



## Boral Cement Berrima - POELA Act 2011 Monitoring Data

New Berrima, NSW - Environmental Protection Licence No. 1698

Record updated on: 08 April 2024

Further analysis of monitoring data can be found within the Annual Environmental Management Reports prepared for Kiln 6 within public reporting.

<https://www.boral.com.au/locations/boral-cement-works-berrima>

### 1. Stack emission monitoring (Standard Fuels)

#### 1.1 Continuous Monitoring

**Solid Particles Concentration (milligrams per cubic metre)**

Licence limit: 50 milligrams per cubic metre; based on 24 hours averaging period.



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| <b>Date published</b> | 08/08/18       | 08/09/18      | 08/10/18      | 08/11/18      | 08/12/18      | 08/01/19      | 08/02/19      | 08/03/19      |
|-----------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Date</b>           | <b>July-18</b> | <b>Aug-18</b> | <b>Sep-18</b> | <b>Oct-18</b> | <b>Nov-18</b> | <b>Dec-18</b> | <b>Jan-19</b> | <b>Feb-19</b> |
| 1                     | 19.4           | 21.9          | 18.3          | 20.7          | 13.1          | 0.0           | 23.6          | 0.0           |
| 2                     | 17.2           | 24.5          | 21.3          | 16.3          | 11.4          | 0.0           | 9.6           | 0.0           |
| 3                     | 17.3           | 17.3          | 18.9          | 14.2          | 11.2          | 8.9           | 9.2           | 0.0           |
| 4                     | 0.0            | 19.3          | 21.2          | 13.8          | 12.8          | 8.0           | 10.5          | 0.0           |
| 5                     | 0.0            | 21.8          | 18.6          | 13.0          | 10.8          | 6.4           | 10.6          | 13.0          |
| 6                     | 0.0            | 23.2          | 11.5          | 9.7           | 13.3          | 8.9           | 7.7           | 5.0           |
| 7                     | 16.5           | 23.6          | 0.0           | 10.3          | 12.5          | 11.2          | 12.2          | 8.1           |
| 8                     | 17.5           | 17.3          | 0.0           | 10.4          | 14.7          | 9.4           | 11.5          | 7.3           |
| 9                     | 15.6           | 23.0          | 0.0           | 10.7          | 13.2          | 12.2          | 8.9           | 16.1          |
| 10                    | 16.1           | 21.8          | 18.9          | 15.3          | 9.1           | 25.7          | 7.2           | 10.6          |
| 11                    | 15.8           | 23.2          | 19.5          | 15.8          | 8.3           | 45.7          | 7.5           | 13.2          |
| 12                    | 17.5           | 26.5          | 19.5          | 19.3          | 11.2          | 39.7          | 0.0           | 15.6          |
| 13                    | 17.5           | 26.6          | 19.5          | 15.3          | 0.0           | 22.5          | 0.0           | 10.8          |
| 14                    | 12.9           | 23.3          | 19.5          | 14.6          | 12.3          | 27.1          | 0.0           | 11.7          |
| 15                    | 10.6           | 27.4          | 0.0           | 12.1          | 13.2          | 21.4          | 0.0           | 8.5           |
| 16                    | 11.1           | 29.4          | 0.0           | 11.4          | 12.5          | 24.1          | 0.0           | 8.7           |
| 17                    | 15.4           | 25.5          | 9.3           | 10.1          | 14.6          | 0.0           | 0.0           | 11.8          |
| 18                    | 17.4           | 19.0          | 16.7          | 20.5          | 18.1          | 0.0           | 0.0           | 11.2          |
| 19                    | 15.3           | 18.7          | 18.4          | 18.9          | 31.5          | 0.0           | 0.0           | 10.5          |
| 20                    | 15.2           | 17.5          | 22.9          | 0.0           | 18.7          | 23.3          | 0.0           | 8.7           |
| 21                    | 16.1           | 20.4          | 26.9          | 0.0           | 10.7          | 18.7          | 0.0           | 9.9           |
| 22                    | 15.7           | 23.0          | 14.1          | 12.1          | 9.6           | 25.3          | 0.0           | 12.4          |
| 23                    | 19.0           | 22.0          | 11.8          | 14.3          | 12.4          | 29.3          | 0.0           | 15.5          |
| 24                    | 14.0           | 20.2          | 11.4          | 8.8           | 10.1          | 42.6          | 0.0           | 12.0          |
| 25                    | 14.0           | 20.9          | 13.6          | 21.9          | 9.2           | 40.3          | 0.0           | 11.3          |
| 26                    | 15.9           | 19.9          | 17.0          | 13.1          | 8.3           | 45.0          | 0.0           | 13.6          |
| 27                    | 18.0           | 20.3          | 15.4          | 9.1           | 10.3          | 31.2          | 0.0           | 13.6          |
| 28                    | 18.3           | 24.4          | 21.5          | 9.2           | 5.9           | 0.0           | 0.0           | 13.1          |
| 29                    | 21.3           | 15.1          | 17.7          | 10.7          | 5.7           | 21.1          | 0.0           | x             |
| 30                    | 20.7           | 14.0          | 19.8          | 9.9           | 8.0           | 21.1          | 0.0           | x             |
| 31                    | 20             | 12            | x             | 11            | x             | 21            | 0.0           | x             |



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| Date published | 08/04/19 | 08/05/19 | 08/06/19 | 08/07/19 | 08/08/19 | 08/09/19 | 08/10/19 | 08/11/19 |
|----------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Date           | Mar-19   | Apr-19   | May-19   | Jun-19   | Jul-19   | Aug-19   | Sep-19   | Oct-19   |
| 1              | 17.9     | 7.5      | 12.9     | 0.0      | 46.8     | 20.3     | 17.7     | 17.2     |
| 2              | 14.3     | 8.8      | 12.3     | 0.0      | 31.4     | 18.9     | 15.1     | 22.3     |
| 3              | 11.5     | 17.3     | 12.5     | 0.0      | 24.9     | 21.2     | 13.2     | 14.8     |
| 4              | 10.9     | 13.6     | 14.0     | 0.0      | 44.3     | 21.1     | 23.2     | 14.1     |
| 5              | 0.0      | 10.7     | 14.5     | 0.0      | 49.1     | 22.7     | 18.9     | 13.7     |
| 6              | 11.8     | 13.4     | 12.5     | 0.0      | 44.4     | 20.0     | 19.4     | 11.5     |
| 7              | 10.1     | 14.8     | 16.2     | 13.2     | 42.9     | 15.4     | 27.8     | 20.1     |
| 8              | 14.3     | 17.5     | 18.8     | 0.0      | 0.0      | 21.0     | 15.2     | 17.1     |
| 9              | 12.3     | 17.4     | 18.8     | 0.0      | 0.0      | 22.9     | 12.0     | 12.8     |
| 10             | 18.1     | 11.9     | 18.8     | 16.4     | 0.0      | 23.6     | 7.4      | 10.2     |
| 11             | 16.0     | 13.8     | 18.8     | 28.4     | 0.0      | 23.5     | 0.0      | 13.4     |
| 12             | 13.8     | 14.3     | 0.0      | 16.9     | 0.0      | 22.1     | 3.2      | 14.9     |
| 13             | 16.8     | 16.2     | 9.2      | 19.2     | 0.2      | 21.1     | 29.3     | 16.4     |
| 14             | 13.6     | 15.3     | 22.5     | 13.1     | 20.7     | 21.0     | 19.4     | 17.6     |
| 15             | 12.1     | 16.6     | 22.0     | 10.9     | 32.3     | 22.3     | 26.9     | 22.1     |
| 16             | 15.0     | 14.4     | 43.3     | 17.8     | 28.3     | 23.0     | 38.8     | 18.9     |
| 17             | 22.0     | 12.8     | 39.7     | 19.4     | 1.5      | 21.3     | 26.6     | 16.4     |
| 18             | 19.8     | 12.4     | 32.7     | 19.2     | 0.0      | 20.0     | 12.8     | 14.3     |
| 19             | 16.9     | 14.6     | 39.3     | 10.5     | 0.0      | 18.1     | 14.7     | 16.9     |
| 20             | 23.9     | 20.7     | 37.9     | 6.9      | 0.0      | 7.5      | 15.7     | 15.0     |
| 21             | 20.2     | 0.0      | 15.8     | 12.3     | 0.0      | 17.4     | 15.3     | 13.7     |
| 22             | 29.1     | 15.7     | 13.1     | 12.9     | 0.0      | 17.9     | 17.8     | 18.3     |
| 23             | 0.0      | 14.9     | 9.7      | 9.6      | 16.4     | 16.6     | 0.0      | 23.9     |
| 24             | 37.6     | 13.1     | 13.6     | 11.3     | 26.0     | 13.2     | 0.0      | 29.7     |
| 25             | 41.4     | 12.8     | 14.1     | 20.3     | 27.6     | 8.4      | 0.0      | 23.5     |
| 26             | 17.6     | 13.6     | 14.1     | 14.5     | 19.5     | 7.3      | 0.0      | 24.8     |
| 27             | 0.0      | 12.7     | 14.1     | 22.3     | 15.2     | 7.4      | 0.0      | 21.1     |
| 28             | 0.0      | 11.8     | 14.1     | 21.7     | 20.8     | 14.3     | 20.3     | 17.7     |
| 29             | 10.5     | 13.2     | 0.0      | 25.1     | 18.6     | 14.7     | 19.5     | 15.6     |
| 30             | 9.1      | 15.3     | 0.0      | 27.6     | 19.9     | 16.9     | 16.0     | 14.7     |
| 31             | 8.8      | x        | 0.0      | x        | 19       | 18       | 17.7     | 16.1     |



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| Date published | 08/12/19 | 08/01/20 | 08/02/20 | 08/03/20 | 08/04/20 | 08/05/20 | 08/06/20 | 08/07/20 |
|----------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Date           | Nov-19   | Dec-19   | Jan-20   | Feb-20   | Mar-20   | Apr-20   | May-20   | June-20  |
| 1              | 14.5     | 21.2     | 5.9      | 37.1     | 18.4     | 15.3     | 13.4     | 15.2     |
| 2              | 13.3     | 33.2     | 5.4      | 0.0      | 18.4     | 22.2     | 15.2     | 0.0      |
| 3              | 15.2     | 36.6     | 0.0      | 0.0      | 43.4     | 27.2     | 14.6     | 0.0      |
| 4              | 17.4     | 46.8     | 0.0      | 14.0     | 27.8     | 21.3     | 20.1     | 0.0      |
| 5              | 18.8     | 39.0     | 0.0      | 21.0     | 48.1     | 20.5     | 17.1     | 0.0      |
| 6              | 17.4     | 24.9     | 0.0      | 0.0      | 33.6     | 20.1     | 17.2     | 0.0      |
| 7              | 15.2     | 26.4     | 0.0      | 0.0      | 23.5     | 20.9     | 17.9     | 0.0      |
| 8              | 20.6     | 29.3     | 0.0      | 0.0      | 20.5     | 22.2     | 19.7     | 0.0      |
| 9              | 21.3     | 47.4     | 0.0      | 0.0      | 22.4     | 26.6     | 18.6     | 0.0      |
| 10             | 16.9     | 46.6     | 0.0      | 16.0     | 16.2     | 24.4     | 17.6     | 0.0      |
| 11             | 24.5     | 17.0     | 0.0      | 19.5     | 10.8     | 30.4     | 13.6     | 0.0      |
| 12             | 22.7     | 19.3     | 0.0      | 16.1     | 10.8     | 27.2     | 15.7     | 0.0      |
| 13             | 22.7     | 21.9     | 0.0      | 11.0     | 30.6     | 22.5     | 16.6     | 0.0      |
| 14             | 31.4     | 15.9     | 0.0      | 13.8     | 32.3     | 20.9     | 17.3     | 0.0      |
| 15             | 30.0     | 15.7     | 0.0      | 16.8     | 22.3     | 21.8     | 18.8     | 0.0      |
| 16             | 22.6     | 15.0     | 0.0      | 23.7     | 17.5     | 17.5     | 15.2     | 0.0      |
| 17             | 22.6     | 17.0     | 0.0      | 33.4     | 16.5     | 14.6     | 13.4     | 0.0      |
| 18             | 19.5     | 36.4     | 0.0      | 15.4     | 23.5     | 17.1     | 15.7     | 0.0      |
| 19             | 21.5     | 21.4     | 0.0      | 17.8     | 28.9     | 28.2     | 21.6     | 17.7     |
| 20             | 18.2     | 19.3     | 0.0      | 21.4     | 19.6     | 28.1     | 18.3     | 24.2     |
| 21             | 22.4     | 32.7     | 0.0      | 16.2     | 15.7     | 31.8     | 17.2     | 18.5     |
| 22             | 25.6     | 21.6     | 0.0      | 15.0     | 13.5     | 25.3     | 13.4     | 22.2     |
| 23             | 35.9     | 24.9     | 0.0      | 15.3     | 13.6     | 17.8     | 19.2     | 22.6     |
| 24             | 17.5     | 26.9     | 0.0      | 18.9     | 15.6     | 15.7     | 21.4     | 22.8     |
| 25             | 25.4     | 0.0      | 0.0      | 22.7     | 18.4     | 18.5     | 17.8     | 20.1     |
| 26             | 26.6     | 32.6     | 0.0      | 18.2     | 13.6     | 21.8     | 18.4     | 21.2     |
| 27             | 22.2     | 33.4     | 0.0      | 18.4     | 19.7     | 39.7     | 17.3     | 21.8     |
| 28             | 33.4     | 28.5     | 0.0      | 18.4     | 19.8     | 27.3     | 23.3     | 15.0     |
| 29             | 27.1     | 36.6     | 0.0      | 18.4     | 18.4     | 23.5     | 17.6     | 18.4     |
| 30             | 21.0     | 40.1     | 0.0      | x        | 17.9     | 28.0     | 15.7     | 20.9     |
| 31             | x        | 49       | 0        | x        | 20       |          | 14.8     |          |



