

Ground Level Particulate Notification Report - 01 January, 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 01 January, 2020 is shown in [Table 1](#) below. The data indicates that:

- The 24-hour average PM_{2.5} concentration measured at Community Park of 46.7 µg/m³ exceeded the EPP Air criterion of 25 µg/m³
- The 24-hour average PM_{2.5} concentration measured at Gunn Street of 42.3 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	48.2	50
	PM _{2.5}	46.7	25
Gunn Street	PM ₁₀	42.7	50
	PM _{2.5}	42.3	25

The exceedances were due to a regional increase in smoke and and particulate from bush fires on Kangaroo island. As the wind direction changed from an Easterly to South Westerly direction it brought smoke and dust from the bush fire to metropolitan areas of Adelaide.

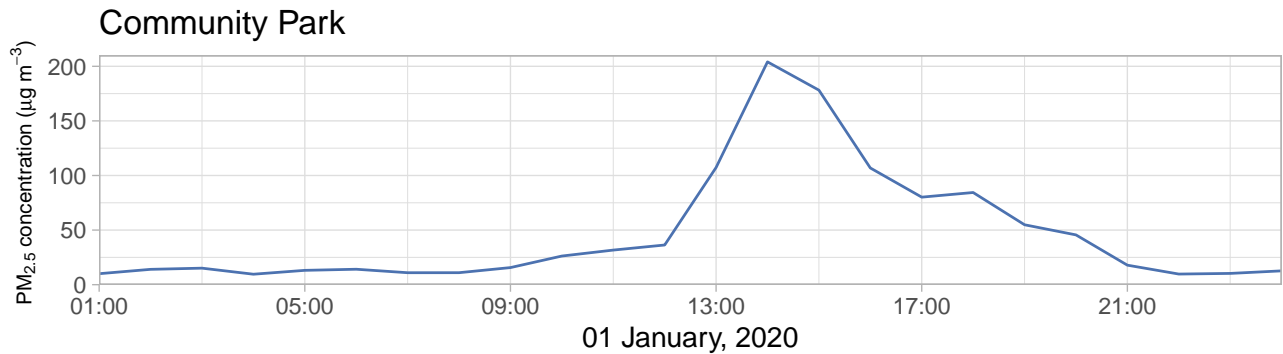
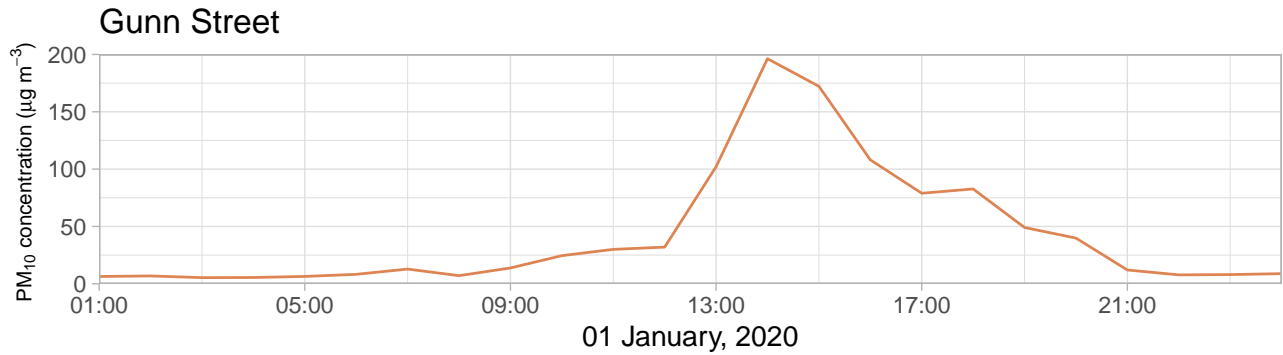
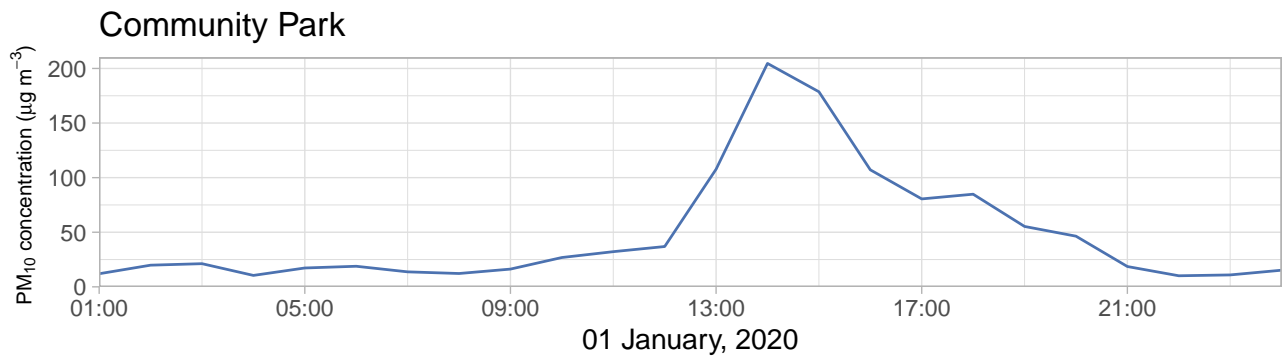
Community Monitoring

