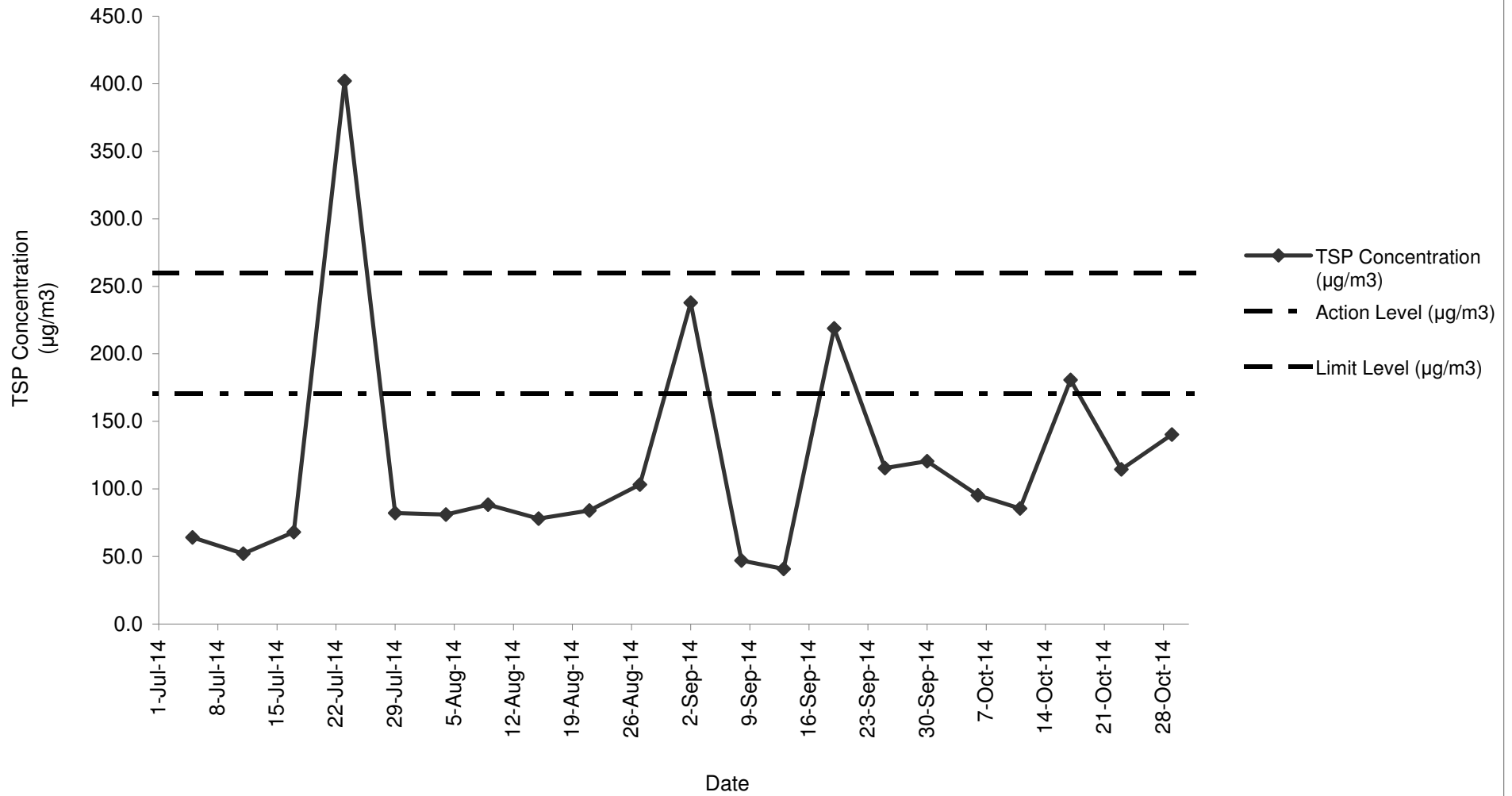
24-Hour TSP Monitoring Result at Station: SR77

