

Ground Level Particulate Notification Report - 17 May, 2020

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 17 May, 2020 is shown in [Table 1](#) below. The data indicates that:

- The 24-hour average PM_{2.5} concentration measured at Community Park of 30.5 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	35.0	50
	PM _{2.5}	30.5	25
Gunn Street	PM ₁₀	24.5	50
	PM _{2.5}	23.7	25

The 24-hour average PM_{2.5} concentration measured at Community Park of 30.5 g/m³ exceeded the EPP Air criterion of 25.0 g/m³. All ABC monitors (on site and off site), showed similar particulate levels and trends. The monitors do not show a pick up of particulate as air moved slowly in a generally North Easterly direction across the site. This indicates the particulate level was from a localised airshed condition, rather than related to any specific site activity. Particulate levels were elevated during the early hours of the morning, and dropped quickly once the air shed was flushed with fresh air.

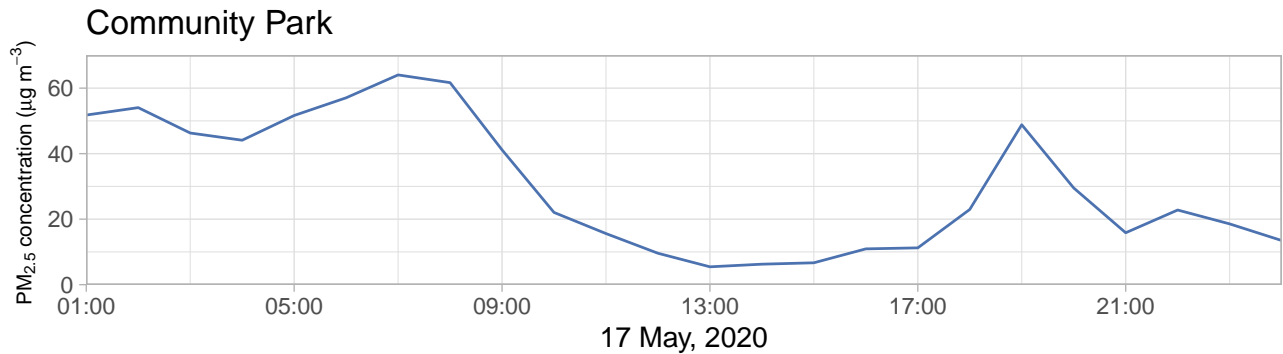
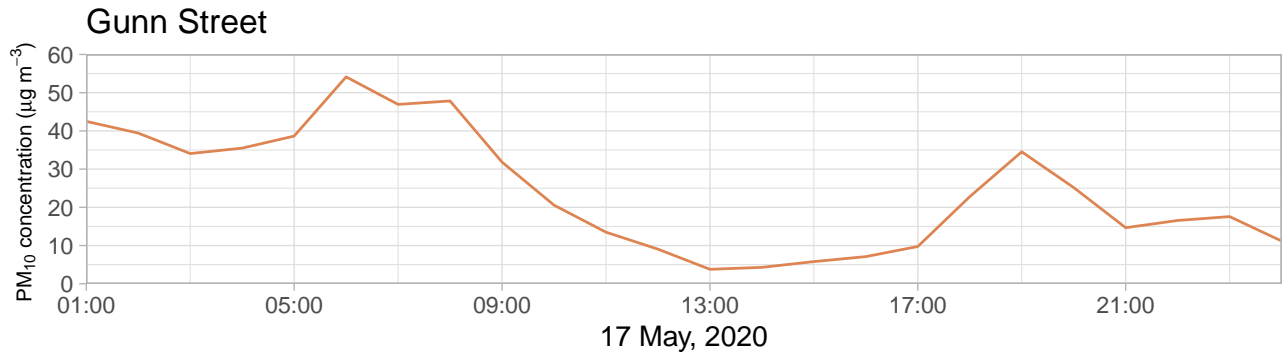
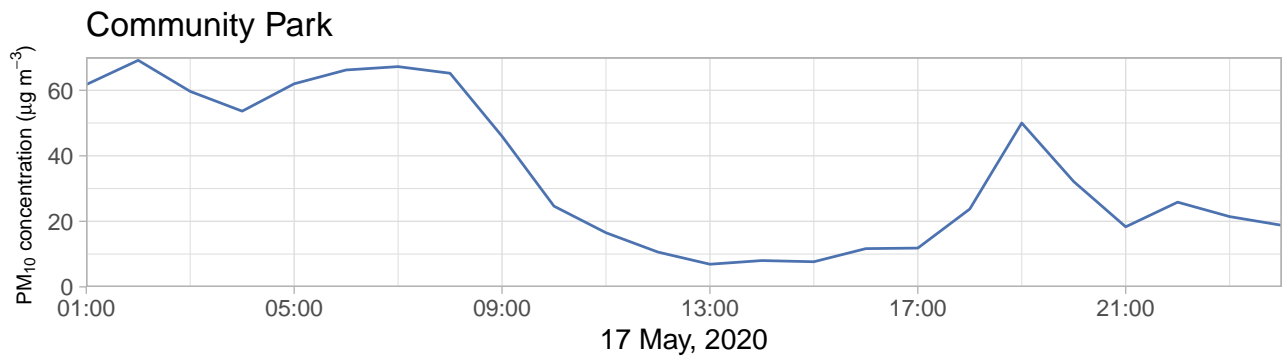
Community Monitoring

