

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

Issue Month: March 2016



**NEW HOPE GROUP**

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: January 2016**

Site	Dust Deposition (mg/m <sup>2</sup> /day)	EA Criteria (mg/m <sup>2</sup> /day) <sup>†</sup>	Compositional Analysis <sup>*</sup>			Comments
			Major (>20%)	Minor (<20%>1%)	Trace (<1%)	
JD1	23	120	Mineral Material (70%)	Insects (20%), Coal (10%)	Vegetation (<1%)	Rail and Highway to the north, north-west & north-east. JRLF to east. Dirt and gravel immediately surrounding, cropped paddock to north-east & south-east. Residential to north and west. Road with unsealed edges to north-west, north & north-east, unsealed road to landfill to north-east & gravel driveways to west, north-west, north & north-east. Road to south-west, west, north-west & north. Gravel road to north-east, east & south-east. Spider web in funnel. Stubble paddock to north-east & south-east.
JD2	27	120	Mineral Material (90%)	Insects (10%)	Coal (<1%), Vegetation (<1%)	Rail and Highway to north, north-west & north-east. JRLF to the north-east. Grass immediately surrounding. Residential to south and west. Road with unsealed edges to north-east, east, south-east, south. Dirt road to south-east. Road to north-east. Cropped paddock to south-east.
JD3	20	120	Mineral Material (75%)	Insects (15%), Coal (10%)	Vegetation (<1%)	Highway and Rail to north-west, north, north-east. JRLF to the east. Residential surrounding. Grass & garden immediately surrounding. Road to north, north-east, east, south-east, south & south-west. Gravel drive to north-east and south-east.
JD4	30	120	Mineral Material (70%)	Coal (20%), Insects (10%)	Vegetation (<1%)	Rail, Highway and Jondaryan town to south-east, south, south-west, west. JRLF to the east. Grass immediately surrounding. Cropped paddock to south-west, west, north-west, north & north-east. Stubble paddock to north-west. Roads to north-east, east, south-east, south, south-west.
JD5	96	120	Polysaccharide Slime (70%)	Insects (20%), Coal (5%), Mineral Material (5%)	Vegetation (<1%)	Rail and Highway to north-west, north, north-east. JRLF to the north-east. Grass immediately surrounding. Residential to east, south and west. Road to north-east, east, south-east & south. Spider web in funnel.

<sup>†</sup> A semi-qualitative visual analysis of a representative portion of the collected sample which is as consistent as possible (however potentially biased) to that of the complete sample

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

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

<sup>†</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 Environmental Authority (EA). The dust deposition monitors do not distinguish between dust sources. The predominant wind directions for January 2016 were from the east (35.9%), north-east (19.6%), north-west (12.5%) and south-east (8.5%). The predominant wind speed for January was calm to light winds.

**Table 2: Quarterly PM<sub>10</sub> monitoring result for the period 18-19 November 2015**

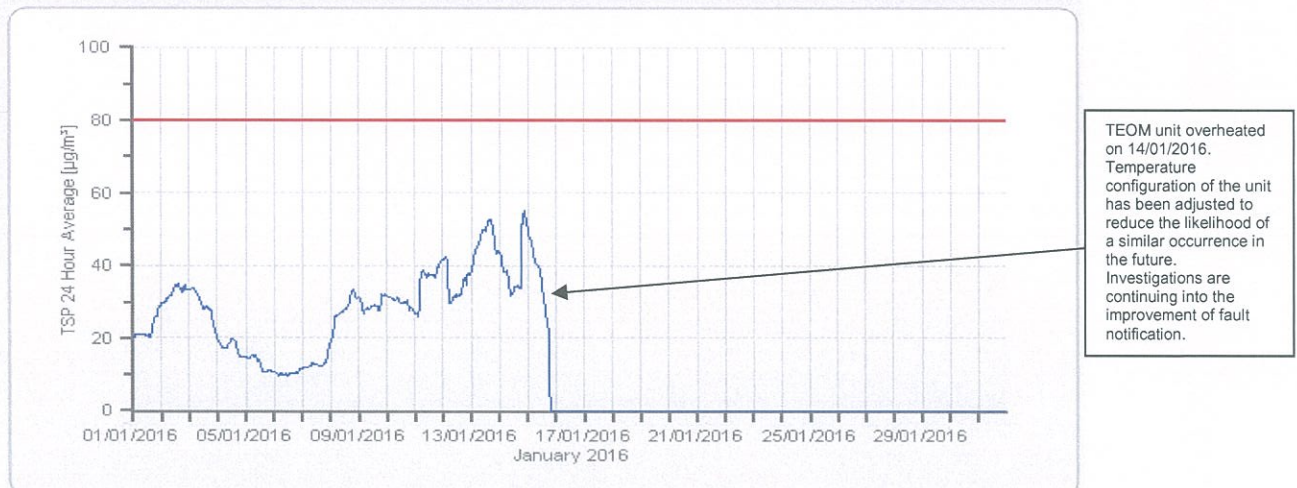
Location	24 Hour PM <sub>10</sub> Result (µg/m <sup>3</sup> )	Long-Term PM <sub>10</sub> Average (µg/m <sup>3</sup> )	NEPM Criteria for 24 Hour PM <sub>10</sub> exposure <sup>†</sup> (µg/m <sup>3</sup> )	Comments <sup>*</sup>
Corner of Lagoon and Earl Streets, Jondaryan	33	22	50	"This site was within the downwind area of coal stockpile for less than 25% of the time"

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

<sup>\*</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.

**January 2016 TEOM Results**



**Figure 1: Jondaryan Township TSP continuous monitoring results for the period: January 2016**

**Comments:** 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 EA. The TEOM's do not distinguish between particulate matter sources. The predominant wind directions for January 2016 were from the east (35.9%), north-east (19.6%), north-west (12.5%) and south-east (8.5%). The predominant wind speed for January was calm to light winds. The TEOM unit was operational for approximately 44% of the sample period.

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.

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