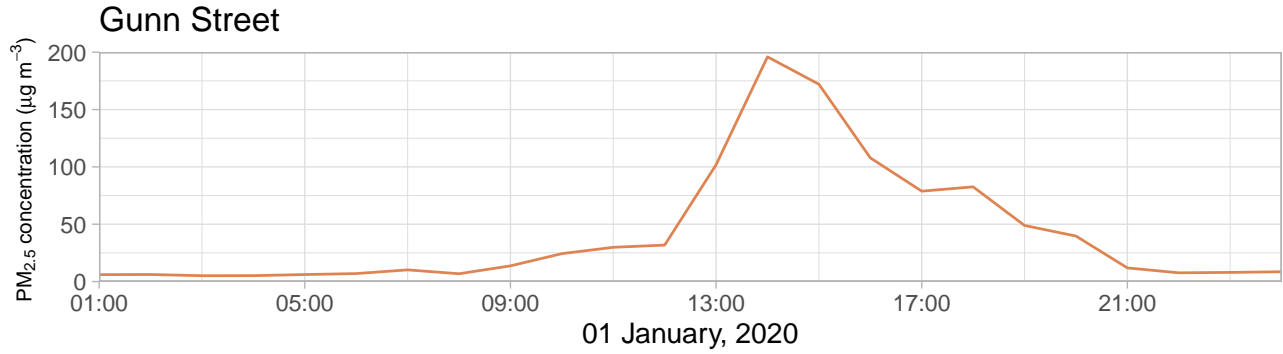
Monitoring data collected at the community monitoring sites is presented in this section.

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.

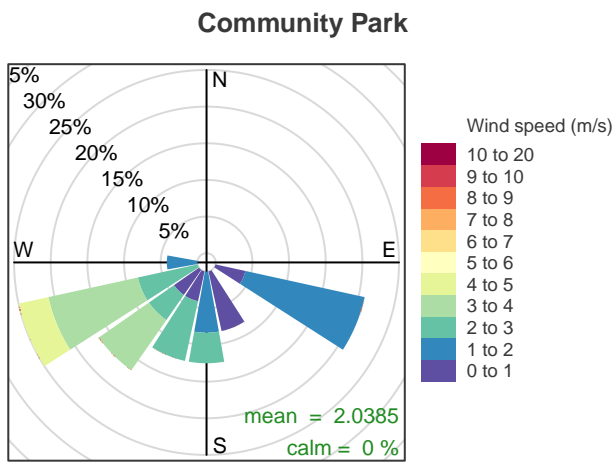
Monitoring Location	Direction	PM ₁₀ proportion (%)	PM _{2.5} proportion (%)
Community Park	From direction of ABC (WD < 180)	11	9
Community Park	From other direction (WD > 180)	89	91
Gunn Street	From direction of ABC (WD < 180)	81	81
Gunn Street	From other direction (WD > 180)	19	19

