

**Jondaryan Rail Loading Facility Air Quality Monitoring Results**



New Acland Coal Pty Ltd (NAC) undertakes air quality monitoring as part of the environmental monitoring program for the Jondaryan Rail Loading Facility (JRLF). The following air quality data is provided to the Jondaryan community.

**Table 1: Dust deposition and compositional monitoring results for the period: March 2013**

| Site | Dust Deposition (mg/m <sup>2</sup> /day) | DA Criteria (mg/m <sup>2</sup> /day) <sup>a</sup> | Compositional Analysis  |  |       | Comments   |
|------|--|---|---|--|-------|--|
|      |  |   | Major   | Minor  | Trace |  |
| JD1  | 23.3                                     | 120   | Mineral Material (40%), Insects (30%)   | Polysaccharide Slime (10%), Vegetation (10%), Coal (10%) | NA    | Rail and Highway to the north. Stubble paddock to north east. JRLF to east. Grass and Crop paddocks to south east. Residential to north, and west. Road with unsealed edges immediately north. |
| JD2  | 26.7                                     | 120   | Mineral Material (30%), Insects (25%), Vegetation (20%)                             | Coal (15%), Polysaccharide Slime (10%)                   | NA    | Rail and Highway to north. JRLF to the east. Paddocks to the east. Residential to south and west. Road with unsealed edges immediately east.   |
| JD3  | 53.3                                     | 120   | Vegetation (25%), Mineral Material (20%), Polysaccharide Slime (20%), Insects (20%) | Coal (15%)   | NA    | Highway and rail to north. JRLF to the east. Residential surrounding. Road with unsealed edges immediately east and south. Paddocks to the west.   |
| JD4  | 60.0                                     | 120   | Mineral Material (30%), Insects (30%), Vegetation (20%)                             | Polysaccharide Slime (15%), Coal (5%)                    | NA    | Crop paddock surrounding. Residential to west. Rail, Highway and Jondaryan town to south. JRLF to the east.  |
| JD5  | 26.7                                     | 120   | Mineral Material (45%), Insects (20%)   | Vegetation (15%), Polysaccharide Slime (10%), Coal (10%) | NA    | Rail and highway immediately north. JRLF to the east. Grass paddocks and residential to east, south and west.  |

<sup>a</sup> Copper sludge is a by product of the necessary preservative (copper sulphate) in sample containers as directed by the laboratory

<sup>b</sup> Polysaccharide slime is a by product of the bio-degradation of insects and vegetation

<sup>c</sup> When measured at a sensitive place, the allowable maximum level of the release of dust from the JRLF is 120 milligrams per square metre per day (120mg/m<sup>2</sup>/day) as stated in the JRLF's Development Approval (DA). The dust deposition monitors do not distinguish between dust sources. The predominant wind directions for the month of March were from the east (~54%), south east (~15%), and north east (~10%). The predominant wind speed for March was light winds.

