



Teralba Quarry

Environmental Monitoring Summary

September 2024

| | |
|---|---|
| Environmental Protection Licence (EPL): | 536 |
| Licensee: | Metromix Pty Limited |
| Licensee Address: | PO Box 1295 Parramatta, NSW 2124 |
| Premises: | Metromix Pty Limited Teralba Quarry Rhondda Road Teralba, NSW 2284 |
| Licensee Website: | https://www.metromix.com.au/ |
| Licensee Website - Monitoring Results: | https://www.metromix.com.au/resources/#quarry |
| EPA Public Register: | https://www.epa.nsw.gov.au/licensing-and-regulation/public-registers |
| Prepared by: | R. W. Corkery & Co. |
| Sample Period: | September 2024 |
| Date Last Data Received | 14 October 2024 |
| Date of Report | 18 October 2024 |

Contents

- 1 Deposited Dust
- 2 Particulate Matter (PM₁₀)
- 3 Water
- 4 Meteorological Conditions
- 5 Blasting
- 6 Waste



Deposited Dust

Sample Period Start:02/09/2024

Sample Period End:01/10/2024

Sample Frequency:30 ± 2 days

Sample Collected By:Metromix - AL

Date Received by Laboratory:01/10/2024

Date Results Received by Metromix:10/10/2024

| EPA Identification No. | Location | Criteria (g/m ² /month) | Insoluble Solids (g/m ² /month) | Ash Fraction (g/m ² /month) | % Ash Fraction |
|------------------------|-------------------|------------------------------------|--|--|----------------|
| 1 | Hillside Crescent | 4.0 | 0.6 | 0.3 | 50 |
| 8 | Rodgers Street | 4.0 | 3.9 | 3.3 | 85 |
| 9 | Rhondda Road | 4.0 | 1.2 | 0.6 | 50 |
| 11 | Myrtle Street | 4.0 | 1.5 | 0.9 | 60 |
| 23 | York Street | 4.0 | 0.2 | 0.1 | 50 |

Comments

No exceedances of the approved criteria were detected during the sample period. It is noted that earthworks were being undertaken in a neighbouring residential property near where the EPA 8 (Rodgers Street) dust gauge is located, likely contributing to higher than usual deposited dust results at this location.

Deposited Dust - Year to Date

| | Rhondda Road | | | Myrtle Street | | | Hillside Crescent | | | Rodgers Street | | | York Street | | |
|--------------------|-------------------------|-------------------------|-------|-------------------------|-------------------------|-------|-------------------------|-------------------------|-------|-------------------------|-------------------------|-------|-------------------------|-------------------------|-------|
| | Total Insoluble Solids | Ash Fraction | % Ash | Total Insoluble Solids | Ash Fraction | % Ash | Total Insoluble Solids | Ash Fraction | % Ash | Total Insoluble Solids | Ash Fraction | % Ash | Total Insoluble Solids | Ash Fraction | % Ash |
| Units | g/m ² /month | g/m ² /month | | g/m ² /month | g/m ² /month | | g/m ² /month | g/m ² /month | | g/m ² /month | g/m ² /month | | g/m ² /month | g/m ² /month | |
| EPA Approved Level | 4.0 | | | 4.0 | | | 4.0 | | | 4.0 | | | 4.0 | | |
| January | 0.3 | 0.2 | 67 | 0.5 | 0.3 | 60 | 1.7 | 0.1 | 6 | 0.2 | 0.1 | 50 | 0.6 | 0.2 | 33 |
| February | 0.6 | 0.3 | 50 | 1.3 | 0.4 | 31 | 0.8 | 0.4 | 50 | 0.5 | 0.2 | 40 | 1.2 | 0.6 | 50 |
| March | 0.3 | 0.1 | 33 | 0.5 | 0.2 | 40 | 1.6 | 0.6 | 38 | 0.2 | 0.1 | 50 | 0.3 | 0.1 | 33 |
| April | 0.8 | 0.3 | 38 | 0.8 | 0.4 | 50 | 0.5 | 0.2 | 40 | 0.6 | 0.3 | 50 | 1.1 | 0.4 | 36 |
| May | 0.5 | 0.3 | 60 | 1.6 | 1.0 | 63 | 0.3 | 0.2 | 67 | 0.7 | 0.6 | 86 | 0.2 | 0.2 | 100 |
| June | 0.3 | 0.2 | 67 | 0.3 | 0.3 | 100 | 0.4 | 0.3 | 75 | 0.4 | 0.1 | 25 | 1.2 | 0.5 | 42 |
| July | 0.8 | 0.4 | 50 | 1.3 | 0.9 | 69 | 0.3 | 0.2 | 67 | 0.8 | 0.5 | 63 | 1.3 | 0.8 | 62 |
| August | 0.3 | 0.2 | 67 | 0.4 | 0.2 | 50 | 0.4 | 0.3 | 75 | 24.6 | 19.1 | 78 | 0.4 | 0.3 | 75 |
| September | 1.2 | 0.6 | 50 | 1.5 | 0.9 | 60 | 0.6 | 0.3 | 50 | 3.9 | 3.3 | 85 | 0.2 | 0.1 | 50 |
| October | | | | | | | | | | | | | | | |
| November | | | | | | | | | | | | | | | |
| December | | | | | | | | | | | | | | | |
| Annual Average | 0.6 | 0.3 | 53 | 0.9 | 0.5 | 58 | 0.7 | 0.3 | 52 | 0.9 | 2.7 | 58 | 0.7 | 0.4 | 53 |
| Annual Maximum | 1.2 | 0.6 | 67 | 1.6 | 1.0 | 100 | 1.7 | 0.6 | 75 | 24.6 | 19.1 | 86 | 1.3 | 0.8 | 100 |
| Annual Minimum | 0.3 | 0.1 | 33 | 0.3 | 0.2 | 31 | 0.3 | 0.1 | 6 | 0.2 | 0.1 | 25 | 0.2 | 0.1 | 33 |