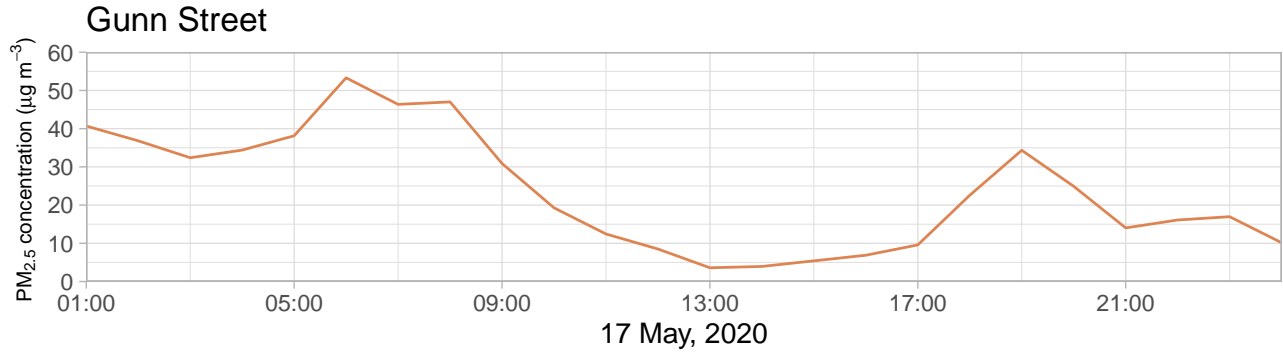
Monitoring data collected at the community monitoring sites is presented in this section.

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.

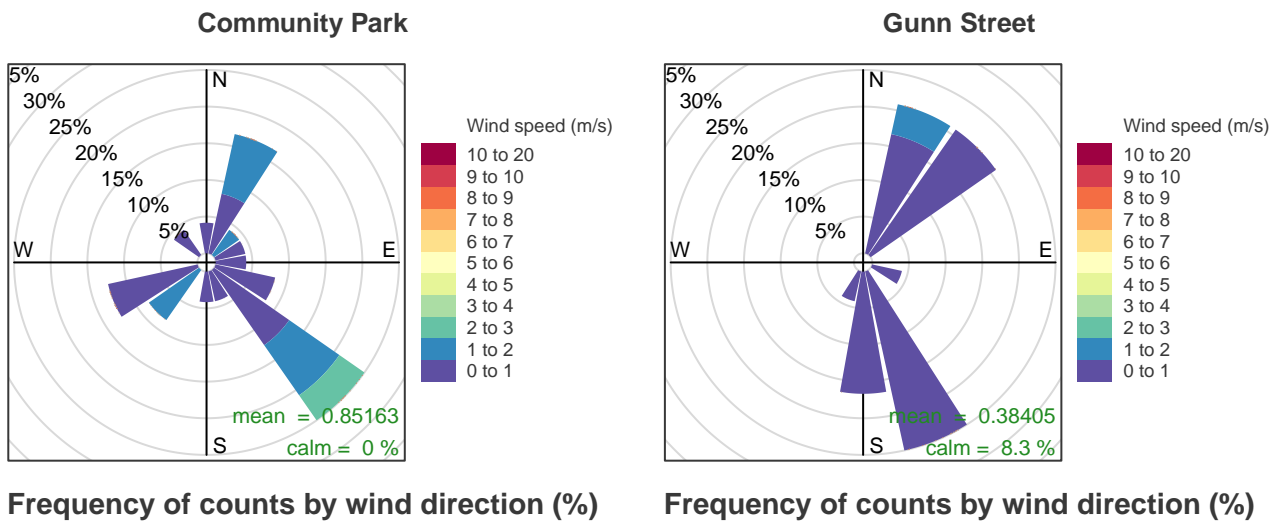
Monitoring Location	Direction	PM ₁₀ proportion (%)	PM _{2.5} proportion (%)
Community Park	From direction of ABC (WD < 180)	74	73
Community Park	From other direction (WD > 180)	26	27
Gunn Street	From direction of ABC (WD < 180)	80	80
Gunn Street	From other direction (WD > 180)	20	20

