

Ground Level Particulate Notification Report - 23 December, 2019

Adelaide Brighton Cement, Birkenhead Works
62 Elder Road, Birkenhead, SA 501
EPA Licence No: 1126

Summary

The 24-hour average particulate matter monitoring data collected at the Community Park and Gunn Street monitoring sites during 23 December, 2019 is shown in [Table 1](#) below. The data indicates that:

- The 24-hour average PM₁₀ concentration measured at Community Park of 96.0 µg/m³ exceeded the EPP Air criterion of 50 µg/m³
- The 24-hour average PM_{2.5} concentration measured at Community Park of 92.4 µg/m³ exceeded the EPP Air criterion of 25 µg/m³
- The 24-hour average PM₁₀ concentration measured at Gunn Street of 90.0 µg/m³ exceeded the EPP Air criterion of 50 µg/m³
- The 24-hour average PM_{2.5} concentration measured at Gunn Street of 89.0 µg/m³ exceeded the EPP Air criterion of 25 µg/m³

Table 1: Monitoring Summary

| Monitoring Location | Pollutant | 24-hour average (µg/m ³) | EPP Air Criterion (µg/m ³) |
|---------------------|-------------------|--------------------------------------|--|
| Community Park | PM ₁₀ | 96.0 | 50 |
| | PM _{2.5} | 92.4 | 25 |
| Gunn Street | PM ₁₀ | 90.0 | 50 |
| | PM _{2.5} | 89.0 | 25 |

Smoke and dust from bush fires in rural areas surrounding Adelaide have contributed to elevated levels of particulate in the Adelaide metropolitan area. The community monitors reflect these elevated particulate levels with the measured 24 hr averages for PM₁₀ and PM_{2.5} levels exceeding the EPP Air criterion, on both the Community Park and Gunn Street monitors