Note: The August 2024 insoluble solids and ash fraction results from EPA 8 (Rodgers Street) were unusually high due to earthworks being undertaken in the property within which the associated dust gauge is located. Due to this sample contamination, the results from Rodgers Street for August 2024 have been excluded from calculation of the annual average.

Particulate Matter (PM₁₀)

Sample Location: EPA 3 - Rodgers Street
Sample Frequency: 6 days

| Date Sample Taken (24-hr) | Collected by | Date Results Received | PM ₁₀ µg/m ³ | Monthly Average Criteria (µg/m ³) | Annual Average Criteria (µg/m ³) |
|--|----------------|-----------------------|------------------------------------|---|--|
| 02/09/2024 | CBased - TD/LK | 17/09/2024 | 80.6 | 50 | 13.6 |
| 10/09/2024 | CBased - LK | 11/10/2024 | 17.0 | 50 | 13.9 |
| 14/09/2024 | CBased - LK | 24/09/2024 | 22.1 | 50 | 13.7 |
| 20/09/2024 | CBased - MB | 03/10/2024 | 20.4 | 50 | 13.8 |
| 26/09/2024 | CBased - MB | 09/10/2024 | 10.3 | 50 | 14 |
| Monthly Average | | | 17.5 | | 25/30* |
| *Project Approval (PA 10_0183) outlines the annual average PM ₁₀ criteria to be 30µg/m ³ . However, EPL 536 Condition R4.5a) requires that the air quality monitoring data is assessed against the Air Impact Assessment Criteria outlined in EPA's <i>Approved Methods for the Modelling and Assessment of Air Pollutants in NSW</i> . The most up to date version of this guideline was published in 2022 and outlines the annual average PM ₁₀ criteria to be 25µg/m ³ . Metromix has considered both criteria for its review of particulate matter monitoring. | | | | | |