The figures below show the time series of 1-hour average measurements throughout 17 May, 2020

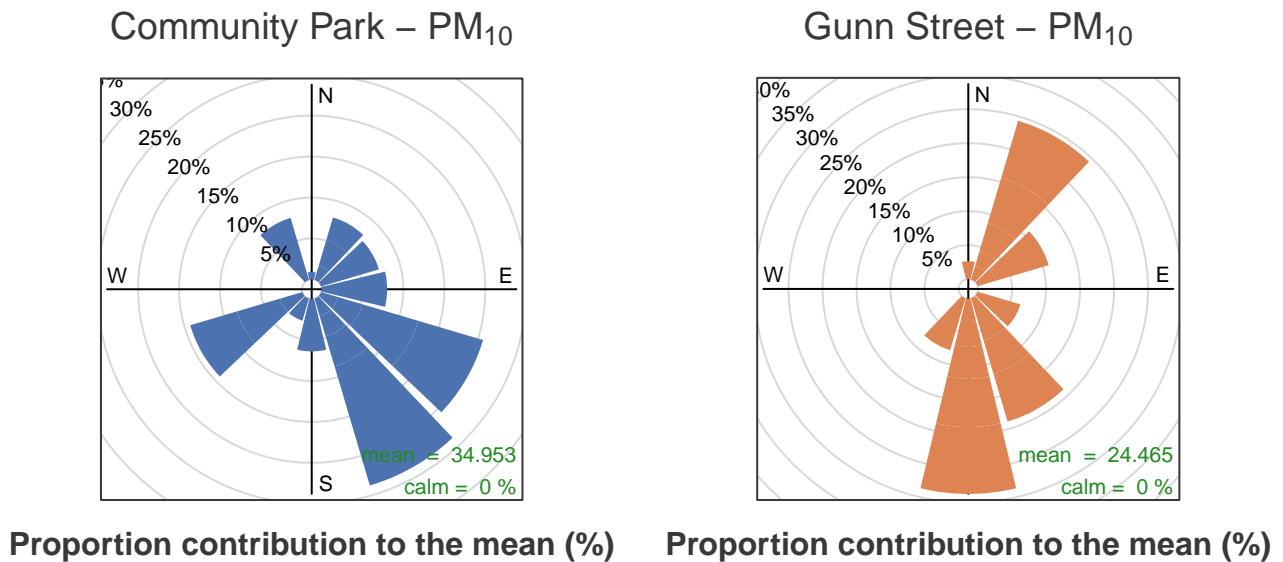




The figures below show wind roses summarising the period 17 May, 2020.



The figures below show dust roses summarising the period 17 May, 2020



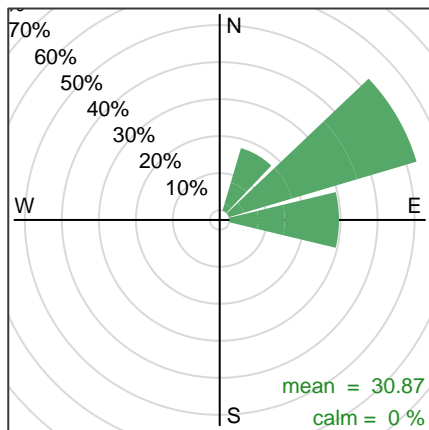
EPA Monitoring

The 24-hour average PM₁₀ and PM_{2.5} concentrations measured at the EPA monitoring sites are shown in the table below. Note that the data has not been validated.

