Ventia Pty Ltd

AirportlinkM7 Ambient Air Quality Monitoring Report

January 2018

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ENVIRONMENTAL MONITORING TECHNOLOGIES

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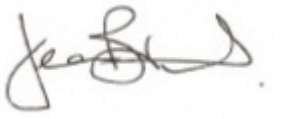

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Glossary

The following terms and abbreviations may be found throughout this report:

AQMS – Air Quality Monitoring Station
EPA – Environment Protection Authority
NO – Nitric Oxide
NO_2 – Nitrogen Dioxide
NO_x – Nitrogen Oxides
CO – Carbon Monoxide
PM_{10} – Particulate matter of 10 microns or less aerodynamic equivalent size
$PM_{2.5}$ – Particulate matter of 2.5 microns or less aerodynamic equivalent size
TSP – Total Suspended Particulate
HVAS – High Volume Air Sampler
ppm – Parts Per Million
$\mu g/m^3$ – micrograms per cubic meter
AHS – Aviation High School
KSHS – Kedron State High School
LS – Lewis Street
ALOC – Airportlink Operation Centre
CS – Cartwright St

Executive Summary

Exceedance Reporting

There were zero readings over the relevant Air Quality Standards during the reporting period. The reading for Cartwright street $PM_{2.5}$ for the month was above the annual limit and will be monitored. It should be noted that the yearly averages are cumulative from the 1st of January and are an indication only until the December report.

AirportlinkM7 AQMS Exceedance Reporting January 2018							
			Number of Exceedences January 2018				
Pollutant	Averaging period	Maximum Allowed Concentration	Station 1 (AHS)	Station 2 (KSHS)	Station 3 (LS)	Station 4 (ALOC)	Station 5 (CS)
Carbon Monoxide	8 hour (rolling average)	8 ppm	0	0	0	0	0
Nitrogen dioxide	1 hour	0.120 ppm	0	0	0	0	0
	1 year	0.030 ppm	0	0	0	0	0
PM2.5	24 hour	25 µg/m^3	0	0	0	0	0
	1 year	8 µg/m^3	0	0	0	0	1
PM10	24 hour	50 µg/m^3	0	0	0	0	0
	1 Year	50 µg/m^3	0	0	0	0	0
TSP	1 Year	90 µg/m^3	0	0	0	0	0

Table 1 Exceedance Reporting

Maximum allowed concentration criteria are as specified in Condition 19(k) of the Conditions of Approval.

Introduction

Norditech Pty Ltd was appointed by Ventia Pty Limited in February 2015 to operate, maintain and report on the AirportlinkM7 Air Quality Monitoring Network.

The AirportlinkM7 Air Quality Monitoring Network consists of five sites located in close proximity to key locations of the Airportlink project and is a requirement of the Conditions of Approval issued by the Coordinator General.

The addresses of the two parties are as follows

AirportlinkM7
PO Box 412
Lutwyche QLD 4030

Norditech Pty Ltd
Unit 36/70 Holbeche Rd
Arndell Park NSW 2148

Monitoring

Site Locations

AirportlinkM7 Site Location Coordinates		
	Latitude	Longitude
Station 1 (Aviation High School)	-27º 24' 46.5084"	153º 3' 48.0744"
Station 2 (Kedron State High School)	-27º 24' 47.5344"	153º 2' 17.8476"
Station 3 (Lewis Street)	-27º 24' 39.5532"	153º 3' 18.18"
Station 4 (Airportlink Operation Centre)	-27º 24' 43.2252"	153º 1' 58.3104"
Station 5 (Cartwright Street)	-27º 26' 22.5852"	153º 2' 5.784"

Table 2 Site Location Coordinates

Station Instrumentation Details

Each station continuously monitors the following pollutants:

- NO (Nitrogen Oxide)
- NO_2 (Nitrogen Dioxide)
- NO_x (Total Oxides of Nitrogen)
- CO (Carbon Monoxide)
- PM_{10}
- $PM_{2.5}$
- TSP (Samples on a 1 in 6 day cycle)

Monthly validated data for each site are provided in the following Microsoft® Excel™ spreadsheet

- 201801 ALM7 Monthly Validated Data Speadsheet.xlsx
  - Sheet 1 – 5 minute average data
  - Sheet 2 – 1 hour average data
  - Sheet 3 – 8 hour average data
  - Sheet 4 – 24 hour average data

Instrumentation Details								
				Last Calibration Date				
Parameter	Units	Uncertainty	Method	Station 1	Station 2	Station 3	Station 4	Station 5
NO NO_2 NO_x	ppm	2.78%	AS 3580.5.1	22/01/2018	05/01/2018	31/01/2018	31/01/2018	11/01/2018
CO	ppm	2.56%	AS 3580.7.1	22/01/2018	05/01/2018	31/01/2018	31/01/2018	11/01/2018
PM_{10}	µg/m³	3.21 µg/m³	AS 3580.9.11	29/11/2017*	29/11/2017	29/11/2017	29/11/2017	29/11/2017
$PM_{2.5}$	µg/m³	3.21 µg/m³	AS 3580.9.11 / EQPM 0308-170	29/11/2017	29/11/2017	29/11/2017	29/11/2017	29/11/2017
TSP	µg/m³	7.34%	AS 3580.9.3	11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018

Table 3 Instrumentation Details
* These sites have TEOMs installed operating under method AS 3580.9.8

Data Logging

Data are recorded to a WinAQMS data logger located at each site at 5 minute averaging periods, calculated from 10 second samples. All data are retrieved periodically, approximately on an hourly basis, over a private 3G network, to a central WinCollect database, where data validation is performed to remove any data not deemed as valid prior to reporting. Data validation is performed as per the relevant standard, and/or as per the instrument manufacturers recommended guidelines.

All averages greater than 5 minute averages are calculated from the 5 minute average data set. 75% valid data must be available to calculate re-averaged data. For example, to calculate a 1hr average from 5 minute data, there must be a minimum of 9 out of 12 valid 5 minute average data points available.

Annual averages start from January 1st and contain the average of the current year's data.

All data is recorded to Australian Eastern Standard Time.

Data capture rates are calculated as per the following formula:

$$Data\ Capture\ Rate\ \% = \frac{Available\ data\ points}{Total\ data\ points} * 100$$

where:
Available data points = total number of 5 minute averages for the reporting period in which valid data was recorded
Total data points = total number of 5 minute averages for the reporting period inclusive of invalid data

Results

Station 1 (Aviation High School)

Summary

Station 1 Aviation High School Ambient AQMS Summary January 2018						
Parameter	Unit	EPP Goal	Averaging Period	Maximum Value	Date & Time	Capture Rate
NO_2	ppm	0.120	1 Hour	0.016	19/01/2018 21:00	96.8
NO_2	ppm	0.030	12 Months	0.002	--	96.8
CO	ppm	8	8 Hours	0.3	31/01/2018 14:00	93.9
$PM_{2.5}$	µg/m3	25	24 Hours	9.6	18/01/2018	97.6
$PM_{2.5}$	µg/m3	8	12 Months	4.9	--	97.6
PM_{10}	µg/m3	50	24 Hours	28.6	18/01/2018	99.5
PM_{10}	µg/m3	50	12 Months	16.2	--	99.5
TSP	µg/m3	--	24 Hours	62.6	15/12/2017	100.0
TSP	µg/m3	90	12 Months	30.7	--	100.0