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| Date published | 08/08/20 | 08/09/20 | 08/10/20 | 08/11/20 | 08/12/20 | 08/01/21 | 08/02/21 | 08/03/21 |
|----------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Date           | July-20  | Aug-20   | Sep-20   | Oct-20   | Nov-20   | Dec-20   | Jan-21   | Feb-21   |
| 1              | 23.8     | 17.0     | 20.5     | 15.7     | 15.1     | 0.0      | 22.4     | 24.9     |
| 2              | 25.2     | 27.7     | 30.5     | 12.6     | 16.8     | 0.0      | 37.7     | 24.7     |
| 3              | 26.2     | 23.3     | 33.9     | 10.7     | 17.5     | 17.2     | 37.9     | 23.9     |
| 4              | 26.9     | 26.0     | 44.7     | 21.4     | 17.5     | 31.2     | 30.1     | 33.3     |
| 5              | 27.6     | 24.8     | 35.5     | 14.7     | 20.5     | 22.2     | 20.8     | 43.3     |
| 6              | 38.0     | 23.5     | 17.7     | 11.5     | 16.3     | 20.4     | 19.9     | 35.3     |
| 7              | 26.5     | 33.5     | 0.0      | 11.4     | 17.8     | 17.6     | 22.0     | 29.3     |
| 8              | 33.8     | 37.6     | 0.0      | 10.8     | 36.7     | 16.0     | 26.7     | 24.7     |
| 9              | 41.2     | 39.0     | 0.0      | 15.4     | 31.4     | 17.2     | 28.5     | 25.9     |
| 10             | 30.8     | 41.1     | 0.0      | 15.1     | 15.1     | 17.9     | 19.1     | 33.4     |
| 11             | 21.0     | 41.5     | 0.0      | 12.8     | 20.3     | 19.9     | 0.0      | 46.0     |
| 12             | 18.5     | 8.6      | 0.0      | 12.4     | 27.2     | 24.1     | 0.0      | 41.0     |
| 13             | 15.4     | 30.3     | 0.0      | 11.0     | 18.8     | 18.0     | 0.0      | 43.4     |
| 14             | 17.7     | 24.8     | 12.1     | 11.8     | 17.5     | 26.2     | 0.0      | 32.0     |
| 15             | 18.7     | 18.9     | 18.5     | 11.6     | 14.3     | 27.7     | 9.3      | 29.7     |
| 16             | 17.4     | 17.6     | 31.4     | 10.6     | 19.1     | 20.9     | 0.0      | 31.0     |
| 17             | 14.4     | 16.9     | 15.4     | 9.9      | 15.1     | 0.0      | 15.0     | 29.0     |
| 18             | 17.8     | 15.4     | 14.6     | 10.1     | 13.2     | 18.0     | 11.2     | 0.0      |
| 19             | 18.2     | 17.8     | 16.8     | 12.1     | 15.0     | 16.3     | 27.3     | 0.0      |
| 20             | 20.1     | 24.4     | 15.1     | 10.8     | 20.8     | 19.7     | 33.9     | 0.0      |
| 21             | 21.3     | 24.4     | 19.1     | 10.7     | 21.0     | 21.0     | 31.5     | 0.0      |
| 22             | 21.7     | 19.0     | 18.0     | 9.3      | 21.4     | 19.1     | 29.1     | 0.0      |
| 23             | 22.3     | 18.3     | 12.2     | 12.9     | 21.1     | 17.2     | 25.1     | 16.3     |
| 24             | 21.3     | 18.4     | 12.0     | 10.9     | 19.9     | 18.6     | 23.6     | 20.1     |
| 25             | 17.0     | 19.6     | 13.9     | 9.9      | 21.4     | 16.6     | 21.2     | 19.3     |
| 26             | 18.3     | 14.1     | 12.7     | 14.0     | 20.3     | 14.8     | 29.3     | 14.9     |
| 27             | 15.9     | 15.8     | 14.8     | 12.5     | 23.5     | 18.4     | 32.6     | 13.1     |
| 28             | 21.9     | 18.7     | 13.3     | 12.6     | 24.1     | 20.4     | 27.4     | 14.3     |
| 29             | 18.4     | 22.4     | 12.9     | 14.2     | 18.8     | 22.9     | 30.7     | x        |
| 30             | 16.6     | 23.1     | 13.9     | 15.2     | 0.0      | 20.9     | 38.8     | x        |
| 31             | 16.7     | 20.1     | x        | 14.9     | x        | 18       | 22.2     | x        |



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| Date published | 08/04/21 | 08/05/21 | 08/06/21 | 08/07/21 | 08/08/21 | 08/09/21 | 08/10/21 | 08/11/21 |
|----------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Date           | Mar-21   | Apr-21   | May-21   | Jun-21   | Jul-21   | Aug-21   | Sep-21   | Oct-21   |
| 1              | 14.2     | 26.6     | 28.9     | 35.6     | 24.9     | 14.0     | 19.7     | 13.4     |
| 2              | 14.9     | 27.2     | 26.2     | 28.3     | 26.5     | 12.7     | 11.7     | 12.1     |
| 3              | 14.6     | 27.4     | 22.0     | 30.5     | 29.3     | 16.0     | 18.1     | 13.0     |
| 4              | 15.9     | 23.4     | 28.5     | 0.0      | 28.1     | 21.5     | 13.9     | 13.0     |
| 5              | 22.3     | 25.4     | 25.9     | 0.0      | 27.6     | 8.5      | 12.5     | 16.9     |
| 6              | 19.8     | 43.3     | 43.3     | 0.0      | 27.0     | 9.2      | 0.0      | 12.3     |
| 7              | 19.9     | 24.3     | 23.5     | 0.0      | 18.6     | 8.9      | 0.0      | 11.1     |
| 8              | 24.7     | 22.9     | 20.9     | 0.0      | 24.8     | 10.5     | 0.0      | 10.7     |
| 9              | 27.6     | 27.2     | 26.3     | 0.0      | 27.4     | 10.8     | 0.0      | 11.5     |
| 10             | 24.4     | 21.4     | 26.0     | 0.0      | 29.5     | 11.1     | 8.8      | 11.9     |
| 11             | 11.6     | 22.0     | 30.7     | 0.0      | 24.8     | 14.6     | 13.6     | 11.6     |
| 12             | 0.0      | 23.3     | 48.9     | 19.2     | 21.0     | 0.0      | 17.9     | 16.4     |
| 13             | 0.0      | 19.1     | 22.1     | 16.2     | 28.0     | 11.4     | 0.0      | 18.7     |
| 14             | 0.0      | 21.8     | 22.4     | 17.1     | 27.6     | 12.4     | 0.0      | 31.3     |
| 15             | 0.0      | 25.2     | 19.3     | 17.4     | 29.8     | 14.9     | 12.7     | 37.6     |
| 16             | 0.0      | 23.3     | 20.1     | 16.2     | 26.4     | 10.6     | 17.3     | 29.8     |
| 17             | 0.0      | 22.9     | 24.6     | 0.0      | 33.0     | 12.3     | 16.8     | 14.0     |
| 18             | 0.0      | 0.0      | 27.4     | 9.7      | 27.4     | 11.9     | 25.7     | 11.0     |
| 19             | 0.0      | 22.7     | 32.2     | 0.0      | 25.7     | 11.3     | 27.9     | 13.3     |
| 20             | 0.0      | 24.7     | 26.6     | 14.5     | 20.7     | 12.8     | 38.6     | 12.5     |
| 21             | 0.0      | 34.3     | 36.6     | 13.3     | 28.8     | 14.5     | 36.9     | 11.1     |
| 22             | 0.0      | 18.5     | 38.5     | 16.4     | 32.3     | 13.4     | 20.3     | 9.9      |
| 23             | 0.0      | 24.6     | 44.9     | 12.8     | 25.7     | 15.8     | 13.8     | 7.7      |
| 24             | 0.0      | 17.4     | 31.8     | 0.0      | 25.9     | 16.9     | 11.5     | 6.3      |
| 25             | 0.0      | 18.0     | 35.3     | 15.1     | 27.6     | 11.3     | 11.3     | 0.0      |
| 26             | 0.0      | 25.7     | 35.9     | 17.2     | 31.6     | 16.0     | 12.4     | 7.8      |
| 27             | 0.0      | 28.0     | 29.2     | 18.5     | 28.6     | 0.0      | 11.5     | 6.1      |
| 28             | 0.0      | 29.5     | 28.4     | 16.6     | 31.6     | 0.0      | 7.2      | 5.9      |
| 29             | 21.2     | 31.2     | 34.7     | 19.2     | 24.5     | 0.0      | 10.8     | 9.2      |
| 30             | 19.3     | 30.3     | 34.3     | 22.2     | 11.3     | 17.5     | 12.7     | 0.0      |
| 31             | 25       | x        | 28.3     | x        | 12.9     | 19       | x        | 8        |



