

#### Site Information

EPL No.: 12290

**EPA Website Link:** <u>http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290</u>

Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: March 2020

**Obtained Date: 21st April 2020** 

**Publication Date:** 4<sup>th</sup> May 2020

# Table 1 - No Pollutant Limits Apply

| EPL<br>ID | Pollutant                  | Units of<br>Measure | Monitoring<br>Frequency | No. of<br>Measurements<br>for the Month | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Mean<br>Value | Median<br>Value | Max<br>Value |
|-----------|----------------------------|---------------------|-------------------------|---|-----------------|------------------|--------------|---------------|-----------------|--------------|
| 28        | PM10                       | μg/m³               | Every 6 days            | 5                                       | 26/02/2020      | 3/03/2020        | 3.3          | 7.9           | 4.2             | 17.5         |
| 20        | Solid Particles            | g/m²/month          | Continuous              | 1                                       | 20/03/2020      | 06/04/2020       | 1.0          | 1.0           | 1.0             | 1.0          |
| 29        | PM10                       | μg/m³               | Every 6 days            | 5                                       | 26/02/2020      | 3/03/2020        | 6.7          | 15.4          | 7.7             | 41.5         |
| 29        | Solid Particles            | g/m²/month          | Continuous              | 1                                       | 20/03/2020      | 06/04/2020       | 1.1          | 1.1           | 1.1             | 1.1          |
| 30        | PM10                       | μg/m³               | Continuous              | Continuous                              | 29/02/2020      | 1/03/2020        | 4.8          | 12.2          | 10.3            | 26.7         |
| 50        | Solid Particles            | g/m²/month          | Continuous              | 1                                       | 20/03/2020      | 06/04/2020       | 0.7          | 0.7           | 0.7             | 0.7          |
|           | Conductivity               | μS/cm               | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nitrate                    | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
| 10        | Nitrogen (Total)           | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Phosphorus (Total)         | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | <b>Reactive Phosphorus</b> | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Conductivity               | μS/cm               | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nitrate                    | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
| 12        | Nitrogen (Total)           | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Phosphorus (Total)         | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | <b>Reactive Phosphorus</b> | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
| 14        | Conductivity               | μS/cm               | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |



| EPL<br>ID | Pollutant                  | Units of<br>Measure | Monitoring<br>Frequency | No. of<br>Measurements<br>for the Month | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Mean<br>Value | Median<br>Value | Max<br>Value |
|-----------|----------------------------|---------------------|-------------------------|---|-----------------|------------------|--------------|---------------|-----------------|--------------|
|           | Nitrate                    | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nitrogen (Total)           | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Phosphorus (Total)         | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | <b>Reactive Phosphorus</b> | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Conductivity               | μS/cm               | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nitrate                    | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nitrogen (Total)           | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Oil and Grease             | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
| 32        | рН                         | рН                  | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Phosphorus (Total)         | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | <b>Reactive Phosphorus</b> | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Total Suspended<br>Solids  | mg/L                | Special Frequency 1     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Conductivity               | μS/cm               | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nitrate                    | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nitrogen (Total)           | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Oil and Grease             | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
| 23        | рН                         | рН                  | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Phosphorus (Total)         | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | <b>Reactive Phosphorus</b> | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Total Suspended<br>Solids  | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Conductivity               | μS/cm               | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nitrate                    | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
| 24        | Nitrogen (Total)           | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
| 24        | Oil and Grease             | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | рН                         | рН                  | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Phosphorus (Total)         | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |



| EPL<br>ID | Pollutant                  | Units of<br>Measure | Monitoring<br>Frequency | No. of<br>Measurements<br>for the Month | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Mean<br>Value | Median<br>Value | Max<br>Value |
|-----------|----------------------------|---------------------|-------------------------|---|-----------------|------------------|--------------|---------------|-----------------|--------------|
|           | Reactive Phosphorus        | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Total Suspended<br>Solids  | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Conductivity               | μS/cm               | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nitrate                    | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nitrogen (Total)           | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Oil and Grease             | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
| 25        | рН                         | рН                  | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Phosphorus (Total)         | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Reactive Phosphorus        | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Total Suspended<br>Solids  | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Conductivity               | μS/cm               | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nitrate                    | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nitrogen (Total)           | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Oil and Grease             | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
| 26        | рН                         | рН                  | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Phosphorus (Total)         | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | <b>Reactive Phosphorus</b> | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Total Suspended<br>Solids  | mg/L                | Special Frequency 2     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Aluminium<br>(dissolved)   | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Arsenic (dissolved)        | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
| 33*       | Barium (dissolved)         | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Beryllium (dissolved)      | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | BOD                        | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Cadmium (dissolved)        | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |