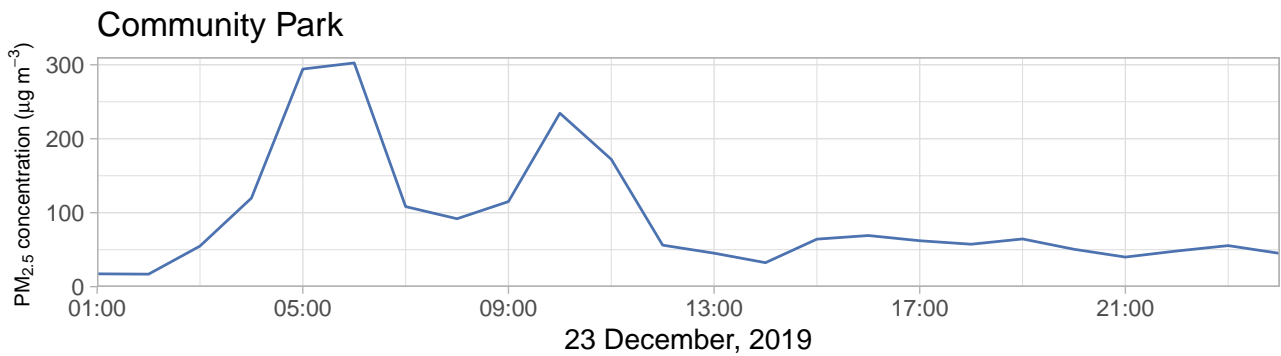
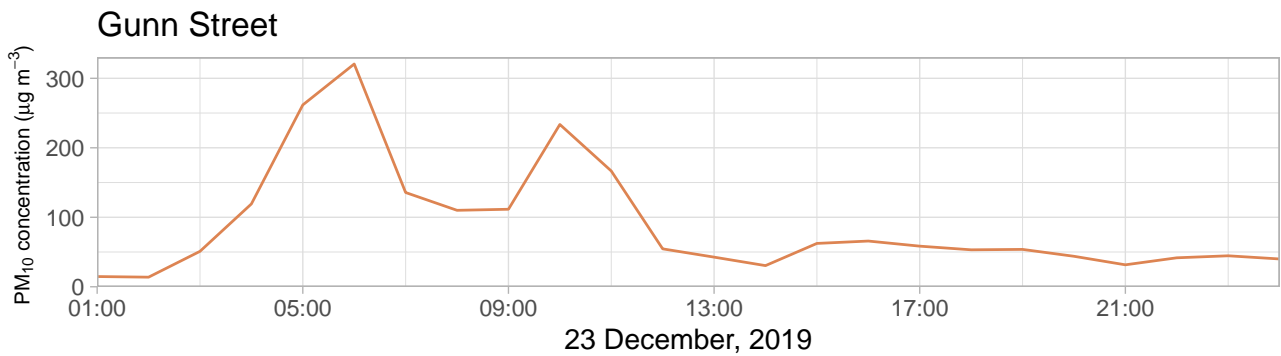
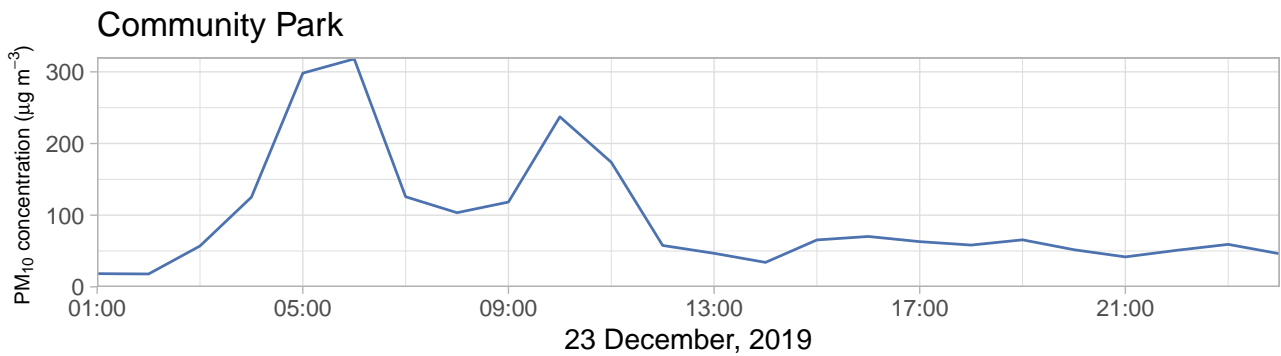
Community Monitoring

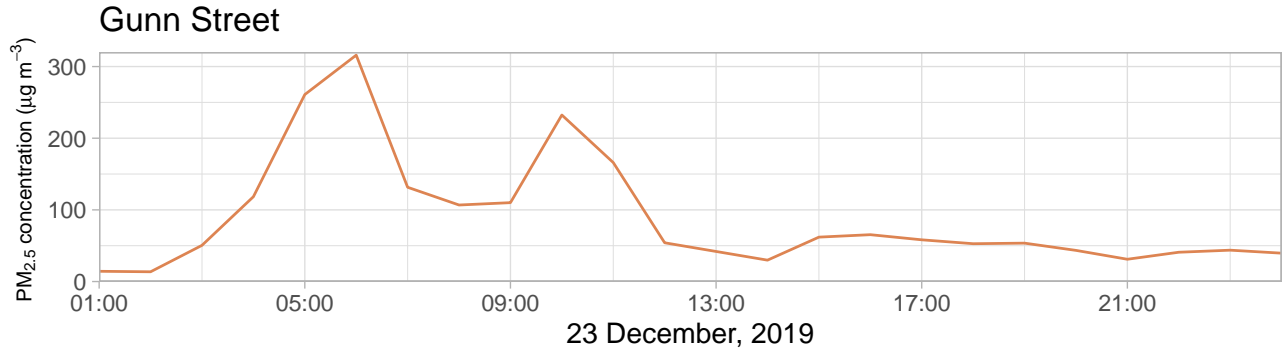
Monitoring data collected at the community monitoring sites is presented in this section.

The table below shows the proportion of PM₁₀ and PM_{2.5} measured at each monitor, according to the average wind direction at the time of monitoring.