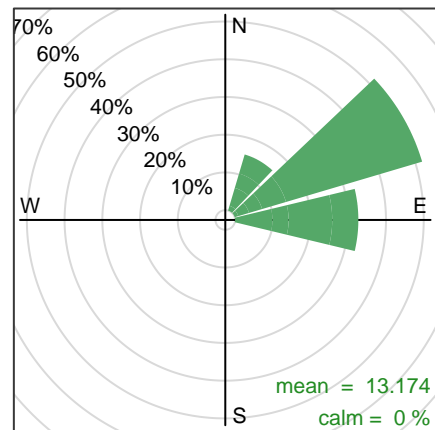
Site	Region	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
CBD	Adelaide CBD	15	9
Christies	Southern Adelaide	16	-
Le Fevre 1	Northwestern Adelaide	32	14
Netley	Western Adelaide	35	16
Port Augusta	Mobile Station	14	6
Port Pirie Oliver St	Spencer Gulf	15	-
Whyalla Schulz Res	Spencer Gulf	18	-
Whyalla Walls St	Spencer Gulf	12	-

The dust roses below show the distribution of PM₁₀ and PM_{2.5} measured at Le Fevre 1 for the period 17 May, 2020 .

Le Fevre 1 – PM₁₀



Le Fevre 1 – PM_{2.5}

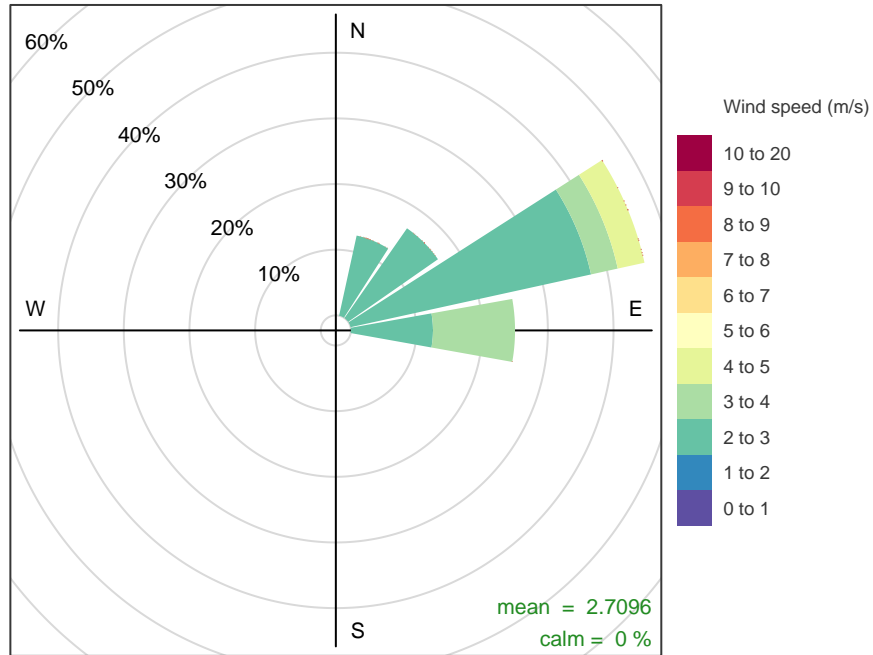


Proportion contribution to the mean (%)