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| Date published | 08/12/21 | 08/01/22 | 08/02/22 | 08/03/22 | 08/04/22 | 08/05/22 | 08/06/22 | 08/07/22 |
|----------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Date           | Nov-21   | Dec-21   | Jan-22   | Feb-22   | Mar-22   | Apr-22   | May-22   | Jun-22   |
| 1              | 10.0     | 10.2     | 11.1     | 0.0      | 0.0      | 14.5     | 42.2     | 40.7     |
| 2              | 7.3      | 10.3     | 12.8     | 12.4     | 0.0      | 19.9     | 31.5     | 32.7     |
| 3              | 7.6      | 13.7     | 13.8     | 0.0      | 0.0      | 24.9     | 30.1     | 42.8     |
| 4              | 8.0      | 0.0      | 14.8     | 0.0      | 21.1     | 21.6     | 31.4     | 45.6     |
| 5              | 9.7      | 7.0      | 15.4     | 0.0      | 0.0      | 24.4     | 0.0      | 43.9     |
| 6              | 7.2      | 18.7     | 16.2     | 0.0      | 0.0      | 25.8     | 0.0      | 39.7     |
| 7              | 7.3      | 13.0     | 14.7     | 0.0      | 35.4     | 33.1     | 0.0      | 20.6     |
| 8              | 8.4      | 0.0      | 15.4     | 0.0      | 22.9     | 36.6     | 8.3      | 25.6     |
| 9              | 8.5      | 13.8     | 15.0     | 0.0      | 20.1     | 34.9     | 14.6     | 42.3     |
| 10             | 6.7      | 13.4     | 16.0     | 0.0      | 23.3     | 28.4     | 18.4     | 34.7     |
| 11             | 7.1      | 11.5     | 14.1     | 0.0      | 30.0     | 28.8     | 19.1     | 25.9     |
| 12             | 6.9      | 12.2     | 9.3      | 0.0      | 26.8     | 32.5     | 24.2     | 23.3     |
| 13             | 7.2      | 16.2     | 12.5     | 0.0      | 44.9     | 34.5     | 24.7     | 33.3     |
| 14             | 6.5      | 19.2     | 17.6     | 0.0      | 30.0     | 22.7     | 20.9     | 32.1     |
| 15             | 5.9      | 23.8     | 10.4     | 0.0      | 30.1     | 22.6     | 27.0     | 29.5     |
| 16             | 5.9      | 28.7     | 12.1     | 0.0      | 29.6     | 22.8     | 42.7     | 31.5     |
| 17             | 7.5      | 41.1     | 11.1     | 0.0      | 29.6     | 27.1     | 48.2     | 17.0     |
| 18             | 11.3     | 43.3     | 14.5     | 0.0      | 16.7     | 36.0     | 37.5     | 19.8     |
| 19             | 9.4      | 46.1     | 13.1     | 0.0      | 17.7     | 43.9     | 36.4     | 20.4     |
| 20             | 10.2     | 36.8     | 13.5     | 0.0      | 20.9     | 15.6     | 34.6     | 24.9     |
| 21             | 9.9      | 11.1     | 11.8     | 0.0      | 0.0      | 20.0     | 35.5     | 26.8     |
| 22             | 7.3      | 11.8     | 11.2     | 0.0      | 19.8     | 23.1     | 32.5     | 31.2     |
| 23             | 9.9      | 10.6     | 10.9     | 0.0      | 20.1     | 30.5     | 39.1     | 28.0     |
| 24             | 16.8     | 10.0     | 14.7     | 0.0      | 21.5     | 29.6     | 45.0     | 27.3     |
| 25             | 20.7     | 8.8      | 16.4     | 0.0      | 15.2     | 42.7     | 47.3     | 25.5     |
| 26             | 9.7      | 9.0      | 14.5     | 0.0      | 15.2     | 46.6     | 43.8     | 41.7     |
| 27             | 9.3      | 8.6      | 13.4     | 0.0      | 14.5     | 0.0      | 33.5     | 40.6     |
| 28             | 8.9      | 10.5     | 14.7     | 0.0      | 15.6     | 42.8     | 33.6     | 30.6     |
| 29             | 10.2     | 10.4     | 0.0      | x        | 0.0      | 39.3     | 40.1     | 28.8     |
| 30             | 9.9      | 8.5      | 0.0      | x        | 0.0      | 48.1     | 36.5     | 20.3     |
| 31             | x        | 10       | 0        | x        | 10       | x        | 47       | 40.7     |



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| <b>Date published</b> | 08/08/22      | 08/09/22      | 08/10/22      | 08/11/22      | 08/12/22      | 08/01/23      | 08/02/23      | 08/03/23      |
|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Date</b>           | <b>Jul-22</b> | <b>Aug-22</b> | <b>Sep-22</b> | <b>Oct-22</b> | <b>Nov-22</b> | <b>Dec-22</b> | <b>Jan-23</b> | <b>Feb-23</b> |
| 1                     | 19.2          | 35.3          | 37.3          | 39.8          | 43.0          | 44.6          | 32.1          | 0.0           |
| 2                     | 28.1          | 44.4          | 0.0           | 39.0          | 44.3          | 43.2          | 35.4          | 0.0           |
| 3                     | 21.1          | 47.0          | 0.0           | 32.8          | 36.3          | 42.9          | 32.3          | 44.6          |
| 4                     | 22.7          | 45.0          | 0.0           | 44.4          | 40.7          | 36.5          | 28.2          | 41.0          |
| 5                     | 24.2          | 44.1          | 0.0           | 35.6          | 39.9          | 20.6          | 22.3          | 32.5          |
| 6                     | 0.0           | 42.2          | 0.0           | 27.1          | 45.5          | 0.0           | 17.2          | 21.6          |
| 7                     | 33.5          | 23.5          | 0.0           | 23.0          | 41.0          | 40.2          | 19.0          | 22.8          |
| 8                     | 28.3          | 21.7          | 0.0           | 36.4          | 44.8          | 28.4          | 42.3          | 20.9          |
| 9                     | 24.4          | 24.3          | 0.0           | 32.6          | 37.3          | 26.3          | 38.1          | 27.2          |
| 10                    | 23.0          | 32.3          | 0.0           | 42.7          | 37.3          | 30.3          | 34.9          | 23.1          |
| 11                    | 26.8          | 27.6          | 0.0           | 44.4          | 41.3          | 39.0          | 21.9          | 21.6          |
| 12                    | 34.6          | 32.0          | 0.0           | 43.9          | 43.6          | 39.4          | 0.0           | 22.3          |
| 13                    | 34.3          | 42.4          | 40.4          | 44.8          | 47.3          | 31.9          | 0.0           | 26.3          |
| 14                    | 42.9          | 32.0          | 19.8          | 34.4          | 54.4          | 33.5          | 0.0           | 25.0          |
| 15                    | 24.0          | 32.8          | 21.0          | 42.5          | 45.5          | 40.7          | 0.0           | 25.8          |
| 16                    | 20.3          | 39.0          | 18.6          | 37.7          | 40.6          | 39.2          | 0.0           | 0.0           |
| 17                    | 20.6          | 38.4          | 18.3          | 38.7          | 41.7          | 34.9          | 0.0           | 32.8          |
| 18                    | 28.7          | 29.9          | 25.1          | 34.3          | 39.7          | 30.9          | 0.0           | 30.9          |
| 19                    | 30.4          | 29.7          | 26.5          | 29.0          | 45.0          | 38.8          | 0.0           | 28.2          |
| 20                    | 43.6          | 31.0          | 28.6          | 30.4          | 47.9          | 38.8          | 0.0           | 31.0          |
| 21                    | 43.9          | 38.3          | 32.5          | 37.2          | 47.7          | 38.6          | 0.0           | 27.7          |
| 22                    | 46.2          | 34.0          | 31.5          | 30.8          | 44.2          | 31.2          | 0.0           | 31.1          |
| 23                    | 40.2          | 31.6          | 28.6          | 29.0          | 39.3          | 29.1          | 0.0           | 0.0           |
| 24                    | 38.4          | 27.5          | 33.9          | 32.9          | 39.9          | 30.9          | 0.0           | 23.4          |
| 25                    | 33.7          | 25.5          | 37.0          | 42.5          | 38.1          | 32.3          | 0.0           | 27.5          |
| 26                    | 45.2          | 23.1          | 41.8          | 43.6          | 41.3          | 34.9          | 0.0           | 27.2          |
| 27                    | 42.1          | 21.1          | 44.7          | 39.0          | 42.6          | 41.6          | 0.0           | 24.3          |
| 28                    | 36.7          | 23.4          | 39.8          | 42.6          | 45.8          | 32.6          | 0.0           | 24.5          |
| 29                    | 42.1          | 29.6          | 34.9          | 46.6          | 46.6          | 36.0          | 0.0           | x             |
| 30                    | 37.5          | 40.7          | 30.7          | 45.1          | 40.3          | 27.8          | 0.0           | x             |
| 31                    | 36            | 42            | x             | 46.2          | x             | 30            | 0.0           | x             |





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|----------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Date           | Mar-23   | Apr-23   | May-23   | Jun-23   | Jul-23   | Aug-23   | Sep-23   | Oct-23   |
| 1              | 24.3     | 36.1     | 29.4     | 41.7     | 36.2     | 39.0     | 21.8     | 32.1     |
| 2              | 27.3     | 39.7     | 0.0      | 30.9     | 29.1     | 39.6     | 28.6     | 40.2     |
| 3              | 24.0     | 20.5     | 0.0      | 39.2     | 27.8     | 0.0      | 34.0     | 47.9     |
| 4              | 25.2     | 30.6     | 0.0      | 38.6     | 28.1     | 39.5     | 42.8     | 34.2     |
| 5              | 24.3     | 40.1     | 17.0     | 41.6     | 26.8     | 37.1     | 40.4     | 42.2     |
| 6              | 25.8     | 0.0      | 19.9     | 43.9     | 32.8     | 29.8     | 41.2     | 42.3     |
| 7              | 26.0     | 0.0      | 19.0     | 0.0      | 36.8     | 33.7     | 32.8     | 38.7     |
| 8              | 39.7     | 0.0      | 30.7     | 42.3     | 35.7     | 45.0     | 46.4     | 38.6     |
| 9              | 35.9     | 0.0      | 29.8     | 37.9     | 47.8     | 39.8     | 39.7     | 42.3     |
| 10             | 37.2     | 0.0      | 0.0      | 40.6     | 51.5     | 37.0     | 42.1     | 33.9     |
| 11             | 34.7     | 0.0      | 0.0      | 47.6     | 41.4     | 36.0     | 39.9     | 46.9     |
| 12             | 38.9     | 0.0      | 0.0      | 36.3     | 75.5     | 39.8     | 39.1     | 41.7     |
| 13             | 44.3     | 0.0      | 0.0      | 34.9     | 63.7     | 48.4     | 34.0     | 40.6     |
| 14             | 47.7     | 0.0      | 0.0      | 33.8     | 42.8     | 46.2     | 37.3     | 44.5     |
| 15             | 41.9     | 0.0      | 37.4     | 20.7     | 40.0     | 45.7     | 36.5     | 45.6     |
| 16             | 34.4     | 0.0      | 23.6     | 17.4     | 37.0     | 0.0      | 44.0     | 41.9     |
| 17             | 28.3     | 27.4     | 36.6     | 31.8     | 47.1     | 0.0      | 44.2     | 44.2     |
| 18             | 28.2     | 23.3     | 33.3     | 34.2     | 43.9     | 0.0      | 38.4     | 25.9     |
| 19             | 29.9     | 23.3     | 30.6     | 38.8     | 35.0     | 0.0      | 41.4     | 36.3     |
| 20             | 27.9     | 17.3     | 36.2     | 45.4     | 42.8     | 0.0      | 46.1     | 40.0     |
| 21             | 20.9     | 23.9     | 37.2     | 0.0      | 41.9     | 0.0      | 41.8     | 43.6     |
| 22             | 26.7     | 24.4     | 33.5     | 0.0      | 43.6     | 0.0      | 36.7     | 42.6     |
| 23             | 26.2     | 24.9     | 32.6     | 0.0      | 40.3     | 0.0      | 34.2     | 43.5     |
| 24             | 31.1     | 30.1     | 32.1     | 0.0      | 40.2     | 0.0      | 31.4     | 45.9     |
| 25             | 36.1     | 29.3     | 37.2     | 0.0      | 45.6     | 27.5     | 37.8     | 42.9     |
| 26             | 31.1     | 28.0     | 43.9     | 0.0      | 45.2     | 39.1     | 28.5     | 37.2     |
| 27             | 30.5     | 25.7     | 28.0     | 0.0      | 40.6     | 0.0      | 28.8     | 46.0     |
| 28             | 33.3     | 32.6     | 32.2     | 0.0      | 42.4     | 0.0      | 33.6     | 45.2     |
| 29             | 34.8     | 25.6     | 34.4     | 0.0      | 46.3     | 32.8     | 47.0     | 38.7     |
| 30             | 36.9     | 25.9     | 36.4     | 0.0      | 32.5     | 34.1     | 41.8     | 43.7     |
| 31             | 47       | x        | 34.4     | x        | 46.2     | 20       | x        | 43       |