| Sampling Date | Weather Condition | Paper No. | Wt. of paper (g) | | | Elapse Time | | | Flow Rate (CFM) | | | Flow Rate (m ³ /min) | | | Total Volume (m ³) | TSP Concentration (µg/m ³) | Action Level (µg/m ³) | Limit Level (µg/m ³) | Wind speed m/s | Wind direction |
|---------------|-------------------|-----------|------------------|-----------|-------------|-------------|-------|---------------|-----------------|-------|---------------|---------------------------------|-------|---------------|--------------------------------|--|-----------------------------------|----------------------------------|----------------|----------------|
| | | | Initial Wt. | Final Wt. | Wt. of Dust | Initial | Final | Sampling Hour | Initial | Final | Avg Flow Rate | Initial | Final | Avg Flow Rate | | | | | | |
| 5-Jul-14 | Rainy | 50 | 2.7048 | 2.8380 | 0.1332 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 64.1 | 170.3 | 260.0 | <5 | N |
| 11-Jul-14 | Fine | 51 | 2.7072 | 2.8157 | 0.1085 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 52.2 | 170.3 | 260.0 | <5 | N |
| 17-Jul-14 | Fine | 53 | 2.7005 | 2.8421 | 0.1416 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 68.1 | 170.3 | 260.0 | <5 | N |
| 23-Jul-14 | Fine | 57 | 2.6795 | 3.5157 | 0.8362 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 402.1 | 170.3 | 260.0 | <5 | N |
| 29-Jul-14 | Fine | 59 | 2.7073 | 2.8783 | 0.1710 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 82.2 | 170.3 | 260.0 | <5 | N |
| 4-Aug-14 | Sunny | 72 | 2.6718 | 2.8402 | 0.1684 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 81.0 | 170.3 | 260.0 | <5 | N |
| 9-Aug-14 | Fine | 62 | 2.7200 | 2.9037 | 0.1837 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 88.3 | 170.3 | 260.0 | <5 | N |
| 15-Aug-14 | Fine | 64 | 2.7060 | 2.8683 | 0.1623 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 78.0 | 170.3 | 260.0 | <5 | N |
| 21-Aug-14 | Fine | 69 | 2.6983 | 2.8733 | 0.1750 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 84.2 | 170.3 | 260.0 | <5 | N |
| 27-Aug-14 | Sunny | 68 | 2.6756 | 2.8903 | 0.2147 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 103.2 | 170.3 | 260.0 | <5 | N |
| 2-Sep-14 | Fine | 66 | 2.7036 | 3.1984 | 0.4948 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 237.9 | 170.3 | 260.0 | <5 | N |
| 8-Sep-14 | Sunny | 85 | 2.7183 | 2.8161 | 0.0978 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 47.0 | 170.3 | 260.0 | <5 | N |
| 13-Sep-14 | Sunny | 84 | 2.7229 | 2.8078 | 0.0849 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 40.8 | 170.3 | 260.0 | <5 | N |
| 19-Sep-14 | Fine | 87 | 2.7231 | 3.1784 | 0.4553 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 218.9 | 170.3 | 260.0 | <5 | N |
| 25-Sep-14 | Sunny | 89 | 2.7889 | 3.0289 | 0.2400 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 115.4 | 170.3 | 260.0 | <5 | N |
| 30-Sep-14 | Fine | 91 | 2.7064 | 2.9570 | 0.2506 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 120.5 | 170.3 | 260.0 | <5 | N |
| 6-Oct-14 | Fine | 93 | 2.7227 | 2.9208 | 0.1981 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 95.3 | 170.3 | 260.0 | <5 | N |
| 11-Oct-14 | Sunny | 94 | 2.6914 | 2.8693 | 0.1779 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 85.5 | 170.3 | 260.0 | <5 | N |
| 17-Oct-14 | Sunny | 97 | 2.8002 | 3.1761 | 0.3759 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 180.8 | 170.3 | 260.0 | <5 | N |
| 23-Oct-14 | Sunny | 101 | 2.7829 | 3.0210 | 0.2381 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 114.5 | 170.3 | 260.0 | <5 | N |
| 29-Oct-14 | Fine | 100 | 2.7114 | 3.0030 | 0.2916 | 0.00 | 24.00 | 24.00 | 51 | 51 | 51.0 | 1.44 | 1.44 | 1.44 | 2079.59 | 140.2 | 170.3 | 260.0 | <5 | N |

| Summary For the Reporting Quarter (Aug - Oct 2014) | |
|--|-------|
| Average | 114.5 |
| Minimum | 40.8 |
| Maximum | 237.9 |