Comments

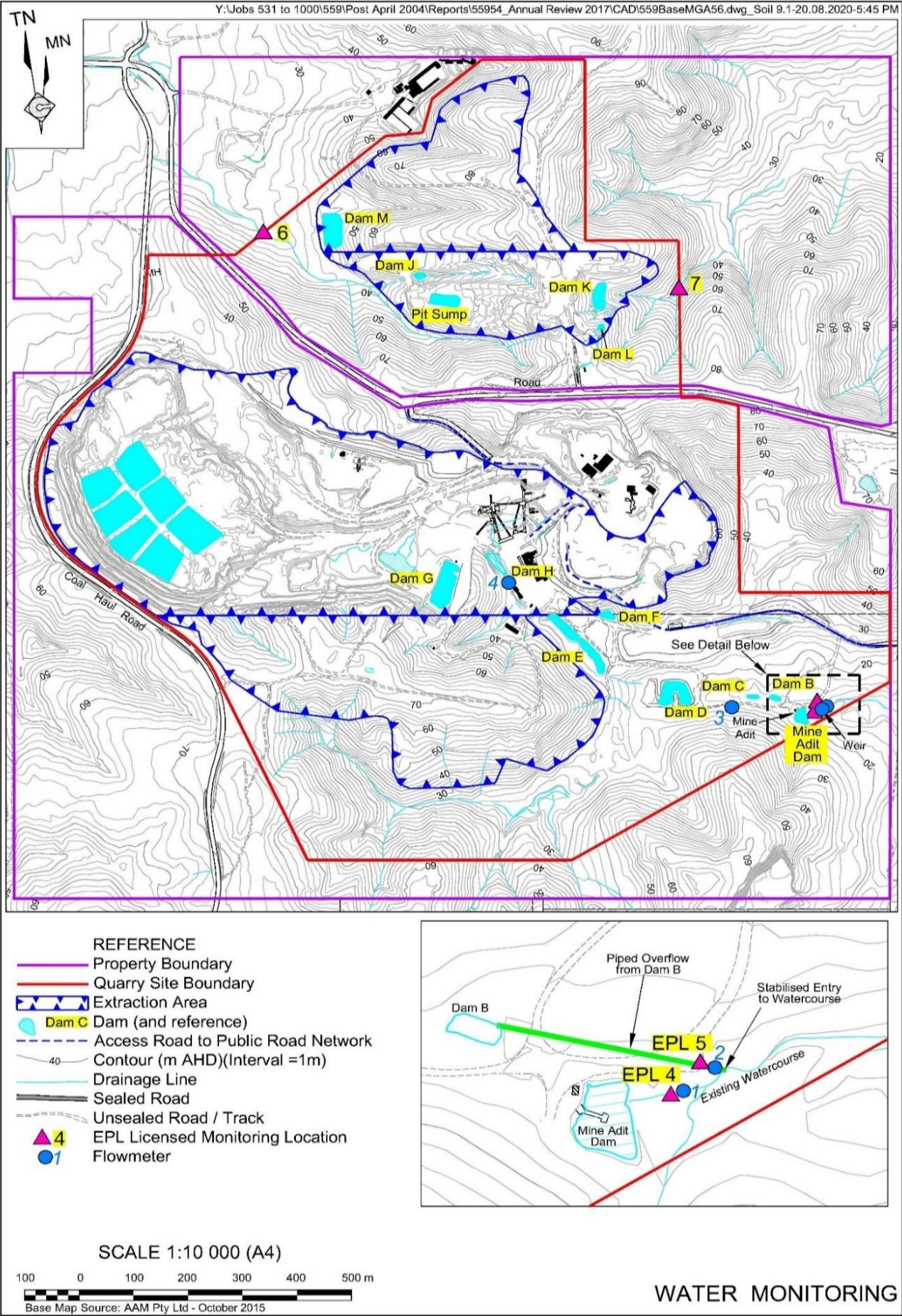
A very high PM10 result (80.6µg/m3) was recorded for the sample taken on 2 September 2024. This result is considered an outlier correlated with prescribed burning in the Lake Macquarie area conducted by Fire and Rescue NSW on 31 August 2024. As Condition 17 of PA 10_0183 enables events such as prescribed burning to be excluded from the PM10 criteria, the result recorded on 2 September 2024 has been excluded from calculation of the monthly and annual averages, and it is considered compliant with the approved criteria.

It is also noted that, the sample taken on 8 September 2024 was damaged and unable to be analysed. An additional sample was taken on 10 September 2024, though this is non-compliant with the sample frequency specified in Condition M2.2 of EPL 536. This non-compliance was notified to the Department of Planning, Housing, and Infrastructure and the Environment Protection Authority and resolved accordingly.