Table 4 Station 1 Monthly Summary

Graphical Representations

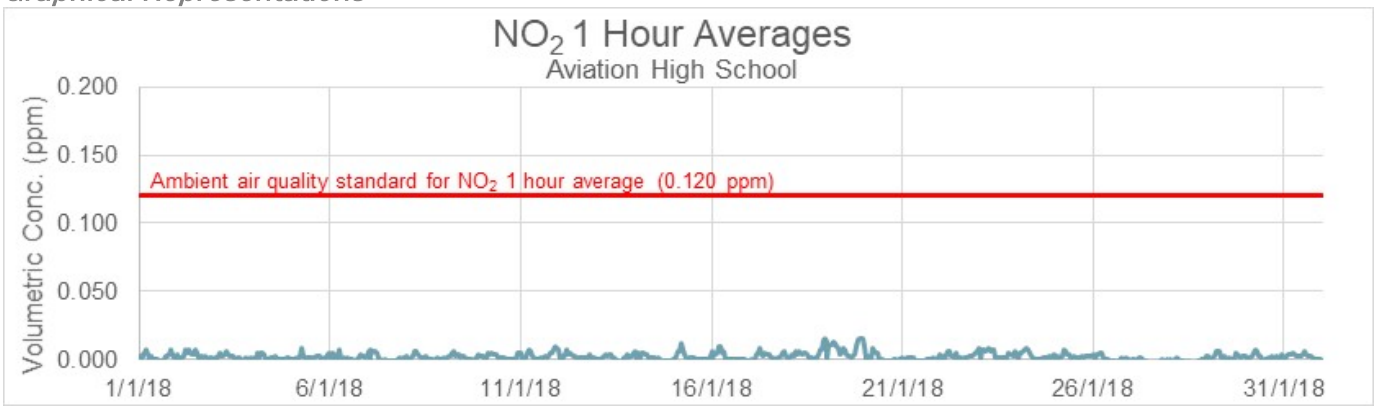

Figure 1 Station 1 Nitrogen Dioxide 1hr averages

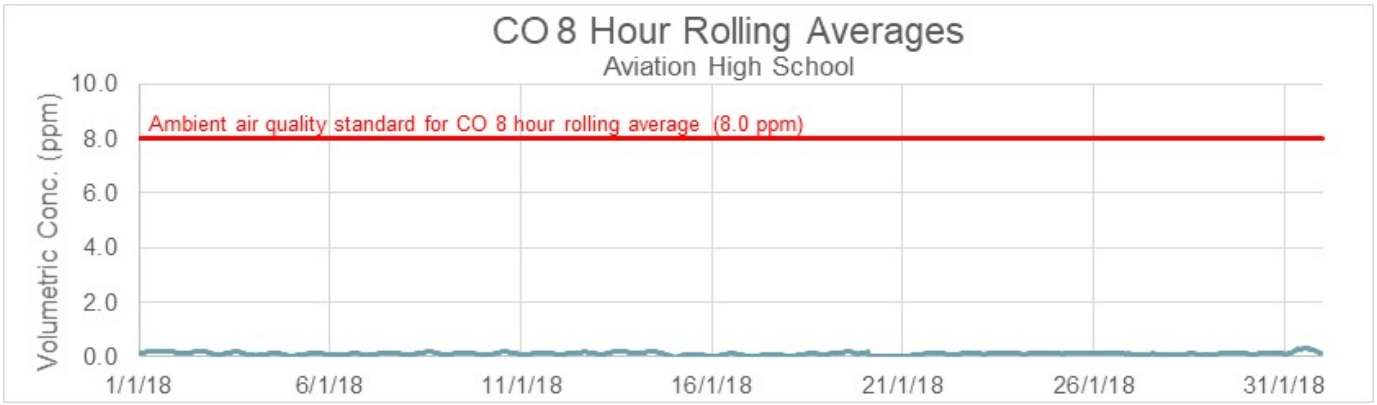

Figure 2 Station 1 Carbon Monoxide 8hr rolling averages

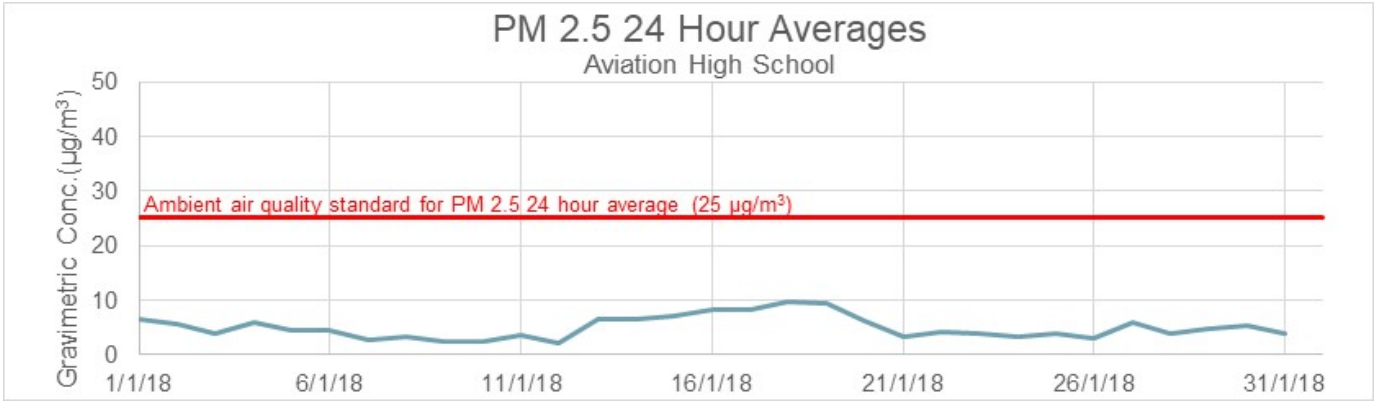

Figure 3 Station 1 PM2.5 24hr averages

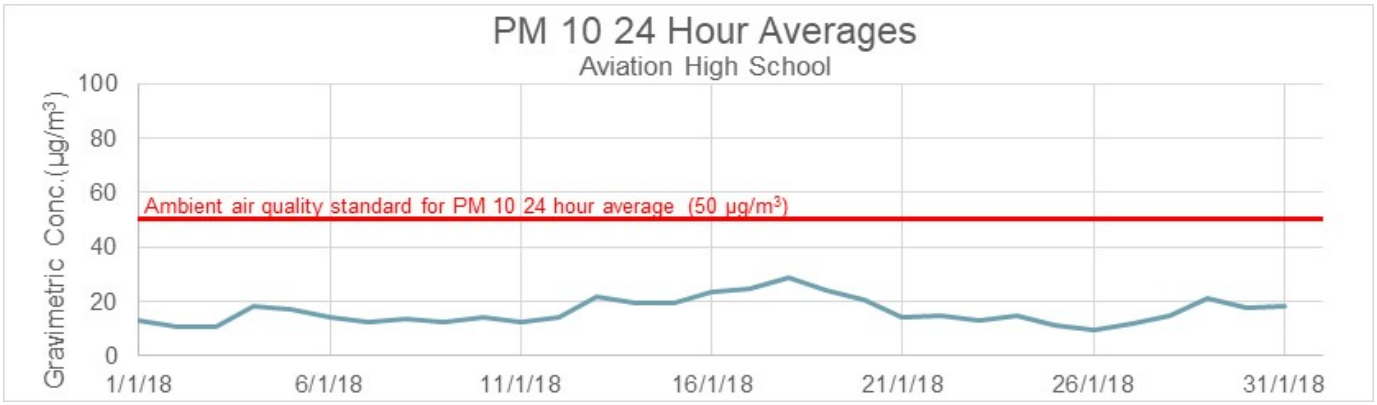

Figure 4 Station 1 PM10 24hr averages

Nitrogen Dioxide Summary

Station 1 Aviation High School Ambient AQMS Nitrogen Dioxide Summary January 2018						
		1 hr Avgs				
Date	24hr Avg (ppm)	Min (ppm)	Max (ppm)	Time of Max	Number of Exceedences 1hr Avg > 0.120 ppm	Capture Rate
1/01/2018	0.002	-0.001	0.008	20:00	0	97.2
2/01/2018	0.003	0.000	0.007	07:00	0	97.2
3/01/2018	0.002	-0.001	0.006	07:00	0	97.2
4/01/2018	0.001	0.000	0.005	05:00	0	97.2
5/01/2018	0.001	-0.001	0.008	06:00	0	97.2
6/01/2018	0.002	-0.001	0.007	06:00	0	97.2
7/01/2018	0.001	-0.001	0.007	02:00	0	97.2
8/01/2018	0.001	-0.001	0.006	06:00	0	97.2
9/01/2018	0.002	-0.001	0.006	06:00	0	97.2
10/01/2018	0.002	0.000	0.005	04:00	0	97.2
11/01/2018	0.003	0.000	0.009	22:00	0	97.2
12/01/2018	0.002	0.000	0.007	00:00	0	97.2
13/01/2018	0.001	-0.002	0.004	23:00	0	97.2
14/01/2018	0.001	-0.001	0.006	00:00	0	97.2
15/01/2018	0.002	0.000	0.011	05:00	0	97.2
16/01/2018	0.002	-0.001	0.010	05:00	0	97.2
17/01/2018	0.003	-0.001	0.008	06:00	0	97.2
18/01/2018	0.004	0.000	0.016	23:00	0	97.2
19/01/2018	0.009	0.001	0.016	21:00	0	96.2
20/01/2018	0.001	-0.001	0.009	00:00	0	88.5
21/01/2018	0.000	-0.001	0.002	23:00	0	97.2
22/01/2018	0.003	0.001	0.006	23:00	0	93.8
23/01/2018	0.004	0.000	0.008	00:00	0	96.5
24/01/2018	0.003	0.000	0.008	06:00	0	97.2
25/01/2018	0.002	0.000	0.008	06:00	0	97.2
26/01/2018	0.001	-0.002	0.005	04:00	0	97.2
27/01/2018	-0.001	-0.002	0.001	06:00	0	97.2
28/01/2018	-0.001	-0.002	0.002	23:00	0	97.2
29/01/2018	0.002	0.000	0.006	07:00	0	97.2
30/01/2018	0.002	-0.001	0.007	06:00	0	97.2
31/01/2018	0.002	0.000	0.006	13:00	0	97.2

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day

Table 5 Station 1 Nitrogen Dioxide Monthly Summary

Carbon Monoxide Summary

Station 1 Aviation High School Ambient AQMS Carbon Monoxide Summary January 2018								
		1 hr Avgs			8 hr Rolling Avgs		No. of exceedences	
Date	24 hr Avg (ppm)	Min (ppm)	Max (ppm)	Time of Max	Max (ppm)	Time of Max	8hr Avg > 8.0 ppm	Capture Rate
1/01/2018	0.2	0.1	0.2	10:00	0.2	17:00	0	96.9
2/01/2018	0.1	0.0	0.2	14:00	0.2	15:00	0	96.9
3/01/2018	0.1	0.0	0.2	09:00	0.2	13:00	0	96.9
4/01/2018	0.1	0.0	0.2	11:00	0.1	14:00	0	96.9
5/01/2018	0.1	0.0	0.1	09:00	0.1	16:00	0	96.9
6/01/2018	0.1	0.0	0.1	13:00	0.1	15:00	0	96.9
7/01/2018	0.1	0.0	0.2	11:00	0.1	16:00	0	96.9
8/01/2018	0.1	0.0	0.2	05:00	0.2	14:00	0	96.9
9/01/2018	0.1	0.0	0.2	06:00	0.1	12:00	0	96.9
10/01/2018	0.1	0.1	0.2	08:00	0.2	14:00	0	96.9
11/01/2018	0.1	0.1	0.2	05:00	0.1	15:00	0	96.9
12/01/2018	0.1	0.1	0.2	10:00	0.2	16:00	0	96.9
13/01/2018	0.1	0.1	0.2	08:00	0.2	14:00	0	96.9
14/01/2018	0.1	-0.1	0.2	07:00	0.2	10:00	0	96.9
15/01/2018	0.0	0.0	0.1	11:00	0.1	12:00	0	96.9
16/01/2018	0.1	0.0	0.1	06:00	0.1	12:00	0	96.9
17/01/2018	0.0	0.0	0.1	11:00	0.1	16:00	0	96.9
18/01/2018	0.1	0.0	0.2	23:00	0.1	15:00	0	96.9
19/01/2018	0.1	0.0	0.3	22:00	0.2	12:00	0	95.8
[1] 20/01/2018	-	0.1	0.1	00:00	0.2	02:00	0	9.4
21/01/2018	0.1	0.0	0.2	16:00	0.1	19:00	0	96.9
22/01/2018	0.1	0.0	0.2	15:00	0.1	19:00	0	93.4
23/01/2018	0.1	0.1	0.2	07:00	0.1	08:00	0	96.2
24/01/2018	0.1	0.1	0.2	07:00	0.1	21:00	0	96.9
25/01/2018	0.1	0.1	0.2	08:00	0.1	12:00	0	96.9
26/01/2018	0.1	0.1	0.1	07:00	0.1	08:00	0	96.9
27/01/2018	0.1	0.0	0.1	07:00	0.1	13:00	0	96.9
28/01/2018	0.1	0.0	0.1	08:00	0.1	14:00	0	96.9
29/01/2018	0.1	0.1	0.2	07:00	0.1	14:00	0	96.9
30/01/2018	0.1	0.0	0.2	14:00	0.1	19:00	0	96.9
31/01/2018	0.2	0.1	0.5	08:00	0.3	14:00	0	96.9

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day
[1] Loss of data due to power loss

Table 6 Station 1 Carbon Monoxide Monthly Summary

$PM_{2.5}$ Summary

Station 1 Aviation High School Ambient AQMS Particulate PM2.5 Summary January 2018						
		1 hr Avgs			No. of exceedences	
Date	24 hr Avg ($\mu g/m^3$)	Min ($\mu g/m^3$)	Max ($\mu g/m^3$)	Time of Max	24hr Avg > 25.0 $\mu g/m^3$	Capture Rate
1/01/2018	6.6	2.4	10.5	23:00	0	100.0
2/01/2018	5.6	0.4	27.8	03:00	0	100.0
3/01/2018	3.9	-0.8	8.8	17:00	0	100.0
4/01/2018	5.8	0.4	11.6	23:00	0	100.0
5/01/2018	4.5	0.1	7.9	23:00	0	100.0
6/01/2018	4.3	-1.8	8.7	07:00	0	100.0
7/01/2018	2.8	-0.9	5.9	10:00	0	100.0
8/01/2018	3.4	0.1	5.9	05:00	0	100.0
9/01/2018	2.3	-0.8	5.8	06:00	0	100.0
10/01/2018	2.4	-0.8	5.9	05:00	0	100.0
11/01/2018	3.4	0.1	6.9	22:00	0	100.0
12/01/2018	2.2	-3.8	5.9	11:00	0	100.0
13/01/2018	6.4	1.3	16.4	06:00	0	100.0
14/01/2018	6.5	1.3	13.8	18:00	0	100.0
15/01/2018	6.9	1.4	14.8	05:00	0	100.0
16/01/2018	8.3	3.3	12.8	19:00	0	100.0
17/01/2018	8.1	5.0	12.6	08:00	0	100.0
18/01/2018	9.6	7.2	18.9	01:00	0	100.0
19/01/2018	9.3	5.3	21.6	17:00	0	95.8
20/01/2018	6.2	-0.8	11.0	06:00	0	87.5
21/01/2018	3.2	-1.6	5.0	00:00	0	100.0
22/01/2018	4.0	0.0	6.9	13:00	0	95.8
23/01/2018	3.9	1.3	7.7	06:00	0	100.0
24/01/2018	3.3	-0.9	6.9	08:00	0	100.0
25/01/2018	3.8	0.2	6.0	06:00	0	87.5
26/01/2018	3.0	0.0	7.8	08:00	0	95.8
27/01/2018	6.0	0.3	53.2	01:00	0	100.0
28/01/2018	3.9	2.0	7.8	01:00	0	91.7
29/01/2018	4.7	3.0	11.0	20:00	0	79.2
30/01/2018	5.3	1.0	10.7	02:00	0	95.8
31/01/2018	3.8	-1.0	9.8	15:00	0	95.8

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day

Table 7 Station 1 $PM_{2.5}$ Monthly Summary

PM_{10} Summary

Station 1 Aviation High School Ambient AQMS Particulate PM10 Summary January 2018						
		1 hr Avgs			No. of exceedences	
Date	24 hr Avg ($\mu g/m^3$)	Min ($\mu g/m^3$)	Max ($\mu g/m^3$)	Time of Max	24hr Avg > 50.0 $\mu g/m^3$	Capture Rate
1/01/2018	13.0	-2.7	21.5	00:00	0	100.0
2/01/2018	10.4	-5.8	20.8	11:00	0	100.0
3/01/2018	10.7	1.9	22.6	19:00	0	100.0
4/01/2018	18.2	9.9	24.4	17:00	0	100.0
5/01/2018	17.1	11.0	24.4	12:00	0	100.0
6/01/2018	14.0	5.8	24.7	13:00	0	100.0
7/01/2018	12.4	7.4	22.1	17:00	0	100.0
8/01/2018	13.7	5.9	27.9	12:00	0	100.0
9/01/2018	12.4	3.5	28.0	12:00	0	100.0
10/01/2018	13.8	6.4	28.0	14:00	0	100.0
11/01/2018	12.5	5.9	19.9	11:00	0	100.0
12/01/2018	13.9	5.4	23.8	13:00	0	100.0
13/01/2018	21.4	-0.7	39.5	13:00	0	100.0
14/01/2018	19.4	-1.6	94.5	16:00	0	100.0
15/01/2018	19.1	6.9	28.1	13:00	0	100.0
16/01/2018	23.5	12.5	40.1	19:00	0	100.0
17/01/2018	24.8	16.4	33.2	15:00	0	100.0
18/01/2018	28.6	17.9	42.5	11:00	0	100.0
19/01/2018	24.2	8.2	56.5	11:00	0	95.8
20/01/2018	20.2	13.2	27.7	12:00	0	91.7
21/01/2018	14.0	2.8	20.5	07:00	0	100.0
22/01/2018	14.9	0.3	27.9	12:00	0	95.8
23/01/2018	13.1	-0.4	28.3	14:00	0	100.0
24/01/2018	14.7	4.0	34.0	20:00	0	100.0
25/01/2018	11.4	-6.3	19.8	17:00	0	100.0
26/01/2018	9.5	-10.9	22.2	16:00	0	100.0
27/01/2018	11.6	0.7	20.3	19:00	0	100.0
28/01/2018	14.8	-0.2	33.6	18:00	0	100.0
29/01/2018	21.3	2.7	39.1	13:00	0	100.0
30/01/2018	17.5	9.3	32.7	14:00	0	100.0
31/01/2018	17.9	1.8	49.0	14:00	0	100.0

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day

Table 8 Station 1 PM_{10} Monthly Summary

Station 2 (Kedron State High School)

Summary

Station 2 Kedron State High School Ambient AQMS Summary January 2018						
Parameter	Unit	EPP Goal	Averaging Period	Maximum Value	Date & Time	Capture Rate
NO_2	ppm	0.120	1 Hour	0.018	19/01/2018 23:00	97.0
NO_2	ppm	0.030	12 Months	0.005	--	97.0
CO	ppm	8	8 Hours	0.6	02/01/2018 18:00	88.1
$PM_{2.5}$	µg/m3	25	24 Hours	17.1	13/01/2018	96.6
$PM_{2.5}$	µg/m3	8	12 Months	7.7	--	96.6
PM_{10}	µg/m3	50	24 Hours	28.5	13/01/2018	99.7
PM_{10}	µg/m3	50	12 Months	15.8	--	99.7
TSP	µg/m3	--	24 Hours	56.5	15/12/2017	100.0
TSP	µg/m3	90	12 Months	30.9	--	100.0