The figures below show the time series of 1-hour average measurements throughout 01 January, 2020

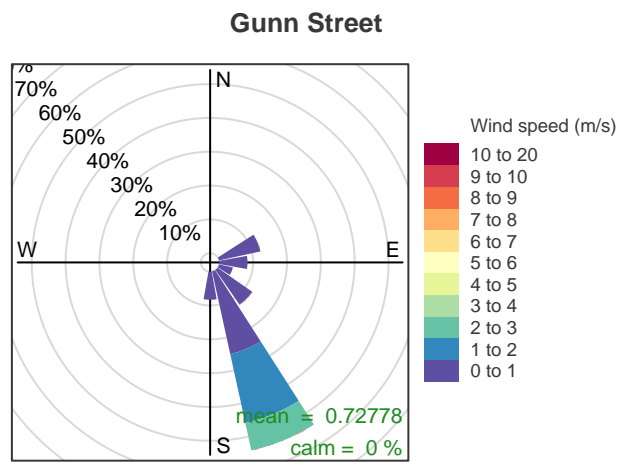




The figures below show wind roses summarising the period 01 January, 2020.



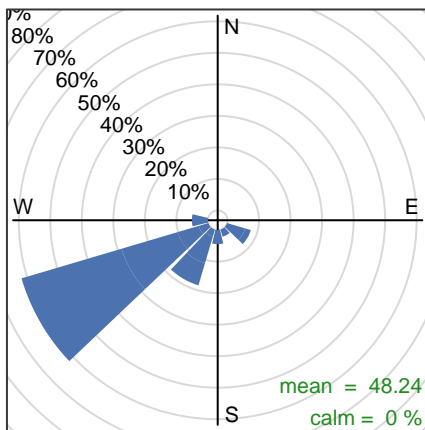
Frequency of counts by wind direction (%)



Frequency of counts by wind direction (%)

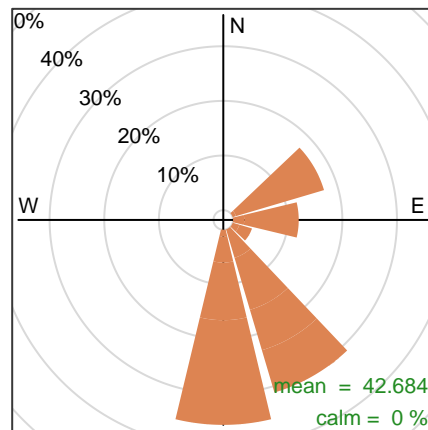
The figures below show dust roses summarising the period 01 January, 2020

Community Park – PM₁₀



Proportion contribution to the mean (%)

Gunn Street – PM₁₀



Proportion contribution to the mean (%)

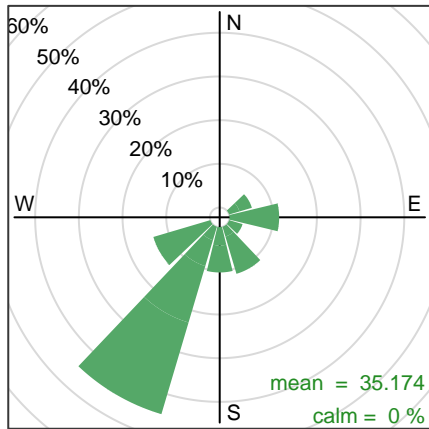
EPA Monitoring

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	34	22
Christies	Southern Adelaide	38	-
Elizabeth	Northern Adelaide	38	18
Kensington	Eastern Adelaide	30	-
Le Fevre 1	Northwestern Adelaide	35	19
Le Fevre 2	Northwestern Adelaide	38	19
Netley	Western Adelaide	46	23
Port Augusta	Mobile Station	30	13
Port Pirie Oliver St	Spencer Gulf	33	-
Whyalla Schulz Res	Spencer Gulf	31	-
Whyalla Walls St	Spencer Gulf	28	-