Particulate Matter (PM₁₀) - Year to Date

| Date | PM ₁₀ (µg/m ³) | Monthly Average (µg/m ³) | Year to Date Average (µg/m ³) | 24-Hr Criteria (µg/m ³) | Comments |
|------------|--|--|--|--|---|
| 06/01/2024 | 12.7 | 15.9 | 12.7 | 50 | |
| 12/01/2024 | 14.5 | | 13.6 | 50 | |
| 18/01/2024 | 8.1 | | 11.8 | 50 | |
| 24/01/2024 | 20.0 | | 13.8 | 50 | |
| 30/01/2024 | 24.4 | | 15.9 | 50 | |
| 05/02/2024 | 46.3 | 27.5 | 12.7 | 50 | See comment in February 2024 Monitoring Summary. |
| 11/02/2024 | 26.3 | | 21.8 | 50 | |
| 17/02/2024 | 20.5 | | 21.6 | 50 | |
| 23/02/2024 | 22.5 | | 21.7 | 50 | |
| 29/02/2024 | 21.7 | | 21.7 | 50 | |
| 06/03/2024 | 18.9 | 14.3 | 21.4 | 50 | |
| 12/03/2024 | 22.0 | | 21.5 | 50 | |
| 18/03/2024 | 8.5 | | 20.5 | 50 | |
| 24/03/2024 | 9.4 | | 19.7 | 50 | |
| 30/03/2024 | 12.7 | | 19.2 | 50 | |
| 05/04/2024 | 9.1 | 11.1 | 18.6 | 50 | |
| 11/04/2024 | 12.0 | | 18.2 | 50 | |
| 17/04/2024 | 14.9 | | 18.0 | 50 | |
| 23/04/2024 | 9.6 | | 17.6 | 50 | |
| 29/04/2024 | 10.0 | | 17.2 | 50 | |
| 05/05/2024 | 3.7 | 10.0 | 16.6 | 50 | |
| 11/05/2024 | 5.1 | | 16.0 | 50 | |
| 17/05/2024 | 15.8 | | 16.0 | 50 | |
| 23/05/2024 | 8.5 | | 15.7 | 50 | |
| 29/05/2024 | 17.1 | | 15.8 | 50 | |
| 04/06/2024 | 8.2 | 7.4 | 15.5 | 50 | |
| 10/06/2024 | 8.0 | | 15.2 | 50 | |
| 16/06/2024 | 3.4 | | 14.8 | 50 | |
| 22/06/2024 | 5.5 | | 14.5 | 50 | |
| 28/06/2024 | 11.9 | | 14.4 | 50 | |
| 04/07/2024 | 11.4 | 9.4 | 14.3 | 50 | |
| 10/07/2024 | 5.5 | | 14.0 | 50 | |
| 16/07/2024 | 9.4 | | 13.9 | 50 | |
| 22/07/2024 | 16.9 | | 14.0 | 50 | |
| 28/07/2024 | 3.9 | | 13.7 | 50 | |
| 03/08/2024 | 12.7 | 16.0 | 13.6 | 50 | |
| 09/08/2024 | 21.7 | | 13.9 | 50 | |
| 15/08/2024 | 7.7 | | 13.7 | 50 | |
| 21/08/2024 | 19.4 | | 13.8 | 50 | |
| 27/08/2024 | 18.5 | | 14.0 | 50 | |
| 02/09/2024 | 80.6 | 17.5 | 15.6 | 50 | See comment in September 2024 Monitoring Summary. |
| 10/09/2024 | 17.0 | | 15.6 | 50 | |
| 17/09/2024 | 22.1 | | 15.8 | 50 | |
| 25/09/2024 | 20.4 | | 15.9 | 50 | |
| 01/10/2024 | 10.3 | | 15.8 | 50 | |

| | |
|------------------------------------|--------|
| Minimum | 3.4 |
| Maximum | 46.3 |
| Average | 14.3 |
| Standard Deviation | 8.0 |
| 24-hr Criteria | 50 |
| Number of Exceedences | 1 |
| Annual Average Criteria | 25/30* |
| Annual Average Criteria Exceeded | No |
| *See explanation on previous page. | |



Water

Water Monitoring

EPL Point 4 - Monthly Monitoring

| Date | Time | Sampled By | Date Results Received | | pH | EC | TSS | Oil & Grease | Comments |
|------------|--------|---------------|-----------------------|-----------------------------|----------|----------|------|--------------|----------|
| | | | | Units | pH Units | µS/cm | mg/L | mg/L | |
| | | | | EPL Criterion* | 6.5-8.5 | NA | <50 | 10 | |
| | | | | ANZECC Water Quality Limits | 6.5-8.5 | 125-2200 | <50 | - | |
| 02/09/2024 | 7:30am | Metromix - AL | 9/09/2024 | | 7.2 | 1820 | <5 | <5 | |

EPL Point 5 - Monitoring Daily During Discharge

| Date | Time | Sampled By | Date Results Received | | pH | EC | TSS | Oil & Grease | Comments |
|------------|--------|---------------|-----------------------|-----------------------------|----------|----------|------|--------------|----------|
| | | | | Units | pH Units | µS/cm | mg/L | mg/L | |
| | | | | EPL Criterion* | 6.5-8.5 | NA | <50 | 10 | |
| | | | | ANZECC Water Quality Limits | 6.5-8.5 | 125-2200 | <50 | - | |
| 02/09/2024 | 7:30am | Metromix - AL | 9/09/2024 | | 6.8 | 1290 | <5 | <5 | |

EPL Point 6 - Monthly Monitoring

| Date | Time | Sampled By | Date Results Received | | pH | EC | TSS | Oil & Grease | Comments |
|--|------|------------|-----------------------|-----------------------------|----------|----------|------|--------------|----------|
| | | | | Units | pH Units | µS/cm | mg/L | mg/L | |
| | | | | EPL Criterion* | 6.5-8.5 | NA | <50 | 10 | |
| | | | | ANZECC Water Quality Limits | 6.5-8.5 | 125-2200 | <50 | - | |
| No discharge occurred at this location and therefore no monitoring was required. | | | | | | | | | |