Table 9 Station 2 Monthly Summary

Graphical Representations

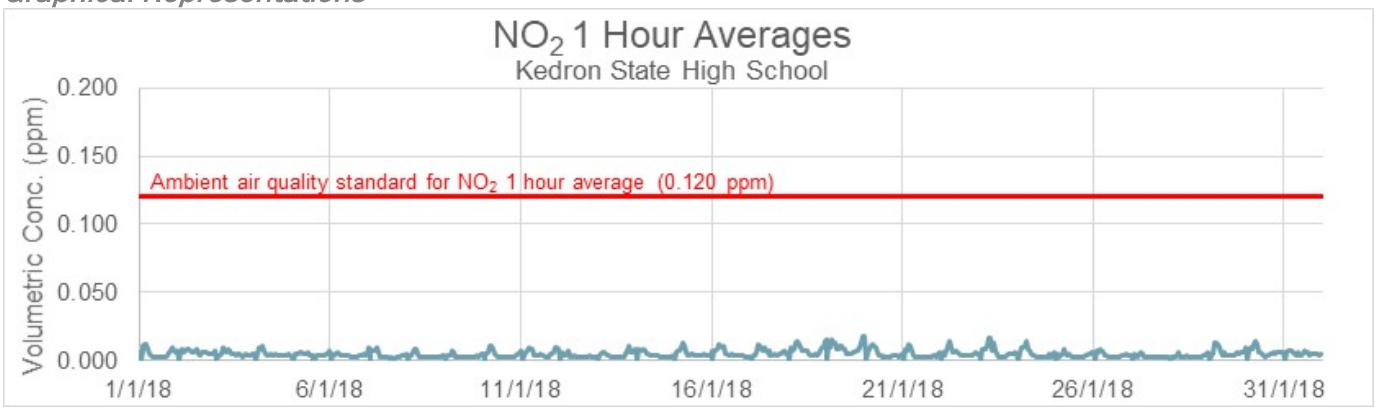

Figure 5 Station 2 Dioxide 1hr averages

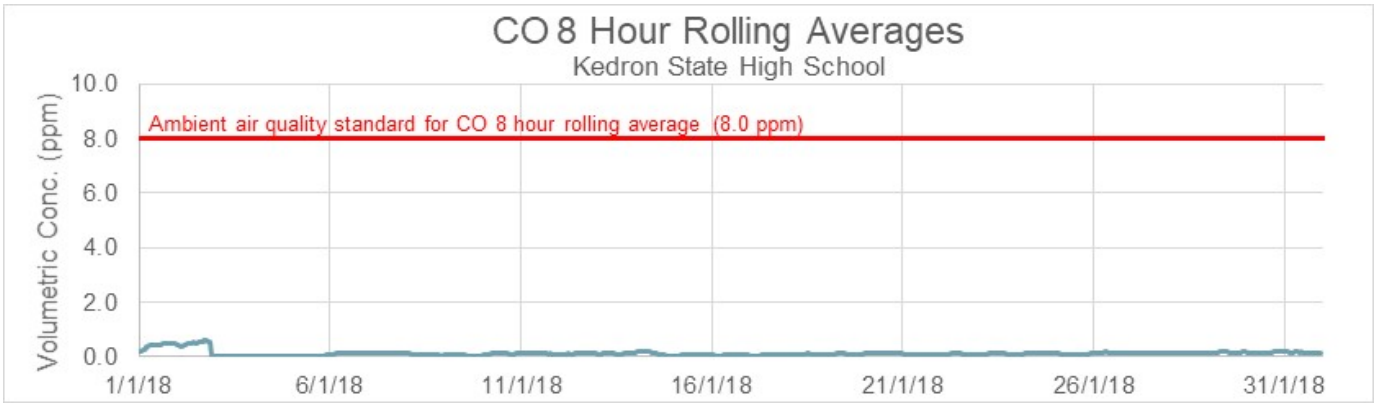

Figure 6 Station 2 Carbon Monoxide 8hr rolling averages

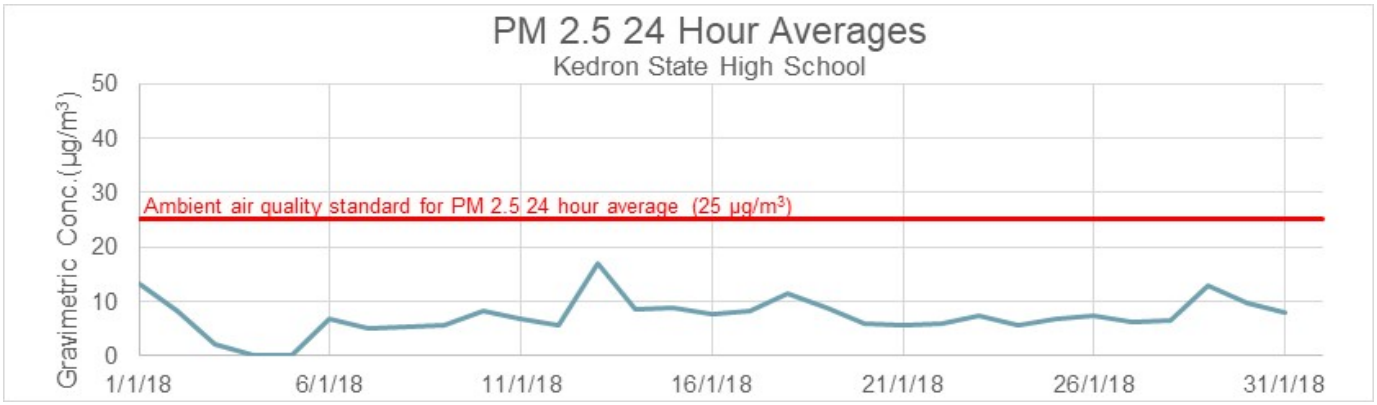

Figure 7 Station 2 PM2.5 24hr averages

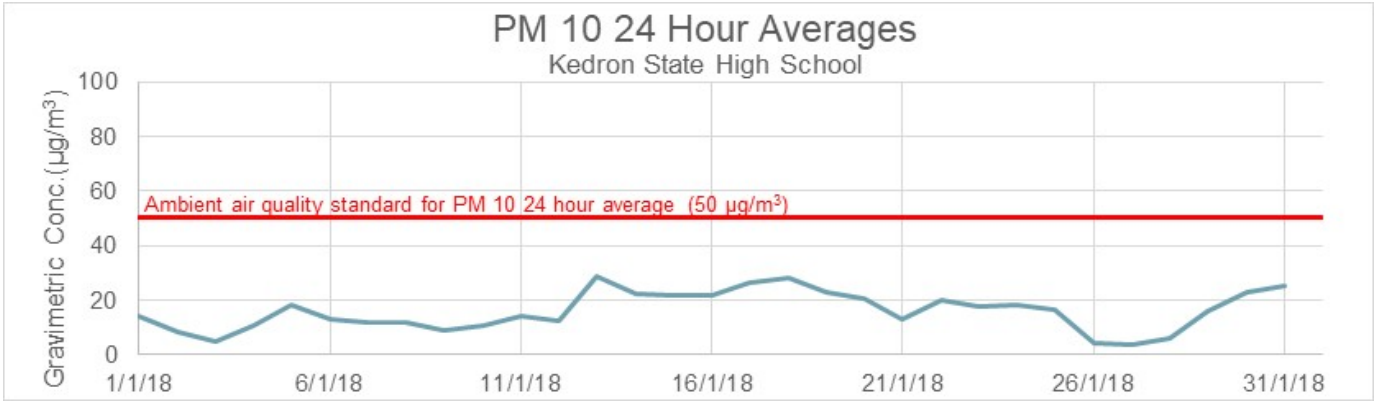

Figure 8 Station 2 PM10 24hr averages

Nitrogen Dioxide Summary

Station 2 KSHS Ambient AQMS Nitrogen Dioxide Summary January 2018						
		1 hr Avgs				
Date	24hr Avg (ppm)	Min (ppm)	Max (ppm)	Time of Max	Number of Exceedences 1hr Avg > 0.120 ppm	Capture Rate
1/01/2018	0.006	0.002	0.012	05:00	0	97.2
2/01/2018	0.006	0.003	0.009	03:00	0	97.2
3/01/2018	0.005	0.003	0.009	05:00	0	97.2
4/01/2018	0.005	0.003	0.011	06:00	0	97.2
5/01/2018	0.004	0.003	0.006	06:00	0	91.0
6/01/2018	0.004	0.002	0.007	00:00	0	97.2
7/01/2018	0.004	0.002	0.009	06:00	0	97.2
8/01/2018	0.003	0.002	0.009	06:00	0	97.2
9/01/2018	0.003	0.002	0.007	05:00	0	97.2
10/01/2018	0.004	0.002	0.011	05:00	0	97.2
11/01/2018	0.005	0.003	0.010	23:00	0	97.2
12/01/2018	0.003	0.002	0.009	00:00	0	97.2
13/01/2018	0.004	0.002	0.011	20:00	0	97.2
14/01/2018	0.005	0.002	0.009	05:00	0	97.2
15/01/2018	0.005	0.003	0.013	06:00	0	97.2
16/01/2018	0.005	0.003	0.011	05:00	0	97.2
17/01/2018	0.006	0.003	0.011	05:00	0	97.2
18/01/2018	0.008	0.004	0.014	06:00	0	97.2
19/01/2018	0.009	0.004	0.018	23:00	0	97.2
20/01/2018	0.006	0.003	0.017	00:00	0	97.2
21/01/2018	0.005	0.002	0.012	04:00	0	97.2
22/01/2018	0.006	0.003	0.014	06:00	0	97.2
23/01/2018	0.007	0.003	0.016	07:00	0	97.2
24/01/2018	0.005	0.002	0.014	06:00	0	97.2
25/01/2018	0.004	0.002	0.009	06:00	0	97.2
26/01/2018	0.004	0.002	0.008	04:00	0	97.2
27/01/2018	0.003	0.002	0.006	06:00	0	97.2
28/01/2018	0.003	0.002	0.006	06:00	0	97.2
29/01/2018	0.006	0.003	0.013	04:00	0	97.2
30/01/2018	0.007	0.003	0.014	06:00	0	97.2
31/01/2018	0.005	0.003	0.007	4:00	0	97.2

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day

Table 10 Station 2 Nitrogen Dioxide Monthly Summary

Carbon Monoxide Summary

Station 2 KSHS Ambient AQMS Carbon Monoxide Summary January 2018								
		1 hr Avgs			8 hr Rolling Avgs		No. of exceedences	
Date	24 hr Avg (ppm)	Min (ppm)	Max (ppm)	Time of Max	Max (ppm)	Time of Max	8hr Avg > 8.0 ppm	Capture Rate
1/01/2018	0.4	0.3	0.6	16:00	0.5	17:00	0	96.9
2/01/2018	0.5	0.3	0.7	14:00	0.6	18:00	0	83.7
[1] 3/01/2018	-	-	-	-	-	-	0	0.0
[1] 4/01/2018	-	-	-	-	-	-	0	0.0
[1] 5/01/2018	-	0.1	0.1	17:00	0.1	23:00	0	32.3
6/01/2018	0.1	0.1	0.1	07:00	0.1	07:00	0	96.9
7/01/2018	0.1	0.1	0.1	06:00	0.1	06:00	0	96.9
8/01/2018	0.1	0.0	0.1	06:00	0.1	00:00	0	96.9
9/01/2018	0.0	0.0	0.1	00:00	0.1	07:00	0	96.9
10/01/2018	0.1	0.1	0.2	06:00	0.1	10:00	0	96.9
11/01/2018	0.1	0.1	0.2	06:00	0.1	08:00	0	96.9
12/01/2018	0.1	0.1	0.1	06:00	0.1	13:00	0	96.9
13/01/2018	0.1	0.1	0.2	20:00	0.1	23:00	0	96.9
14/01/2018	0.1	0.0	0.2	00:00	0.2	06:00	0	96.9
15/01/2018	0.1	0.0	0.1	06:00	0.1	17:00	0	96.9
16/01/2018	0.0	0.0	0.1	08:00	0.1	12:00	0	96.9
17/01/2018	0.1	0.0	0.1	06:00	0.1	12:00	0	96.9
18/01/2018	0.1	0.0	0.1	07:00	0.1	12:00	0	96.9
19/01/2018	0.1	0.1	0.2	23:00	0.1	07:00	0	96.9
20/01/2018	0.1	0.1	0.2	00:00	0.1	06:00	0	96.9
21/01/2018	0.1	0.0	0.1	11:00	0.1	00:00	0	96.9
22/01/2018	0.1	0.1	0.2	06:00	0.1	08:00	0	96.9
23/01/2018	0.1	0.1	0.2	07:00	0.1	10:00	0	96.9
24/01/2018	0.1	0.1	0.2	06:00	0.1	10:00	0	96.9
25/01/2018	0.1	0.1	0.1	06:00	0.1	00:00	0	96.9
26/01/2018	0.1	0.1	0.2	06:00	0.2	08:00	0	96.9
27/01/2018	0.1	0.1	0.2	07:00	0.1	10:00	0	96.9
28/01/2018	0.1	0.1	0.1	12:00	0.1	12:00	0	96.9
29/01/2018	0.1	0.1	0.2	07:00	0.2	08:00	0	96.9
30/01/2018	0.1	0.1	0.2	17:00	0.2	23:00	0	96.9
31/01/2018	0.1	0.1	0.2	7:00	0.2	0:00	0	96.9

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day
[1] Loss of data due to instrument fault

Table 11 Station 2 Carbon Monoxide Monthly Summary

PM2.5 Summary

Station 2 KSHS Ambient AQMS Particulate PM2.5 Summary January 2018						
		1 hr Avgs			No. of exceedences	
Date	24 hr Avg ($\mu g/m^3$)	Min ($\mu g/m^3$)	Max ($\mu g/m^3$)	Time of Max	24hr Avg > 25.0 $\mu g/m^3$	Capture Rate
1/01/2018	13.1	0.6	39.4	00:00	0	100.0
2/01/2018	8.2	1.8	17.8	12:00	0	100.0
3/01/2018	2.1	0.4	11.9	00:00	0	100.0
[1] 4/01/2018	-	0.4	4.6	06:00	0	62.5
[1] 5/01/2018	-	0.4	23.0	18:00	0	33.3
6/01/2018	6.9	2.6	12.4	20:00	0	100.0
7/01/2018	5.0	1.2	12.2	06:00	0	100.0
8/01/2018	5.3	1.8	9.4	06:00	0	100.0
9/01/2018	5.6	0.9	16.3	06:00	0	100.0
10/01/2018	8.2	1.0	20.9	06:00	0	100.0
11/01/2018	6.7	1.0	17.9	06:00	0	100.0
12/01/2018	5.6	2.6	12.4	22:00	0	100.0
13/01/2018	17.1	3.2	55.0	22:00	0	100.0
14/01/2018	8.5	0.5	27.6	00:00	0	100.0
15/01/2018	8.7	3.2	19.0	02:00	0	100.0
16/01/2018	7.7	1.4	15.5	22:00	0	100.0
17/01/2018	8.1	1.4	17.8	20:00	0	100.0
18/01/2018	11.3	3.9	31.8	23:00	0	100.0
19/01/2018	8.9	0.5	35.7	00:00	0	100.0
20/01/2018	5.8	2.2	9.0	08:00	0	100.0
21/01/2018	5.7	1.7	12.2	08:00	0	100.0
22/01/2018	5.9	1.3	10.9	06:00	0	100.0
23/01/2018	7.4	1.0	15.3	04:00	0	100.0
24/01/2018	5.7	1.4	12.4	20:00	0	100.0
25/01/2018	6.8	1.2	15.0	23:00	0	100.0
26/01/2018	7.4	0.5	23.2	22:00	0	100.0
27/01/2018	6.2	1.0	17.5	00:00	0	100.0
28/01/2018	6.4	1.3	18.2	23:00	0	100.0
29/01/2018	12.9	3.2	20.7	23:00	0	100.0
30/01/2018	9.5	0.5	40.6	23:00	0	100.0
31/01/2018	8.0	0.6	43.4	0:00	0	100.0