Note: No major dust source observed during the monitoring period
Data in **Bold** denotes exceedance of respective Action Level
Data in **Bold Underline** denotes exceedance of respective Limit Level

24-Hour TSP Monitoring Result at Station: SR77 (July - October 2014)



Appendix E
Air Quality Monitoring Results and their Graphical Presentation

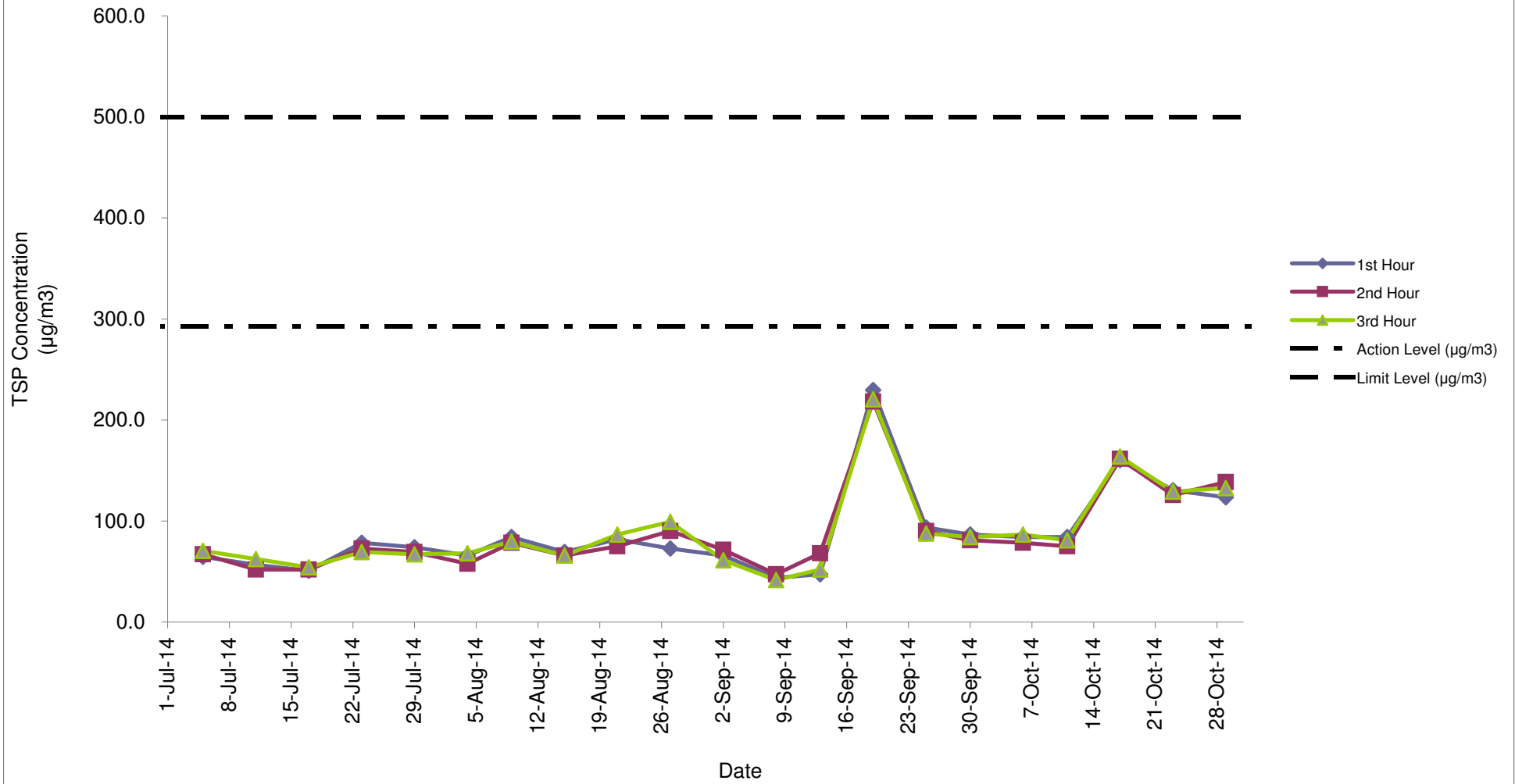
1-Hour TSP Monitoring Result at Station: SR77