EPL Point 7 - Monthly Monitoring

| Date | Time | Sampled By | Date Results Received | | pH | EC | TSS | Oil & Grease | Comments |
|--|------|------------|-----------------------|-----------------------------|----------|----------|------|--------------|----------|
| | | | | Units | pH Units | µS/cm | mg/L | mg/L | |
| | | | | EPL Criterion* | 6.5-8.5 | NA | <50 | 10 | |
| | | | | ANZECC Water Quality Limits | 6.5-8.5 | 125-2200 | <50 | - | |
| No discharge occurred at this location and therefore no monitoring was required. | | | | | | | | | |

Flow Meter Records

| EPA Identified Point | Location | Description | Sample Period | Daily Average Flow ML | Monthly Total Flow ML |
|----------------------|----------|--|-------------------------|-----------------------|-----------------------|
| 4 | Adit Dam | Adit Dam to Creek (off site) | 02/09/2024 - 01/10/2024 | 0.21 | 6.2 |
| 5 | Dam B | Discharge from Dam B (from Quarry) | 02/09/2024 - 01/10/2024 | 0.03 | 0.8 |
| 4 | Adit Dam | Water pumped from Adit Dam to Dam G (processing use) | 02/09/2024 - 01/10/2024 | 3.96 | 114.9 |

Comments

| |
|---|
| All water monitoring results remained within the approved criteria levels during the monitoring period. |
|---|

Water - Year to Date

EPL Point 4 : Monthly Monitoring

| | pH | EC | TSS | Oil & Grease | Comments |
|-----------------------------|----------|----------|------|--------------|---|
| Units | pH Units | µS/cm | mg/L | mg/L | - |
| EPL Criterion* | 6.5-8.5 | NA | <50 | 10 | - |
| ANZECC Water Quality Limits | 6.5-8.5 | 125-2200 | <50 | - | - |
| January | 7.3 | 2090 | <5 | 6 | - |
| February | - | - | - | - | No discharge occurred at this location and no monitoring was undertaken (see February 2024 monitoring summary). |
| March | 8.3 | 2100 | <5 | <5 | - |
| April | 7.4 | 2100 | <5 | <5 | - |
| May | 7.2 | 1670 | 5 | <5 | - |
| June | 7.2 | 1650 | 12 | <5 | - |
| July | 7.0 | 1060 | <5 | <5 | - |
| August | 7.3 | 1880 | 11 | <5 | - |
| September | 7.2 | 1820 | <5 | <5 | - |
| October | | | | | |
| November | | | | | |
| December | | | | | |

EPL Point 5 : Monitoring During Discharge

| | pH | EC | TSS | Oil & Grease | Comments |
|-----------------------------|----------|----------|------|--------------|----------|
| Units | pH Units | µS/cm | mg/L | mg/L | |
| EPL Criterion* | 6.5-8.5 | NA | <50 | 10 | |
| ANZECC Water Quality Limits | 6.5-8.5 | 125-2200 | <50 | - | |
| 8 April | 6.9 | 798 | 5 | <5 | - |
| 1 May | 6.9 | 758 | <5 | <5 | - |
| 3 June | 6.9 | 859 | <5 | <5 | - |
| 1 July | 7.2 | 1800 | 10 | <5 | - |
| 2 July | 7.2 | 1800 | 10 | <6 | - |
| 1 August | 6.8 | 1140 | <5 | <5 | - |
| 2 September | 6.8 | 1290 | <5 | <5 | - |

