

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 November 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	67	120	Mineral Material (95%)	Insects (5%)	Coal (<5%), Vegetation (<5%)	JRLF to north-east. Dirt & gravel immediately surrounding. Gravel driveways to west, north-west, north & north-east. Road to south-west, west & north-west. Gravel edge road to north-west, north & north-east. Highway & rail to north-west, north & north-east. Bare paddock to north-east, east & south-east. Gravel road to north, north-east, east & south-east.
JD2	47	120	Mineral Material (90%)	Coal (5%), Vegetation (5%)	Insects (<5%)	JRLF to north-east. Grass & dirt immediately surrounding. Highway & rail to north-west, north & north-east. Gravel edge road to north-east, east, south-east & south. Gravel road to south-east, south & south-west. Bare paddock to south-east & south. Road to south-west & west.
JD3	70	120	Mineral Material (75%)	Vegetation (20%), Coal (5%)	Insects (<5%)	JRLF to north-east. Grass & garden immediately surrounding. Highway & rail to north-west, north & north-east. Gravel driveways to north, north-east, east, south-east & south. Road to north, north-east, east, south-east, south & south-west. Gravel edge road to south-east.
JD4	67	120	Polysaccharide Slime (50%), Mineral Material (45%)	Coal (5%)	Insects (<5%), Vegetation (<5%)	JRLF to east. Grass immediately surrounding. Bare paddock to north. Road to north-east, east, south-east, south, south-west & west. Highway & rail to south-east, south & south-west.
JD5	93	120	Polysaccharide Slime (75%)	Vegetation (10%), Mineral Material (10%), Insects (5%)	Coal (<5%)	JRLF to north-east. Grass immediately surrounding. Highway & rail to north-west, north & north-east. Road to north-east, east, south-east & south.

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 November 2019 were North-East (27.3%), South-West (14.5%) and West (14.2%). The predominant wind speeds were light air to light breeze.²

² Wind speed classification uses the Beaufort scale

Table 2: Quarterly PM₁₀ monitoring result for 22-23 October 2019

Location	24 Hour PM ₁₀ Result (µg/m ³) ³	Long-Term PM ₁₀ average (µg/m ³)	NEPM Criteria for 24 Hour PM ₁₀ exposure (µg/m ³)	Comments
Corner of Lagoon and Earl Streets, Jondaryan	15	22	50	The site was downwind of stockpile operations for approximately 32% of the monitoring period

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

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.

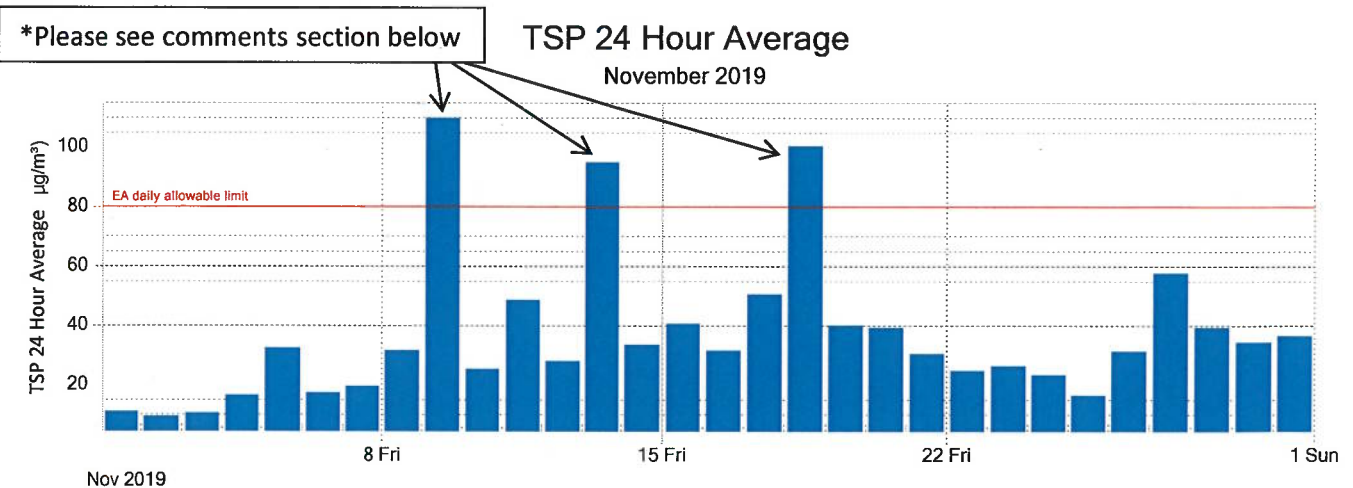



Figure 1: Jondaryan Township TSP continuous monitoring 24 Hr average results for November 2019

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. *Elevated TSP 24 hour averages were recorded on 9 November 2019 (110.0 µg/m³), 13 November 2019 (95.0 µg/m³), 18 November 2019 (100.5 µg/m³). Elevated dust events occurred in the region on 9 & 13 November and thick smoke was present in the region on 18 November. The predominant wind directions on 9 November 2019 were South-West (89.6%), West (4.5%) and South (3.8%). The predominant wind directions on 13 November 2019 were West (27.4%), South-West (26.7%) & North-West (26.0%). These predominant wind directions indicate the JRLF was not the major contributor to the elevated results. The predominant wind directions on 18 November 2019 were East (55.2%) & North-East (39.2%). It is noted that a significant bushfire was burning in the Pechey/Crows Nest area upwind of Jondaryan at that time. Observations of environmental conditions recorded at the JRLF on the 18th November 2019 support this, with records noting smoke and vehicle generated dust from neighbouring businesses. These findings indicate 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 November 2019 were North-East (27.3%), South-West (14.5%) and West (14.2%). The predominant wind speeds were light air to light breeze². The TEOM unit availability for TSP determination was 99.9% 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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