

Jondaryan Rail Loading Facility Air Quality Monitoring Results

Issue Month: March 2017 (reissue for January 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 January 2017

Site	Dust Deposition (mg/m ² /day)	EA Criteria (mg/m ² /day)	Compositional Analysis ¹			Comments
			Major (>20%)	Minor (1% - 20%)	Trace (<1%)	
JD1	20	120	Mineral Material (80%)	Insects (10%), Vegetation (10%)	Coal (<1%)	Rail and Highway to the north, north-west & north-east. JRLF to north-east. Grass and gravel immediately surrounding. 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 north-west.
JD2	43	120	Mineral Material (75%)	Vegetation (20%), Coal (5%)	Insects (<1%)	Rail and Highway to north, north-west & north-east. JRLF to the north-east. Grass and horse paddock immediately surrounding. Exposed dirt from construction to north, north-east. Residential to south and west. Road with unsealed edges to north-east, east, south-east & south. Gravel road to south-east, south, south-west.
JD3	27	120	Mineral Material (75%)	Insects (10%), Vegetation (10%), Coal (5%)	N/A	Highway and Rail to north-west, north, north-east. JRLF to the north-east. Residential surrounding. Grass & garden immediately surrounding. Road to north-west, north, north-east, east, south-east, south & south-west. Gravel drive to north-east & south.
JD4	663	120	Mineral Material (85%)	Coal (5%), Insects (5%), Vegetation (5%)	N/A	Rail, Highway and Jondaryan town to south-east, south, south-west & west. JRLF to the east. Immediately surrounding grass and cultivated paddocks to north-west, west, north and north-east, bare paddock to north. Roads to north-east, east, south-east, south, south-west.
JD5	63	120	Mineral Material (75%)	Insects (10%), Vegetation (10%), Coal (5%)	N/A	Rail and Highway to north-west, north, north-east. JRLF to the north-east. Grass immediately surrounding. Bare paddock to south-west. Residential to east, south and west. Road to north-east, east & south-east.

¹ 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/m²/day as stated in JRLF's Environmental Authority (EA). The dust deposition monitors do not distinguish between dust sources. The predominant wind directions for January 2017 were East (37.2%), North-East (17.3%) and South-East (15.3%). The predominant wind speeds were light air to light breeze². Rainfall was 60% below average (Oakey) for the month of January. JD4 reported a concentration greater than the EA limit however two dust deposition gauges in between the JRLF and JD4 report concentrations less than JD4 (70 and 43 mg/m²/day), JD4's compositional analysis reported coal at 5% with the major constituent being mineral material, results indicate localised dust sources are the likely cause of the elevated result at JD4. Click here to enter discussion about EA limit exceedences.

² Wind speed classification uses the Beaufort scale

Table 2: Quarterly PM₁₀ monitoring result for 1-2 February 2017

Location	24 Hour PM ₁₀ Result (µg/m ³)	Long-Term PM ₁₀ average (µg/m ³)	NEPM Criteria for 24 Hour PM ₁₀ exposure (µg/m ³) ³	Comments ³
Corner of Lagoon and Earl Streets, Jondaryan	21	22	50	"Winds from the east to east-south-east placed the site downwind of the Jondaryan Coal Stockpile (~1km) for approximately 4% of the sampling period."

³ Taken from monitoring report, with respect to most recent result

⁴ PM₁₀ monitoring is undertaken on a quarterly basis for a nominal

The national 24-hour exposure for PM₁₀ particulates stated in the National Environment Protection Measure for Ambient Air Quality is 50 micrograms per cubic meter (50 µg/m³). The PM₁₀ monitors do not distinguish between *particulate matter sources*.

TSP 24 Hour Rolling Average January 2017

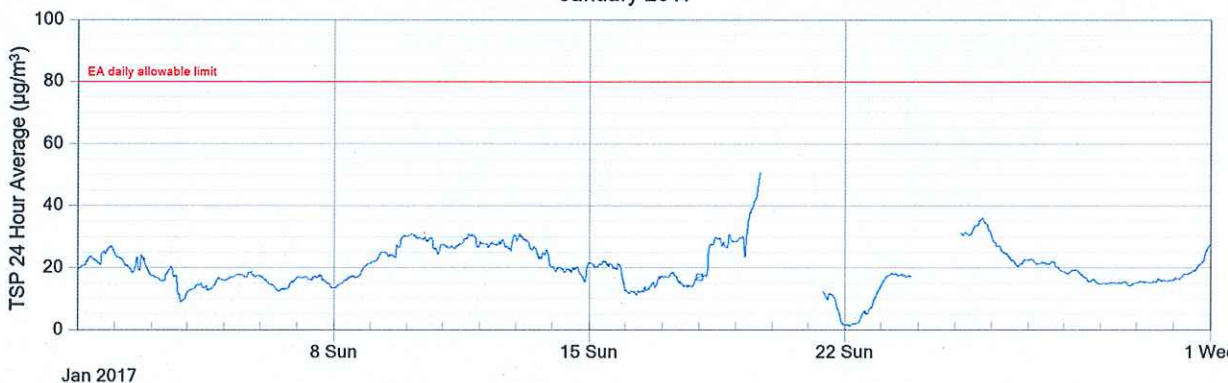


Figure 1:

Jondaryan Township TSP continuous monitoring results for January 2017

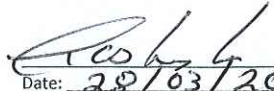
Comments: Original issue of January 2017 data was incorrect due to a low flow reading in the TEOM which originally reported lower availability. It has been determined that this did not affect availability for TSP therefore this reissue reports correct availability (refer attached). Ecotech Pty Ltd has 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 rolling average) is 80 micrograms per cubic metre (80 µg/m³) as stated in the JRLF's EA. Any exceedences of this limit are displayed in Figure 1 (above) The TEOM does not distinguish between particulate matter sources. The predominant wind directions for the January 2017 were East (37.2%), North-East (17.3%) and South-East (15.3%). The predominant wind speeds were light air to light breeze. The TEOM unit availability for TSP determination was 93.7% 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

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New Acland Coal Pty Ltd


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