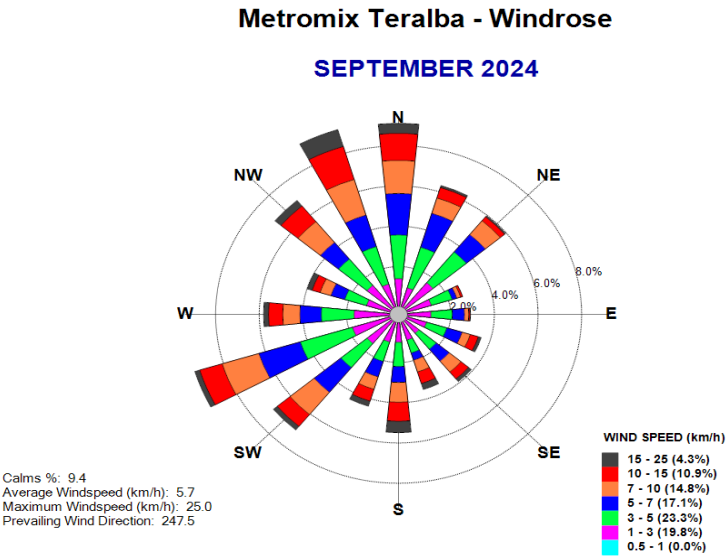
Flow Meter Records

| EPA Identifier | Location | Description | Date | Monthly |
|----------------|----------|--|-------------------------|---------|
| 4 | Adit Dam | Water pumped from Adit Dam to Dam G (processing use) | 02/01/2024 - 01/02/2024 | 0.2 |
| | | | 01/02/2024 - 01/03/2024 | 72.2 |
| | | | 01/03/2024 - 02/04/2024 | 76.0 |
| | | | 02/04/2024 - 01/05/2024 | 86.2 |
| | | | 01/05/2024 - 03/06/2024 | 118.4 |
| | | | 03/06/2024 - 01/07/2024 | 85.3 |
| | | | 01/07/2024 - 01/08/2024 | 111.1 |
| | | | 01/08/2024 - 02/09/2024 | 112.1 |
| | | | 02/09/2024 - 01/10/2024 | 114.9 |
| | | | | |
| 5 | Dam B | Discharge from Dam B (from Quarry) | 02/01/2024 - 01/02/2024 | 0.0 |
| | | | 01/02/2024 - 01/03/2024 | 0.9 |
| | | | 01/03/2024 - 02/04/2024 | 0.0 |
| | | | 02/04/2024 - 01/05/2024 | 11.4 |
| | | | 01/05/2024 - 01/06/2024 | 27.5 |
| | | | 03/06/2024 - 01/07/2024 | 9.7 |
| | | | 01/07/2024 - 01/08/2024 | 13.0 |
| | | | 01/08/2024 - 02/09/2024 | 5.2 |
| | | | 02/09/2024 - 01/10/2024 | 0.8 |
| | | | | |
| 4 | Adit Dam | Adit Dam to Creek (off site) | 02/01/2024 - 01/02/2024 | 20.3 |
| | | | 01/02/2024 - 01/03/2024 | 0.9 |
| | | | 01/03/2024 - 02/04/2024 | 2.8 |
| | | | 02/04/2024 - 01/05/2024 | 45.1 |
| | | | 01/05/2024 - 01/06/2024 | 31.6 |
| | | | 01/06/2024 - 01/07/2024 | 216.9 |
| | | | 01/07/2024 - 01/08/2024 | 105.0 |
| | | | 01/08/2024 - 02/09/2024 | 78.2 |
| | | | 02/09/2024 - 01/10/2024 | 6.2 |
| | | | | |

Meteorological Conditions

Monitoring Location: Mid-Pit Entrance
Monitoring Frequency: Continuous

Windrose



Monthly Summary

| Date | Mean Wind Direction (°) | Mean Wind Speed (km/h) | Daily Rainfall (mm) | Mean Sigma Theta | Max Temperature (°C) at 2m | Min Temperature (°C) at 2m |
|----------|-------------------------|------------------------|---------------------|------------------|----------------------------|----------------------------|
| 01/09/24 | 170 | 7.6 | 0.0 | 23.3 | 27.2 | 13.6 |
| 02/09/24 | NR | NR | NR | NR | 27.0 | 13.4 |
| 03/09/24 | 190 | 4.5 | 0.0 | 18.3 | 18.1 | 9.0 |
| 04/09/24 | 142 | 5.1 | 0.0 | 23.6 | 22.6 | 8.1 |
| 05/09/24 | 202 | 8.0 | 0.0 | 35.6 | 25.6 | 11.0 |
| 06/09/24 | 204 | 8.6 | 0.0 | 37.5 | 27.2 | 15.4 |
| 07/09/24 | 210 | 8 | 0 | 50 | 29 | 17 |
| 08/09/24 | 231 | 3.6 | 0.6 | 34.8 | 20.7 | 12.8 |
| 09/09/24 | 227 | 6.2 | 0.0 | 34.4 | 22.7 | 12.0 |
| 10/09/24 | 196 | 3.8 | 0.0 | 27.3 | 22.2 | 11.2 |
| 11/09/24 | 152 | 5.5 | 0.8 | 26.0 | 26.8 | 12.1 |
| 12/09/24 | 203 | 7.5 | 11.0 | 38.1 | 20.5 | 12.2 |
| 13/09/24 | 211 | 5.1 | 1.8 | 38.1 | 18.1 | 9.6 |
| 14/09/24 | 241 | 6.0 | 0.0 | 32.8 | 22.4 | 10.0 |
| 15/09/24 | 205 | 10.0 | 3.4 | 36.3 | 16.6 | 8.4 |
| 16/09/24 | 227 | 6.6 | 0.0 | 32.6 | 21.0 | 8.0 |
| 17/09/24 | 158 | 4.2 | 0.0 | 30.4 | 20.2 | 10.3 |
| 18/09/24 | 227 | 7.4 | 0.0 | 37.4 | 25.6 | 10.6 |
| 19/09/24 | 243 | 8.8 | 0.0 | 37.4 | 27.2 | 13.8 |
| 20/09/24 | 254 | 6.3 | 0.0 | 35.3 | 25.0 | 12.7 |
| 21/09/24 | 255 | 7.8 | 0.0 | 31.3 | 25.1 | 11.2 |
| 22/09/24 | 245 | 5.0 | 0.0 | 42.3 | 26.0 | 12.0 |
| 23/09/24 | 236 | 6.1 | 0.0 | 35.7 | 28.0 | 13.6 |
| 24/09/24 | 147 | 3.9 | 0.0 | 28.5 | 25.8 | 14.2 |
| 25/09/24 | 124 | 5.8 | 0.0 | 29.7 | 28.8 | 16.7 |
| 26/09/24 | 181 | 7.6 | 39.6 | 38.3 | 19.4 | 11.4 |
| 27/09/24 | 136 | 8.8 | 1.0 | 40.6 | 17.4 | 11.4 |
| 28/09/24 | 147 | 5.0 | 2.2 | 39.2 | 19.3 | 11.3 |
| 29/09/24 | 138 | 3.0 | 3.8 | 31.9 | 19.6 | 13.2 |
| 30/09/24 | 199 | 5.8 | 7.2 | 37.7 | 20.4 | 12.3 |
| 31/08/24 | 249 | 8.2 | 0.0 | 43.9 | 24.6 | 15.2 |
| 30/09/24 | 199 | 5.8 | 7.2 | 37.7 | 20.4 | 12.3 |