| EPL<br>ID | Pollutant                | Units of<br>Measure | Monitoring<br>Frequency | No. of<br>Measurements<br>for the Month | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Mean<br>Value | Median<br>Value | Max<br>Value |
|-----------|--------------------------|---------------------|-------------------------|---|-----------------|------------------|--------------|---------------|-----------------|--------------|
|           | Chromium (dissolved)     | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Cobalt (dissolved)       | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Copper (dissolved)       | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Iron (dissolved)         | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Lead (dissolved)         | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | I             | -               | -            |
|           | Magnesium                | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Manganese<br>(dissolved) | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nickel (dissolved)       | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Potassium                | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Selenium (dissolved)     | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Sodium                   | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Total dissolved solids   | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Vanadium (dissolved)     | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Zinc (dissolved)         | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Aluminium<br>(dissolved) | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Arsenic (dissolved)      | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Barium (dissolved)       | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Beryllium (dissolved)    | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | BOD                      | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
| 34        | Cadmium (dissolved)      | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Chromium (dissolved)     | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Cobalt (dissolved)       | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Copper (dissolved)       | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Iron (dissolved)         | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Lead (dissolved)         | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Magnesium                | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |



| EPL<br>ID | Pollutant                | Units of<br>Measure | Monitoring<br>Frequency | No. of<br>Measurements<br>for the Month | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Mean<br>Value | Median<br>Value | Max<br>Value |
|-----------|--------------------------|---------------------|-------------------------|---|-----------------|------------------|--------------|---------------|-----------------|--------------|
|           | Manganese<br>(dissolved) | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nickel (dissolved)       | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Potassium                | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Selenium (dissolved)     | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Sodium                   | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Total dissolved solids   | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Vanadium (dissolved)     | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Zinc (dissolved)         | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Aluminium<br>(dissolved) | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Arsenic (dissolved)      | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Barium (dissolved)       | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Beryllium (dissolved)    | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | BOD                      | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Cadmium (dissolved)      | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Chromium (dissolved)     | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Cobalt (dissolved)       | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
| 35        | Copper (dissolved)       | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Iron (dissolved)         | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Lead (dissolved)         | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Magnesium                | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Manganese<br>(dissolved) | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Nickel (dissolved)       | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Potassium                | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Selenium (dissolved)     | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Sodium                   | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |



| EPL<br>ID | Pollutant              | Units of<br>Measure | Monitoring<br>Frequency | No. of<br>Measurements<br>for the Month | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Mean<br>Value | Median<br>Value | Max<br>Value |
|-----------|------------------------|---------------------|-------------------------|---|-----------------|------------------|--------------|---------------|-----------------|--------------|
|           | Total dissolved solids | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Vanadium (dissolved)   | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |
|           | Zinc (dissolved)       | mg/L                | Special Frequency 3     | 0                                       | -               | -                | -            | -             | -               | -            |