| Date | Weather Condition | Time | Conc.(µg/m ³) | | | Action Level (µg/m3) | Limit Level (µg/m3) |
|-----------|-------------------|--------------|---------------------------|----------------------|----------------------|----------------------|---------------------|
| | | | 1 st Hour | 2 nd Hour | 3 rd Hour | | |
| 5-Jul-14 | Rainy | 9:00 - 12:00 | 64.6 | 66.9 | 70.4 | 292.7 | 500.0 |
| 11-Jul-14 | Fine | 9:00 - 12:00 | 56.5 | 51.9 | 62.3 | 292.7 | 500.0 |
| 17-Jul-14 | Fine | 9:00 - 12:00 | 50.8 | 51.9 | 54.2 | 292.7 | 500.0 |
| 23-Jul-14 | Fine | 9:00 - 12:00 | 78.5 | 72.7 | 69.2 | 292.7 | 500.0 |
| 29-Jul-14 | Fine | 9:00 - 12:00 | 73.9 | 69.2 | 66.9 | 292.7 | 500.0 |
| 4-Aug-14 | Sunny | 9:00 - 12:00 | 65.8 | 57.7 | 68.1 | 292.7 | 500.0 |
| 9-Aug-14 | Fine | 9:00 - 12:00 | 84.2 | 78.5 | 79.6 | 292.7 | 500.0 |
| 15-Aug-14 | Fine | 9:00 - 12:00 | 69.2 | 65.8 | 65.8 | 292.7 | 500.0 |
| 21-Aug-14 | Fine | 9:00 - 12:00 | 81.9 | 75.0 | 86.6 | 292.7 | 500.0 |
| 27-Aug-14 | Sunny | 9:00 - 12:00 | 72.7 | 90.0 | 99.3 | 292.7 | 500.0 |
| 2-Sep-14 | Fine | 9:00 - 12:00 | 65.8 | 71.6 | 61.2 | 292.7 | 500.0 |
| 8-Sep-14 | Sunny | 9:00 - 12:00 | 43.9 | 47.3 | 41.5 | 292.7 | 500.0 |
| 13-Sep-14 | Sunny | 9:00 - 12:00 | 47.3 | 68.1 | 51.9 | 292.7 | 500.0 |
| 19-Sep-14 | Fine | 9:00 - 12:00 | 229.7 | 218.1 | 220.4 | 292.7 | 500.0 |
| 25-Sep-14 | Sunny | 9:00 - 12:00 | 93.5 | 90.0 | 87.7 | 292.7 | 500.0 |
| 30-Sep-14 | Fine | 9:00 - 12:00 | 86.6 | 80.8 | 84.2 | 292.7 | 500.0 |
| 6-Oct-14 | Fine | 9:00 - 12:00 | 84.2 | 78.5 | 86.6 | 292.7 | 500.0 |
| 11-Oct-14 | Sunny | 9:00 - 12:00 | 84.2 | 75.0 | 80.8 | 292.7 | 500.0 |
| 17-Oct-14 | Sunny | 9:00 - 12:00 | 160.4 | 161.6 | 163.9 | 292.7 | 500.0 |
| 23-Oct-14 | Sunny | 9:00 - 12:00 | 130.4 | 125.8 | 129.3 | 292.7 | 500.0 |
| 29-Oct-14 | Fine | 9:00 - 12:00 | 123.5 | 138.5 | 132.7 | 292.7 | 500.0 |

| Summary For the Reporting Quarter (Aug - Oct 2014) | |
|---|-------|
| Average | 95.5 |
| Minimum | 41.5 |
| Maximum | 229.7 |