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| Date published | 08/12/23 | 08/01/24 | 08/02/24 | 08/03/24 | 08/04/24 |  |  |  |
|----------------|----------|----------|----------|----------|----------|--|--|--|
| Date           | Nov-23   | Dec-23   | Jan-24   | Feb-24   | Mar-24   |  |  |  |
| 1              | 42.9     | 40.1     | 34.2     | 0.0      | 37.9     |  |  |  |
| 2              | 44.0     | 43.0     | 40.4     | 0.0      | 32.4     |  |  |  |
| 3              | 35.2     | 47.3     | 35.9     | 0.0      | 24.6     |  |  |  |
| 4              | 42.6     | 39.4     | 37.5     | 0.0      | 21.0     |  |  |  |
| 5              | 43.8     | 43.1     | 25.4     | 32.8     | 20.9     |  |  |  |
| 6              | 35.3     | 38.9     | 26.6     | 31.0     | 25.5     |  |  |  |
| 7              | 0.0      | 39.9     | 32.2     | 0.0      | 41.0     |  |  |  |
| 8              | 23.1     | 0.0      | 33.4     | 38.1     | 31.0     |  |  |  |
| 9              | 30.5     | 42.0     | 27.1     | 36.0     | 27.4     |  |  |  |
| 10             | 42.3     | 37.5     | 0.0      | 34.2     | 33.0     |  |  |  |
| 11             | 38.5     | 38.8     | 0.0      | 38.3     | 39.4     |  |  |  |
| 12             | 36.8     | 45.4     | 0.0      | 37.5     | 35.5     |  |  |  |
| 13             | 43.0     | 43.9     | 0.0      | 43.6     | 42.0     |  |  |  |
| 14             | 0.0      | 43.1     | 0.0      | 39.1     | 33.1     |  |  |  |
| 15             | 0.0      | 46.5     | 0.0      | 37.9     | 36.0     |  |  |  |
| 16             | 0.0      | 46.2     | 0.0      | 25.2     | 39.0     |  |  |  |
| 17             | 0.3      | 37.1     | 0.0      | 27.7     | 36.1     |  |  |  |
| 18             | 42.2     | 0.0      | 0.0      | 32.3     | 34.5     |  |  |  |
| 19             | 39.1     | 0.0      | 0.0      | 41.1     | 38.2     |  |  |  |
| 20             | 44.0     | 0.0      | 0.0      | 34.1     | 41.5     |  |  |  |
| 21             | 32.2     | 0.0      | 0.0      | 30.6     | 40.6     |  |  |  |
| 22             | 0.0      | 44.3     | 0.0      | 37.7     | 37.9     |  |  |  |
| 23             | 0.0      | 37.7     | 0.0      | 44.1     | 41.0     |  |  |  |
| 24             | 0.0      | 41.0     | 0.0      | 42.2     | 39.3     |  |  |  |
| 25             | 0.0      | 43.2     | 0.0      | 43.2     | 34.1     |  |  |  |
| 26             | 23.9     | 41.6     | 0.0      | 36.1     | 44.9     |  |  |  |
| 27             | 36.2     | 37.3     | 0.1      | 32.9     | 46.6     |  |  |  |
| 28             | 43.5     | 34.5     | 0.0      | 34.2     | 41.0     |  |  |  |
| 29             | 46.9     | 39.2     | 0.0      | 38.7     | 40.7     |  |  |  |
| 30             | 39.9     | 30.6     | 0.0      | x        | 41.8     |  |  |  |
| 31             | x        | 35       | 0        | x        | 47       |  |  |  |

**Compliance Summary:** The cement plant is compliant with the Licence limits

**Note:** "0" emissions means that the kiln is not operating.



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## 1.2 Annual Stack Monitoring

2023-24: Date of stack testing: 12/09/2023 - 15/09/2023;  
 Report received: 07/01/2024;  
 Date published: 08/01/2024

| Assessable Parameter<br>(milligrams per cubic metre)                       | Licence Limit | 2023-24 |
|--|---------------|---------|
| <b>Emission Source: Cement Mill No 6 Stack (EPA Identification No. 4)</b>  |               |         |
| Solid Particles 'Duct A'   | 100           | 6.6     |
| Solid Particles 'Duct B'   | 100           | 18      |
| <b>Emission Source: Kiln No 6 Cooler Stack (EPA Identification No. 5)</b>  |               |         |
| Solid Particles  | 100           | 1.7     |
| <b>Emission Source: Cement Mill No 7 Stack (EPA Identification No. 10)</b> |               |         |
| Solid Particles  | 20            | 14      |

### Emission Source: Kiln No 6 Stack (EPA Identification No.2)

2023-24: Date of stack testing: 12/10/2023 - 13/10/2023;  
 Report received: 07/01/2024;  
 Date published: 08/01/2024

| Assessable Parameter<br>(mg/m <sup>3</sup> )                  | Units | Licence Limit | Oct 2023 |
|---|-------|---------------|----------|
| Mercury   | mg/m3 | 0.05          | 0.02     |
| Type 1 +2 substances  | mg/m3 | 0.5           | <0.054   |
| Solid Particles   | mg/m3 | 50            | 42       |
| Nitrogen Oxides   | mg/m3 | 1250          | 1100     |
| Cadmium + Thalium   | mg/m3 | 0.05          | 0.003    |
| Chlorine  | mg/m3 | 50            | 0.33     |
| Dioxins and furans (I-TEQ middle bound)                       | ng/m3 | 0.1           | 0.0027   |
| Hydrogen chloride   | mg/m3 | 10            | 0.19     |
| Hydrogen Fluoride   | mg/m3 | 1             | 0.083    |
| Sulphur dioxide   | mg/m3 | 50            | 0.057    |
| Sulfuric acid mist and sulphur trioxide (as SO <sub>3</sub> ) | mg/m3 | 50            | 0.06     |
| Volatile Organic Compounds                                    | mg/m3 | 40            | 2.6      |

**Compliance summary:** The cement plant is compliant with the Licence limits.

## 2. Ambient air/dust monitoring

### 2.1 Dust Deposition Gauges: Total Insoluble Matter (grams per square metre per month)

This test measures the levels of the coarse dust (generated mostly from unsealed roads, raw material handling, open stockpiles, etc.). It is a measure of dust *nuisance* (dust on cars, washing, window panes) in the immediate vicinity of the source, as the heavy dust settles quickly and doesn't travel far. It is not an indication of potential health problems as it doesn't penetrate into the respiratory system due to a large size of dust particles.

**Licence limit:** Not specified.

The NSW State guideline of 4 g/m<sup>2</sup>/month (presented as 12-month rolling average) was adopted.

**Note:** Dust Gauges 4 and 6 were removed, and Dust Gauges 5 and 7 relocated closer to the boundary in December 2012.

|  | Dust Deposition Gauges<br>(grams per square metre per month as 12-month rolling average) |     |     |     |     |     |     |
|--|--|-----|-----|-----|-----|-----|-----|
|  | 1  | 2   | 3   | 5   | 7   | 8   | 9   |
| <b>April 2018</b><br>Report received: 18/04/18<br>Date published: 08/05/18     | 0.7  | 0.7 | 2.4 | 1.2 | 0.5 | 1.7 | 1.4 |
| <b>May 2018</b><br>Report received: 15/05/18<br>Date published: 08/06/18       | 0.7  | 0.8 | 2.5 | 1.2 | 0.5 | 1.7 | 1.5 |
| <b>June 2018</b><br>Report received: 15/06/18<br>Date published: 08/07/18      | 0.7  | 0.7 | 2.4 | 1.4 | 0.4 | 1.3 | 1.5 |
| <b>July 2018</b><br>Report received: 17/07/18<br>Date published: 08/08/18      | 0.7  | 0.6 | 2.5 | 1.4 | 0.4 | 1.3 | 1.5 |
| <b>August 2018</b><br>Report received: 20/08/18<br>Date published: 08/09/18    | 0.7  | 0.6 | 2.8 | 1.3 | 0.4 | 1.3 | 1.5 |
| <b>September 2018</b><br>Report received: 10/09/18<br>Date published: 08/10/18 | 0.7  | 0.6 | 3.2 | 1.5 | 0.4 | 1.3 | 1.6 |
| <b>October 2018</b><br>Report received: 23/10/18<br>Date published: 08/11/18   | 0.7  | 0.7 | 3.1 | 1.6 | 0.6 | 1.3 | 1.7 |
| <b>November 2018</b><br>Report received: 21/11/18<br>Date published: 08/12/18  | 0.7  | 0.6 | 3.2 | 1.5 | 0.4 | 0.8 | 1.6 |
| <b>December 2018</b><br>Report received: 20/12/18<br>Date published: 08/01/19  | 0.8  | 0.6 | 3.3 | 1.6 | 0.4 | 0.8 | 1.7 |
| <b>January 2019</b><br>Report received: 20/01/19<br>Date published: 08/02/19   | 0.9  | 0.9 | 3.8 | 1.7 | 0.6 | 0.7 | 1.9 |
| <b>February 2019</b><br>Report received: 19/02/19                              | 1.0  | 0.9 | 3.9 | 1.6 | 0.7 | 0.7 | 1.9 |



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|  | <b>Dust Deposition Gauges</b><br>(grams per square metre per month as 12-month rolling average) |          |          |          |          |          |          |
|--|---|----------|----------|----------|----------|----------|----------|
|  | <b>1</b>  | <b>2</b> | <b>3</b> | <b>5</b> | <b>7</b> | <b>8</b> | <b>9</b> |
| Date published: 08/03/19   |   |          |          |          |          |          |          |
| <b>March 2019</b><br>Report received: 29/3/19<br>Date published: 08/04/19  | 1.0   | 1.0      | 3.7      | 1.6      | 0.7      | 0.8      | 1.9      |
| <b>April 2019</b><br>Report received: 29/4/19<br>Date published: 08/05/19  | 1.1   | 1.0      | 3.8      | 1.9      | 0.8      | 0.9      | 2.1      |
| <b>May 2019</b><br>Report received: 16/5/19<br>Date published: 08/06/19    | 1.0   | 1.0      | 3.9      | 1.9      | 0.8      | 0.9      | 2.1      |
| <b>June 2019</b><br>Report received: 20/6/19<br>Date published: 08/07/19   | 1.0   | 1.0      | 3.9      | 1.9      | 0.8      | 0.9      | 2.1      |
| <b>July 2019</b><br>Report received: 19/7/19<br>Date published: 08/08/19   | 1.1   | 1.0      | 4.0      | 2.1      | 0.8      | 1.1      | 2.2      |
| <b>Aug 2019</b><br>Report received: 19/8/19<br>Date published: 08/09/19    | 1.1   | 1.0      | 3.6      | 2.1      | 0.8      | 1.1      | 2.1      |
| <b>Sep 2019</b><br>Report received: 17/9/19<br>Date published: 08/10/19    | 1.1   | 1.0      | 3.3      | 2.1      | 0.8      | 1.2      | 2.2      |
| <b>Oct 2019</b><br>Report received: 21/10/19<br>Date published: 08/11/19   | 1.2   | 1.1      | 3.7      | 2.2      | 0.8      | 1.2      | 2.2      |
| <b>Nov 2019</b><br>Report received: 21/11/19<br>Date published: 08/12/19   | 1.2   | 1.1      | 3.4      | 2.1      | 0.8      | 1.2      | 2.0      |
| <b>Dec 2019</b><br>Report received: 18/12/19<br>Date published: 08/01/20   | 1.2   | 1.0      | 3.2      | 1.9      | 0.7      | 1.2      | 2.0      |
| <b>Jan 2020</b><br>Report received: 18/12/19<br>Date published: 08/01/20   | 1.0   | 1.3      | 2.8      | 1.7      | 0.7      | 1.3      | 2.2      |
| <b>Feb 2020</b><br>Report received: 14/02/20<br>Date published: 08/03/20   | 1.2   | 1.7      | 2.6      | 1.9      | 0.8      | 1.6      | 2.6      |
| <b>March 2020</b><br>Report received: 13/03/20<br>Date published: 08/04/20 | 1.3   | 1.7      | 2.9      | 2.1      | 0.9      | 1.7      | 2.7      |
| <b>April 2020</b><br>Report received: 17/04/20<br>Date published: 08/05/20 | 1.2   | 1.7      | 2.9      | 2.0      | 0.8      | 1.6      | 2.5      |
| <b>May 2020</b><br>Report received: 17/05/20<br>Date published: 08/06/20   | 1.2   | 1.7      | 2.9      | 2.0      | 0.9      | 1.7      | 2.5      |
| <b>June 2020</b><br>Report received: 16/06/20<br>Date published: 08/07/20  | 1.2   | 1.6      | 3.1      | 1.9      | 0.8      | 1.7      | 2.5      |
| <b>July 2020</b><br>Report received: 16/06/20                              | 1.2   | 1.6      | 2.9      | 1.7      | 0.8      | 1.6      | 2.4      |