NR: Not Recorded

Note: Between 4:40pm on 1 September 2024 and 10:30am on 3 September 2024, the meteorological station at Teralba Quarry did not record data for wind direction, wind speed, rainfall and sigma theta due to a logger issue. This non-compliance was notified to the Department of Planning, Housing, and Infrastructure and the Environment Protection Authority and resolved accordingly.

Meteorological Conditions - Year to Date

| Monitored Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|-------|-------|-------|-------|-------|-------|-------|-------|----------|-----|-----|-----|--------|
| Total Rainfall (mm) | 33.0 | 165.8 | 27.6 | 335.8 | 189.0 | 121.6 | 110.0 | 46.2 | 71.4 | | | | 1100.4 |
| Average Minimum Temperature (°C) at 2m | 17.0 | 16.4 | 15.0 | 12.0 | 7.6 | 5.2 | 4.6 | 5.6 | 8.0 | | | | 10.2 |
| Average Maximum Temperature (°C) at 2m | 42.2 | 41.2 | 36.8 | 30.0 | 23.8 | 21.2 | 21.8 | 29.0 | 29.0 | | | | 30.6 |
| Average Minimum Temperature (°C) at 10m | 17.4 | 16.2 | 15.4 | 12.2 | 8.9 | 6.5 | 5.2 | 6.5 | 9.0 | | | | 10.8 |
| Average Maximum Temperature (°C) at 10m | 41.0 | 40.3 | 35.5 | 28.6 | 23.2 | 20.5 | 21.4 | 28.3 | 28.1 | | | | 29.7 |
| Average Sigma Theta | 33.3 | 34.6 | 32.5 | 30.3 | 28.3 | 29.4 | 33.5 | 32.7 | 33.9 | | | | 32.1 |
| Average Solar Radiation (W/m ²) | 192.0 | 160.7 | 159.0 | 127.4 | 88.3 | 82.0 | 93.8 | 111.7 | ## ## | | | | 130.7 |
| Average Relative Humidity (%) | 70.0 | 75.0 | 74.0 | 73.0 | 77.0 | 69.0 | 65.0 | 66.0 | 55.0 | | | | 69.3 |