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day
[1] Loss of data due to instrument fault

Table 12 Station 2 $PM_{2.5}$ Monthly Summary

PM_{10} Summary

Station 2 KSHS Ambient AQMS Particulate PM10 Summary January 2018						
		1 hr Avgs			No. of exceedences	
Date	24 hr Avg ($\mu g/m^3$)	Min ($\mu g/m^3$)	Max ($\mu g/m^3$)	Time of Max	24hr Avg > 50.0 $\mu g/m^3$	Capture Rate
1/01/2018	13.8	0.6	58.5	00:00	0	100.0
2/01/2018	8.5	0.6	18.8	23:00	0	100.0
3/01/2018	4.9	0.6	29.2	00:00	0	100.0
4/01/2018	10.3	0.5	23.5	23:00	0	100.0
5/01/2018	17.9	6.8	33.3	06:00	0	91.7
6/01/2018	12.9	7.9	18.2	14:00	0	100.0
7/01/2018	11.8	6.4	17.0	23:00	0	100.0
8/01/2018	11.8	2.7	20.1	23:00	0	100.0
9/01/2018	8.7	1.4	27.3	00:00	0	100.0
10/01/2018	10.7	0.9	24.7	23:00	0	100.0
11/01/2018	14.0	7.0	27.8	00:00	0	100.0
12/01/2018	12.3	4.5	25.4	14:00	0	100.0
13/01/2018	28.5	9.9	68.2	22:00	0	100.0
14/01/2018	21.9	11.8	39.4	20:00	0	100.0
15/01/2018	21.9	14.2	32.5	16:00	0	100.0
16/01/2018	21.7	10.9	39.1	22:00	0	100.0
17/01/2018	26.2	16.6	36.7	00:00	0	100.0
18/01/2018	28.3	20.8	41.2	23:00	0	100.0
19/01/2018	22.9	4.6	51.0	22:00	0	100.0
20/01/2018	20.5	12.9	39.6	00:00	0	100.0
21/01/2018	12.7	8.7	20.0	00:00	0	100.0
22/01/2018	19.7	6.5	31.4	16:00	0	100.0
23/01/2018	17.5	7.5	35.7	22:00	0	100.0
24/01/2018	18.0	5.1	51.4	22:00	0	100.0
25/01/2018	16.6	0.8	53.5	06:00	0	100.0
26/01/2018	3.9	0.6	20.3	04:00	0	100.0
27/01/2018	3.6	0.5	18.9	06:00	0	100.0
28/01/2018	6.0	0.6	18.2	08:00	0	100.0
29/01/2018	16.0	0.6	36.9	20:00	0	100.0
30/01/2018	22.7	11.3	43.3	23:00	0	100.0
31/01/2018	24.9	7.8	51.3	22:00	0	100.0

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day

Table 13 Station 2 PM_{10} Monthly Summary

Station 3 (Lewis Street)

Summary

Station 3 Lewis St Ambient AQMS Summary January 2018						
Parameter	Unit	EPP Goal	Averaging Period	Maximum Value	Date & Time	Capture Rate
NO_2	ppm	0.120	1 Hour	0.016	19/01/2018 23:00	89.9
NO_2	ppm	0.030	12 Months	0.006	--	89.9
CO	ppm	8	8 Hours	0.3	01/01/2018 05:00	91.7
$PM_{2.5}$	µg/m3	25	24 Hours	11.0	18/01/2018	93.5
$PM_{2.5}$	µg/m3	8	12 Months	6.4	--	93.5
PM_{10}	µg/m3	50	24 Hours	38.4	18/01/2018	87.6
PM_{10}	µg/m3	50	12 Months	20.1	--	87.6
TSP	µg/m3	--	24 Hours	55.3	15/12/2017	100.0
TSP	µg/m3	90	12 Months	28.3	--	100.0

Table 14 Station 3 Monthly Summary

Graphical Representations

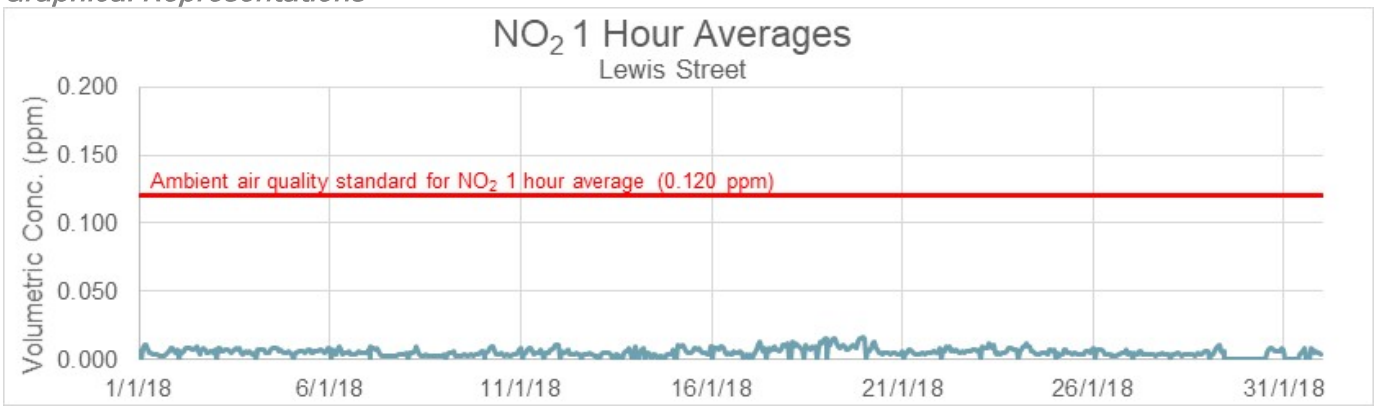

Figure 9 Station 3 Nitrogen Dioxide 1hr averages

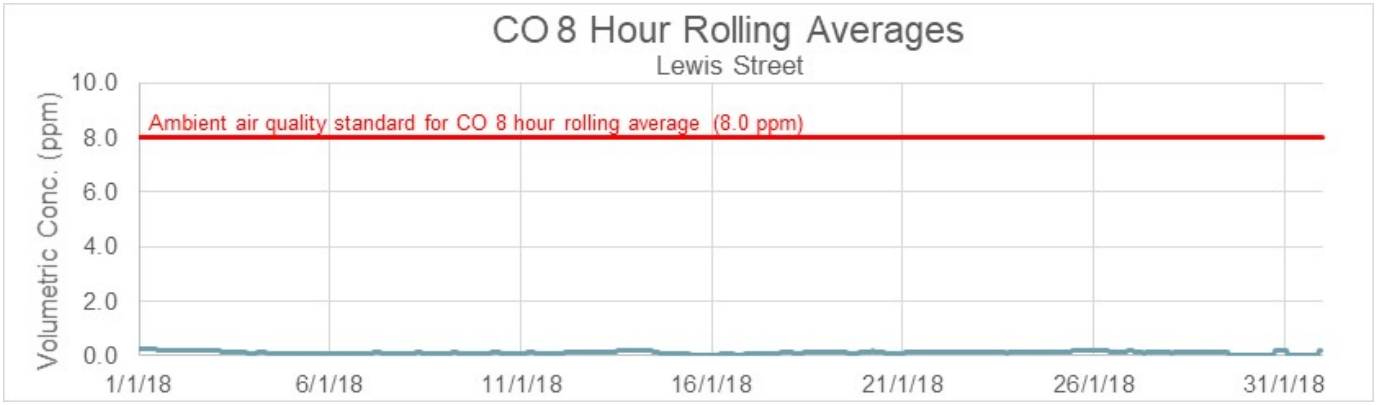

Figure 10 Station 3 Carbon Monoxide 8hr rolling averages

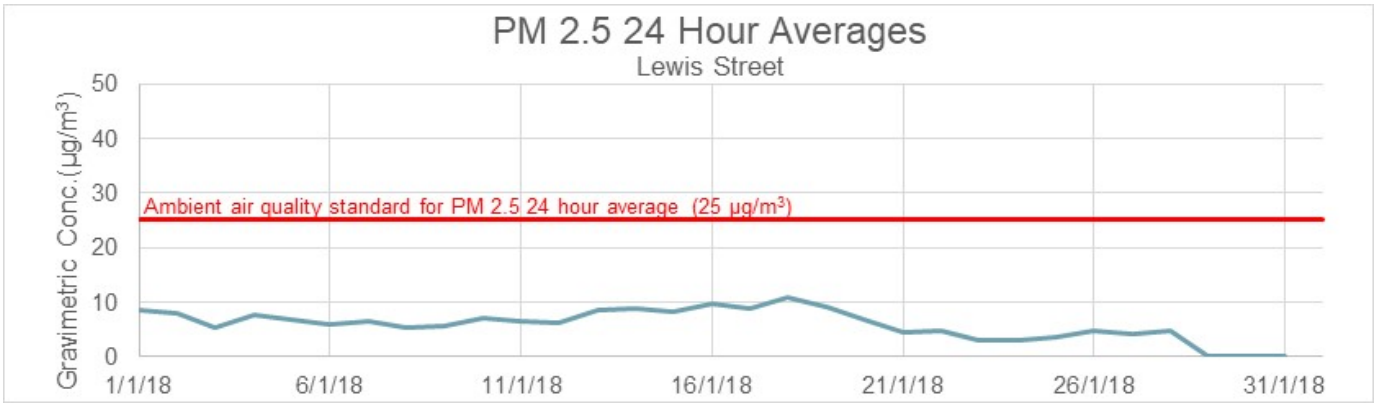

Figure 11 Station 3 PM2.5 24hr averages

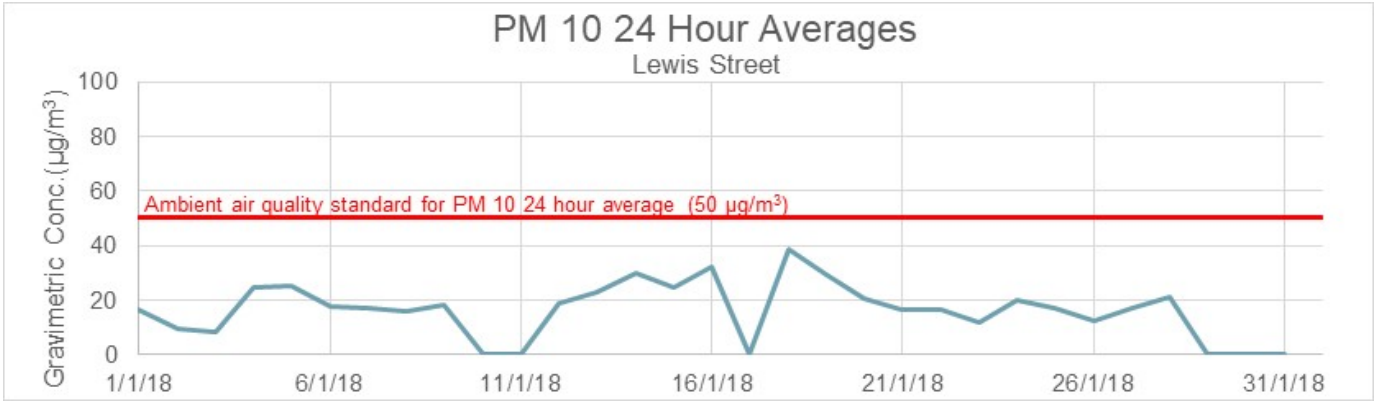

Figure 12 Station 3 PM10 24hr averages

Nitrogen Dioxide Summary

Station 3 Lewis St Ambient AQMS Nitrogen Dioxide Summary January 2018						
		1 hr Avgs				
Date	24hr Avg (ppm)	Min (ppm)	Max (ppm)	Time of Max	Number of Exceedences 1hr Avg > 0.120 ppm	Capture Rate
1/01/2018	0.006	0.003	0.010	04:00	0	97.2
2/01/2018	0.007	0.004	0.010	12:00	0	97.2
3/01/2018	0.006	0.004	0.009	15:00	0	97.2
4/01/2018	0.006	0.004	0.008	14:00	0	97.2
5/01/2018	0.006	0.004	0.008	23:00	0	97.2
6/01/2018	0.005	0.003	0.009	06:00	0	97.2
7/01/2018	0.005	0.002	0.009	02:00	0	97.2
8/01/2018	0.004	0.003	0.010	06:00	0	97.2
9/01/2018	0.004	0.003	0.006	06:00	0	97.2
10/01/2018	0.005	0.003	0.010	06:00	0	97.2
11/01/2018	0.006	0.004	0.011	22:00	0	93.8
12/01/2018	0.004	0.003	0.011	00:00	0	91.0
13/01/2018	0.005	0.003	0.008	20:00	0	80.6
14/01/2018	0.005	0.003	0.009	00:00	0	78.5
15/01/2018	0.007	0.004	0.011	06:00	0	89.9
16/01/2018	0.006	0.004	0.010	06:00	0	87.5
17/01/2018	0.008	0.003	0.013	06:00	0	91.7
18/01/2018	0.010	0.007	0.016	23:00	0	87.8
19/01/2018	0.011	0.007	0.016	23:00	0	97.2
20/01/2018	0.006	0.004	0.015	00:00	0	97.2
21/01/2018	0.005	0.003	0.008	05:00	0	97.2
22/01/2018	0.007	0.004	0.010	06:00	0	97.2
23/01/2018	0.007	0.004	0.011	06:00	0	96.9
24/01/2018	0.006	0.003	0.011	06:00	0	96.9
25/01/2018	0.005	0.003	0.008	23:00	0	97.2
26/01/2018	0.005	0.003	0.008	00:00	0	97.2
27/01/2018	0.004	0.003	0.006	06:00	0	97.2
28/01/2018	0.004	0.003	0.006	22:00	0	97.2
[1] 29/01/2018	-	0.004	0.010	07:00	0	43.1
[1] 30/01/2018	-	0.005	0.009	16:00	0	46.2
[1] 31/01/2018	-	0.004	0.008	17:00	0	52.8

