



3 April 2017

Chief Executive Officer  
Attention: Matt Spence, Senior Environmental Officer  
Office of the Environmental Protection Authority  
Locked Bag 10  
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Dear Sir,

**Subject: Report to OEPA for Groundwater Monitoring Results as per Condition 8 of Ministerial Statement No. 870**

This letter is further to our letters of 6 December 2016 and 30 January 2017 and to inform the OEPA on the outcomes of the latest groundwater monitoring undertaken by Yara Pilbara Nitrates Pty Ltd (YPN) at the Technical Ammonium Nitrate (TAN) plant as required by Conditions 8-4 and 8-5 of Ministerial Statement 870.

*Condition 8-4 The proponent shall sample/monitor all groundwater bores required by Condition 8-3 every six months and shall set groundwater monitoring trigger values at a value of 10% above the baseline contaminant concentrations obtained from the hydrogeological studies required by condition 8-1.*

*Condition 8-5 In the event that monitoring required by condition 8-4 indicates an exceedance of trigger levels: 1. The proponent shall report such findings to the CEO within 7 days of the exceedance being identified; 2. The proponent shall provide evidence which allows determination of the cause of the exceedance; 3. If determined by the CEO to be project attributable, the proponent shall submit actions to be taken to address the exceedance within 7 days of the determination being made to the CEO; 4. The proponent shall implement actions to address the exceedance and shall continue until such time as the CEO determines that the remedial actions may cease; and 5. The proponent shall submit bi-annually, or at a frequency defined to the satisfaction of the CEO, the results of monitoring required by condition 8-4 to the CEO, until such time as the CEO determines that reporting may cease.*

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**Yara Pilbara Nitrates Pty Ltd**

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YPN has reported results to OEPA of previous monitoring regularly, as ongoing monitoring continues to show substantial variation that are considered to be reflective of a natural variability rather than a result of site related potential contamination sources as a result of ongoing construction activities.

Since our correspondence to the OEPA, the following has occurred:

- A scheduled 6-monthly round of monitoring of all monitoring wells was undertaken on 15 March 2017 and laboratory results obtained on 24 March 2017. For nitrogen analytes that exceed trigger values an analysis of the same sample repeated by the analysing laboratory to confirm validity of measurements. Where repeated analyses produced different results, both results are listed below. Groundwater results for parameters that exceeded trigger values are:
  - Total Nitrogen values at MW2 (12,000 µg/L), MW3 (6,600 µg/L, 6,300 µg/L), MW4 (58,000µg/L) and MW5 (9,400 µg/L, 9000 µg/L) exceeded the trigger value (5,610µg/L).
  - Nitrate (as NO<sub>3</sub>-) values at MW2 (12 mg/L), MW4 (55 mg/L) has exceeded the trigger value (9.57 mg/L).
  - Alkalinity (total) as CaCO<sub>3</sub> at MW3 (591 mg/L) and MW5 (628 mg/L) was higher than the trigger value (561mg/L).
  - Ammonia as N at MW4 (220 µg/L, 250 µg/L) was higher than the trigger value of 40 µg/L.
  - Manganese (filtered) at MW4 (0.28 mg/L) exceeded the trigger value of 0.242 mg/L.
- Additional monitoring was undertaken on 22 March 2017 at MW4. Results are pending.
- Three additional upstream groundwater monitoring wells will be installed 2 April 2017. Monitoring of these will commence within 2 weeks of installation.
- On the 6 March a spill of solution which contained ammonium nitrate occurred at the TAN Plant. This event was associated with an unplanned shutdown event at both the Ammonia and TAN Plants. An investigation into the incident has been completed and the report is in the process of being finalised. The event has been reported to the Department of Environmental Regulation (DER) as a potential pollution event under Section 72 of the *Environmental Protection Act*. Yara will provide an investigation report to the DER and can provide a report to the OEPA upon request.

Attached is a summary table of the groundwater monitoring results as well as the historical monitoring data, to enable a review of the variability of the parameters over time since 2011.



Yours Sincerely,

A handwritten signature in black ink, appearing to read "Brian Howarth", written over a horizontal line.

**Brian HOWARTH**

HESQ Manager

**Yara Pilbara Nitrates**

Attachments

1. TAN Plant Groundwater monitoring results

