# Ground Level Particulate Notification Report - 03 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 03 January, 2020 is shown in Table 1 below. The data indicates that:

- The 24-hour average PM<sub>2.5</sub> concentration measured at Community Park of 41.6  $\mu g/m^3$  exceeded the EPP Air criterion of 25  $\mu g/m^3$
- The 24-hour average PM<sub>2.5</sub> concentration measured at Gunn Street of 37.6  $\mu$ g/m<sup>3</sup> exceeded the EPP Air criterion of 25  $\mu$ g/m<sup>3</sup>

Table 1: Monitoring Summary

Monitoring Location	Pollutant	24-hour average ( $\mu { m g}/{ m m}^3$ )	EPP Air Criterion ( $\mu g/m^3$ )
Community Park	$PM_{10}$	47.1	50
	PM <sub>2.5</sub>	41.6	25
Gunn Street	$PM_{10}$	39.6	50
	PM <sub>2.5</sub>	37.6	25

Smoke and dust from Kangaroo Island and regional bush fires have contributed to the increased particulate levels and the 24 hr PM2.5 exceedances on the Community Park and Gunn Street monitors

### **Community Monitoring**

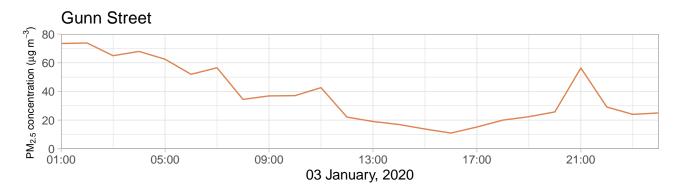
Monitoring data collected at the community monitoring sites is presented in this section.

The table below shows the proportion of  $\mathsf{PM}_{10}$  and  $\mathsf{PM}_{2.5}$  measured at each monitor, according to the average wind direction at the time of monitoring.

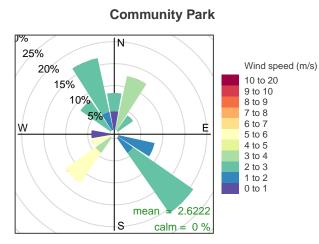
Monitoring Location	Direction	$PM_{10}$ proportion (%)	$PM_{2.5}$ proportion (%)
Community Park	From direction of ABC (WD $< 180$ )	70	69
Community Park	From other direction (WD $>$ 180)	30	31
Gunn Street	From direction of ABC (WD $< 180$ )	95	95
Gunn Street	From other direction (WD $>$ 180)	5	5

The figures below show the time series of 1-hour average measurements throughout 03 January, 2020

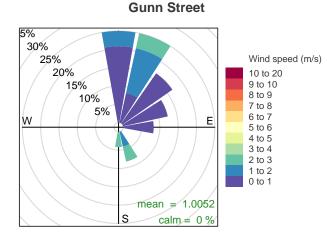




The figures below show wind roses summarising the period 03 January, 2020.



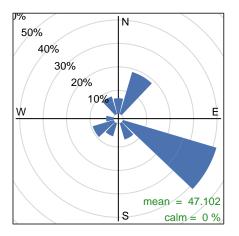
Frequency of counts by wind direction (%)



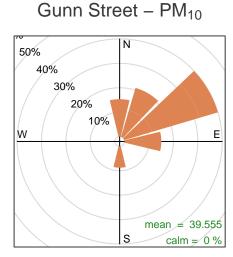
### Frequency of counts by wind direction (%)

The figures below show dust roses summarising the period 03 January, 2020

### Community Park – PM<sub>10</sub>



Proportion contribution to the mean (%)



Proportion contribution to the mean (%)

Adelaide Brighton Cement

### **EPA** Monitoring

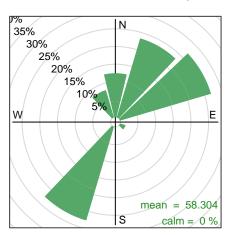
The 24-hour average $PM_{10}$ and $PM_{2.5}$ concentrations measured at the EPA monitoring sites are shown in the table
below. Note that the data has not been validated.

Site	Region	$PM_{10} \; (\mu g/m^3)$	$PM_{2.5}\;(\mug/m^3)$
CBD	Adelaide CBD	31	16
Christies	Southern Adelaide	34	-
Elizabeth	Northern Adelaide	46	16
Kensington	Eastern Adelaide	30	-
Le Fevre 1	Northwestern Adelaide	58	16
Le Fevre 2	Northwestern Adelaide	47	15
Netley	Western Adelaide	48	14
Port Augusta	Mobile Station	66	20
Port Pirie Oliver St	Spencer Gulf	56	-
Whyalla Schulz Res	Spencer Gulf	73	-
Whyalla Walls St	Spencer Gulf	60	-

Smoke and dust from Kangaroo Island and regional bush fires have contributed to increased particulate levels.

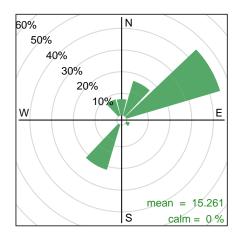
The dust roses below show the distribution of  $\mathsf{PM}_{10}$  and  $\mathsf{PM}_{2.5}$  measured at Le Fevre 1 for the period 03 January, 2020 .





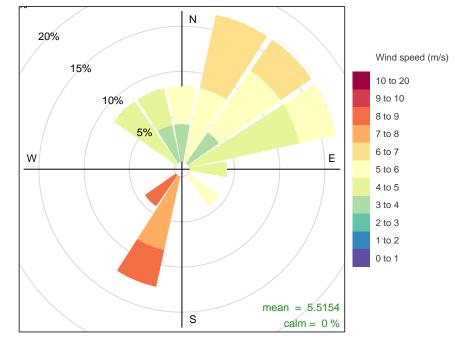
Proportion contribution to the mean (%)





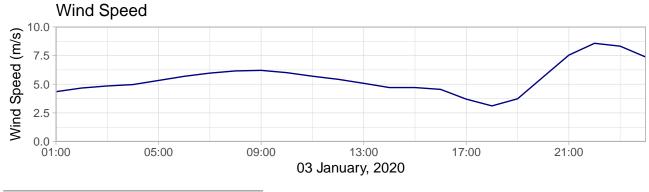
Proportion contribution to the mean (%)

## Meteorological Monitoring

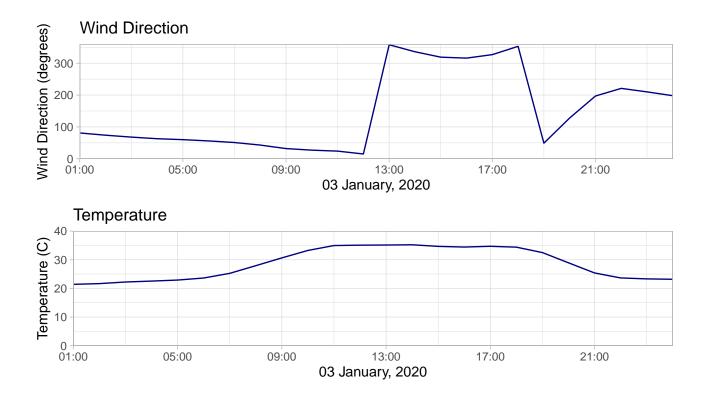


The following figures show meterological parameters measured  $^1$  throughout the day.

Frequency of counts by wind direction (%)



<sup>1</sup>Powered 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.