**Table 2: Quarterly PM<sub>10</sub> monitoring result for the period 20-21 December 2012**

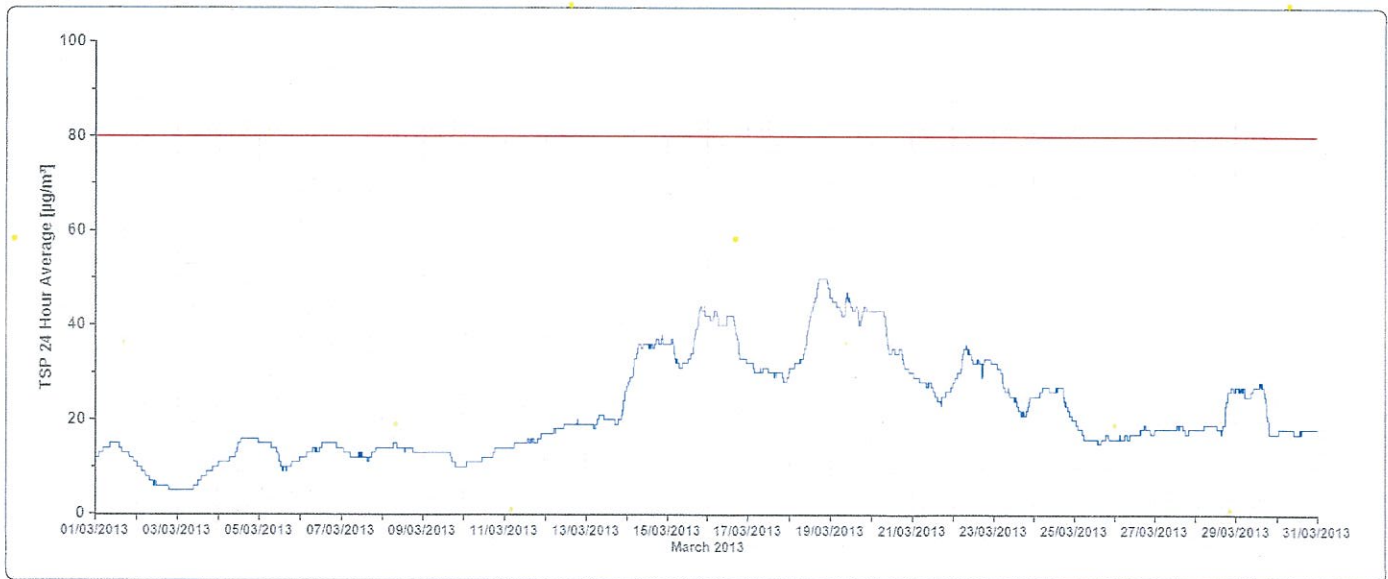
| Location                                     | 24 Hour PM <sub>10</sub> Result (µg/m <sup>3</sup> ) | Long-Term PM <sub>10</sub> Average (µg/m <sup>3</sup> ) | NEPM Criteria for 24 Hour PM <sub>10</sub> exposure <sup>a</sup> (µg/m <sup>3</sup> ) | Comments   |
|--|--|---|---|--|
| Corner of Lagoon and Earl Streets, Jondaryan | 33   | 23  | 50  | This site was within the downwind area of the Jondaryan Rail Load Facility stockpile for the sample period. The sampler did not complete full 24-hour run (likely attributable to storm activity) and this result is considered semi qualitative only. |

<sup>a</sup> Taken from monitoring report, with respect to most recent result

<sup>b</sup> PM<sub>10</sub> monitoring is undertaken on a quarterly basis for a nominal 24 hour period.

The national 24-hour exposure standard for PM<sub>10</sub> particulates stated in the National Environment Protection Measure for Ambient Air Quality is 50 micrograms per cubic metre (50µg/m<sup>3</sup>). The PM<sub>10</sub> monitors do not distinguish between particulate matter sources. The predominant wind direction for the PM<sub>10</sub> monitoring (24 hours) was east-north-easterly.

March 2013 TEOM Results



**Figure 1: Jondaryan Township TSP continuous monitoring results for the period: March 2013**

**Comments:** The predominant wind directions for the month of March were from the east (~54%), south east (~15%), and north east (~10%). The predominant wind speed for March was light winds. The TEOM unit was operational for >99% of the sample period.

A TEOM located within the Jondaryan Township continuously measures Total Suspended Particulate (TSP) matter. When measured at a sensitive place, the maximum level of the release of TSP from the JRLF (24-hour average) is 80 micrograms per cubic metre (80µg/m<sup>3</sup>) as stated in the JRLF's DA. The TEOM's do not distinguish between particulate matter sources.

If there are any queries regarding the air quality monitoring undertaken for the Jondaryan Rail Loading Facility please contact Rob Rashleigh at the New Acland Coal Mine during business hours on 4694 8888.

Issued by:

Rob Rashleigh  
CHPP Superintendent  
New Acland Coal Pty Ltd

*Rob Rashleigh*

Date: 22/04/2013