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|  | <b>Dust Deposition Gauges</b><br>(grams per square metre per month as 12-month rolling average) |          |          |          |          |          |          |
|--|---|----------|----------|----------|----------|----------|----------|
|  | <b>1</b>  | <b>2</b> | <b>3</b> | <b>5</b> | <b>7</b> | <b>8</b> | <b>9</b> |
| Date published: 08/08/20   |   |          |          |          |          |          |          |
| <b>August 2020</b><br>Report received: 16/06/20<br>Date published: 08/09/20    | 1.2   | 1.7      | 3.5      | 1.9      | 0.9      | 1.7      | 2.5      |
| <b>September 2020</b><br>Report received: 18/09/20<br>Date published: 08/10/20 | 1.2   | 1.6      | 3.3      | 1.9      | 0.9      | 1.6      | 2.4      |
| <b>October 2020</b><br>Report received: 13/10/20<br>Date published: 08/11/20   | 1.1   | 1.6      | 2.9      | 1.7      | 0.9      | 1.5      | 2.2      |
| <b>November 2020</b><br>Report received: 13/11/20<br>Date published: 08/12/20  | 1.1   | 1.5      | 3.1      | 1.8      | 1.0      | 1.6      | 2.2      |
| <b>November 2020</b><br>Report received: 16/12/20<br>Date published: 08/01/21  | 1.0   | 1.5      | 3.3      | 1.9      | 1.0      | 1.6      | 2.1      |
| <b>December 2020</b><br>Report received: 16/01/21<br>Date published: 08/02/21  | 1.0   | 1.1      | 3.3      | 1.8      | 0.9      | 1.5      | 1.7      |
| <b>January 2021</b><br>Report received: 16/02/21<br>Date published: 08/03/21   | 0.8   | 0.7      | 3.1      | 1.8      | 0.8      | 1.2      | 1.2      |
| <b>February 2021</b><br>Report received: 12/03/21<br>Date published: 08/04/21  | 0.6   | 0.6      | 3.1      | 1.8      | 0.8      | 1.0      | 1.2      |
| <b>March 2021</b><br>Report received: 16/04/21<br>Date published: 08/05/21     | 0.6   | 0.6      | 3.0      | 1.6      | 0.9      | 1.0      | 1.1      |
| <b>April 2021</b><br>Report received: 12/05/21<br>Date published: 08/06/21     | 0.6   | 0.6      | 3.0      | 1.6      | 0.8      | 1.0      | 1.1      |
| <b>May 2021</b><br>Report received: 16/06/21<br>Date published: 08/07/21       | 0.6   | 0.6      | 2.8      | 1.7      | 0.9      | 0.9      | 1.1      |
| <b>June 2021</b><br>Report received: 14/07/21<br>Date published: 08/08/21      | 0.6   | 0.6      | 2.8      | 1.9      | 0.9      | 0.9      | 1.1      |
| <b>July 2021</b><br>Report received: 17/08/21<br>Date published: 08/09/21      | 0.5   | 0.6      | 2.3      | 1.7      | 0.8      | 0.8      | 1.0      |
| <b>August 2021</b><br>Report received: 13/09/21<br>Date published: 08/10/21    | 0.5   | 0.6      | 2.6      | 1.8      | 0.8      | 0.8      | 1.1      |
| <b>September 2021</b><br>Report received: 16/10/21<br>Date published: 08/11/21 | 0.5   | 0.6      | 2.6      | 1.9      | 0.8      | 0.8      | 1.1      |
| <b>October 2021</b><br>Report received: 18/11/21<br>Date published: 08/12/21   | 0.5   | 0.6      | 2.5      | 1.8      | 0.8      | 0.7      | 1.1      |
| <b>November 2021</b><br>Report received: 23/12/21                              | 0.5   | 0.5      | 2.8      | 1.8      | 0.8      | 0.7      | 1.2      |



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|  | Dust Deposition Gauges<br>(grams per square metre per month as 12-month rolling average) |     |     |     |     |     |     |
|--|--|-----|-----|-----|-----|-----|-----|
|  | 1  | 2   | 3   | 5   | 7   | 8   | 9   |
| Date published: 08/01/22   |  |     |     |     |     |     |     |
| <b>December 2021</b><br>Report received: 21/01/22<br>Date published: 08/02/22  | 0.5  | 0.6 | 2.8 | 2.4 | 0.8 | 0.8 | 1.2 |
| <b>January 2022</b><br>Report received: 21/02/22<br>Date published: 08/03/22   | 0.5  | 0.5 | 2.8 | 2.3 | 0.8 | 0.7 | 1.1 |
| <b>February 2022</b><br>Report received: 05/04/22<br>Date published: 08/04/22  | 0.5  | 0.6 | 2.6 | 2.1 | 0.6 | 0.7 | 0.9 |
| <b>March 2022</b><br>Report received: 21/04/22<br>Date published: 08/05/22     | 0.5  | 0.6 | 2.5 | 2.1 | 0.5 | 0.7 | 1.1 |
| <b>April 2022</b><br>Report received: 19/05/22<br>Date published: 08/06/22     | 0.5  | 0.6 | 2.5 | 2.1 | 0.5 | 0.6 | 1.1 |
| <b>May 2022</b><br>Report received: 29/06/22<br>Date published: 08/07/22       | 0.5  | 0.7 | 2.5 | 1.9 | 0.5 | 0.7 | 1.1 |
| <b>June 2022</b><br>Report received: 20/07/22<br>Date published: 08/08/22      | 0.6  | 0.7 | 2.7 | 1.7 | 0.6 | 0.6 | 1.3 |
| <b>July 2022</b><br>Report received: 16/08/22<br>Date published: 08/09/22      | 0.6  | 0.8 | 2.7 | 1.6 | 0.6 | 0.6 | 1.3 |
| <b>August 2022</b><br>Report received: 15/09/22<br>Date published: 08/10/22    | 0.6  | 0.8 | 2.6 | 1.4 | 0.5 | 0.6 | 1.4 |
| <b>September 2022</b><br>Report received: 18/10/22<br>Date published: 08/11/22 | 0.7  | 1.0 | 3.1 | 1.4 | 0.6 | 0.6 | 1.4 |
| <b>October 2022</b><br>Report received: 16/11/22<br>Date published: 08/12/22   | 0.7  | 1.2 | 3.2 | 1.6 | 0.7 | 0.6 | 1.4 |
| <b>November 2022</b><br>Report received: 21/12/22<br>Date published: 08/01/23  | 0.8  | 1.2 | 2.9 | 1.5 | 0.8 | 0.6 | 1.4 |
| <b>December 2022</b><br>Report received: 19/01/23<br>Date published: 08/02/23  | 0.9  | 1.0 | 2.9 | 1.2 | 0.8 | 0.6 | 1.5 |
| <b>January 2023</b><br>Report received: 15/02/23<br>Date published: 08/03/23   | 0.9  | 1.0 | 3.0 | 1.3 | 0.8 | 0.6 | 1.5 |
| <b>February 2023</b><br>Report received: 20/03/23<br>Date published: 08/04/23  | 1.0  | 1.0 | 3.1 | 1.4 | 0.9 | 0.6 | 1.6 |
| <b>March 2023</b><br>Report received: 19/04/23<br>Date published: 08/05/23     | 1.0  | 1.0 | 3.4 | 1.4 | 1.0 | 0.6 | 1.5 |
| <b>April 2023</b><br>Report received: 18/05/23                                 | 1.1  | 1.0 | 3.5 | 1.4 | 1.0 | 0.6 | 1.5 |



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|  | Dust Deposition Gauges<br>(grams per square metre per month as 12-month rolling average) |     |     |     |     |     |     |
|--|--|-----|-----|-----|-----|-----|-----|
|  | 1  | 2   | 3   | 5   | 7   | 8   | 9   |
| Date published: 08/06/23   |  |     |     |     |     |     |     |
| <b>May 2023</b><br>Report received: 21/06/23<br>Date published: 08/07/23       | 1.1  | 1.0 | 3.5 | 1.5 | 1.0 | 0.6 | 1.5 |
| <b>June 2023</b><br>Report received: 21/07/23<br>Date published: 08/08/23      | 1.1  | 1.0 | 3.6 | 1.5 | 1.0 | 0.6 | 1.3 |
| <b>July 2023</b><br>Report received: 22/08/23<br>Date published: 08/09/23      | 1.4  | 1.0 | 3.6 | 1.5 | 1.0 | 0.6 | 1.2 |
| <b>August 2023</b><br>Report received: 20/09/23<br>Date published: 08/10/23    | 1.9  | 1.0 | 3.8 | 1.6 | 1.1 | 0.6 | 1.2 |
| <b>September 2023</b><br>Report received: 20/10/23<br>Date published: 08/11/23 | 1.9  | 1.0 | 3.5 | 1.6 | 1.2 | 0.6 | 1.1 |
| <b>October 2023</b><br>Report received: 20/11/23<br>Date published: 08/12/23   | 1.9  | 1.0 | 3.7 | 1.4 | 1.1 | 0.6 | 1.2 |
| <b>November 2023</b><br>Report received: 20/12/23<br>Date published: 08/01/24  | 2.0  | 1.0 | 3.6 | 1.4 | 1.1 | 0.6 | 1.2 |
| <b>December 2023</b><br>Report received: 18/01/24<br>Date published: 08/02/24  | 1.9  | 1.0 | 3.5 | 1.3 | 1.1 | 0.6 | 0.9 |
| <b>January 2024</b><br>Report received: 20/02/24<br>Date published: 08/03/24   | 1.9  | 1.0 | 3.5 | 1.2 | 1.1 | 0.6 | 0.9 |
| <b>February 2024</b><br>Report received: 18/03/24<br>Date published: 08/04/24  | 2.0  | 1.0 | 3.5 | 1.1 | 1.1 | 0.6 | 0.9 |

**Compliance Summary:** The cement plant is compliant with the adopted State guideline value.

## 2.2 High Volume Air Sampling: Total Suspended Particulates (TSP) and PM<sub>10</sub>

This test measures the levels of the fine dust suspended in the air (generated mostly from stack emissions). It is a measure of potential *health effects* (irritation of the respiratory track) as the small particles can penetrate into the airways and the lungs. Fine dust can persist in the atmosphere for days or even months before it settles and can travel some distance.