Blasting

Monitoring Frequency Each Blast
Blast Monitoring Completed By MAXAM

| Shot # | Day | Month | Time | Location | Elevation (m) | Location 1 | | Location 2 | | Location 3 | | Comments |
|--------|-----|-----------|----------|------------|---------------|--------------|-----------|--------------|-----------|--------------|-----------|----------|
| | | | | | | Overpressure | Vibration | Overpressure | Vibration | Overpressure | Vibration | |
| | | | | | | dB(L) | mm/s | dB(L) | mm/s | dB(L) | mm/s | |
| 1 | 10 | January | 13:14:00 | Stage 2B-1 | RL48 | 103.3 | 0.17 | 102.7 | 0.08 | NM | NM | |
| 2 | 19 | January | 11:52:39 | Stage 2B-2 | RL48 | 96.3 | 0.33 | 99.9 | 0.06 | NM | NM | |
| 3 | 29 | January | 11:51:27 | Stage 2B | RL48 | 90.9 | 0.32 | 96.7 | 0.09 | NM | NM | |
| 4 | 7 | February | 11:38:31 | Stage 2B-3 | RL48 | 106.7 | 0.26 | 97.6 | 0.07 | NM | NM | |
| 5 | 26 | February | 13:49:00 | Stage 2B-3 | RL60 | 100.1 | 0.34 | 105.2 | 0.08 | NM | NM | |
| 6 | 29 | February | 10:47:00 | Stage 2B | RL48 | 112.1 | 0.38 | 108.2 | 0.06 | NM | NM | |
| 7 | 14 | March | 12:59:31 | Stage 1C | RL40 | 102.3 | 0.18 | NT | NT | NM | NM | |
| 8 | 2 | April | 12:43:14 | Stage 2B-3 | RL48 | 109.5 | 0.30 | 101.7 | 0.08 | NM | NM | |
| 9 | 12 | April | 12:09:28 | Stage 1C | RL40 | NT | NT | NT | NT | NM | NM | |
| 10 | 29 | April | 13:15:28 | Stage 2B-3 | RL48 | 105.2 | 0.30 | NT | NT | NM | NM | |
| 11 | 13 | May | 13:28:00 | Stage 2B-3 | RL48 | NT | NT | NT | NT | NM | NM | |
| 12 | 22 | May | 14:17:00 | Stage 1C | RL48 | 101.6 | 0.36 | NT | NT | NM | NM | |
| 13 | 7 | June | 13:34:00 | Stage 2B-3 | RL48 | 105.2 | 0.33 | NT | NT | NM | NM | |
| 14 | 26 | June | 13:40:00 | Stage 1C | RL40 | 103.6 | 0.25 | NT | NT | NM | NM | |
| 15 | 10 | July | 13:48:36 | Stage 3 | RL49 | 114.7 | 0.55 | NT | NT | NM | NM | |
| 16 | 24 | July | 14:12:00 | Stage 2A | RL40 | 105.4 | 0.24 | NT | NT | NM | NM | |
| 17 | 9 | August | 13:30:43 | Stage 2B | RL48 | NT | NT | NT | NT | NM | NM | |
| 18 | 16 | August | 14:52:31 | Stage 2B | RL47 | NT | NT | NT | NT | NM | NM | |
| 19 | 4 | September | 14:47:42 | Stage 2A | RL40 | 103.4 | 0.25 | NT | NT | NM | NM | |
| 20 | 17 | September | 13:31:08 | Stage1C | RL40 | NT | NT | NT | NT | NM | NM | |

NT Not Triggered
NM Not Monitored

Blasting Criteria

| Parameter | Units of Measure | Limit | |
|---|------------------------|------------------------|----------------|
| | | 95% of blasts per year | 100% of blasts |
| Airblast Overpressure (Linear Peak) | decibels (dBL) | 115 | 120 |
| Ground Vibration (Peak Particle Velocity) | millimeters per second | 5 | 10 |

Comments

Two blasting events occurred during the monitoring period. All blast monitoring results were within the approved criteria.

Waste Management**Waste Removal Summary**

| Month | January | February | March | April | May | June | July | August | September | October | November | December |
|--|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|
| Item | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity |
| General Waste Bin (10m ³) | - | - | - | - | - | - | - | - | - | | | |
| General Waste Bin (4.5m ³) | - | - | - | - | - | - | - | - | - | | | |
| General Waste Bin (6m ³) | - | - | - | - | - | - | - | - | - | | | |
| General Waste Bin (20m ³) | 1 | - | 1 | 1 | 1 | - | 1 | 2 | - | | | |
| Paper & Cardboard Bin (3m ³) | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | | | |
| Shredded Paper Bin (240L) | - | - | - | - | - | - | - | 3 | - | | | |
| Co Mingled Recycling (2 x 240 L) | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | | |
| Tonner Cartridges | 49 | - | - | - | - | - | - | - | - | | | |
| Waste Oil (L) | - | - | - | - | - | - | - | - | - | | | |
| Scrap Steel (t) | 2.86 | - | 3.28 | 2.66 | - | - | - | 3.2 | - | | | |
| Timber (m ³) | - | - | - | - | - | - | - | - | - | | | |
| Engine Coolant (L) | - | - | - | - | - | - | - | - | - | | | |
| Oil Filters (240L bin) | - | 3 | - | - | 4 | - | - | - | - | | | |
| Batteries | - | - | - | - | - | - | - | - | - | | | |
| Batteries Office | - | - | - | - | - | - | - | 150 | - | | | |
| Oily Rags (240L bin) | - | - | - | - | - | - | - | - | - | | | |
| Aerosols (120L bin) | - | - | - | - | - | - | - | - | - | | | |
| Tyres | - | - | - | - | - | - | - | - | - | | | |
| Other | - | - | - | - | - | - | - | - | - | | | |
| Oily Water (L) | - | - | - | - | - | - | - | - | - | | | |
| Grease Waste (L) | - | - | - | - | - | - | - | - | - | | | |