Note: No major dust source observed during the monitoring period

1-Hour TSP Monitoring Result at station: SR77 (July - October 2014)



Project Name: Contract No. CV/2012/09 Liantang / Heung Yuen Wai Boundary Control Point Site Formation and Infrastructure works - Contract 3
Entrusted Portion of Widening of Tolo Highway / Fanling Highway between Island House Interchange and Fanling - Stage 2

Noise Monitoring Result at SR77

| Date | Weather Condition | Start Time | End Time | Measured Noise Level (dB(A))* | | | Baseline Corrected Level, dB(A)** | Baseline Noise Level (dB(A)), Leq(30min) | Limit Level dB(A) | Exceedance (Y / N) |
|------------|-------------------|------------|----------|-------------------------------|------------|------------|-----------------------------------|--|-------------------|--------------------|
| | | | | L10(30min) | L90(30min) | Leq(30min) | | | | |
| 2014/07/11 | Fine | 14:30 | 15:00 | 63.3 | 68.5 | 59.0 | - | 67.8 | 75.0 | N |
| 2014/07/17 | Fine | 9:00 | 9:30 | 63.6 | 68.9 | 58.9 | - | 67.8 | 75.0 | N |
| 2014/07/23 | Fine | 14:00 | 14:30 | 67.4 | 72.5 | 63.5 | - | 67.8 | 75.0 | N |
| 2014/07/29 | Fine | 9:30 | 10:00 | 72.1 | 73.5 | 64.0 | - | 67.8 | 75.0 | N |
| 2014/08/04 | Sunny | 10:00 | 10:30 | 73.7 | 63.4 | 71.7 | - | 67.8 | 75.0 | N |
| 2014/08/15 | Fine | 15:00 | 15:30 | 73.5 | 63.0 | 69.5 | - | 67.8 | 75.0 | N |
| 2014/08/21 | Fine | 14:30 | 15:00 | 72.4 | 62.0 | 67.9 | - | 67.8 | 75.0 | N |
| 2014/08/27 | Sunny | 11:00 | 11:30 | 71.6 | 61.5 | 66.8 | - | 67.8 | 75.0 | N |
| 2014/09/02 | Fine | 10:00 | 10:30 | 70.7 | 60.5 | 65.9 | - | 67.8 | 75.0 | N |
| 2014/09/08 | Sunny | 10:00 | 10:30 | 71.5 | 61.0 | 66.5 | - | 67.8 | 75.0 | N |
| 2014/09/19 | Sunny | 14:00 | 14:30 | 70.5 | 59.5 | 66.9 | - | 67.8 | 75.0 | N |
| 2014/09/25 | Fine | 11:30 | 12:00 | 73.5 | 64.5 | 69.5 | - | 67.8 | 75.0 | N |
| 2014/09/30 | Sunny | 14:30 | 15:00 | 73.0 | 61.0 | 69.2 | - | 67.8 | 75.0 | N |
| 2014/10/06 | Fine | 11:00 | 11:30 | 73.0 | 61.5 | 69.9 | - | 67.8 | 75.0 | N |
| 2014/10/17 | Sunny | 11:30 | 12:00 | 73.0 | 60.5 | 68.5 | - | 67.8 | 75.0 | N |
| 2014/10/23 | Sunny | 11:30 | 12:00 | 76.0 | 63.5 | 71.5 | - | 67.8 | 75.0 | N |
| 2014/10/29 | Fine | 10:30 | 11:00 | 74.0 | 65.0 | 71.2 | - | 67.8 | 75.0 | N |

| Summary For the Reporting Quarter (Aug - Oct 2014) | |
|--|------|
| Average | 68.8 |
| Minimum | 65.9 |
| Maximum | 71.7 |

Remarks

* +3dB(A) Façade effect correction included

** Baseline corrected level is only calculated when measured noise level (Leq) > limit level.

**Noise monitoring result: SR77
(July - October 2014)**