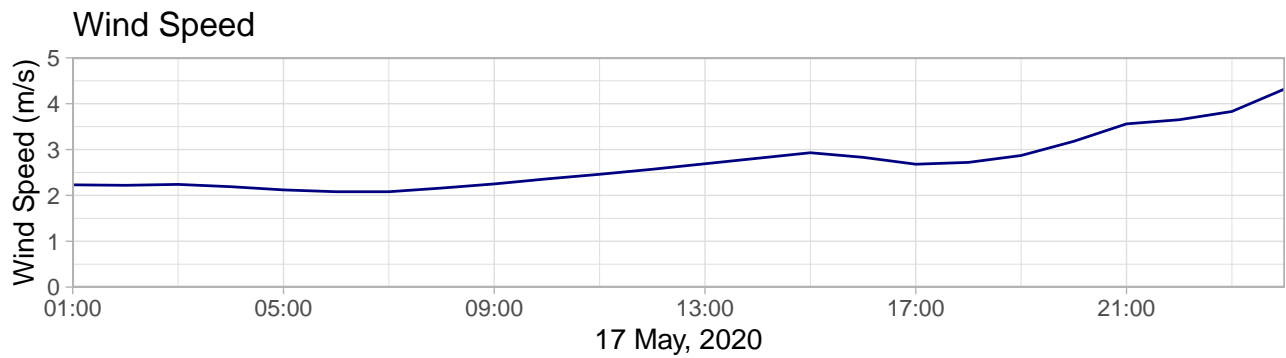
Proportion contribution to the mean (%)

Meteorological Monitoring

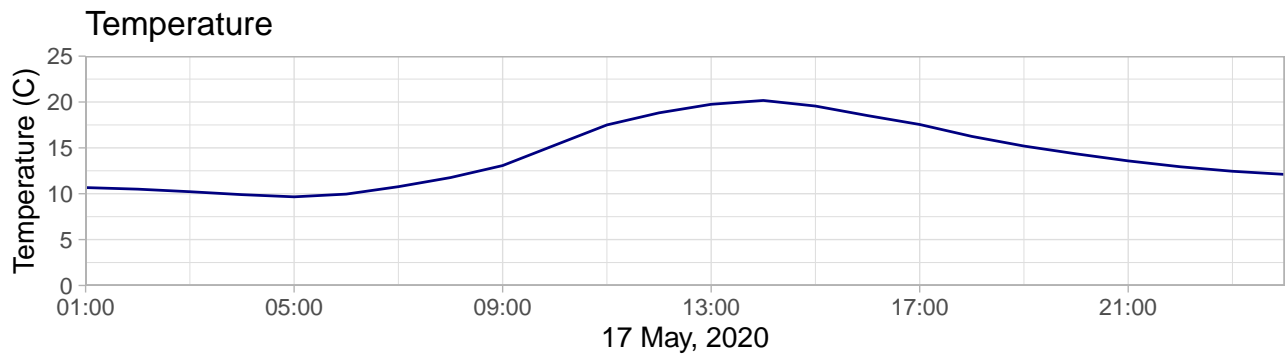
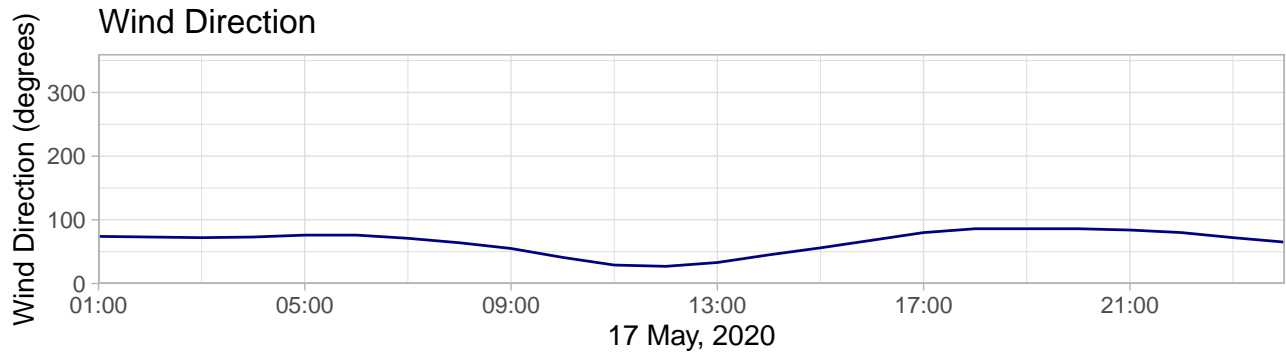
The following figures show meteorological parameters measured¹ throughout the day.



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.