**Licence limits:** Not specified. Samples are collected every 6 days. Occasionally equipment failure or weather can impact sampling. Where reasonably practicable additional samples are collected to make up any missed samples are per the sites Air Quality Management Plan.

The following guideline values were adopted:

- TSP: 90 micrograms per cubic metre (annual rolling average) - NSW State guideline
- PM<sub>10</sub>: 50 micrograms per cubic metre (daily average)





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| Sampling Date | Report received | Date published | Parameter (micrograms per cubic metre) |                                  |
|---------------|-----------------|----------------|--|----------------------------------|
|               |                 |                | TSP (annual rolling average)           | PM <sub>10</sub> (24-hr average) |
| 20/03/18      |                 |                | 62.9                                   | 18.8                             |
| 26/03/18      |                 |                | 63.4                                   | 14.1                             |
| 01/04/18      | 10/05/18        | 08/06/17       | 64.4                                   | 29.8                             |
| 07/04/18      |                 |                | 65.1                                   | 23.3                             |
| 13/04/18      |                 |                | 68.0                                   | 62.4                             |
| 19/04/18      |                 |                | 68.5                                   | 24.6                             |
| 25/04/18      |                 |                | 69.1                                   | 31.4                             |
| 01/05/18      | 15/06/18        | 08/07/18       | 69.0                                   | 6.6                              |
| 07/05/18      |                 |                | 70.0                                   | 20.4                             |
| 13/05/18      |                 |                | 70.4                                   | 4.2                              |
| 19/05/18      |                 |                | 70.2                                   | 5.5                              |
| 25/05/18      |                 |                | 70.2                                   | 7.3                              |
| 31/05/18      |                 |                | 68.9                                   | 16.4                             |
| 18/06/18      | 24/07/18        | 08/08/18       | 67.6                                   | 3.2                              |
| 24/06/18      |                 |                | 67.2                                   | 8.4                              |
| 30/06/18      |                 |                | 67.3                                   | 4.0                              |
| 06/07/18      | 13/08/18        | 08/09/18       | 68.9                                   | 40.8                             |
| 12/07/18      |                 |                | 69.2                                   | 8.1                              |
| 18/07/18      |                 |                | 69.7                                   | 34.7                             |
| 24/07/18      |                 |                | 68.6                                   | 34.6                             |
| 30/07/18      |                 |                | 67.9                                   | 7.3                              |
| 05/08/18      | 13/09/18        | 08/10/18       | 68.0                                   | 8                                |
| 11/08/18      |                 |                | 66.9                                   | 45.8                             |
| 17/08/18      |                 |                | 66.8                                   | 7.9                              |
| 23/08/18      |                 |                | 65.2                                   | 15.3                             |
| 29/08/18      |                 |                | 64.0                                   | 7.5                              |
| 04/10/18      | 24/10/18        | 08/11/18       | 60.9                                   | 2.2                              |
| 10/10/18      |                 |                | 60.3                                   | 6.4                              |
| 16/10/18      |                 |                | 60.4                                   | 7.4                              |
| 22/10/18      |                 |                | 60.0                                   | 17.2                             |
| 28/10/18      |                 |                | 60.5                                   | 40.6                             |
| 4/10/18       | 15/11/18        | 08/12/18       | 56.6                                   | 3.7                              |
| 10/10/18      |                 |                | 55.8                                   | 5.0                              |
| 22/10/18      |                 |                | 54.9                                   | 11.8                             |
| 28/10/18      |                 |                | 53.7                                   | 9.2                              |
| 3/11/18       | 20/12/18        | 08/01/19       | 53.5                                   | 30.1                             |
| 9/11/18       |                 |                | 53.4                                   | 11.5                             |
| 15/11/18      |                 |                | 53.4                                   | 7.2                              |
| 27/11/18      |                 |                | 53.5                                   | 13.6                             |
| 03/12/18      | 21/01/19        | 08/02/19       | 54.1                                   | 26.5                             |
| 09/12/18      |                 |                | 55.0                                   | 31.8                             |
| 15/12/18      |                 |                | 56.3                                   | 57.3                             |
| 21/12/18      |                 |                | 56.5                                   | 7.4                              |
| 27/12/18      |                 |                | 57.7                                   | 42.8                             |
| 02/01/19      | 13/02/19        | 08/03/19       | 57.3                                   | 18.9                             |
| 08/01/19      |                 |                | 56.6                                   | 9.8                              |
| 14/01/19      |                 |                | 55.0                                   | 15.2                             |
| 20/01/19      |                 |                | 52.1                                   | 7.4                              |
| 26/01/19      |                 |                | 52.9                                   | 32.6                             |



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| Sampling Date | Report received | Date published | Parameter (micrograms per cubic metre) |                                     |
|---------------|-----------------|----------------|--|-------------------------------------|
|               |                 |                | TSP<br>(annual rolling average)        | PM <sub>10</sub><br>(24-hr average) |
| 01/02/19      | 14/03/19        | 08/04/19       | 52.5                                   | 0.6                                 |
| 07/02/19      |                 |                | 50.5                                   | 0.1                                 |
| 13/02/19      |                 |                | 50.8                                   | 14.1                                |
| 19/02/19      |                 |                | 47.1                                   | 18.5                                |
| 25/02/19      |                 |                | 46.6                                   | 10.7                                |
| 3/03/19       | 15/04/19        | 08/05/19       | 46.6                                   | 6.9                                 |
| 9/03/19       |                 |                | 47.7                                   | 21                                  |
| 15/03/19      |                 |                | 47.5                                   | 8.4                                 |
| 21/03/19      |                 |                | 47.3                                   | 6.6                                 |
| 27/03/19      |                 |                | 47.4                                   | 8.8                                 |
| 02/04/19      | 13/05/19        | 08/06/19       | 47.4                                   | 3.8                                 |
| 08/04/19      |                 |                | 49.0                                   | 45.7                                |
| 14/04/19      |                 |                | 48.4                                   | 14.2                                |
| 20/04/19      |                 |                | 48.1                                   | 19.3                                |
| 26/04/19      |                 |                | 49.5                                   | 8.9                                 |
| 02/05/19      | 13/06/19        | 08/07/19       | 49.5                                   | 36.7                                |
| 08/05/19      |                 |                | 47.2                                   | 23.3                                |
| 14/05/19      |                 |                | 47.1                                   | 14.6                                |
| 20/05/19      |                 |                | 47.0                                   | 26.9                                |
| 26/05/19      |                 |                | 47.3                                   | 12.4                                |
| 1/06/2019     | 5/08/2019       | 08/08/19       | 46.9                                   | 8.8                                 |
| 7/06/2019     |                 |                | 46.9                                   | 13.3                                |
| 13/06/2019    |                 |                | 46.8                                   | 8.6                                 |
| 20/06/2019    |                 |                | 47.3                                   | 3.6                                 |
| 26/06/2019    |                 |                | 47.9                                   | 3                                   |
| 1/07/2019     | 13/08/2019      | 08/09/19       | 48.5                                   | 11.9                                |
| 7/07/2019     |                 |                | 49.0                                   | 3.3                                 |
| 13/07/2019    |                 |                | 49.1                                   | 4.2                                 |
| 19/07/2019    |                 |                | 47.4                                   | 2.6                                 |
| 25/07/2019    |                 |                | 47.9                                   | 10.2                                |
| 31/07/2019    |                 |                | 47.0                                   |                                     |
| 6/8/19        | 16/09/19        | 08/10/19       | 46.1                                   |                                     |
| 12/8/19       |                 |                | 46                                     | 0.1                                 |
| 18/8/19       |                 |                | 46.1                                   | 10.4                                |
| 24/8/19       |                 |                | 45.4                                   | 25.8                                |
| 30/8/19       |                 |                | 44.6                                   | 0.9                                 |
| 11/9/19       | 15/10/19        | 08/11/19       | 44.6                                   | 9.7                                 |
| 17/9/19       |                 |                | 44.4                                   | 1                                   |
| 23/9/19       |                 |                | 44.6                                   | 7.3                                 |
| 29/9/19       |                 |                | 44.5                                   | 9                                   |
| 2/10/19       |                 |                |  |                                     |
| 5/10/19       | 12/11/19        | 08/12/19       | 43.9                                   | 1.7                                 |
| 8/10/19       |                 |                | 42.3                                   | 11.6                                |
| 11/10/19      |                 |                | 42.3                                   | 1.3                                 |
| 17/10/19      |                 |                | 43.0                                   | 17                                  |
| 23/10/19      |                 |                | 43.3                                   | 17.6                                |
| 29/10/19      |                 |                | 43.6                                   | 23.2                                |
| 4/11/19       | 16/12/19        | 08/01/20       | 42.4                                   | 6.9                                 |
| 10/11/19      |                 |                | 42.6                                   | 3.5                                 |



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| Sampling Date | Report received | Date published | Parameter (micrograms per cubic metre) |                                     |
|---------------|-----------------|----------------|--|-------------------------------------|
|               |                 |                | TSP<br>(annual rolling average)        | PM <sub>10</sub><br>(24-hr average) |
| 16/11/19      |                 |                | 42.9                                   | 13.3                                |
| 22/11/19      |                 |                | 44.5                                   | 59.1                                |
| 28/11/19      |                 |                | 45.1                                   | 36.9                                |
| 04/12/19      |                 |                | 45.1                                   | 25.8                                |
| 10/12/19      |                 |                | 45.6                                   | 69.7                                |
| 16/12/19      | 16/01/20        | 08/02/20       | 47.1                                   | 62.6                                |
| 22/12/19      |                 |                | 47.7                                   | 68.6                                |
| 28/12/19      |                 |                | 54.0                                   | 240                                 |
| 03/01/20      |                 |                | 56.4                                   | 23.1                                |
| 09/01/20      |                 |                | 56.5                                   | 29.3                                |
| 15/01/20      | 11/02/20        | 08/03/20       | 59.2                                   | 52                                  |
| 21/01/20      |                 |                | 59.8                                   | 28.6                                |
| 27/01/20      |                 |                | 60.9                                   | 36.6                                |
| 02/02/20      |                 |                | 64.6                                   | 0                                   |
| 08/02/20      |                 |                | 62.5                                   | 3.8                                 |
| 14/02/20      | 12/03/20        | 08/04/20       | 61.9                                   | 8.4                                 |
| 20/02/20      |                 |                | 61.3                                   | 7.9                                 |
| 26/02/20      |                 |                | 63.0                                   | 44.7                                |
| 03/03/20      |                 |                | 61.8                                   | 6.5                                 |
| 09/03/20      |                 |                | 61.6                                   | 6                                   |
| 15/03/20      | 17/04/20        | 08/05/20       | 61.5                                   | 5.5                                 |
| 21/03/20      |                 |                | 61.6                                   | 12.3                                |
| 27/03/20      |                 |                | 61.5                                   | 0.0                                 |
| 02/04/20      |                 |                | 59.4                                   | 7.7                                 |
| 8/04/20       |                 |                | 59.1                                   | 4.2                                 |
| 14/04/20      | 12/05/20        | 08/06/20       | 59.2                                   | 7.8                                 |
| 20/04/20      |                 |                | 56.8                                   | 14.8                                |
| 26/04/20      |                 |                | 57.2                                   | 35.7                                |
| 02/05/20      |                 |                | 56.2                                   | 2.7                                 |
| 8/05/20       |                 |                | 56.8                                   | 25.1                                |
| 14/05/20      | 16/05/20        | 08/07/20       | 55.9                                   | 6.5                                 |
| 20/05/20      |                 |                | 55.6                                   | 12.2                                |
| 26/05/20      |                 |                | 54.6                                   | 0.3                                 |
| 01/06/20      |                 |                | 54.1                                   | 10.6                                |
| 07/06/20      |                 |                | 54.1                                   | 0                                   |
| 13/06/20      | 13/07/20        | 08/08/20       | 53.3                                   | 0                                   |
| 19/06/20      |                 |                | 52.5                                   | 0.1                                 |
| 25/06/20      |                 |                | 51.6                                   | 0.5                                 |
| 01/07/20      |                 |                | 51.6                                   | 18.3                                |
| 07/07/20      |                 |                | 51.7                                   | 6.2                                 |
| 13/07/20      | 17/08/20        | 08/09/20       | 51.7                                   | 5.5                                 |
| 19/07/20      |                 |                | 51.2                                   | 7.3                                 |
| 25/07/20      |                 |                | 51.1                                   | 3.5                                 |
| 31/07/20      |                 |                | 50.7                                   | 8.3                                 |
| 06/08/20      |                 |                | 50.6                                   | 13.3                                |
| 12/08/20      | 17/09/20        | 08/10/20       | 50.1                                   | 4.2                                 |
| 18/08/20      |                 |                | 48.8                                   | 6.5                                 |
| 24/08/20      |                 |                | 49.2                                   | 22.3                                |
| 30/08/20      |                 |                | 49.1                                   | 13.1                                |



