

#### **Site Information**

**EPL No:** 3637

EPA Website Link: http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

**EPL Monitoring Points:** See Figure 1 below

Sampling Period: May 2018

Obtained Date: 6<sup>th</sup> June 2018

Publication Date: 13<sup>th</sup> June 2018

**Table 1 - No Pollutant Limits Apply** 

| EPL<br>ID | Pollutant                   | Units of<br>Measure | Monitoring<br>Frequency | No. of Measurements for the Month | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Mean<br>Value | Median<br>Value | Max or<br>Only<br>Value |
|-----------|-----------------------------|---------------------|-------------------------|-----------------------------------|-----------------|------------------|--------------|---------------|-----------------|-------------------------|
| 3         | Solid Particles             | g/m²/month          | Continuous              | 1                                 | 18/05/18        | 29/05/18         | -            | -             | -               | 0.3                     |
| 5         | PM <sub>10</sub>            | μg/m³               | Every 6 days            | 5                                 | Various         | 6/06/18          | 8.4          | 46.4          | 47              | 106                     |
| 11        | PM <sub>10</sub>            | μg/m³               | Every 6 days            | 0                                 | -               | -                | -            | i             | -               | -                       |
| 12        | PM <sub>10</sub>            | μg/m³               | Every 6 days            | 6                                 | Various         | 6/06/18          | 9.3          | 18.2          | 19.5            | 27.9                    |
|           | Conductivity                | ms/cm               |                         | -                                 | 1               | -                | -            | 1             | -               | -                       |
|           | Oil and Grease              | mg/L                |                         | -                                 | 1               | -                | -            | 1             | -               | -                       |
| 6         | <b>Total Organic Carbon</b> | mg/L                | Each overflow           | -                                 | 1               | -                | -            | 1             | -               | -                       |
| 6         | Total Suspended<br>Solids   | mg/L                | event                   | -                                 | 1               | -                | ı            | 1             | -               | -                       |
|           | рН                          | рН                  |                         | -                                 | -               | -                | -            | -             | -               | -                       |
|           | Conductivity                | ms/cm               |                         | 1                                 | 7/05/18         | -                | -            | -             | -               | 1320                    |
|           | Oil and Grease              | mg/L                |                         | 1                                 | 7/05/18         | -                | -            | -             | -               | <5                      |
| 7         | <b>Total Organic Carbon</b> | mg/L                | Quarterly               | 1                                 | 7/05/18         | -                | -            | -             | -               | 4                       |
|           | Total Suspended<br>Solids   | mg/L                |                         | 1                                 | 7/05/18         | -                | -            | -             | -               | 17                      |



| 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 or<br>Only<br>Value |
|-----------|-----------|---------------------|-------------------------|---|-----------------|------------------|--------------|---------------|-----------------|-------------------------|
|           | рН        | рН                  |                         | 1                                       | 7/05/18         | -                | -            | -             | -               | 8.6                     |

# Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

| EPL<br>ID | Pollutant               | Units of<br>Measure | Monitoring Frequency | No. of<br>Samples for<br>the Period | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Mean<br>Value | Median Value | Max or Only<br>Value |
|-----------|-------------------------|---------------------|----------------------|-------------------------------------|-----------------|------------------|--------------|---------------|--------------|----------------------|
|           | Ammonia                 | mg/L                |                      | 1                                   | 31/05/18        | 6/06/18          | -            | -             | -            | 0.03                 |
|           | Bicarbonate             | mg/L                |                      |                                     |                 |                  | -            | -             | -            | 1260                 |
|           | Calcium                 | mg/L                |                      |                                     |                 |                  | -            | -             | -            | 36                   |
|           | Chloride                | mg/L                |                      |                                     |                 |                  | ı            | ı             | -            | 1270                 |
|           | Conductivity            | μs/cm               |                      |                                     |                 |                  | ı            | ı             | -            | 7090                 |
|           | Lead                    | mg/L                |                      |                                     |                 |                  | ı            | ı             | -            | 0.002                |
| 8         | Magnesium               | mg/L                | Quarterly            |                                     |                 |                  | ı            | ı             | -            | 113                  |
| 0         | Nitrate                 | mg/L                |                      |                                     |                 |                  | ı            | ı             | -            | 1.34                 |
|           | Potassium               | mg/L                |                      |                                     |                 |                  | ı            | ı             | -            | 22                   |
|           | Sodium                  | mg/L                |                      |                                     |                 |                  | •            | 1             | -            | 1540                 |
|           | Standing<br>Water Level | m                   |                      |                                     |                 |                  | -            | -             | 1            | -                    |
|           | Sulphate                | mg/L                |                      |                                     |                 |                  | -            | -             | -            | 635                  |
|           | рН                      | рН                  |                      |                                     |                 |                  | -            | -             | -            | 8.8                  |
|           | Ammonia                 | mg/L                | Quarterly            | 1                                   | 31/05/18        |                  | -            | -             | -            | 0.02                 |
| 9         | Bicarbonate             | mg/L                |                      |                                     |                 | 6/06/18          | -            | -             | -            | 850                  |
| 9         | Calcium                 | mg/L                |                      |                                     |                 |                  | -            | -             | -            | 244                  |
|           | Chloride                | mg/L                |                      |                                     |                 |                  | -            | -             | -            | 1130                 |