# Table 2 - Pollutant Limits Apply

| EPL<br>ID | Pollutant                      | Units of<br>Measure | Monitoring<br>Frequency | No. of<br>samples<br>for the<br>Month | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Max<br>Value | 100%ile<br>Limit | Exceedance<br>(Yes/No) |
|-----------|--------------------------------|---------------------|-------------------------|---------------------------------------|-----------------|------------------|--------------|--------------|------------------|------------------------|
|           | Total Suspended Solids         | mg/L                | Special Frequency 1     | 0                                     | -               | -                |              |              | 50*              | No                     |
| 10        | Oil and Grease                 | mg/L                | Special Frequency 1     | 0                                     | -               | -                |              |              | 10               | No                     |
|           | рН                             | рН                  | Special Frequency 1     | 0                                     | -               | -                |              |              | 6.5-8.5          | No                     |
|           | <b>Total Suspended Solids</b>  | mg/L                | Special Frequency 1     | 0                                     |                 |                  |              |              | 50               | No                     |
| 12        | Oil and Grease                 | mg/L                | Special Frequency 1     | 0                                     | -               | -                |              |              | 10               | No                     |
|           | рН                             | рН                  | Special Frequency 1     | 0                                     | -               | -                |              |              | 6.5-8.5          | No                     |
|           | <b>Total Suspended Solids</b>  | mg/L                | Special Frequency 1     | 0                                     | -               | -                |              |              | 50               | No                     |
| 14        | Oil and Grease                 | mg/L                | Special Frequency 1     | 0                                     | -               | -                |              |              | 10               | No                     |
|           | рН                             | рН                  | Special Frequency 1     | 0                                     | -               | -                |              |              | 6.5-8.5          | No                     |
|           | <b>Total Suspended Solids</b>  | mg/L                | Special Frequency 1     | 0                                     | -               | -                |              |              | 50               | No                     |
| 32        | Oil and Grease                 | mg/L                | Special Frequency 1     | 0                                     | -               | -                |              |              | 10               | No                     |
|           | рН                             | рН                  | Special Frequency 1     | 0                                     | -               | -                |              |              | 6.5-8.5          | No                     |
|           | <b>Electrical Conductivity</b> | mg/L                | Special Frequency 4     | 0                                     | -               | -                | -            | -            | 2000             | No                     |
| 33^       | Oil and Grease                 | mg/L                | Special Frequency 3     | 0                                     | -               | -                | -            | -            | 10               | No                     |
|           | рН                             | рН                  | Special Frequency 4     | 0                                     | -               | -                | -            | -            | 9                | No                     |
|           | <b>Electrical Conductivity</b> | mg/L                | Special Frequency 4     | 0                                     | -               | -                | -            | -            | 2000             | No                     |
| 34        | Oil and Grease                 | mg/L                | Special Frequency 3     | 0                                     | -               | -                | -            | -            | 10               | No                     |
|           | рН                             | рН                  | Special Frequency 4     | 0                                     | -               | -                | -            | -            | 9                | No                     |
| 35        | <b>Electrical Conductivity</b> | mg/L                | Special Frequency 4     | 0                                     | -               | -                | -            | -            | 2000             | No                     |



| epl<br>ID | Pollutant      | Units of<br>Measure | Monitoring<br>Frequency | No. of<br>samples<br>for the<br>Month | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Max<br>Value | 100%ile<br>Limit | Exceedance<br>(Yes/No) |
|-----------|----------------|---------------------|-------------------------|---------------------------------------|-----------------|------------------|--------------|--------------|------------------|------------------------|
|           | Oil and Grease | mg/L                | Special Frequency 3     | 0                                     | -               | -                | -            | -            | 10               | No                     |
|           | рН             | рН                  | Special Frequency 4     | 0                                     | -               | -                | -            | -            | 9                | No                     |

\*Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ EPL ID Point 33 is the point of discharge for discharge sampling

| EPL ID | Pollutant                  | Units of<br>Measure | Monitoring<br>Frequency | No. of<br>Measurements<br>for the Period | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Mean<br>Value | Median<br>Value | Max<br>Value |
|--------|----------------------------|---------------------|-------------------------|--|-----------------|------------------|--------------|---------------|-----------------|--------------|
|        | Conductivity               | μS/cm               | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | Nitrate                    | mg/L                | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | Nitrogen (Total)           | mg/L                | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | Oil and Grease             | mg/L                | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
| 16     | рН                         | рН                  | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | Phosphorus (Total)         | mg/L                | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | <b>Reactive Phosphorus</b> | mg/L                | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | Total Suspended<br>Solids  | mg/L                | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | Conductivity               | μS/cm               | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | Nitrate                    | mg/L                | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | Nitrogen (Total)           | mg/L                | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
| 27     | Oil and Grease             | mg/L                | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | рН                         | рН                  | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | Phosphorus (Total)         | mg/L                | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | <b>Reactive Phosphorus</b> | mg/L                | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |

# Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)



| EPL ID | Pollutant                  | Units of<br>Measure | Monitoring<br>Frequency | No. of<br>Measurements<br>for the Period | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Mean<br>Value | Median<br>Value | Max<br>Value |
|--------|----------------------------|---------------------|-------------------------|--|-----------------|------------------|--------------|---------------|-----------------|--------------|
|        | Total Suspended<br>Solids  | mg/L                | Every 3 Months          | 0  | 0               | -                | -            | -             | -               | -            |
|        | Conductivity               | μS/cm               | Every 6 Months          | 0  | 09/03/2020      | 17/03/2020       | Dry          | Dry           | Dry             | Dry          |
|        | Nitrate                    | mg/L                | Every 6 Months          | 0  | 09/03/2020      | 13/03/2020       | Dry          | Dry           | Dry             | Dry          |
|        | Nitrogen (Total)           | mg/L                | Every 6 Months          | 0  | 09/03/2020      | 13/03/2020       | Dry          | Dry           | Dry             | Dry          |
| 17     | рН                         | рН                  | Every 6 Months          | 0  | 09/03/2020      | 13/03/2020       | Dry          | Dry           | Dry             | Dry          |
|        | Phosphorus (Total)         | mg/L                | Every 6 Months          | 0  | 09/03/2020      | 13/03/2020       | Dry          | Dry           | Dry             | Dry          |
|        | <b>Reactive Phosphorus</b> | mg/L                | Every 6 Months          | 0  | 09/03/2020      | 13/03/2020       | Dry          | Dry           | Dry             | Dry          |
|        | Standing Water Level       | Metres              | Every 6 Months          | 0  | 09/03/2020      | 13/03/2020       | Dry          | Dry           | Dry             | Dry          |
|        | Conductivity               | μS/cm               | Every 6 Months          | 1  | 09/03/2020      | 13/03/2020       | 397          | 397           | 397             | 397          |
|        | Nitrate                    | mg/L                | Every 6 Months          | 1  | 09/03/2020      | 13/03/2020       | 0.04         | 0.04          | 0.04            | 0.04         |
|        | Nitrogen (Total)           | mg/L                | Every 6 Months          | 1  | 09/03/2020      | 13/03/2020       | <0.1         | <0.1          | <0.1            | <0.1         |
| 18     | рН                         | рН                  | Every 6 Months          | 1  | 09/03/2020      | 13/03/2020       | 7.18         | 7.18          | 7.18            | 7.18         |
|        | Phosphorus (Total)         | mg/L                | Every 6 Months          | 1  | 09/03/2020      | 13/03/2020       | <0.01        | <0.01         | <0.01           | <0.01        |
|        | <b>Reactive Phosphorus</b> | mg/L                | Every 6 Months          | 1  | 09/03/2020      | 13/03/2020       | <0.01        | <0.01         | <0.01           | <0.01        |
|        | Standing Water Level       | Metres              | Every 6 Months          | 1  | 09/03/2020      | 13/03/2020       | 57.69        | 57.69         | 57.69           | 57.69        |
|        | Conductivity               | μS/cm               | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 2620         | 2620          | 2620            | 2620         |
|        | Nitrate                    | mg/L                | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 17.7         | 17.7          | 17.7            | 17.7         |
|        | Nitrogen (Total)           | mg/L                | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 20.8         | 20.8          | 20.8            | 20.8         |
| 19     | рН                         | рН                  | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 7.89         | 7.89          | 7.89            | 7.89         |
|        | Phosphorus (Total)         | mg/L                | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 0.35         | 0.35          | 0.35            | 0.35         |
|        | Reactive Phosphorus        | mg/L                | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 0.28         | 0.28          | 0.28            | 0.28         |
|        | Standing Water Level       | Metres              | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 21.05        | 21.05         | 21.05           | 21.05        |
|        | Conductivity               | μS/cm               | Every 6 Months          | 1  | 10/03/2020      | 18/03/2020       | 1040         | 1040          | 1040            | 1040         |
| 20     | Nitrate                    | mg/L                | Every 6 Months          | 1  | 10/03/2020      | 18/03/2020       | 4.27         | 4.27          | 4.27            | 4.27         |
| 20     | Nitrogen (Total)           | mg/L                | Every 6 Months          | 1  | 10/03/2020      | 18/03/2020       | 5.1          | 5.1           | 5.1             | 5.1          |
|        | рН                         | рН                  | Every 6 Months          | 1  | 10/03/2020      | 18/03/2020       | 7.86         | 7.86          | 7.86            | 7.86         |