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| Sampling Date | Report received | Date published | Parameter (micrograms per cubic metre) |                                     |
|---------------|-----------------|----------------|--|-------------------------------------|
|               |                 |                | TSP<br>(annual rolling average)        | PM <sub>10</sub><br>(24-hr average) |
| 5/09/20       | 16/10/20        | 08/11/20       | 49.3                                   | 5.2                                 |
| 11/09/20      |                 |                | 49.2                                   | 4.6                                 |
| 17/09/20      |                 |                | 49.9                                   | 20.4                                |
| 23/09/20      |                 |                | 50.3                                   | 12.4                                |
| 29/09/20      |                 |                | 49.8                                   | 8.9                                 |
| 5/10/20       | 16/11/20        | 08/12/20       | 49.9                                   | 24.7                                |
| 11/10/20      |                 |                | 50.4                                   | 5.7                                 |
| 17/10/20      |                 |                | 50.2                                   | 13.4                                |
| 23/10/20      |                 |                | 49.9                                   | 11.8                                |
| 29/10/20      |                 |                | 49.5                                   | 3.2                                 |
| 04/11/20      | 19/01/21        | 08/02/21       | 49.7                                   | 14.4                                |
| 10/11/20      |                 |                | 49.6                                   | 7.7                                 |
| 16/11/20      |                 |                | 50.4                                   | 31.6                                |
| 22/11/20      |                 |                | 49.4                                   | 24.2                                |
| 28/11/20      |                 |                | 50.0                                   | 50.5                                |
| 04/12/20      | 15/01/21        | 08/02/21       | 50.0                                   | 20                                  |
| 10/12/20      |                 |                | 48.7                                   | 15.5                                |
| 16/12/20      |                 |                | 47.3                                   | 3.6                                 |
| 22/12/20      |                 |                | 45.7                                   | 9.2                                 |
| 28/12/20      |                 |                | 40.5                                   | 11.8                                |
| 3/01/21       | 12/02/21        | 08/03/21       | 38.2                                   | 4.5                                 |
| 9/01/21       |                 |                | 37.8                                   | 4.8                                 |
| 15/01/21      |                 |                | 36.5                                   | 33.9                                |
| 21/01/21      |                 |                | 35.3                                   | 12.6                                |
| 27/01/21      |                 |                | 34.5                                   | 4.9                                 |
| 02/02/21      | 19/03/21        | 08/04/21       | 31.4                                   | 6.7                                 |
| 08/02/21      |                 |                | 31.5                                   | 6.3                                 |
| 14/02/21      |                 |                | 31.5                                   | 6                                   |
| 20/02/21      |                 |                | 31.4                                   | 8.1                                 |
| 27/02/21      |                 |                | 30.0                                   | 11.4                                |
| 04/03/21      | 21/04/21        | 08/05/21       | 30.4                                   | 17.1                                |
| 10/03/21      |                 |                | 30.6                                   | 9.5                                 |
| 16/03/21      |                 |                | 30.5                                   | 1                                   |
| 22/03/21      |                 |                | 30.0                                   | 2.9                                 |
| 28/03/21      |                 |                | 29.9                                   | 2.6                                 |
| 03/04/21      | 13/05/21        | 08/06/21       | 30.0                                   | 5.4                                 |
| 09/04/21      |                 |                | 30.8                                   | 14.8                                |
| 15/04/21      |                 |                | 31.2                                   | 21.4                                |
| 21/04/21      |                 |                | 30.9                                   | 6.6                                 |
| 27/04/21      |                 |                | 30.5                                   | 36.4                                |
| 03/05/21      | 17/06/21        | 08/07/21       | 31.1                                   | 26.8                                |
| 09/05/21      |                 |                | 30.4                                   | 6                                   |
| 15/05/21      |                 |                | 30.4                                   | 2.3                                 |
| 21/05/21      |                 |                | 30.3                                   | 4.5                                 |
| 27/05/21      |                 |                | 30.5                                   | 3.3                                 |
| 02/06/21      | 13/07/21        | 08/08/21       | 30.4                                   | 8.9                                 |
| 08/06/21      |                 |                | 30.5                                   | 10.3                                |
| 14/06/21      |                 |                | 30.5                                   | 0                                   |
| 20/06/21      |                 |                | 30.4                                   | 1                                   |



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| Sampling Date | Report received | Date published | Parameter (micrograms per cubic metre) |                                  |
|---------------|-----------------|----------------|--|----------------------------------|
|               |                 |                | TSP (annual rolling average)           | PM <sub>10</sub> (24-hr average) |
| 26/06/21      |                 |                | 30.7                                   | 3.5                              |
| 02/07/21      | 09/08/21        | 08/09/21       | 30.3                                   | 5.8                              |
| 08/07/21      |                 |                | 30.1                                   | 7.8                              |
| 14/07/21      |                 |                | 31.5                                   | 37.9                             |
| 20/07/21      |                 |                | 31.3                                   | 0.1                              |
| 26/07/21      |                 |                | 31.3                                   | 0.1                              |
| 01/08/21      | 17/09/21        | 08/10/21       | 31.3                                   | 2.8                              |
| 07/08/21      |                 |                | 31.3                                   | 0.1                              |
| 13/08/21      |                 |                | 31.5                                   | 5.2                              |
| 19/08/21      |                 |                | 31.6                                   | 7.8                              |
| 25/08/21      |                 |                | 31.3                                   | 0.1                              |
| 31/08/21      |                 |                | 31.1                                   | 3.4                              |
| 06/09/21      | 15/10/21        | 08/11/21       | 30.9                                   | 1.1                              |
| 12/09/21      |                 |                | 30.8                                   | 17.6                             |
| 18/09/21      |                 |                | 31.2                                   | 18                               |
| 24/09/21      |                 |                | 31.8                                   | 19                               |
| 30/09/21      |                 |                | 31.0                                   | 4                                |
| 6/10/2021     | 23/11/21        | 08/12/21       | 30.9                                   | 10.5                             |
| 12/10/2021    |                 |                | 30.8                                   | 2                                |
| 18/10/2021    |                 |                | 30.2                                   | 4                                |
| 24/10/2021    |                 |                | 29.9                                   | 3.8                              |
| 30/10/2021    |                 |                | 29.8                                   | 5.3                              |
| 5/11/2021     | 13/12/21        | 08/01/22       | 29.5                                   | 2.8                              |
| 11/11/2021    |                 |                | 29.5                                   | 4.5                              |
| 17/11/2021    |                 |                | 29.3                                   | 6.5                              |
| 23/11/2021    |                 |                | 29.2                                   | 4.3                              |
| 29/11/2021    |                 |                | 28.5                                   | 10.8                             |
| 5/12/2021     | 21/01/22        | 08/02/22       | 27.9                                   | 5                                |
| 11/12/2021    |                 |                | 25.9                                   | 2.8                              |
| 17/12/2021    |                 |                | 25.4                                   | 8.6                              |
| 23/12/2021    |                 |                | 24.9                                   | 2.8                              |
| 29/12/2021    |                 |                | 24.9                                   | 0.1                              |
| 04/01/2022    | 21/02/22        | 08/03/22       | 24.6                                   | 1.4                              |
| 10/01/2022    |                 |                | 24.2                                   | 3.5                              |
| 16/01/2022    |                 |                | 24.3                                   | 9.3                              |
| 22/01/2022    |                 |                | 24.3                                   | 1.4                              |
| 28/01/2022    |                 |                | 23.2                                   | 4.7                              |
| 03/03/2022    | 14/03/22        | 08/04/22       | 23.0                                   | 1.4                              |
| 09/03/2022    |                 |                | 23.0                                   | 4.9                              |
| 11/03/2022    | 29/04/22        | 08/05/22       | 23.2                                   | 1.4                              |
| 17/03/2022    |                 |                | 22.8                                   | 4.4                              |
| 20/03/2022    |                 |                | 22.8                                   | 4.2                              |
| 23/03/2022    |                 |                | 23.0                                   | 10.4                             |
| 24/03/2022    |                 |                | 23.0                                   | 0.8                              |
| 29/03/2022    |                 |                | 23.3                                   | 0.1                              |
| 04/04/2022    | 18/05/22        | 08/06/22       | 23.6                                   | 4.7                              |
| 10/04/2022    |                 |                | 23.6                                   | 4.8                              |
| 12/04/2022    |                 |                | 23.6                                   | 1.9                              |
| 16/04/2022    |                 |                | 23.4                                   | 1.3                              |



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| Sampling Date | Report received | Date published | Parameter (micrograms per cubic metre) |                                  |
|---------------|-----------------|----------------|--|----------------------------------|
|               |                 |                | TSP (annual rolling average)           | PM <sub>10</sub> (24-hr average) |
| 22/04/2022    |                 |                | 22.7                                   | 1.6                              |
| 28/04/2022    |                 |                | 22.0                                   | 3.9                              |
| 04/05/2022    |                 |                | 22.4                                   | 9.3                              |
| 10/05/2022    | 15/06/22        | 08/07/22       | 21.6                                   | 1.3                              |
| 16/05/2022    |                 |                | 21.0                                   | 3.5                              |
| 22/05/2022    |                 |                | 20.7                                   | 3.8                              |
| 28/05/2022    |                 |                | 20.7                                   | 1.5                              |
| 03/06/2022    | 14/07/22        | 08/08/22       | 20.7                                   | 3.5                              |
| 09/06/2022    |                 |                | 21.1                                   | 7.4                              |
| 15/06/2022    |                 |                | 21.2                                   | 5.6                              |
| 21/06/2022    |                 |                | 21.5                                   | 8.1                              |
| 27/06/2022    |                 |                | 21.5                                   | 0.2                              |
| 03/07/2022    | 12/08/22        | 08/09/22       | 21.4                                   | 0.1                              |
| 09/07/2022    |                 |                | 21.1                                   | 0.7                              |
| 15/07/2022    |                 |                | 21.1                                   | 3.6                              |
| 21/07/2022    |                 |                | 20.9                                   | 1.2                              |
| 27/07/2022    |                 |                | 19.3                                   | 0.1                              |
| 02/08/2022    | 12/08/22        | 08/10/22       | 19.7                                   | 8.1                              |
| 08/08/2022    |                 |                | 19.6                                   | 0.1                              |
| 14/08/2022    |                 |                | 19.4                                   | 1.8                              |
| 20/08/2022    |                 |                | 19.5                                   | 0.2                              |
| 26/08/2022    |                 |                | 19.0                                   | 0.5                              |
| 1/09/2022     | 16/10/22        | 08/11/22       | 18.9                                   | 7.2                              |
| 7/09/2022     |                 |                | 18.9                                   | 3.6                              |
| 13/09/2022    |                 |                | 18.8                                   | 1.7                              |
| 19/09/2022    |                 |                | 18.9                                   | 3.3                              |
| 25/09/2022    |                 |                | 18.4                                   | 2.5                              |
| 1/10/2022     | 16/11/22        | 08/12/22       | 17.6                                   | 0.8                              |
| 7/10/2022     |                 |                | 16.9                                   | 1.5                              |
| 13/10/2022    |                 |                | 16.9                                   | 0                                |
| 19/10/2022    |                 |                | 16.7                                   | 7.6                              |
| 25/10/2022    |                 |                | 16.7                                   | 0.1                              |
| 31/10/2022    |                 |                | 17.5                                   | 21.7                             |
| 06/11/2022    | 23/12/22        | 08/01/23       | 17.5                                   | 5.5                              |
| 12/11/2022    |                 |                | 17.5                                   | 5.6                              |
| 18/11/2022    |                 |                | 17.8                                   | 0.1                              |
| 24/11/2022    |                 |                | 18.1                                   | 0.1                              |
| 30/11/2022    |                 |                | 17.9                                   | 11.8                             |
| 06/12/2022    | 24/01/23        | 08/02/23       | 18.3                                   | 12                               |
| 12/12/2022    |                 |                | 19.2                                   | 22.4                             |
| 18/12/2022    |                 |                | 19.0                                   | 2.1                              |
| 24/12/2022    |                 |                | 19.5                                   | 8.3                              |
| 30/12/2022    |                 |                | 19.1                                   | 3                                |
| 05/01/2023    | 15/02/23        | 08/03/23       | 19.1                                   | 3.8                              |
| 11/01/2023    |                 |                | 19.3                                   | 7.7                              |
| 17/01/2023    |                 |                | 19.5                                   | 5.7                              |
| 23/01/2023    |                 |                | 19.6                                   | 5.6                              |
| 29/01/2023    |                 |                | 19.8                                   | 11.8                             |
| 4/02/2023     | 20/03/23        | 08/04/23       | 20.2                                   | 9.1                              |