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day
[1] Loss of data due to WinAQMS fault

Table 15 Station 3 Nitrogen Dioxide Monthly Summary

Carbon Monoxide Summary

Station 3 Lewis St Ambient AQMS Carbon Monoxide Summary January 2018								
		1 hr Avgs			8 hr Rolling Avgs		No. of exceedences	
Date	24 hr Avg (ppm)	Min (ppm)	Max (ppm)	Time of Max	Max (ppm)	Time of Max	8hr Avg > 8.0 ppm	Capture Rate
1/01/2018	0.2	0.2	0.3	04:00	0.3	05:00	0	96.9
2/01/2018	0.2	0.1	0.2	10:00	0.2	13:00	0	96.9
3/01/2018	0.1	0.1	0.2	05:00	0.2	00:00	0	96.9
4/01/2018	0.1	0.0	0.1	03:00	0.1	06:00	0	96.9
5/01/2018	0.1	0.1	0.1	12:00	0.1	19:00	0	96.9
6/01/2018	0.1	0.0	0.1	23:00	0.1	06:00	0	96.9
7/01/2018	0.1	0.0	0.1	06:00	0.1	06:00	0	96.9
8/01/2018	0.1	0.0	0.2	06:00	0.1	07:00	0	96.9
9/01/2018	0.1	0.0	0.1	06:00	0.1	06:00	0	96.9
10/01/2018	0.1	0.0	0.2	06:00	0.1	07:00	0	96.9
11/01/2018	0.1	0.0	0.1	06:00	0.1	06:00	0	93.8
12/01/2018	0.1	0.1	0.2	00:00	0.1	07:00	0	96.9
13/01/2018	0.2	0.1	0.2	18:00	0.2	19:00	0	95.1
14/01/2018	0.1	0.0	0.2	05:00	0.2	06:00	0	96.9
15/01/2018	0.0	0.0	0.1	03:00	0.1	06:00	0	96.9
16/01/2018	0.0	0.0	0.1	06:00	0.1	08:00	0	96.9
17/01/2018	0.1	0.0	0.1	22:00	0.1	23:00	0	96.9
18/01/2018	0.1	0.1	0.2	22:00	0.1	23:00	0	95.1
19/01/2018	0.1	0.0	0.2	23:00	0.1	03:00	0	96.9
20/01/2018	0.1	0.1	0.2	00:00	0.2	05:00	0	96.9
21/01/2018	0.1	0.1	0.1	16:00	0.1	19:00	0	96.5
22/01/2018	0.1	0.1	0.2	06:00	0.1	21:00	0	96.5
23/01/2018	0.1	0.1	0.2	06:00	0.1	09:00	0	96.5
24/01/2018	0.1	0.1	0.2	06:00	0.1	12:00	0	96.5
25/01/2018	0.2	0.1	0.2	06:00	0.2	19:00	0	96.5
26/01/2018	0.1	0.1	0.2	05:00	0.2	23:00	0	96.5
27/01/2018	0.1	0.1	0.1	11:00	0.2	00:00	0	96.5
28/01/2018	0.1	0.1	0.2	18:00	0.1	19:00	0	96.5
[1] 29/01/2018	-	0.1	0.2	06:00	0.1	12:00	0	43.1
[1] 30/01/2018	-	0.1	0.2	17:00	0.2	19:00	0	45.5
[1] 31/01/2018	-	0.1	0.2	17:00	0.2	0:00	0	52.1

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day
[1] Loss of data due to WinAQMS fault

Table 16 Station 3 Carbon Monoxide Monthly Summary

$PM_{2.5}$ Summary

Station 3 Lewis St Ambient AQMS Particulate PM2.5 Summary January 2018						
		1 hr Avgs			No. of exceedences	
Date	24 hr Avg (µg/m^3)	Min (µg/m^3)	Max (µg/m^3)	Time of Max	24hr Avg > 25.0 µg/m^3	Capture Rate
1/01/2018	8.6	2.1	16.3	02:00	0	91.7
2/01/2018	7.9	-0.1	11.8	05:00	0	100.0
3/01/2018	5.2	0.5	12.1	20:00	0	95.8
4/01/2018	7.7	5.1	12.4	07:00	0	100.0
5/01/2018	6.7	1.2	11.3	16:00	0	95.8
6/01/2018	5.8	1.0	12.7	12:00	0	95.8
7/01/2018	6.4	3.1	11.3	07:00	0	100.0
8/01/2018	5.2	-0.9	15.0	03:00	0	100.0
9/01/2018	5.7	-1.5	13.0	09:00	0	100.0
10/01/2018	7.0	2.4	14.1	05:00	0	100.0
11/01/2018	6.4	1.3	10.6	22:00	0	95.8
12/01/2018	6.0	2.3	8.8	01:00	0	95.8
13/01/2018	8.6	1.7	19.0	05:00	0	100.0
14/01/2018	8.7	-0.5	17.3	02:00	0	100.0
15/01/2018	8.2	1.6	13.2	01:00	0	100.0
16/01/2018	9.7	4.2	16.5	17:00	0	100.0
17/01/2018	8.9	2.6	12.6	05:00	0	100.0
18/01/2018	11.0	0.9	16.8	17:00	0	91.7
19/01/2018	8.9	4.3	22.3	12:00	0	95.8
20/01/2018	6.6	0.5	16.7	06:00	0	100.0
21/01/2018	4.5	-2.1	9.5	05:00	0	100.0
22/01/2018	4.8	0.1	8.8	13:00	0	100.0
23/01/2018	3.0	-4.6	8.5	07:00	0	100.0
24/01/2018	2.9	-0.9	7.6	04:00	0	100.0
25/01/2018	3.6	0.3	7.8	14:00	0	100.0
26/01/2018	4.8	0.1	8.8	23:00	0	100.0
27/01/2018	4.2	0.3	8.6	06:00	0	100.0
28/01/2018	4.8	-0.3	7.6	00:00	0	100.0
[1] 29/01/2018	-	4.0	8.7	00:00	0	45.8
[1] 30/01/2018	-	2.1	8.7	13:00	0	45.8
[1] 31/01/2018	-	0.5	8.8	21:00	0	50.0

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day
[1] Loss of data due to WinAQMS fault

Table 17 Station 3 $PM_{2.5}$ Monthly Summary

PM_{10} Summary

Station 3 Lewis St Ambient AQMS Particulate PM10 Summary January 2018						
		1 hr Avgs			No. of exceedences	
Date	24 hr Avg ($\mu g/m^3$)	Min ($\mu g/m^3$)	Max ($\mu g/m^3$)	Time of Max	24hr Avg > 50.0 $\mu g/m^3$	Capture Rate
1/01/2018	16.2	4.3	26.1	07:00	0	100.0
2/01/2018	9.3	2.0	20.7	12:00	0	100.0
3/01/2018	8.4	-0.5	21.0	13:00	0	100.0
4/01/2018	24.4	12.4	36.0	10:00	0	100.0
5/01/2018	24.9	14.3	44.3	13:00	0	100.0
6/01/2018	17.8	11.9	25.7	12:00	0	100.0
7/01/2018	16.9	9.6	31.3	15:00	0	95.8
8/01/2018	15.6	0.5	25.0	19:00	0	100.0
9/01/2018	18.2	8.0	26.8	13:00	0	100.0
[1] 10/01/2018	-	6.2	25.8	07:00	0	41.7
[1] 11/01/2018	-	11.2	25.1	18:00	0	29.2
12/01/2018	18.5	10.3	28.6	14:00	0	95.8
13/01/2018	23.0	8.8	33.3	18:00	0	100.0
14/01/2018	29.7	15.2	65.4	02:00	0	100.0
15/01/2018	24.7	14.6	42.0	08:00	0	87.5
16/01/2018	32.2	10.8	56.0	18:00	0	79.2
[1] 17/01/2018	-	22.6	74.7	15:00	0	66.7
18/01/2018	38.4	18.7	54.8	12:00	0	95.8
19/01/2018	29.5	13.8	49.0	12:00	0	83.3
20/01/2018	20.8	8.0	34.0	06:00	0	100.0
21/01/2018	16.4	6.1	74.5	16:00	0	100.0
22/01/2018	16.3	6.2	35.9	02:00	0	100.0
23/01/2018	11.9	1.4	23.6	13:00	0	100.0
24/01/2018	19.6	4.5	128.5	21:00	0	100.0
25/01/2018	17.3	7.2	35.7	14:00	0	100.0
26/01/2018	12.5	4.2	22.6	15:00	0	100.0
27/01/2018	17.0	10.2	30.1	14:00	0	100.0
28/01/2018	20.9	9.0	33.6	15:00	0	100.0
[2] 29/01/2018	-	19.5	35.2	08:00	0	45.8
[2] 30/01/2018	-	7.9	26.3	13:00	0	45.8
[2] 31/01/2018	-	6.1	31.8	17:00	0	50.0

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day

[1] Loss of data due to instrument fault

[1] Loss of data due to WinAQMS fault

Table 18 Station 3 PM_{10} Monthly Summary

Station 4 (Airportlink Operation Centre)

Summary

Station 4 Airportlink Operation Centre Ambient AQMS Summary January 2018						
Parameter	Unit	EPP Goal	Averaging Period	Maximum Value	Date & Time	Capture Rate
NO_2	ppm	0.120	1 Hour	0.020	19/01/2018 22:00	97.1
NO_2	ppm	0.030	12 Months	0.007	--	97.1
CO	ppm	8	8 Hours	0.4	01/01/2018 05:00	96.7
$PM_{2.5}$	µg/m3	25	24 Hours	12.0	18/01/2018	97.3
$PM_{2.5}$	µg/m3	8	12 Months	6.2	--	97.3
PM_{10}	µg/m3	50	24 Hours	38.7	18/01/2018	99.3
PM_{10}	µg/m3	50	12 Months	23.0	--	99.3
TSP	µg/m3	--	24 Hours	56.2	15/12/2017	100.0
TSP	µg/m3	90	12 Months	29.5	--	100.0