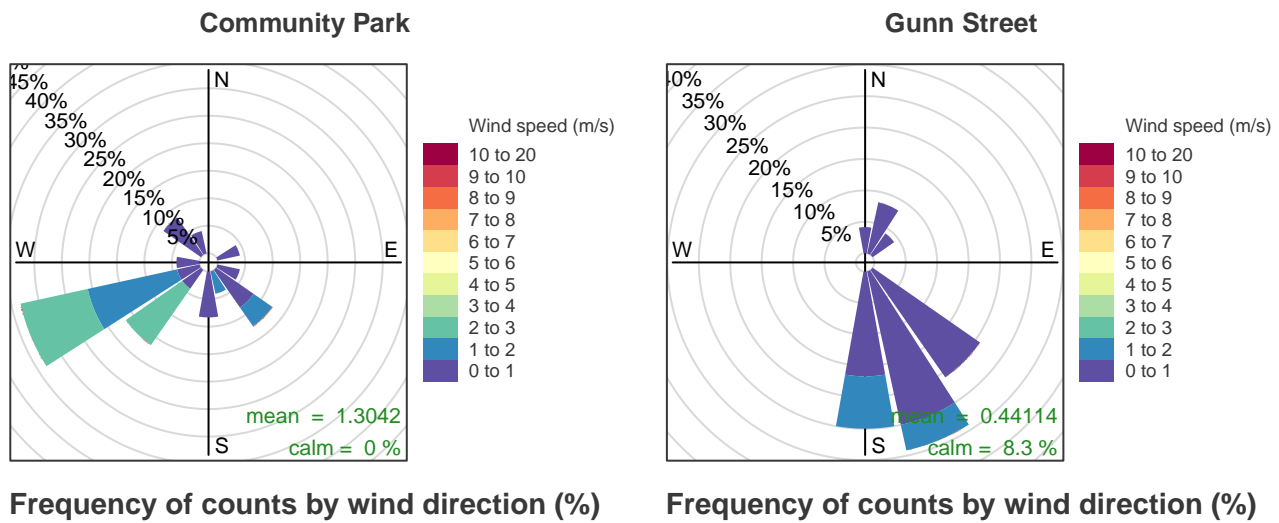
| Monitoring Location | Direction | PM ₁₀ proportion (%) | PM _{2.5} proportion (%) |
|---------------------|----------------------------------|---------------------------------|----------------------------------|
| Community Park | From direction of ABC (WD < 180) | 49 | 48 |
| Community Park | From other direction (WD > 180) | 51 | 52 |
| Gunn Street | From direction of ABC (WD < 180) | 99 | 99 |
| Gunn Street | From other direction (WD > 180) | 1 | 1 |

The figures below show the time series of 1-hour average measurements throughout 23 December, 2019

