

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 March 2019

Site	Dust Deposition (mg/m ² /day)	EA Criteria (mg/m ² /day)	Compositional Analysis ¹			Comments
			Major (>20%)	Minor (5% - 20%)	Trace (<5%)	
JD1	37	120	Mineral Material (100%)	N/A	Coal (<5%), Insects (<5%), Vegetation (<5%)	Rail and Highway to the north, north-west and north-east. JRLF to north-east. Gravel and bare ground immediately surrounding. Bare/stubble paddock to north-east, east and south-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	43	120	Mineral Material (90%)	Vegetation (10%)	Coal (<5%), Insects (<5%)	Rail and Highway to north, north-west and 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 and south. Unsealed road to south-east, south.
JD3	63	120	Mineral Material (70%)	Insects (10%), Vegetation (10%), Polysaccharide Slime (10%)	Coal (<5%)	Highway and Rail to north-west, north and north-east. JRLF to the north-east. Residential surrounding. Grass and garden immediately surrounding. Road with unsealed edges to east, south-east and south. Unsealed driveways to north, north-east, east, south-east and south.
JD4	243	120	Mineral Material (65%), Vegetation (30%)	Insects (5%)	Coal (<5%)	Rail, Highway and Jondaryan town to south-east, south, south-west and west. JRLF to the east. Immediate surround grass and cropped paddock. Cropped paddocks to north-west, north, north-east, west and south west. Roads to north-east, east, south-east, south and south-west.
JD5	33	120	Mineral Material (90%)	Insects (5%), Vegetation (5%)	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.

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 March 2019 were East (40.4%), North-East (16.9%) and North-West (10.6%). The predominant wind speeds were light air to gentle breeze². JD4 reported concentrations greater than the EA limit however a dust deposition gauge located ~500m west of the JRLF and between the JRLF and JD4 reported a concentration less than the EA limit (70 mg/m²/day). JD4's compositional analysis reported coal as <5% with the major constituent being Mineral Material (90%) therefore results indicate localised sources are the likely cause of the elevated result at JD4.

² Wind speed classification uses the Beaufort scale

Table 2: Quarterly PM₁₀ monitoring result for 7-8 January 2019

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)	Comments ⁴
Corner of Lagoon and Earl Streets, Jondaryan	18	22	50	"Winds from east and east-south-east placed the site downwind of the Jondaryan stockpile (~1.0km) for 56% 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 Average

March 2019

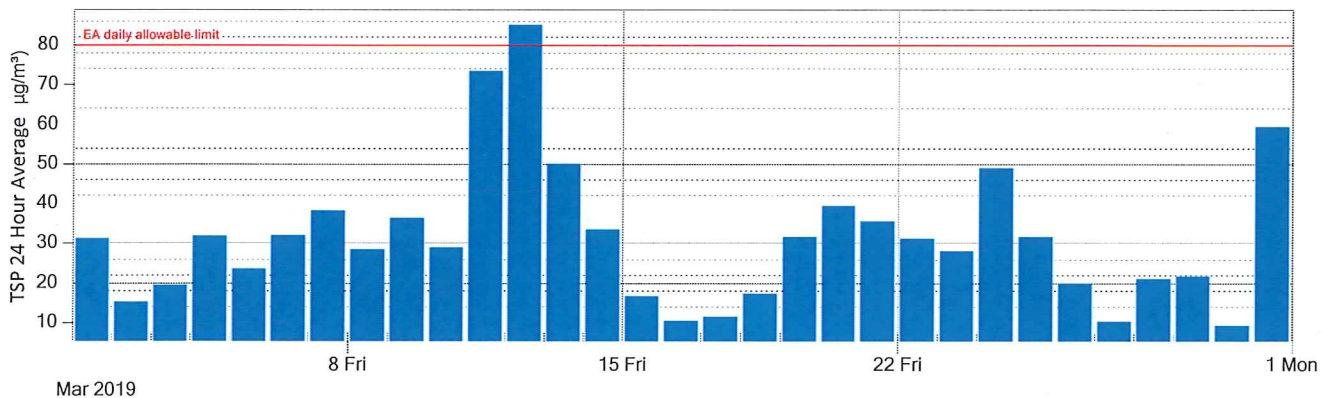
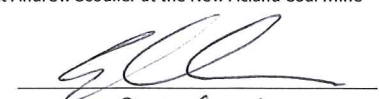


Figure 1: Jondaryan Township TSP continuous monitoring 24 Hr average results for February 2019

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 rolling average) is 80 micrograms per cubic metre (80 µg/m³) as stated in the JRLF's EA. Any exceedances of this limit are displayed in Figure 1 above. *Exceedance of 24 hour TSP average on 12 March 2019 (85.2µg/m³). The predominant wind directions for 12 March 2019 were South-West (37.2%), West (16.7%) and South (16%) which indicates the JRLF was not the major contributor to the elevated result. The TEOM does not distinguish between particulate matter sources. The predominant wind directions for March 2019 were East (40.4%), North-East (16.9%) and North-West (10.6%). The predominant wind speeds were light air to gentle breeze². 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 Andrew Scouller at the New Acland Coal Mine during business hours on 4694 8888.

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New Acland Coal Pty Ltd


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