| EPL ID | Pollutant                  | Units of<br>Measure | Monitoring<br>Frequency | No. of<br>Measurements<br>for the Period | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Mean<br>Value | Median<br>Value | Max<br>Value |
|--------|----------------------------|---------------------|-------------------------|--|-----------------|------------------|--------------|---------------|-----------------|--------------|
|        | Phosphorus (Total)         | mg/L                | Every 6 Months          | 1  | 10/03/2020      | 18/03/2020       | 0.06         | 0.06          | 0.06            | 0.06         |
|        | <b>Reactive Phosphorus</b> | mg/L                | Every 6 Months          | 1  | 10/03/2020      | 18/03/2020       | 0.05         | 0.05          | 0.05            | 0.05         |
|        | Standing Water Level       | Metres              | Every 6 Months          | 1  | 10/03/2020      | 18/03/2020       | 19.97        | 19.97         | 19.97           | 19.97        |
|        | Conductivity               | μS/cm               | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 1970         | 1970          | 1970            | 1970         |
|        | Nitrate                    | mg/L                | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 0.8          | 0.8           | 0.8             | 0.8          |
|        | Nitrogen (Total)           | mg/L                | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 2.7          | 2.7           | 2.7             | 2.7          |
| 21     | рН                         | рН                  | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 7.64         | 7.64          | 7.64            | 7.64         |
|        | Phosphorus (Total)         | mg/L                | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 0.04         | 0.04          | 0.04            | 0.04         |
|        | <b>Reactive Phosphorus</b> | mg/L                | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 0.03         | 0.03          | 0.03            | 0.03         |
|        | Standing Water Level       | Metres              | Every 6 Months          | 1  | 05/03/2020      | 13/03/2020       | 13.93        | 13.93         | 13.93           | 13.93        |
|        | Conductivity               | μS/cm               | Every 6 Months          | 0  | 10/03/2020      | 18/03/2020       | TLTS         | TLTS          | TLTS            | TLTS         |
|        | Nitrate                    | mg/L                | Every 6 Months          | 0  | 10/03/2020      | 18/03/2020       | TLTS         | TLTS          | TLTS            | TLTS         |
|        | Nitrogen (Total)           | mg/L                | Every 6 Months          | 0  | 10/03/2020      | 18/03/2020       | TLTS         | TLTS          | TLTS            | TLTS         |
| 22     | рН                         | рН                  | Every 6 Months          | 0  | 10/03/2020      | 18/03/2020       | TLTS         | TLTS          | TLTS            | TLTS         |
|        | Phosphorus (Total)         | mg/L                | Every 6 Months          | 0  | 10/03/2020      | 18/03/2020       | TLTS         | TLTS          | TLTS            | TLTS         |
|        | Reactive Phosphorus        | mg/L                | Every 6 Months          | 0  | 10/03/2020      | 18/03/2020       | TLTS         | TLTS          | TLTS            | TLTS         |
|        | Standing Water Level       | Metres              | Every 6 Months          | 1  | 10/03/2020      | 18/03/2020       | 16.27        | 16.27         | 16.27           | 16.27        |

