NEW HOPE GROUP

Jondaryan Rail Loading Facility Air Quality Monitoring Results

Issue Month: April 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 March 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 (40%), Insects (25%)	Vegetation (20%), Coal (10%), Copper Sludge (5%)	N/A	Rail and Highway to the north, north-west & north-east. JRLF to north-east. Dirt and gravel immediately surrounding. Bare paddock to north-east. Stubble paddock to 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 north-west.
JD2	43	120	Insects (30%), Vegetation (30%)	Coal (20%), Mineral Material (20%)	N/A	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. Gravel road to south-east, south, south-west.
JD3	23	120	Mineral Material (50%), Vegetation (20%)	Coal (15%), Insects (15%)	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	126	120	Insects (45%), Mineral Material (30%)	Coal (15%), Vegetation (10%)	N/A	Rail, Highway and Jondaryan town to south-east, south, south-west & west. JRLF to the east. Immediately surrounding dirt and grass. Bare paddocks to south-west, west, north-west, north, north-east. Roads to north-east, east, south-east, south, south-west.
JD5	23	120	Insects (40%), Mineral Material (40%)	Coal (10%), Vegetation (10%)	N/A	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.

[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/m^2/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 2017 were East (39.4%), South-East (17.1%) and North-East (14.4%). The predominant wind speeds were light air to light breeze[2]. 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 (53 mg/m^2/day), JD4's compositional analysis reported coal at 15% with the major constituent being insects (45%) and mineral material (30%), results indicate localised sources are the likely cause of the elevated result at JD4.

[3] Wind speed classification uses the Beaufort scale

Table 2: Quarterly PM_{10} monitoring result for 1-2 February 2017

Location	24 Hour PM_{10} Result ($\mu g/m^3$)	Long-Term PM_{10} average ($\mu g/m^3$)	NEPM Criteria for 24 Hour PM_{10} exposure ($\mu g/m^3$)[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] PM_{10} monitoring is undertaken on a quarterly basis for a nominal

The national 24-hour exposure for PM_{10} particulates stated in the National Environment Protection Measure for Ambient Air Quality is 50 micrograms per cubic meter (50 $\mu g/m^3$). The PM_{10} monitors do not distinguish between *particulate matter sources.*

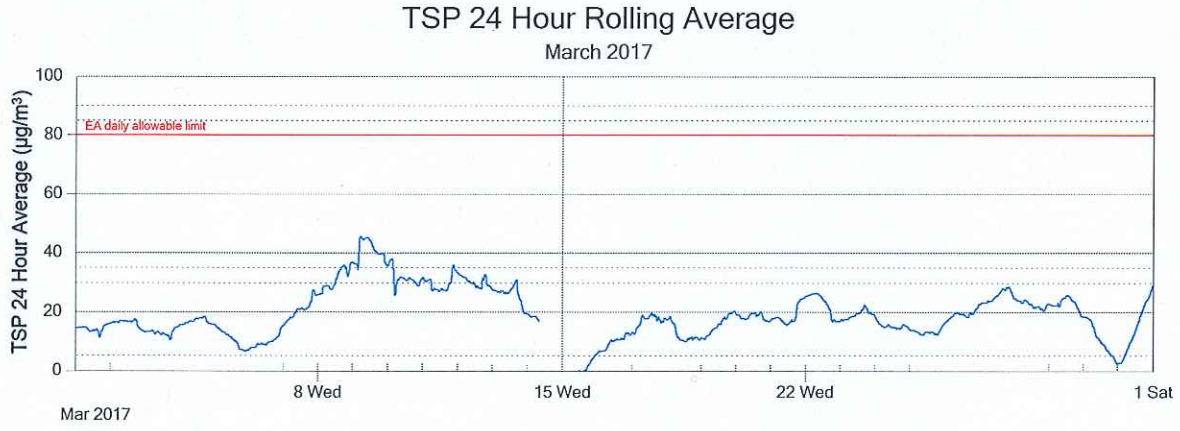

Figure 1: Jondaryan Township TSP continuous monitoring results for March 2017

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 rolling average) is 80 micrograms per cubic metre (80 $\mu g/m^3$) as stated in the JLRF'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 March 2017 were East (39.4%), South-East (17.1%) and North-East (14.4%). The predominant wind speeds were light air to light breeze. The TEOM unit availability for TSP determination was 98.4% 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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