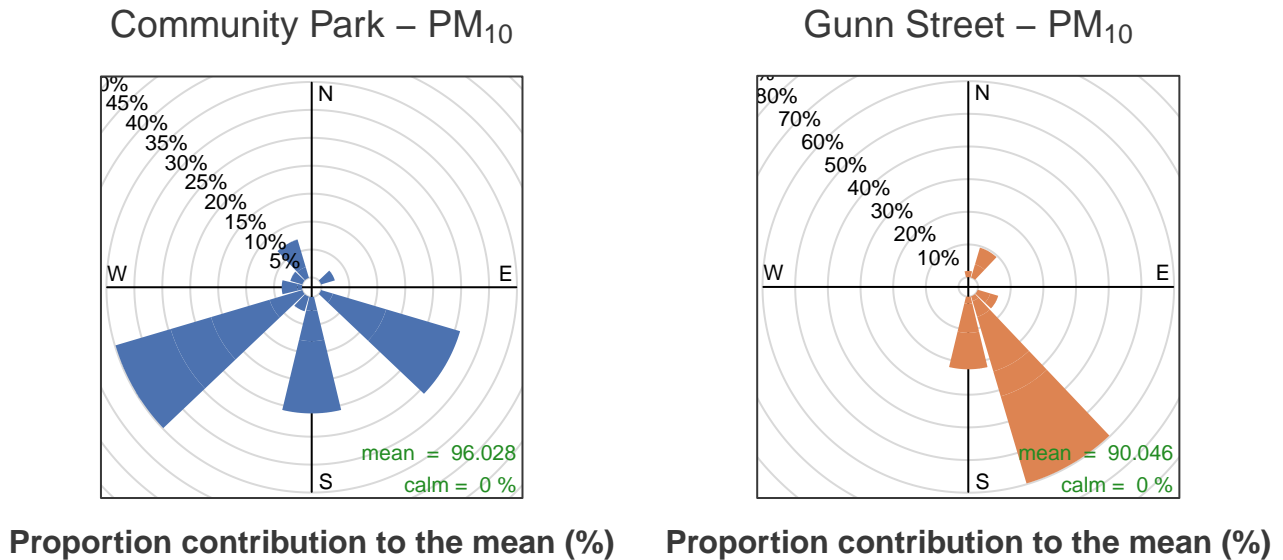




The figures below show wind roses summarising the period 23 December, 2019.