Table 19 Station 4 Monthly Summary

Graphical Representations

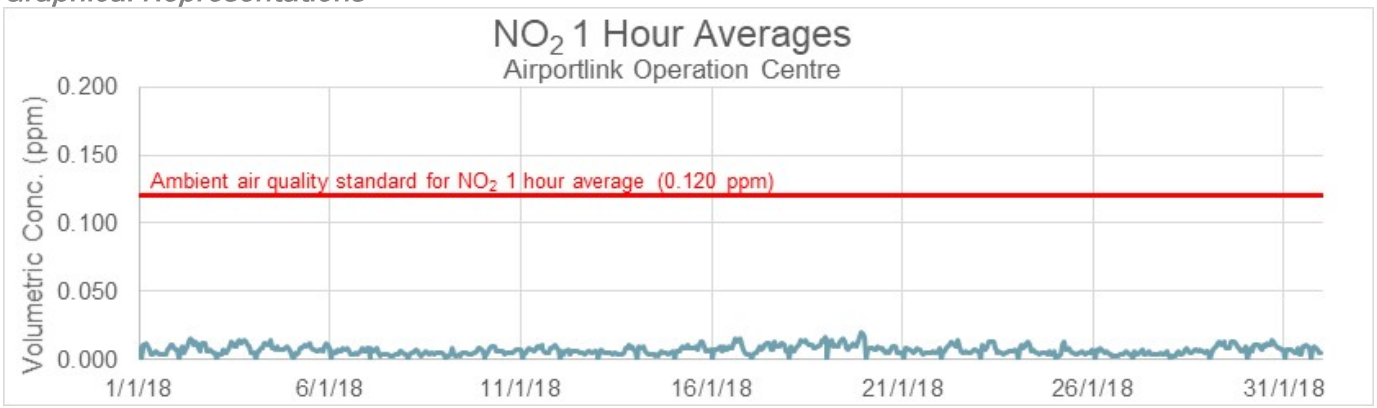

Figure 13 Station 4 Nitrogen Dioxide 1hr averages

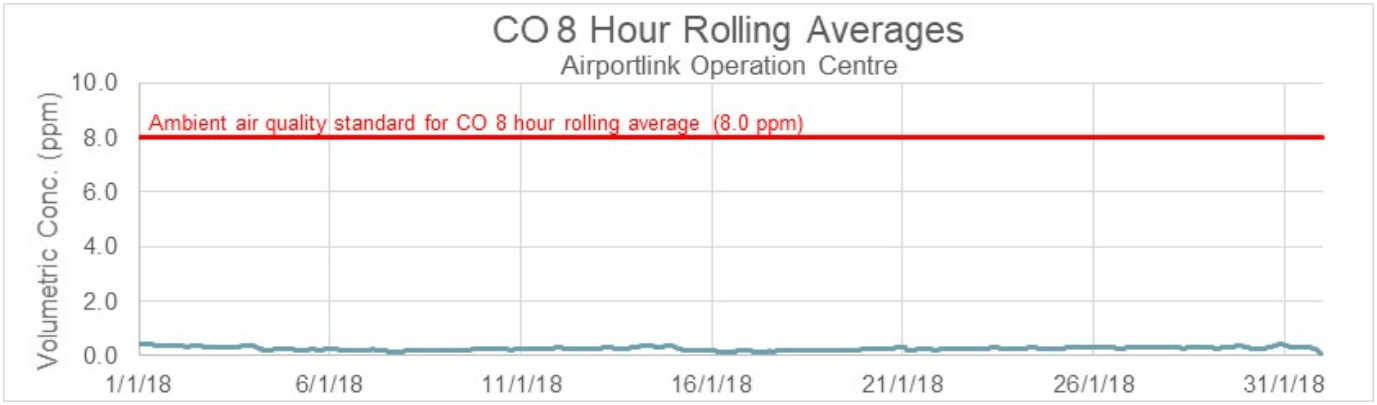

Figure 14 Station 4 Carbon Monoxide 8hr rolling averages

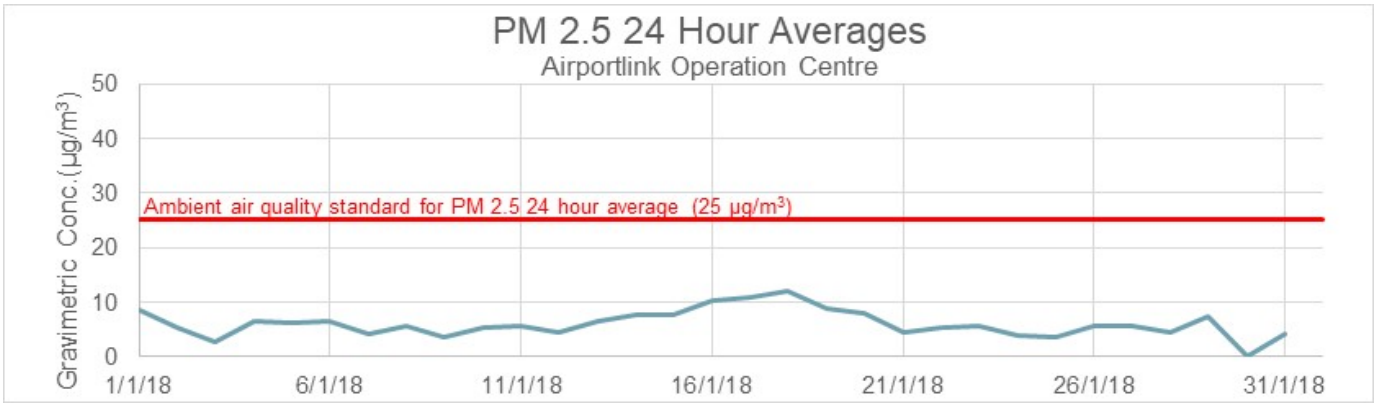

Figure 15 Station 4 PM2.5 24hr averages

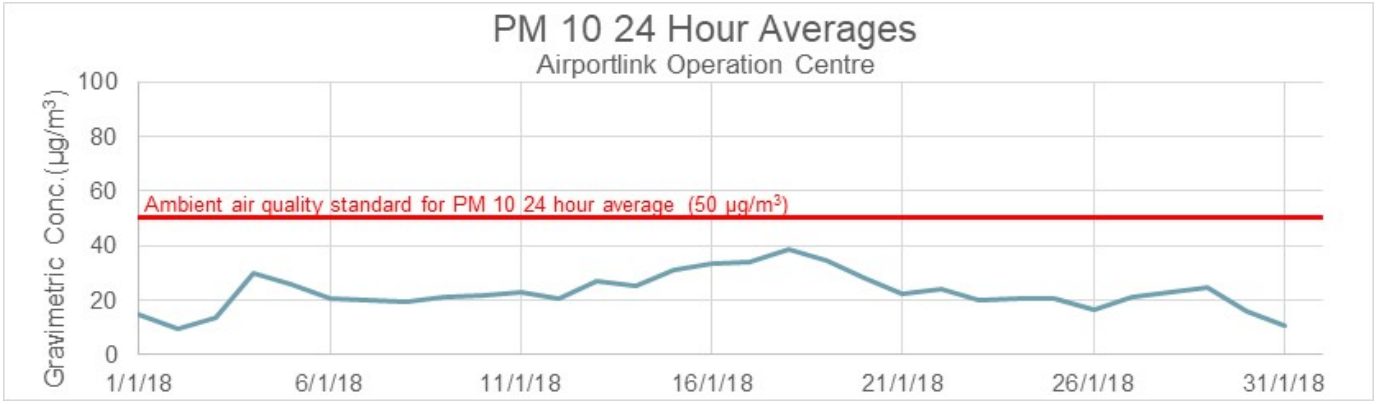

Figure 16 Station 4 PM10 24hr averages

Nitrogen Dioxide Summary

Station 4 Airportlink Operation Centre Ambient AQMS Nitrogen Dioxide Summary January 2018						
		1 hr Avgs				
Date	24hr Avg (ppm)	Min (ppm)	Max (ppm)	Time of Max	Number of Exceedences 1hr Avg > 0.120 ppm	Capture Rate
1/01/2018	0.007	0.003	0.012	05:00	0	97.2
2/01/2018	0.009	0.005	0.015	08:00	0	97.2
3/01/2018	0.009	0.003	0.014	18:00	0	97.2
4/01/2018	0.008	0.004	0.015	11:00	0	97.2
5/01/2018	0.008	0.003	0.012	11:00	0	97.2
6/01/2018	0.006	0.003	0.008	08:00	0	97.2
7/01/2018	0.005	0.003	0.008	06:00	0	97.2
8/01/2018	0.005	0.003	0.007	06:00	0	97.2
9/01/2018	0.005	0.002	0.009	22:00	0	97.2
10/01/2018	0.006	0.003	0.009	07:00	0	97.2
11/01/2018	0.008	0.005	0.011	22:00	0	97.2
12/01/2018	0.005	0.003	0.007	06:00	0	97.2
13/01/2018	0.006	0.003	0.011	20:00	0	97.2
14/01/2018	0.005	0.003	0.009	02:00	0	97.2
15/01/2018	0.008	0.006	0.013	17:00	0	97.2
16/01/2018	0.009	0.004	0.016	18:00	0	97.2
17/01/2018	0.009	0.003	0.013	16:00	0	97.2
18/01/2018	0.011	0.005	0.017	23:00	0	97.2
19/01/2018	0.012	0.008	0.020	22:00	0	97.2
20/01/2018	0.008	0.004	0.017	00:00	0	97.2
21/01/2018	0.006	0.004	0.008	09:00	0	97.2
22/01/2018	0.008	0.005	0.014	11:00	0	97.2
23/01/2018	0.007	0.004	0.013	08:00	0	97.2
24/01/2018	0.006	0.003	0.013	07:00	0	97.2
25/01/2018	0.006	0.002	0.013	06:00	0	97.2
26/01/2018	0.005	0.002	0.008	04:00	0	97.2
27/01/2018	0.004	0.003	0.007	07:00	0	97.2
28/01/2018	0.005	0.003	0.008	11:00	0	97.2
29/01/2018	0.009	0.004	0.014	15:00	0	97.2
30/01/2018	0.010	0.005	0.014	16:00	0	97.2
31/01/2018	0.007	0.004	0.011	14:00	0	93.8

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day

Table 20 Station 4 Nitrogen Dioxide Monthly Summary

Carbon Monoxide Summary

Station 4 Airportlink Operation Centre Ambient AQMS Carbon Monoxide Summary January 2018								
		1 hr Avgs			8 hr Rolling Avgs		No. of exceedences	
Date	24 hr Avg (ppm)	Min (ppm)	Max (ppm)	Time of Max	Max (ppm)	Time of Max	8hr Avg > 8.0 ppm	Capture Rate
1/01/2018	0.4	0.3	0.4	02:00	0.4	05:00	0	96.9
2/01/2018	0.3	0.3	0.4	08:00	0.4	01:00	0	96.9
3/01/2018	0.3	0.3	0.4	19:00	0.4	21:00	0	96.9
4/01/2018	0.2	0.2	0.2	11:00	0.3	00:00	0	96.9
5/01/2018	0.2	0.2	0.3	21:00	0.2	23:00	0	96.9
6/01/2018	0.2	0.2	0.2	20:00	0.2	01:00	0	96.9
7/01/2018	0.2	0.1	0.2	02:00	0.2	03:00	0	96.9
8/01/2018	0.2	0.2	0.2	06:00	0.2	07:00	0	96.9
9/01/2018	0.2	0.2	0.3	05:00	0.2	23:00	0	96.9
10/01/2018	0.2	0.2	0.3	06:00	0.2	00:00	0	96.9
11/01/2018	0.3	0.2	0.3	21:00	0.3	23:00	0	96.9
12/01/2018	0.2	0.2	0.3	06:00	0.3	01:00	0	96.9
13/01/2018	0.3	0.2	0.3	03:00	0.3	07:00	0	96.9
14/01/2018	0.3	0.3	0.4	17:00	0.4	07:00	0	96.9
15/01/2018	0.2	0.2	0.3	17:00	0.3	00:00	0	96.9
16/01/2018	0.2	0.1	0.3	18:00	0.2	21:00	0	96.9
17/01/2018	0.2	0.1	0.2	20:00	0.2	22:00	0	96.9
18/01/2018	0.2	0.1	0.3	21:00	0.2	21:00	0	95.1
19/01/2018	0.2	0.2	0.3	22:00	0.2	23:00	0	96.9
20/01/2018	0.2	0.2	0.8	19:00	0.3	22:00	0	96.9
21/01/2018	0.2	0.2	0.3	09:00	0.3	01:00	0	96.9
22/01/2018	0.2	0.2	0.3	07:00	0.3	12:00	0	96.9
23/01/2018	0.2	0.2	0.4	07:00	0.3	08:00	0	96.9
24/01/2018	0.2	0.2	0.4	07:00	0.3	08:00	0	96.9
25/01/2018	0.3	0.2	0.4	06:00	0.3	11:00	0	96.9
26/01/2018	0.3	0.2	0.3	02:00	0.3	03:00	0	96.9
27/01/2018	0.3	0.3	0.3	22:00	0.3	23:00	0	96.9
28/01/2018	0.3	0.2	0.3	19:00	0.3	22:00	0	96.9
29/01/2018	0.3	0.2	0.4	17:00	0.3	18:00	0	96.9
30/01/2018	0.3	0.2	0.5	17:00	0.4	22:00	0	96.2
31/01/2018	0.2	0.0	0.3	6:00	0.4	0:00	0	93.1

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day

Table 21 Station 4 Carbon Monoxide Monthly Summary

$PM_{2.5}$ Summary

Station 4 Airportlink Operation Centre Ambient AQMS Particulate PM2.5 Summary January 2018						
		1 hr Avgs			No. of exceedences	
Date	24 hr Avg (µg/m^3)	Min (µg/m^3)	Max (µg/m^3)	Time of Max	24hr Avg > 25.0 µg/m^3	Capture Rate
1/01/2018	8.5	2.3	21.4	18:00	0	100.0
2/01/2018	5.2	-0.8	17.4	13:00	0	100.0
3/01/2018	2.8	-3.7	6.0	05:00	0	100.0
4/01/2018	6.5	3.0	10.0	07:00	0	100.0
5/01/2018	6.2	0.5	14.2	08:00	0	100.0
6/01/2018	6.5	1.1	14.9	09:00	0	100.0
7/01/2018	4.2	-1.7	10.8	02:00	0	100.0
8/01/2018	5.5	-0.6	16.6	08:00	0	100.0
9/01/2018	3.6	-2.9	11.7	08:00	0	100.0
10/01/2018	5.2	-1.8	15.2	08:00	0	100.0
11/01/2018	5.4	1.2	14.9	09:00	0	100.0
12/01/2018	4.5	0.2	16.7	15:00	0	100.0
13/01/2018	6.6	-3.6	17.0	04:00	0	100.0
14/01/2018	7.7	3.4	17.3	22:00	0	100.0
15/01/2018	7.5	3.0	12.0	08:00	0	100.0
16/01/2018	10.4	0.7	21.0	18:00	0	100.0
17/01/2018	11.0	5.0	19.6	11:00	0	100.0
18/01/2018	12.0	7.0	22.1	12:00	0	100.0
19/01/2018	8.9	4.2	17.9	09:00	0	100.0
20/01/2018	8.0	0.4	15.9	06:00	0	100.0
21/01/2018	4.3	0.2	10.0	07:00	0	100.0
22/01/2018	5.2	1.4	10.4	08:00	0	100.0
23/01/2018	5.7	1.2	15.5	08:00	0	100.0
24/01/2018	4.0	1.3	6.0	03:00	0	100.0
25/01/2018	3.5	0.0	7.8	21:00	0	100.0
26/01/2018	5.7	2.1	14.0	20:00	0	100.0
27/01/2018	5.4	0.1	8.0	10:00	0	100.0
28/01/2018	4.4	-2.0	11.0	16:00	0	100.0
29/01/2018	7.4	3.4	10.5	02:00	0	83.3
[1] 30/01/2018	-	4.1	17.2	19:00	0	37.5
31/01/2018	4.1	-0.6	17.5	15:00	0	95.8

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day
[1] Loss of data due to instrument fault