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| Sampling Date | Report received | Date published | Parameter (micrograms per cubic metre) |                                     |
|---------------|-----------------|----------------|--|-------------------------------------|
|               |                 |                | TSP<br>(annual rolling average)        | PM <sub>10</sub><br>(24-hr average) |
| 10/02/2023    |                 |                | 20.4                                   | 9.6                                 |
| 16/02/2023    |                 |                | 20.6                                   | 14.4                                |
| 22/02/2023    |                 |                | 20.6                                   | 6.5                                 |
| 28/02/2023    |                 |                | 20.6                                   | 8.1                                 |
| 6/03/2023     | 21/04/23        | 08/05/23       | 21.2                                   | 23.7                                |
| 8/03/2023     |                 |                | 21.3                                   | 24.3                                |
| 12/03/2023    |                 |                | 21.4                                   | 10.2                                |
| 14/03/2023    |                 |                | 21.8                                   | 3.6                                 |
| 18/03/2023    |                 |                | 21.8                                   | 12.9                                |
| 21/03/2023    |                 |                | 21.4                                   | 5.7                                 |
| 24/03/2023    |                 |                | 21.4                                   | 4.4                                 |
| 28/03/2023    |                 |                | 21.1                                   | 11.1                                |
| 5/04/2023     | 16/05/23        | 08/06/23       | 21.1                                   | 5.3                                 |
| 11/04/2023    |                 |                | 21.3                                   | 5.6                                 |
| 17/04/2023    |                 |                | 21.2                                   | 6.4                                 |
| 23/04/2023    |                 |                | 21.1                                   | 3.7                                 |
| 29/04/2023    |                 |                | 21.3                                   | 7.1                                 |
| 5/05/2023     | 15/06/23        | 08/07/23       | 21.8                                   | 13.3                                |
| 11/05/2023    |                 |                | 21.6                                   | 9.7                                 |
| 17/05/2023    |                 |                | 21.7                                   | 3.2                                 |
| 23/05/2023    |                 |                | 21.9                                   | 9.4                                 |
| 29/05/2023    |                 |                | 22.1                                   | 3.1                                 |
| 4/06/2023     | 13/07/23        | 08/08/23       | 22.1                                   | 2.5                                 |
| 10/06/2023    |                 |                | 21.7                                   | 2.4                                 |
| 16/06/2023    |                 |                | 21.2                                   | 1.9                                 |
| 22/06/2023    |                 |                | 20.9                                   | 6                                   |
| 28/06/2023    |                 |                | 20.1                                   | 0.5                                 |
| 4/07/2023     | 15/08/23        | 08/09/23       | 20.1                                   | 0.7                                 |
| 10/07/2023    |                 |                | 20.2                                   | 0.1                                 |
| 16/07/2023    |                 |                | 20.5                                   | 5.3                                 |
| 22/07/2023    |                 |                | 20.3                                   | 3.1                                 |
| 28/07/2023    |                 |                | 21.3                                   | 19.7                                |
| 3/08/2023     | 21/09/23        | 08/10/23       | 21.8                                   | 35.2                                |
| 9/08/2023     |                 |                | 22.2                                   | 52.1                                |
| 15/08/2023    |                 |                | 22.5                                   | 20.3                                |
| 21/08/2023    |                 |                | 22.5                                   | 12.6                                |
| 27/08/2023    |                 |                | 22.6                                   | 21.6                                |
| 2/09/2023     | 25/10/23        | 08/11/23       | 22.7                                   | 0.5                                 |
| 8/09/2023     |                 |                | 22.6                                   | 3.8                                 |
| 14/09/2023    |                 |                | 23.1                                   | 18.7                                |
| 20/09/2023    |                 |                | 23.1                                   | 4.1                                 |
| 26/09/2023    |                 |                | 23.3                                   | 10.3                                |
| 2/10/2023     | 13/11/23        | 08/12/23       | 24.0                                   | 15.8                                |
| 8/10/2023     |                 |                | 24.2                                   | 1.6                                 |
| 14/10/2023    |                 |                | 24.5                                   | 1.9                                 |
| 20/10/2023    |                 |                | 24.7                                   | 8                                   |
| 26/10/2023    |                 |                | 24.8                                   | 8.2                                 |
| 1/11/2023     | 08/12/23        | 08/01/24       | 25.1                                   | 7.9                                 |
| 7/11/2023     |                 |                | 24.2                                   | 4.6                                 |



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| Sampling Date | Report received | Date published | Parameter (micrograms per cubic metre) |                                     |
|---------------|-----------------|----------------|--|-------------------------------------|
|               |                 |                | TSP<br>(annual rolling average)        | PM <sub>10</sub><br>(24-hr average) |
| 13/11/2023    |                 |                | 24.6                                   | 10.3                                |
| 19/11/2023    |                 |                | 24.7                                   | 11                                  |
| 25/11/2023    |                 |                | 24.9                                   | 12                                  |
| 1/12/2023     | 18/01/24        | 08/02/24       | 25.1                                   | 3.6                                 |
| 7/12/2023     |                 |                | 25.6                                   | 21.2                                |
| 13/12/2023    |                 |                | 25.7                                   | 18.4                                |
| 19/12/2023    |                 |                | 25.4                                   | 25.7                                |
| 25/12/2023    |                 |                | 25.4                                   | 4.1                                 |
| 31/12/2023    |                 |                | 25.0                                   | 5                                   |
| 6/01/2024     |                 |                | 16/02/24                               | 08/03/24                            |
| 12/01/2024    | 25.2            | 5.9            |  |                                     |
| 18/01/2024    | 25.4            | 12.7           |  |                                     |
| 24/01/2024    | 25.8            | 17.1           |  |                                     |
| 30/01/2024    | 25.9            | 9.4            |  |                                     |
| 5/02/2024     | 16/03/24        | 08/04/24       | 25.8                                   | 10.3                                |
| 11/02/2024    |                 |                | 25.7                                   | 8.1                                 |
| 17/02/2024    |                 |                | 25.5                                   | 6.8                                 |
| 23/02/2024    |                 |                | 26.1                                   | 16.8                                |
| 29/02/2024    |                 |                | 26.6                                   | 17.5                                |

**Compliance Summary:** The plant is compliant with the adopted guideline values.

HVAS was relocated on 18<sup>th</sup> February 2018.

High values for PM10 recorded during the month of December 2019 due to bush fires.

PM10 monitoring restricted during February 2022 due to wet weather preventing access.





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### 3. Water monitoring

Runoff water from the cement works and surrounding agricultural land is captured in various storage dams on site and used as process water. In heavy rain, excess stormwater from the dam called “Lake Quality” is allowed to overflow into the Wingecarribee River. The quality of that water is required by the licence to be monitored once per overflow event. The licence specifies the parameters to be monitored, but does not specify any limits for these parameters.

**Licence limits:** Not specified.

The NSW State guidelines: Typical discharge limits are as follows:

Biological Oxygen Demand: 20 milligrams per litre

pH: 6.5-8.5

Oil and Grease: 10 milligrams per litre

Total Suspended Solids: 30-50 milligrams per litre

| Sampling Date | Report received | Date published | Biological Oxygen Demand (milligrams per litre) | pH  | Oil and Grease (milligrams per litre) | Total Suspended Solids (milligrams per litre) |
|---------------|-----------------|----------------|---|-----|---------------------------------------|---|
| 27/02/18      | 06/03/18        | 08/03/18       | <2  | 8.6 | <5                                    | 26  |
| 15/12/18      | 31/12/18        | 08/01/19       | <2  | 8.8 | <5                                    | 24  |
| 19/03/19      | 27/03/19        | 08/04/19       | <2  | 7.4 | <5                                    | 30  |
| 10/02/20      | 18/02/20        | 08/03/20       | <2  | 9.0 | <5                                    | 26  |
| 14/02/20      | 26/02/20        | 08/03/20       | 2   | 8.9 | <5                                    | 21  |
| 27/07/20      | 04/08/20        | 08/09/20       | 2   | 9.3 | <5                                    | 72  |
| 11/08/20      | 18/08/20        | 08/09/20       | 2   | 8.0 | <5                                    | 19  |
| 02/11/20      | 09/11/20        | 08/12/20       | 3   | 8.4 | <5                                    | 13  |
| 23/03/21      | 30/03/21        | 08/04/21       | 2   | 8.1 | <5                                    | 10  |
| 06/04/21      | 13/04/21        | 08/05/21       | 3   | 8.5 | <5                                    | 8   |
| 05/05/21      | 12/05/21        | 08/06/21       | <2  | 8.4 | <5                                    | 15  |
| 26/08/21      | 03/09/21        | 08/09/21       | <2  | 8.7 | <5                                    | 44  |
| 14/10/21      | 22/10/21        | 08/11/21       | 3   | 8.1 | <5                                    | 6   |
| 12/11/21      | 19/11/21        | 08/12/21       | <2  | 8.5 | <5                                    | 32  |
| 22/11/21      | 29/11/21        | 08/12/21       | 2   | 8.2 | <5                                    | 13  |
| 10/12/21      | 17/12/21        | 08/01/22       | 4   | 8.3 | <5                                    | 23  |
| 23/02/22      | 04/03/22        | 08/03/22       | <2  | 7.9 | <5                                    | 11  |
| 08/03/22      | 15/03/22        | 08/03/22       | 4   | 7.9 | <5                                    | 18  |
| 06/07/22      | 15/07/22        | 08/08/22       | 3   | 8.2 | <5                                    | 18  |
| 14/11/22      | 21/11/22        | 08/12/22       | <2  | 8.3 | <5                                    | 22  |
| 20/02/24      | 28/02/24        | 08/03/24       | 3   | 8.3 | <5                                    | <5  |

**Compliance summary:** Lake Quality’s overflow generally meets the typical NSW discharge criteria. Occasionally, an exceedance of pH may occur in the overflow due to alkaline nature of raw materials and products handled on site.



#### **4. *Noise monitoring***

The Annual Noise Monitoring Reports by Recognition Research are being uploaded to the Berrima webpage in their entirety. In the Summary and Conclusions of each Annual Report, Recognition Research confirms that Berrima Cement Works "is in compliance with its licence conditions for noise".

**REPORT ENDS**