TLTS - Too low to sample



|          |               |                       |            | Measure                | ed levels –                | 01       | Weather                                 |   | (Potential)                   |                  |
|----------|---------------|-----------------------|------------|------------------------|----------------------------|----------|---|---|-------------------------------|------------------|
| Location | Date          | Measurement<br>Period | Start Time | di<br>LA1, 1<br>Minute | 3(A)<br>LAeq, 15<br>Minute | Limit(s) | (inversion<br>oC/100m,<br>wind m/s & °) | Observations  | Non-<br>compliance<br>/breach | Date<br>Obtained |
| R24      | 19 March 2020 | 60 minutes            | 2:16pm     | N/A                    | 38                         | Day 37   | 0.8m/s, 329<br>degrees                  | Birds (36), traffic (33), WCC (<20)                         | No                            | 21/04/2020       |
| R12      | 19 March 2020 | 60 minutes            | 2:10pm     | N/A                    | 40                         | Day 38   | 0.8m/s, 329<br>degrees                  | Insects (39), traffic (33), WCC (<20)                       | No                            | 21/04/2020       |
| R96      | 19 March 2020 | 60 minutes            | 3:18pm     | N/A                    | 37                         | Day 38   | 0.8m/s, 204<br>degrees                  | Traffic (34), birds (32), insects (30), <b>WCC (24)</b>     | No                            | 21/04/2020       |
| R98      | 19 March 2020 | 60 minutes            | 3:25pm     | N/A                    | 34                         | Day 36   | 0.8m/s, 163<br>degrees                  | Insects (31), birds (30), WCC (<20)                         | No                            | 21/04/2020       |
| R57      | 19 March 2020 | 60 minutes            | 4:40pm     | N/A                    | 49                         | Day 35   | 0.6m/s, 126<br>degrees                  | Traffic (49), birds (41), WCC (<20)                         | No                            | 21/04/2020       |
| R24      | 19 March 2020 | 60 minutes            | 7:33pm     | 24                     | 46                         | Night 37 | +0.3ºC/100m,<br>2.6m/s, 15<br>degrees   | Traffic (45), insects (39), WCC (22)                        | No                            | 21/04/2020       |
| R12      | 19 March 2020 | 60 minutes            | 7:59pm     | <20                    | 52                         | Night 38 | +2.1°C/100m,<br>3.0m/s, 356<br>degrees  | Train (49), insects (47), traffic (46),<br>WCC (<20)        | No                            | 21/04/2020       |
| R96      | 19 March 2020 | 60 minutes            | 9:11pm     | 24                     | 42                         | Night 38 | +3.9°C/100m,<br>0.7m/s, 186<br>degrees  | Traffic 41, insects (38), WCC (22)                          | No                            | 21/04/2020       |
| R98      | 19 March 2020 | 60 minutes            | 8:51pm     | 30                     | 48                         | Night 38 | +3.9°C/100m,<br>0.3m/s, 303<br>degrees  | Residential (48), insects (40), WCC (28)                    | No                            | 21/04/2020       |
| R57      | 19 March 2020 | 60 minutes            | 10:35pm    | <20                    | 40                         | Night 35 | +5.6°C/100m,<br>0.7m/s, 280<br>degrees  | Traffic (39), train (34), insects (28), <b>WCC (&lt;20)</b> | No                            | 21/04/2020       |

### Table 4 – Monitoring (Noise – Limits Apply)

NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

IA = Inaudible.



Table 5 – Monitoring (Blasts – Limits Apply)

| Location | Parameter              | Units of      | Frequency   | No. of Blasts | Average | Max   | 100%ile | (Potential) Non-   | Date       |
|----------|------------------------|---------------|-------------|---------------|---------|-------|---------|--------------------|------------|
|          |                        | Measure       |             | for the Month | Value   | Value | Limit   | compliance /breach | Obtained   |
| R11      | Blast Noise            | dB (Lin Peak) | Every Blast | 8             | 100.2   | 106.4 | 120.0   | No                 | 01/04/2020 |
|          | <b>Blast Vibration</b> | mm/s          | Every Blast | 8             | 0.08    | 0.17  | 10.0    | No                 | 01/04/2020 |
| R98      | Blast Noise            | dB (Lin Peak) | Every Blast | 8             | 97.4    | 103.3 | 120.0   | No                 | 01/04/2020 |
|          | <b>Blast Vibration</b> | mm/s          | Every Blast | 8             | 0.56    | 1.25  | 10.0    | No                 | 01/04/2020 |
| R62      | Blast Noise            | dB (Lin Peak) | Every Blast | 8             | 98.4    | 106.0 | 120.0   | No                 | 01/04/2020 |
|          | <b>Blast Vibration</b> | mm/s          | Every Blast | 8             | 0.32    | 0.63  | 10.0    | No                 | 01/04/2020 |
| R92      | Blast Noise            | dB (Lin Peak) | Every Blast | 8             | 98.9    | 106.3 | 120.0   | No                 | 01/04/2020 |
|          | <b>Blast Vibration</b> | mm/s          | Every Blast | 8             | 0.25    | 0.52  | 10.0    | No                 | 01/04/2020 |