Table 22 Station 4 $PM_{2.5}$ Monthly Summary

PM_{10} Summary

Station 4 Airportlink Operation Centre Ambient AQMS Particulate PM10 Summary January 2018						
		1 hr Avgs			No. of exceedences	
Date	24 hr Avg ($\mu g/m^3$)	Min ($\mu g/m^3$)	Max ($\mu g/m^3$)	Time of Max	24hr Avg > 50.0 $\mu g/m^3$	Capture Rate
1/01/2018	14.9	8.0	26.2	01:00	0	100.0
2/01/2018	9.5	1.3	17.3	12:00	0	100.0
3/01/2018	13.6	6.2	20.8	21:00	0	100.0
4/01/2018	30.1	17.6	42.0	14:00	0	100.0
5/01/2018	25.5	18.6	37.3	14:00	0	100.0
6/01/2018	20.7	13.0	29.7	01:00	0	100.0
7/01/2018	20.2	12.2	33.5	16:00	0	100.0
8/01/2018	19.4	12.5	31.0	14:00	0	100.0
9/01/2018	20.9	12.3	34.8	13:00	0	100.0
10/01/2018	21.9	11.0	32.1	15:00	0	100.0
11/01/2018	22.9	12.3	61.6	06:00	0	100.0
12/01/2018	20.4	7.3	32.8	13:00	0	100.0
13/01/2018	26.7	14.8	37.9	03:00	0	100.0
14/01/2018	25.2	12.0	58.2	18:00	0	100.0
15/01/2018	31.0	17.3	42.1	16:00	0	100.0
16/01/2018	33.6	15.2	62.3	16:00	0	100.0
17/01/2018	33.7	24.1	43.0	13:00	0	100.0
18/01/2018	38.7	29.2	49.9	13:00	0	100.0
19/01/2018	34.6	23.7	48.2	15:00	0	100.0
20/01/2018	28.2	11.3	37.5	14:00	0	100.0
21/01/2018	22.5	14.5	32.9	09:00	0	100.0
22/01/2018	24.2	9.7	36.9	14:00	0	100.0
23/01/2018	20.0	7.8	34.0	09:00	0	100.0
24/01/2018	20.7	10.3	32.3	12:00	0	100.0
25/01/2018	20.7	8.9	29.9	14:00	0	100.0
26/01/2018	16.5	8.9	27.3	08:00	0	100.0
27/01/2018	21.1	12.3	27.9	12:00	0	100.0
28/01/2018	23.0	13.3	36.7	11:00	0	100.0
29/01/2018	24.4	16.6	39.0	13:00	0	100.0
30/01/2018	16.1	6.2	28.0	08:00	0	83.3
31/01/2018	10.8	-3.7	34.6	15:00	0	95.8

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day

Table 23 Station 4 PM_{10} Monthly Summary

Station 5 (Cartwright Street)

Summary

Station 5 Cartwright St Ambient AQMS Summary January 2018						
Parameter	Unit	EPP Goal	Averaging Period	Maximum Value	Date & Time	Capture Rate
NO_2	ppm	0.120	1 Hour	0.017	17/01/2018 05:00	96.7
NO_2	ppm	0.030	12 Months	0.005	--	96.7
CO	ppm	8	8 Hours	1.1	05/01/2018 20:00	91.7
$PM_{2.5}$	µg/m3	25	24 Hours	12.5	18/01/2018	98.7
$PM_{2.5}$	µg/m3	8	12 Months	8.6	--	98.7
PM_{10}	µg/m3	50	24 Hours	40.0	18/01/2018	95.6
PM_{10}	µg/m3	50	12 Months	22.1	--	95.6
TSP	µg/m3	--	24 Hours	52.7	15/12/2017	100.0
TSP	µg/m3	90	12 Months	27.4	--	100.0

Table 24 Station 5 Monthly Summary

Graphical Representations

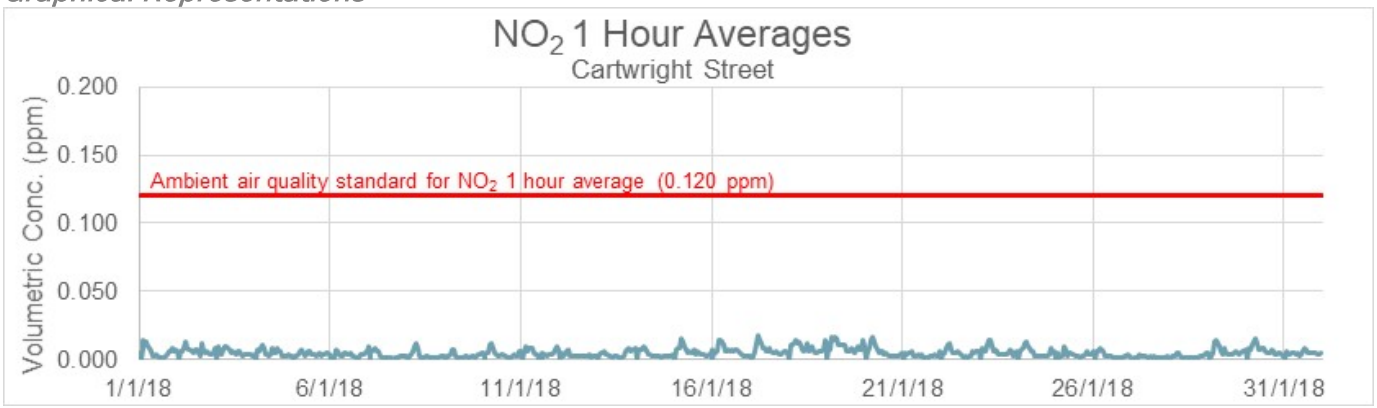

Figure 17 Station 5 Dioxide 1hr averages

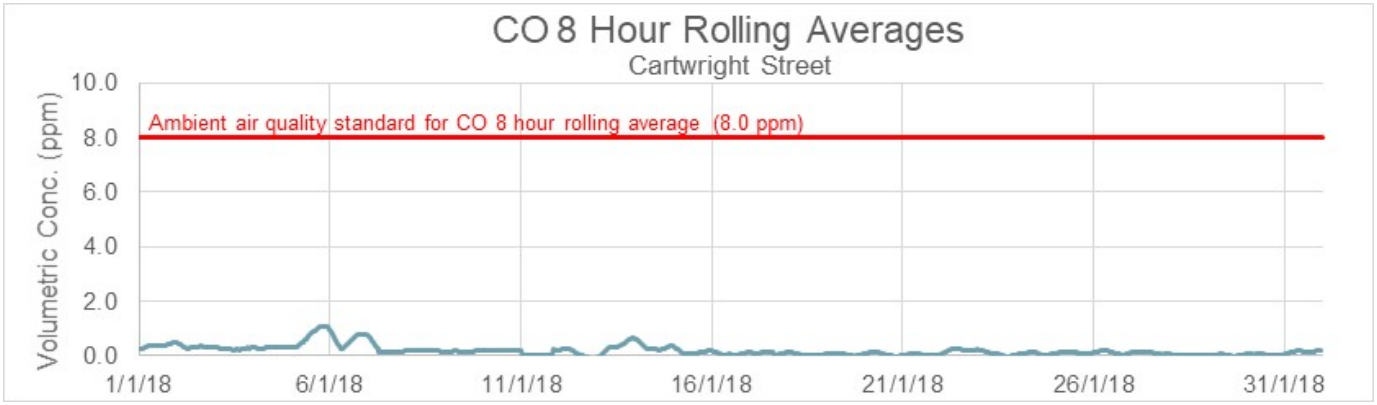

Figure 18 Station 5 Carbon Monoxide 8hr rolling averages

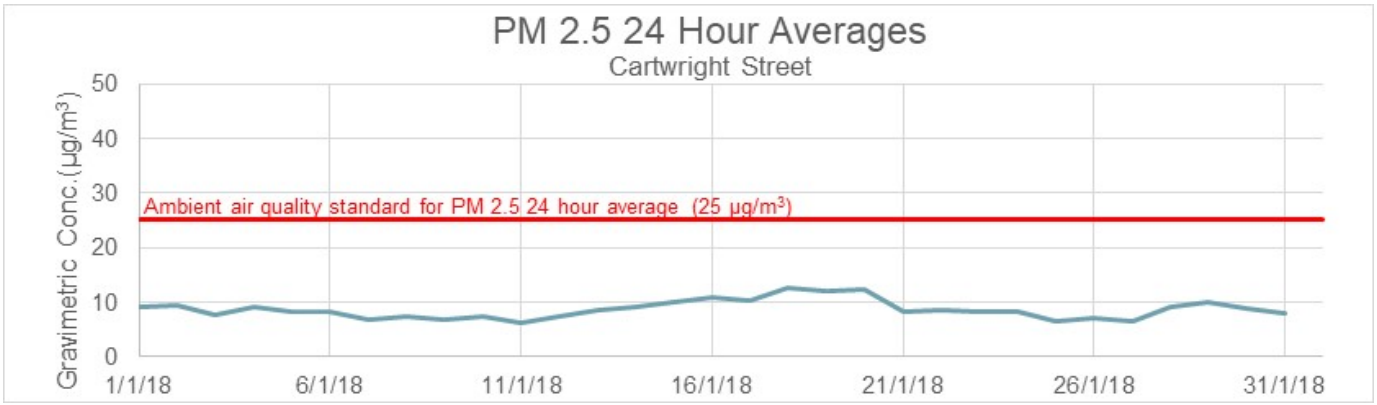

Figure 19 Station 5 PM2.5 24hr averages

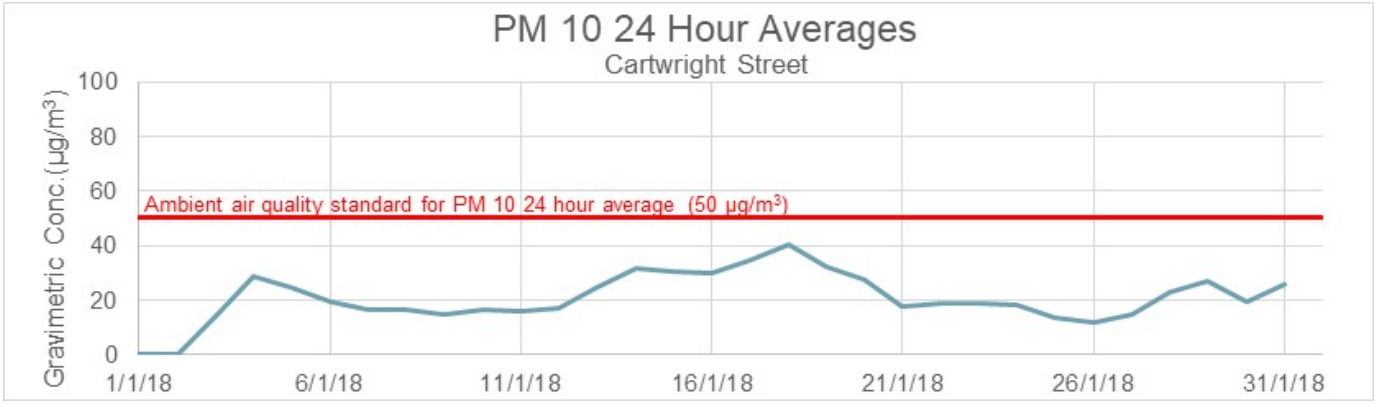

Figure 20 Station 5 PM10 24hr averages

Nitrogen Dioxide Summary

Station 5 Cartwright St Ambient AQMS Nitrogen Dioxide Summary January 2018						
		1 hr Avgs				
Date	24hr Avg (ppm)	Min (ppm)	Max (ppm)	Time of Max	Number of Exceedences 1hr Avg > 0.120 ppm	Capture Rate
1/01/2018	0.006	0.001	0.014	03:00	0	97.2
2/01/2018	0.006	0.003	0.013	05:00	0	97.2
3/01/2018	0.006	0.003	0.010	02:00	0	97.2
4/01/2018	0.005	0.002	0.011	06:00	0	97.2
5/01/2018	0.004	0.002	0.007	06:00	0	97.2
6/01/2018	0.004	0.001	0.007	04:00	0	97.2
7/01/2018	0.003	0.001	0.010	00:00	0	97.2
8/01/2018	0.003	0.001	0.011	06:00	0	97.2
9/01/2018	0.003	0.001	0.008	06:00	0	97.2
10/01/2018	0.004	0.002	0.012	06:00	0	97.2
11/01/2018	0.005	0.003	0.009	03:00	0	87.2
12/01/2018	0.003	0.002	0.007	00:00	0	97.2
13/01/2018	0.004	0.001	0.008	20:00	0	97.2
14/01/2018	0.004	0.002	0.009	05:00	0	97.2
15/01/2018	0.006	0.003	0.016	05:00	0	97.2
16/01/2018	0.007	0.002	0.014	06:00	0	97.2
17/01/2018	0.007	0.002	0.017	05:00	0	97.2
18/01/2018	0.008	0.004	0.014	05:00	0	97.2
19/01/2018	0.010	0.005	0.017	04:00	0	97.2
20/01/2018	0.006	0.002	0.017	05:00	0	97.2
21/01/2018	0.003	0.001	0.006	06:00	0	97.2
22/01/2018	0.005	0.002	0.011	06:00	0	97.2
23/01/2018	0.006	0.003	0.015	06:00	0	97.2
24/01/2018	0.005	0.002	0.012	06:00	0	97.2
25/01/2018	0.004	0.002	0.010	06:00	0	97.2
26/01/2018	0.003	0.001	0.008	04:00	0	97.2
27/01/2018	0.002	0.001	0.003	05:00	0	94.8
28/01/2018	0.002	0.001	0.005	23:00	0	92.7
29/01/2018	0.006	0.002	0.015	05:00	0	97.2
30/01/2018	0.007	0.003	0.016	06:00	0	97.2
31/01/2018	0.005	0.002	0.008	13:00	0	97.2