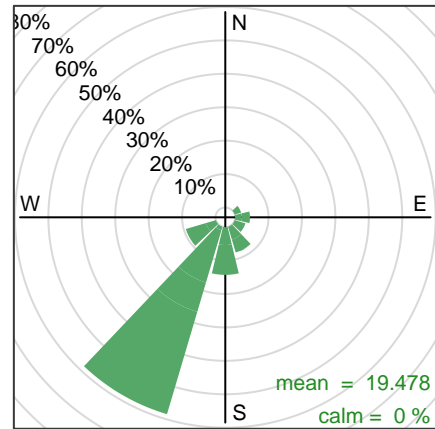
The dust roses below show the distribution of PM₁₀ and PM_{2.5} measured at Le Fevre 1 for the period 01 January, 2020 .

Le Fevre 1 – PM₁₀



Proportion contribution to the mean (%)

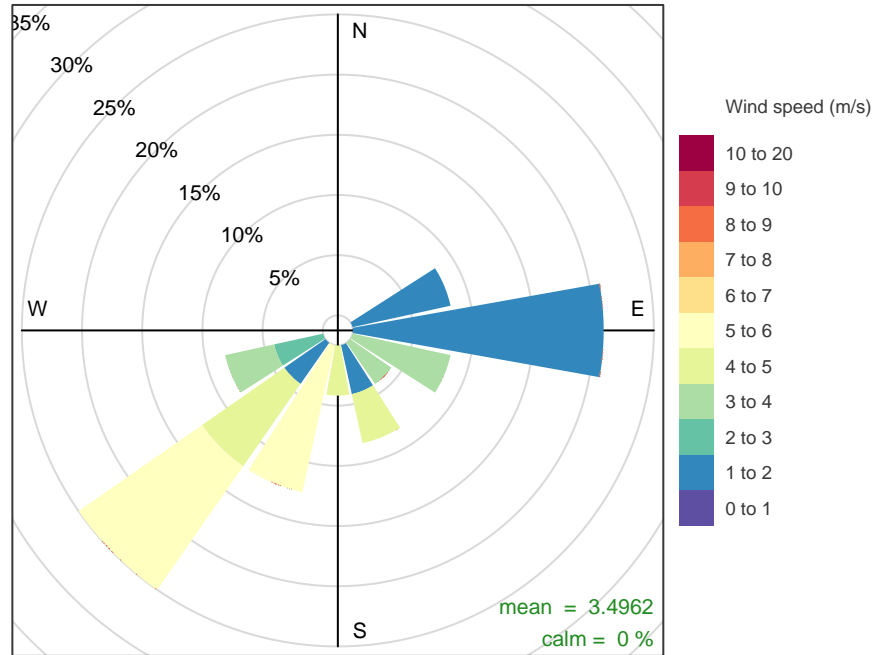
Le Fevre 1 – PM_{2.5}