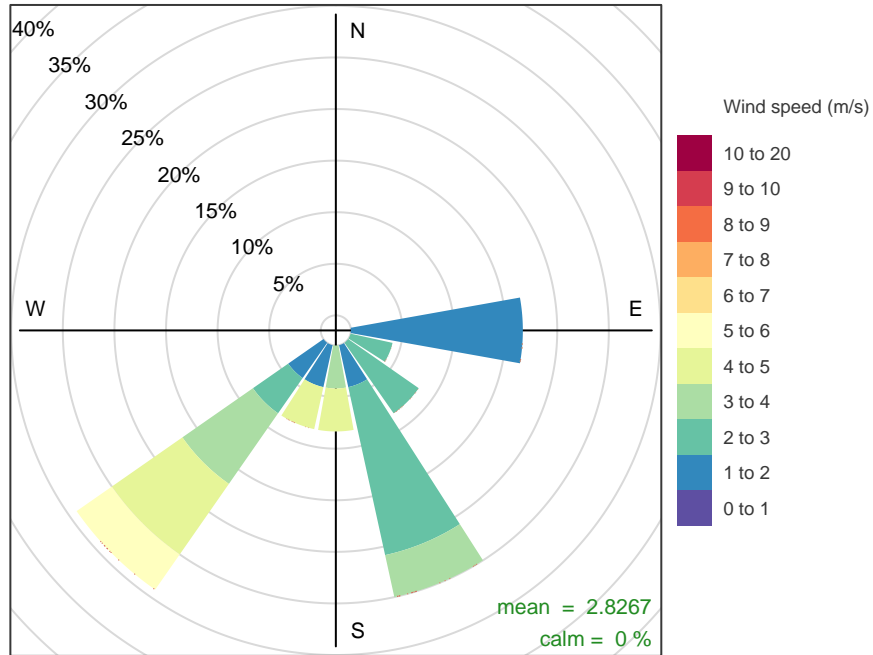


The figures below show dust roses summarising the period 23 December, 2019

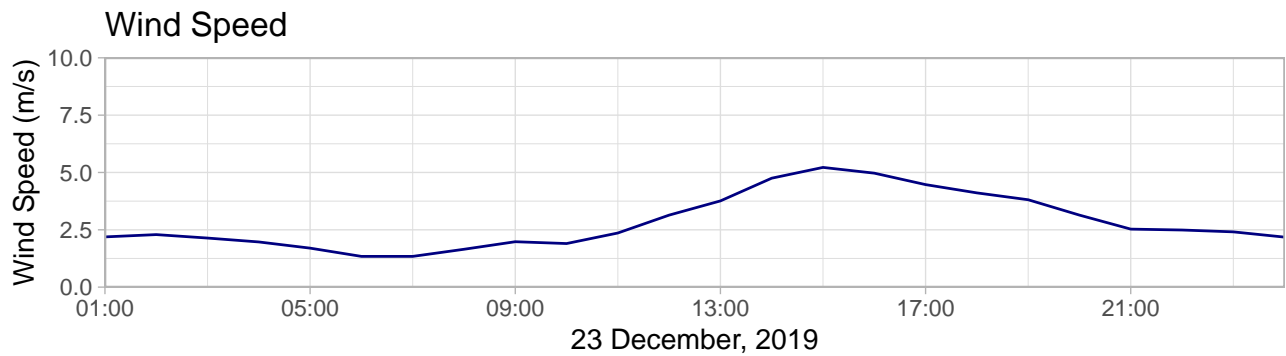


Meteorological Monitoring

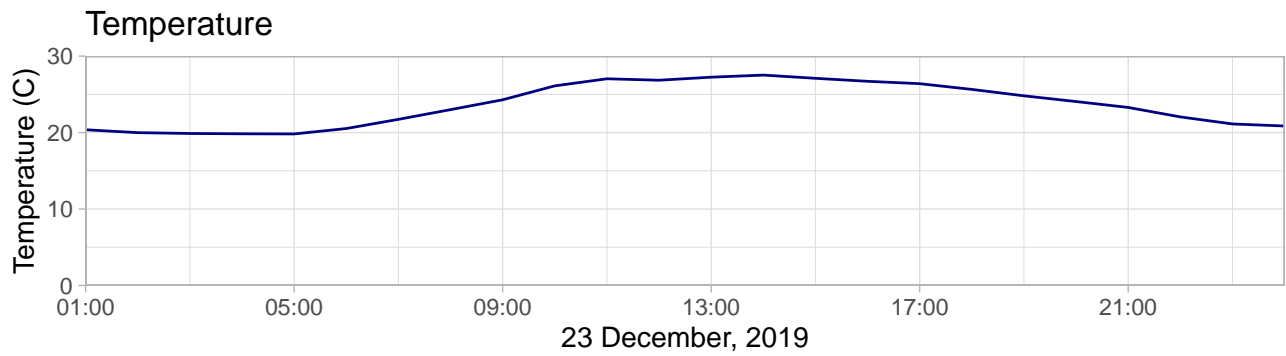
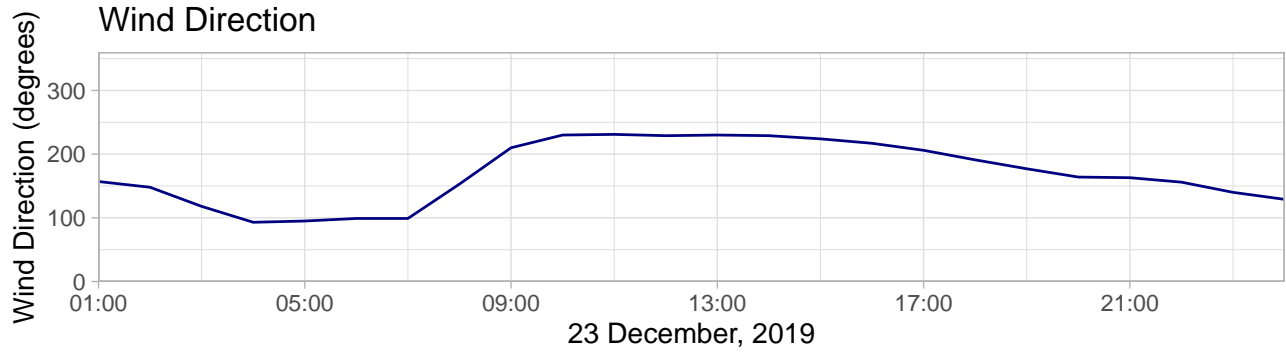
The following figures show meteorological parameters measured¹ throughout the day.



Frequency of counts by wind direction (%)



¹Powered by [Dark Sky](#)



Recent air quality data measured by ABC or EPA is indicative only and may be affected by instruments not working correctly, power failures and the like. Data is published directly from the monitors and will be validated at a later date.