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day

Table 25 Station 5 Nitrogen Dioxide Monthly Summary

Carbon Monoxide Summary

Station 5 Cartwright St Ambient AQMS Carbon Monoxide Summary January 2018								
		1 hr Avgs			8 hr Rolling Avgs		No. of exceedences	
Date	24 hr Avg (ppm)	Min (ppm)	Max (ppm)	Time of Max	Max (ppm)	Time of Max	8hr Avg > 8.0 ppm	Capture Rate
1/01/2018	0.4	0.3	0.5	20:00	0.5	23:00	0	96.9
2/01/2018	0.3	0.2	0.5	08:00	0.4	00:00	0	96.9
3/01/2018	0.2	0.2	0.3	19:00	0.3	00:00	0	96.9
4/01/2018	0.3	0.2	0.3	22:00	0.3	22:00	0	96.9
5/01/2018	0.8	0.2	1.1	16:00	1.1	20:00	0	96.9
6/01/2018	0.6	0.1	0.8	17:00	0.9	00:00	0	96.9
7/01/2018	0.1	0.1	0.3	00:00	0.7	00:00	0	96.9
8/01/2018	0.2	0.1	0.2	06:00	0.2	07:00	0	96.9
9/01/2018	0.2	0.1	0.2	22:00	0.2	23:00	0	96.9
10/01/2018	0.2	0.0	0.3	22:00	0.2	17:00	0	95.8
[1] 11/01/2018	-	0.1	0.3	15:00	0.2	21:00	0	41.0
12/01/2018	0.0	-0.2	0.3	02:00	0.2	03:00	0	96.9
13/01/2018	0.4	0.2	0.8	19:00	0.6	23:00	0	96.9
14/01/2018	0.3	0.2	0.4	22:00	0.6	00:00	0	96.9
15/01/2018	0.1	0.0	0.2	22:00	0.3	00:00	0	96.9
16/01/2018	0.1	0.0	0.1	21:00	0.2	00:00	0	96.9
17/01/2018	0.1	0.0	0.5	07:00	0.1	23:00	0	96.9
18/01/2018	0.0	0.0	0.1	23:00	0.1	01:00	0	96.9
19/01/2018	0.0	-0.1	0.2	23:00	0.1	06:00	0	96.9
20/01/2018	0.0	-0.1	0.2	04:00	0.1	06:00	0	96.9
21/01/2018	0.0	0.0	0.1	06:00	0.1	06:00	0	96.9
22/01/2018	0.2	0.2	0.3	06:00	0.3	07:00	0	96.9
23/01/2018	0.0	-0.1	0.2	07:00	0.2	01:00	0	96.9
24/01/2018	0.1	0.0	0.2	06:00	0.1	10:00	0	96.9
25/01/2018	0.1	0.0	0.2	07:00	0.1	07:00	0	96.9
26/01/2018	0.1	0.0	0.2	04:00	0.2	07:00	0	96.9
27/01/2018	0.1	0.0	0.2	06:00	0.1	07:00	0	94.8
[1] 28/01/2018	-	-	-	-	0.1	00:00	0	0.0
29/01/2018	0.0	-0.1	0.2	06:00	0.1	07:00	0	92.7
30/01/2018	0.0	0.0	0.1	07:00	0.1	01:00	0	96.9
31/01/2018	0.2	0.1	0.2	6:00	0.2	8:00	0	96.9

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day
[1] Loss of data due to power loss

Table 26 Station 5 Carbon Monoxide Monthly Summary

$PM_{2.5}$ Summary

Station 5 Cartwright St Ambient AQMS Particulate PM2.5 Summary January 2018						
		1 hr Avgs			No. of exceedences	
Date	24 hr Avg (µg/m^3)	Min (µg/m^3)	Max (µg/m^3)	Time of Max	24hr Avg > 25.0 µg/m^3	Capture Rate
1/01/2018	9.0	5.0	15.3	17:00	0	100.0
2/01/2018	9.2	5.2	16.3	23:00	0	100.0
3/01/2018	7.5	3.3	11.7	19:00	0	100.0
4/01/2018	9.0	5.2	15.8	18:00	0	100.0
5/01/2018	8.2	4.0	12.8	17:00	0	100.0
6/01/2018	8.1	4.3	12.8	19:00	0	100.0
7/01/2018	6.7	-0.8	11.8	20:00	0	95.8
8/01/2018	7.2	1.3	16.3	02:00	0	100.0
9/01/2018	6.6	3.1	12.6	19:00	0	100.0
10/01/2018	7.4	2.4	14.9	19:00	0	100.0
11/01/2018	6.1	1.2	9.4	07:00	0	87.5
12/01/2018	7.4	3.3	13.9	17:00	0	95.8
13/01/2018	8.5	3.3	15.5	04:00	0	100.0
14/01/2018	8.9	3.2	18.3	20:00	0	100.0
15/01/2018	10.0	3.5	17.6	01:00	0	100.0
16/01/2018	10.8	5.2	25.2	19:00	0	100.0
17/01/2018	10.2	4.4	16.4	08:00	0	100.0
18/01/2018	12.5	1.9	18.7	12:00	0	100.0
19/01/2018	11.9	4.3	20.3	07:00	0	100.0
20/01/2018	12.4	6.3	46.4	05:00	0	100.0
21/01/2018	8.3	3.2	12.8	08:00	0	100.0
22/01/2018	8.6	3.4	12.8	06:00	0	100.0
23/01/2018	8.3	4.1	12.0	19:00	0	100.0
24/01/2018	8.3	2.0	14.8	18:00	0	100.0
25/01/2018	6.5	2.3	13.0	19:00	0	100.0
26/01/2018	7.0	2.3	19.9	23:00	0	100.0
27/01/2018	6.5	2.4	10.6	20:00	0	95.8
28/01/2018	9.0	2.1	36.1	03:00	0	87.5
29/01/2018	10.0	6.0	16.0	18:00	0	95.8
30/01/2018	8.9	4.0	14.4	22:00	0	100.0
31/01/2018	8.0	3.2	18.0	15:00	0	100.0

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day

Table 27 Station 5 $PM_{2.5}$ Monthly Summary

PM_{10} Summary

Station 5 Cartwright St Ambient AQMS Particulate PM10 Summary January 2018						
		1 hr Avgs			No. of exceedences	
Date	24 hr Avg ($\mu g/m^3$)	Min ($\mu g/m^3$)	Max ($\mu g/m^3$)	Time of Max	24hr Avg > 50.0 $\mu g/m^3$	Capture Rate
[1] 1/01/2018	-	5.0	37.8	00:00	0	58.3
[1] 2/01/2018	-	6.9	25.5	15:00	0	37.5
3/01/2018	14.0	4.9	25.1	20:00	0	100.0
4/01/2018	28.4	15.1	45.2	19:00	0	100.0
5/01/2018	24.7	15.5	33.7	14:00	0	100.0
6/01/2018	19.3	12.4	26.5	11:00	0	100.0
7/01/2018	16.5	6.1	28.5	19:00	0	100.0
8/01/2018	16.5	9.2	23.5	19:00	0	100.0
9/01/2018	14.5	6.3	20.7	19:00	0	100.0
10/01/2018	16.4	8.4	26.8	13:00	0	100.0
11/01/2018	16.0	3.4	31.9	14:00	0	87.5
12/01/2018	16.9	8.0	30.1	12:00	0	100.0
13/01/2018	24.8	11.5	38.4	20:00	0	100.0
14/01/2018	31.8	17.3	68.5	18:00	0	100.0
15/01/2018	30.3	20.1	46.3	05:00	0	100.0
16/01/2018	30.0	12.4	55.0	16:00	0	100.0
17/01/2018	34.6	22.8	63.3	08:00	0	100.0
18/01/2018	40.0	29.3	54.5	13:00	0	100.0
19/01/2018	32.3	19.1	48.6	12:00	0	100.0
20/01/2018	27.3	20.2	64.5	05:00	0	100.0
21/01/2018	17.5	10.7	26.8	08:00	0	100.0
22/01/2018	18.9	12.5	30.0	12:00	0	100.0
23/01/2018	18.7	7.2	30.8	15:00	0	100.0
24/01/2018	17.9	10.0	43.7	11:00	0	100.0
25/01/2018	13.4	7.9	22.5	16:00	0	100.0
26/01/2018	11.7	1.4	24.8	22:00	0	100.0
27/01/2018	14.6	8.1	24.3	20:00	0	95.8
28/01/2018	22.8	12.1	51.4	03:00	0	87.5
29/01/2018	27.1	17.9	38.7	02:00	0	95.8
30/01/2018	19.2	9.2	33.3	07:00	0	100.0
31/01/2018	25.9	8.1	144.5	20:00	0	100.0

Results highlighted in red indicate the highest recorded value for the relevant averaging period for the month.
There will be no daily results if there is less than 75% valid data for that day
[1] Loss of data due to instrument fault

Table 28 Station 5 PM_{10} Monthly Summary

TSP High Volume Air Sampler Results

Total Suspended Particulate High Volume Air Sampler results are presented in Table 29 below. The HVAS are run on a one in six day cycle.

The Coordinator General's criterion of 90 µg/m^3 was not exceeded during the reporting period at any of the five sites.

TSP Results January 2018					
Sample Date	Station 1 AHS (µg/m^3)	Station 2 KSHS (µg/m^3)	Station 3 LS (µg/m^3)	Station 4 ALOC (µg/m^3)	Station 5 CS (µg/m^3)
03/12/2017	20	21	23	24	18
09/12/2017	23	23	20	21	20
15/12/2017	63	57	55	56	53
21/12/2017	30	35	30	32	32
27/12/2017	18	19	13	14	15
Monthly Average	30.7	30.9	28.3	29.5	27.4
Annual Average	30.7	30.9	28.3	29.5	27.4

Table 29 TSP High Volume Air Sampler Results

Validation Tables

The following tables outline any data removed during the data validation process, or automatically invalidated by the data acquisition system.

Station 1 Aviation High School

Station 1 Aviation High School Ambient AQMS Data Validation Table					
Start Date	End Date	Affected Parameters	Details of change	Validation Date	Changed By
19/01/2018 20:45:00	19/01/2018 20:55:00	All parameters	Power Interruption	19/02/2018	TA
19/01/2018 21:00:00	19/01/2018 21:50:00	$PM_{2.5}$, PM_{10}	Instrument warm-up after power interruption	19/02/2018	TA
19/01/2018 23:20:00	31/01/2018 22:10:00	$PM_{2.5}$	Intermittent instrument faults	19/02/2018	TA
20/01/2018 02:50:00	20/01/2018 04:50:00	All parameters	Power Interruption	19/02/2018	TA
20/01/2018 04:55:00	21/01/2018 00:55:00	CO	Instrument stabilisation after power interruption	19/02/2018	TA
22/01/2018 14:00:00	22/01/2018 14:20:00	All parameters	Maintenance	19/02/2018	TA
23/01/2018 07:20:00	23/01/2018 07:25:00	All parameters	Maintenance	19/02/2018	TA

Table 30 Station 1 Aviation High School AQMS Data Validation Table

Station 2 Kedron State High School

Station 2 Kedron State High School Ambient AQMS Data Validation Table					
Start Date	End Date	Affected Parameters	Details of change	Validation Date	Changed By
2/01/2018 20:55:00	5/01/2018 14:35:00	CO	Instrument fault	19/02/2018	TA
4/01/2018 15:25:00	5/01/2018 14:35:00	$PM_{2.5}$	Instrument fault	19/02/2018	TA
5/01/2018 14:40:00	5/01/2018 16:05:00	All parameters	Maintenance	19/02/2018	TA

Table 31 Station 2 Kedron High School AQMS Data Validation Table

Station 3 Lewis Street

Station 3 Lewis Street Ambient AQMS Data Validation Table					
Start Date	End Date	Affected Parameters	Details of change	Validation Date	Changed By
10/01/2018 09:55:00	11/01/2018 15:05:00	PM_{10}	Instrument fault	19/02/2018	TA
11/01/2018 15:10:00	11/01/2018 15:50:00	All parameters	Maintenance	19/02/2018	TA
11/01/2018 15:55:00	11/01/2018 16:50:00	PM_{10}	Maintenance	19/02/2018	TA
11/01/2018 18:40:00	18/01/2018 21:30:00	NO, NO_2, NO_x	Intermittent instrument fault	19/02/2018	TA
12/01/2018 00:55:00	19/01/2018 10:50:00	PM_{10}	Intermittent instrument fault	19/02/2018	TA
18/01/2018 21:55:00	18/01/2018 22:05:00	All parameters	Data communication errors	19/02/2018	TA
19/01/2018 10:55:00	19/01/2018 11:50:00	$PM_{2.5}$, PM_{10}	Maintenance	19/02/2018	TA
29/01/2018 10:55:00	30/01/2018 12:50:00	All parameters	Data logger fault	19/02/2018	TA
31/01/2018 13:55:00	31/01/2018 15:50:00	All parameters	Data logger fault	19/02/2018	TA
31/01/2018 15:50:00	31/01/2018 16:35:00	All parameters	Maintenance	19/02/2018	TA

Table 32 Station 3 Lewis St AQMS Data Validation Table

Station 4 Airport Link Operation Centre

Station 4 Airport Link Operation Centre Ambient AQMS Data Validation Table					
Start Date	End Date	Affected Parameters	Details of change	Validation Date	Changed By
29/01/2018 19:55:00	30/01/2018 13:30:00	$PM_{2.5}$	Instrument fault	19/02/2018	TA
30/01/2018 10:55:00	30/01/2018 13:30:00	PM_{10}	Instrument fault	19/02/2018	TA
30/01/2018 13:35:00	30/01/2018 14:50:00	$PM_{2.5}$, PM_{10}	Maintenance	19/02/2018	TA
31/01/2018 16:55:00	31/01/2018 17:40:00	All parameters	Maintenance	19/02/2018	TA

Table 33 Station 4 Airport Link Operation Centre AQMS Data Validation Table

Station 5 Cartwright St

Station 5 Cartwright Street Ambient AQMS Data Validation Table					
Start Date	End Date	Affected Parameters	Details of change	Validation Date	Changed By
1/01/2018 13:55:00	2/01/2018 14:10:00	PM_{10}	Instrument fault	19/02/2018	TA
2/01/2018 14:20:00	2/01/2018 14:50:00	PM_{10}	Maintenance	19/02/2018	TA
7/01/2018 21:55:00	7/01/2018 22:50:00	$PM_{2.5}$	Unrealistic reading ($PM_{2.5}$ > PM_{10})	19/02/2018	TA
11/01/2018 11:40:00	11/01/2018 14:00:00	All parameters	Maintenance	19/02/2018	TA
12/01/2018 00:55:00	12/01/2018 01:50:00	$PM_{2.5}$	Unrealistic reading ($PM_{2.5}$ > PM_{10})	19/02/2018	TA
27/01/2018 23:25:00	28/01/2018 01:20:00	All parameters	Power interruption	19/02/2018	TA
28/01/2018 01:45:00	28/01/2018 02:50:00	$PM_{2.5}$, PM_{10}	Instrument stabilisation after power interruption	19/02/2018	TA
28/01/2018 01:45:00	29/01/2018 00:55:00	CO	Instrument stabilisation after power interruption	19/02/2018	TA
29/01/2018 00:55:00	29/01/2018 01:50:00	PM_{10}	Instrument fault	19/02/2018	TA

Table 34 Station 5 Cartwright St AQMS Data Validation Table