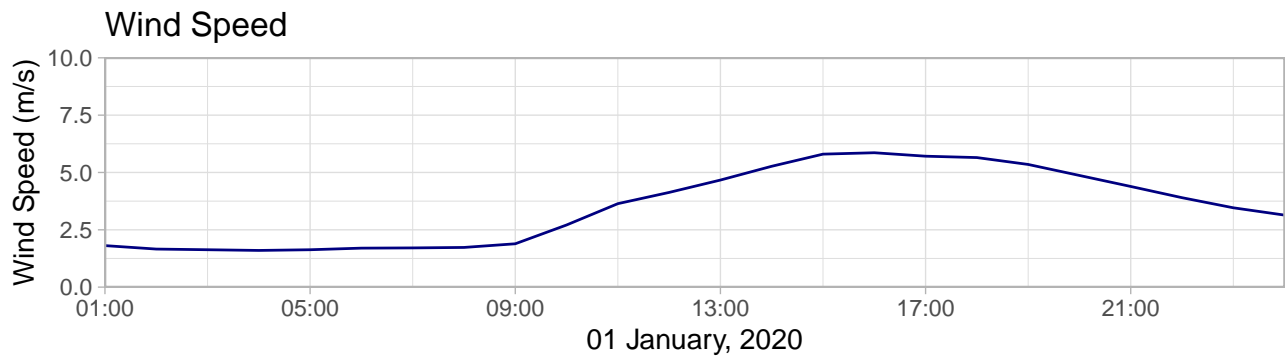
Proportion contribution to the mean (%)

Meteorological Monitoring

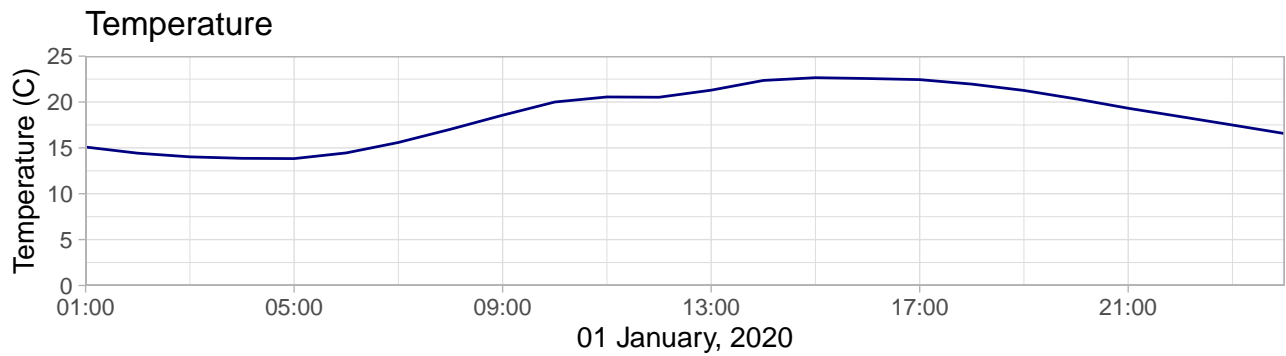
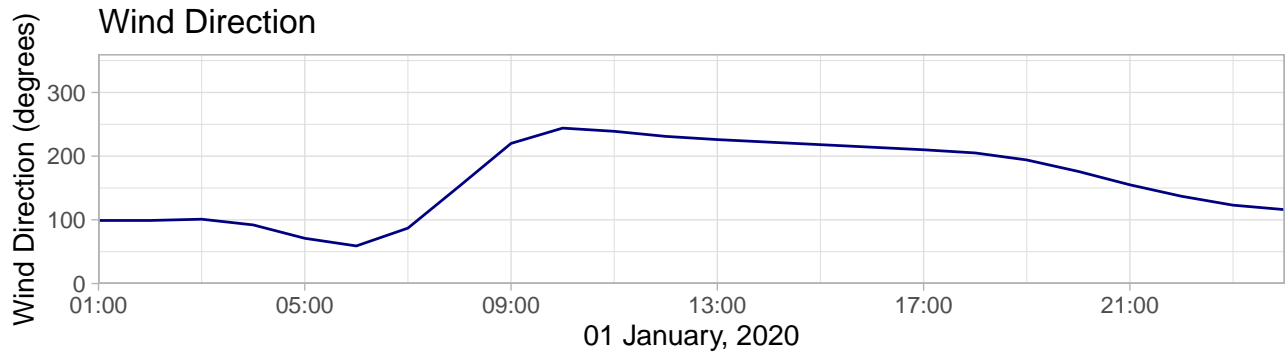
The following figures show meteorological parameters measured¹ throughout the day.



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.