

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

 Issue Month: October 2017

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 September 2017**

Site	Dust Deposition (mg/m <sup>2</sup> /day)	EA Criteria (mg/m <sup>2</sup> /day)	Compositional Analysis <sup>1</sup>			Comments
			Major (>20%)	Minor (1% - 20%)	Trace (<5%)	
JD1	20	120	Mineral Material (70%)	Insects (15%), Vegetation (10%), Copper Sludge (5%)	Coal (<5%)	Rail and Highway to the north, north-west and north-east. JRLF to north-east. Gravel and dirt immediately surrounding. Bare paddock to north-east, east and south-east. Cropped paddock to east. Residential to north and west. Road with unsealed edges to north-west, north and north-east. Unsealed roads and driveways to east, south-east, west and north-east.
JD2	116	120	Mineral Material (45%), Insects (25%)	Coal (15%), Vegetation (10%), Copper Sludge (5%)	N/A	Rail and Highway to north, north-west and north-east. JRLF to the north-east. Grass immediately surrounding. Bare paddock to south-east. Residential to south and west. Road with unsealed edges to north-east, east, south-east and south. Unsealed road to south-east, south and south-west.
JD3	27	120	Mineral Material (65%)	Vegetation (15%), Copper Sludge (10%), Coal (5%), Insects (5%)	N/A	Highway and Rail to north-west, north and north-east. JRLF to the north-east. Residential surrounding. Grass and garden immediately surrounding. Cropped paddock to south. Road with unsealed edges to south-east. Unsealed driveways to north-east, south-east and south. Spider web in funnel.
JD4	10	120	Mineral Material (55%), Copper Sludge (20%)	Insects (10%), Vegetation (10%), Coal (5%)	N/A	Rail, Highway and Jondaryan town to south-east, south, south-west and west. JRLF to the east. Immediate surrounding grass and cropped paddock. Cropped paddocks to south-west, west, north-west, north, north-east and south-east. Bare paddock to north. Roads to north-east, east, south-east, south and south-west.
JD5	30	120	Mineral Material (60%), Insects (20%), Vegetation (20%)	N/A	Coal (<5%)	Rail and Highway to north-west, north and north-east. JRLF to the north-east. Grass immediately surrounding. Residential to east, south and west. Road to north-east, east and south-east.

<sup>1</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

 When measured at a sensitive place, the allowable maximum level of the release of dust from JRLF is 120 milligrams per square metre per day (120 mg/m<sup>2</sup>/day as stated in JRLF's Environmental Authority (EA). The dust deposition monitors do not distinguish between dust sources. The predominant wind directions for September 2017 were North-West (28.55%), South-West (18.18%) and South (13.07%). The predominant wind speeds were light air to light breeze<sup>2</sup>.

<sup>3</sup> Wind speed classification uses the Beaufort scale

**Table 2: Quarterly PM<sub>10</sub> monitoring result for 12-13 July 2017**

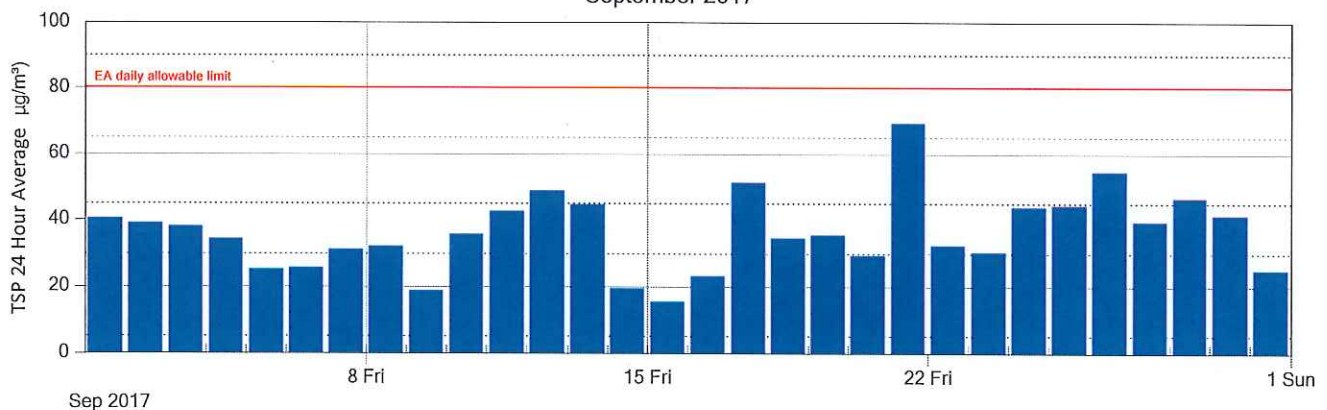
Location	24 Hour PM <sub>10</sub> Result (µg/m <sup>3</sup> )	Long-Term PM <sub>10</sub> average (µg/m <sup>3</sup> )	NEPM Criteria for 24 Hour PM <sub>10</sub> exposure (µg/m <sup>3</sup> ) <sup>3</sup>	Comments <sup>3</sup>
Corner of Lagoon and Earl Streets, Jondaryan	20	22	50	"Winds from the east-north-east to east-south-east placed the site downwind of the Jondaryan Coal Stockpile (~1km) for approximately 82.4 % of the sampling period."

<sup>3</sup> Taken from monitoring report, with respect to most recent result

<sup>4</sup> PM<sub>10</sub> monitoring is undertaken on a quarterly basis for a nominal

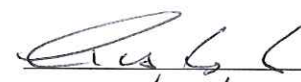
 The national 24-hour exposure for PM<sub>10</sub> particulates stated in the National Environment Protection Measure for Ambient Air Quality is 50 micrograms per cubic meter (50 µg/m<sup>3</sup>). The PM<sub>10</sub> monitors do not distinguish between *particulate matter sources*.

### TSP 24 Hour Average September 2017


**Figure 1: Jondaryan Township TSP continuous monitoring 24 Hr average results for September 2017**
**Comments:** Ecotech Pty Ltd has been contracted by NAC for the maintenance and data collection at a TEOM site located in the Jondaryan Township which 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 (80 µg/m<sup>3</sup>) as stated in the JRLF's EA. Any exceedances of this limit are displayed in Figure 1 (above). The TEOM does not distinguish between particulate matter sources. The predominant wind directions for September 2017 were North-West (28.55%), South-West (18.18%) and South (13.07%). The predominant wind speeds were light air to light breeze. The TEOM unit availability for TSP determination was 99.7% 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.

 Issued by:  
 Robert Rashleigh  
 CHPP Manager – Coal Operations  
 New Acland Coal Pty Ltd

  
 Date: 19/10/2017