| EPL<br>ID | Pollutant               | Units of<br>Measure | Monitoring<br>Frequency | No. of<br>Samples for<br>the Period | Date<br>Sampled | Date<br>Obtained | Min<br>Value | Mean<br>Value | Median Value | Max or Only<br>Value |
|-----------|-------------------------|---------------------|-------------------------|-------------------------------------|-----------------|------------------|--------------|---------------|--------------|----------------------|
|           | Conductivity            | μs/cm               |                         |                                     |                 |                  | -            | -             | -            | 5700                 |
|           | Lead                    | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 0.001                |
|           | Magnesium               | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 232                  |
|           | Nitrate                 | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 0.39                 |
|           | Potassium               | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 121                  |
|           | Sodium                  | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 704                  |
|           | Standing<br>Water Level | m                   |                         |                                     |                 |                  | -            | -             | -            | -                    |
|           | Sulphate                | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 763                  |
|           | рН                      | рН                  |                         |                                     |                 |                  | -            | -             | -            | 7.1                  |
|           | Ammonia                 | mg/L                |                         |                                     | 31/05/18        | 6/06/18          | -            | -             | -            | 0.08                 |
|           | Bicarbonate             | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 654                  |
|           | Calcium                 | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 178                  |
|           | Chloride                | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 1350                 |
|           | Conductivity            | μs/cm               |                         |                                     |                 |                  | -            | -             | -            | 5560                 |
|           | Lead                    | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 0.003                |
| 10        | Magnesium               | mg/L                | Quartarly               | 1                                   |                 |                  | -            | -             | -            | 216                  |
| 10        | Nitrate                 | mg/L                | - Quarterly             | 1                                   |                 |                  | -            | -             | -            | 5.22                 |
|           | Potassium               | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 64                   |
|           | Sodium                  | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 715                  |
|           | Standing<br>Water Level | m                   |                         |                                     |                 |                  | -            | -             | -            | -                    |
|           | Sulphate                | mg/L                |                         |                                     |                 |                  | -            | -             | -            | 267                  |
|           | pH                      | рН                  |                         |                                     |                 |                  | -            | -             | -            | 7.9                  |



### Table 3 – Monitoring (Quarterly Noise – Limits Apply)

| EPL<br>ID | Date | Start Time | Measurement<br>Period | Measured levels – All sources – dB(A) |   | Limit(s) | Wind speed<br>(m/s) | Observations | (Potential)<br>Non-   |
|-----------|------|------------|-----------------------|---------------------------------------|---|----------|---------------------|--------------|-----------------------|
|           |      |            |                       |                                       |   |          |                     |              | compliance<br>/breach |
|           | -    | -          | -                     |                                       | - | -        | -                   | -            |                       |
| NI4       | -    | -          | -                     |                                       | - | -        | -                   | -            |                       |
| N1        | -    | -          | -                     |                                       | - | -        | -                   | -            | -                     |
|           | -    | -          | -                     | -                                     |   | -        | -                   | -            |                       |

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

<sup>•</sup> site noise levels were insignificant and unlikely, in many cases, to be even noticed; or

<sup>•</sup> site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.



Figure 1 – EPL 3637 Monitoring Locations

