Incitec Fertiliser Operations Pty Ltd
39 Heron Road, Kooragang Island, NSW

# APRIL 2025 MONITORING DATA

**Notes on Monitoring Data**

Environment Protection Licence: 11781
Date Published: 20 May 2025
Date Sampled: 2, 8, 15, 16, 22, 23, 28, 29 and 30 April 2025.
Date Sample Results Released: 16 May 2025.
In relation to the monitoring data, IPL notes:

- The automatic sampler only triggers when a specified volume of rainfall has occurred. Sampling is currently initiated when the following two conditions are met:
    - A minimum 2 mm rainfall depth is measured in the preceding 60-minute period by the tipping bucket rain gauge; and
    - Stormwater flow over is detected by the flow sensor installed inside the drainage line.
    - Provided these conditions continue to be met, stormwater is sampled from the monitoring pit every 15 minutes and stored in sample bottles housed in a carousel within the auto sampler unit.

- Prior to analysis of collected stormwater samples “composite stormwater samples” are produced. Composite sampling consists of a collection of numerous individual discrete samples collected in a common container over a sampling period. Composite samples are collected from the discharge point and sent for analysis. The current sampling period is ‘per rainfall event’. This is defined as a continuous period where the flow and rainfall conditions are continued to be met and the time between sample collection is 15 minutes.
    - Due to technical issues with the automatic sampler, samples in April comprised ‘grab’ samples collected of accumulated water within the drain at site attendance.

- EPA Licence 11781 sets no specific pollutant limit on the site’s water discharges.

- IPL Newcastle has recently concluded the improvement works conducted within the Northern Drain network. These works included the diversion of clean roof water and the re-lining of all existing stormwater pipes. All stormwater flow is now diverted to the Central drain.

- **Figure 1** summarises the rainfall for April 2025.

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## Central Drain Storm Water Drainage Analysis (EPL 7)

| Pollutant | Units of Measure | Monitoring Frequency Required | No of Samples Analysed in month | Min. Value | Mean Value | Median Value | Max. Value |
|---|---|---|---|---|---|---|---|
| pH | pH Unit | Monthly during discharge | 9 | 6.60 | 6.71 | 6.70 | 6.90 |
| Total Suspended Solids | mg/L | Monthly during discharge | 9 | <5 | 57.8 | 37.0 | 140.0 |
| Sulfur as S | mg/L | Monthly during discharge | 9 | 8.6 | 70.4 | 35.0 | 370.0 |
| Sulfate as $SO_4$ | mg/L | Monthly during discharge | 9 | 27.0 | 213.2 | 84.0 | 1100.0 |
| Total Zinc | mg/L | Monthly during discharge | 9 | 0.067 | 0.411 | 0.350 | 1.100 |
| Ammonia as N | mg/L | Monthly during discharge | 9 | 5.7 | 32.9 | 24.0 | 82.0 |
| Nitrite as N | mg/L | Monthly during discharge | 9 | 0.066 | 0.668 | 0.200 | 4.400 |
| Nitrate as N | mg/L | Monthly during discharge | 9 | 0.96 | 4.70 | 5.10 | 8.00 |
| Nitrite and Nitrate as N | mg/L | Monthly during discharge | 9 | 1.0 | 5.3 | 5.3 | 9.8 |
| Total Kjeldahl Nitrogen as N | mg/L | Monthly during discharge | 9 | 5.7 | 59.7 | 31.0 | 210.0 |
| Total Nitrogen as N | mg/L | Monthly during discharge | 9 | 11.0 | 65.8 | 36.0 | 220.0 |
| Phosphorus (Total) as P | mg/L | Monthly during discharge | 9 | 7.2 | 26.9 | 19.0 | 60.0 |
| Phosphorus (Reactive) as P | mg/L | Monthly during discharge | 9 | 4.5 | 23.8 | 16.0 | 60.0 |
| Phosphate (Calculation from Total Phosphorus) | mg/L | Monthly during discharge | 9 | 22.1 | 82.5 | 58.2 | 183.9 |

Not detected values defined as half the detection limit for the purpose of calculating the mean and median.

### Rainfall & Flow Data

Each drain has a rain gauge and flow sensor. The rain gauge and flow sensor transmit the rain and flow information to a controller which then initiates the automatic sampler to take a sample in accordance with the site's EPL licence (EPL 11781).

Flow rate information is recorded on a continual basis via flow sensors located inside the discharge drain. A magnetic flow sensor has recently been installed to measure the flow at the Central drain.

A rainfall gauge independent to the ISCO samplers is also located on site. The rainfall summary is shown in **Figure 1**.

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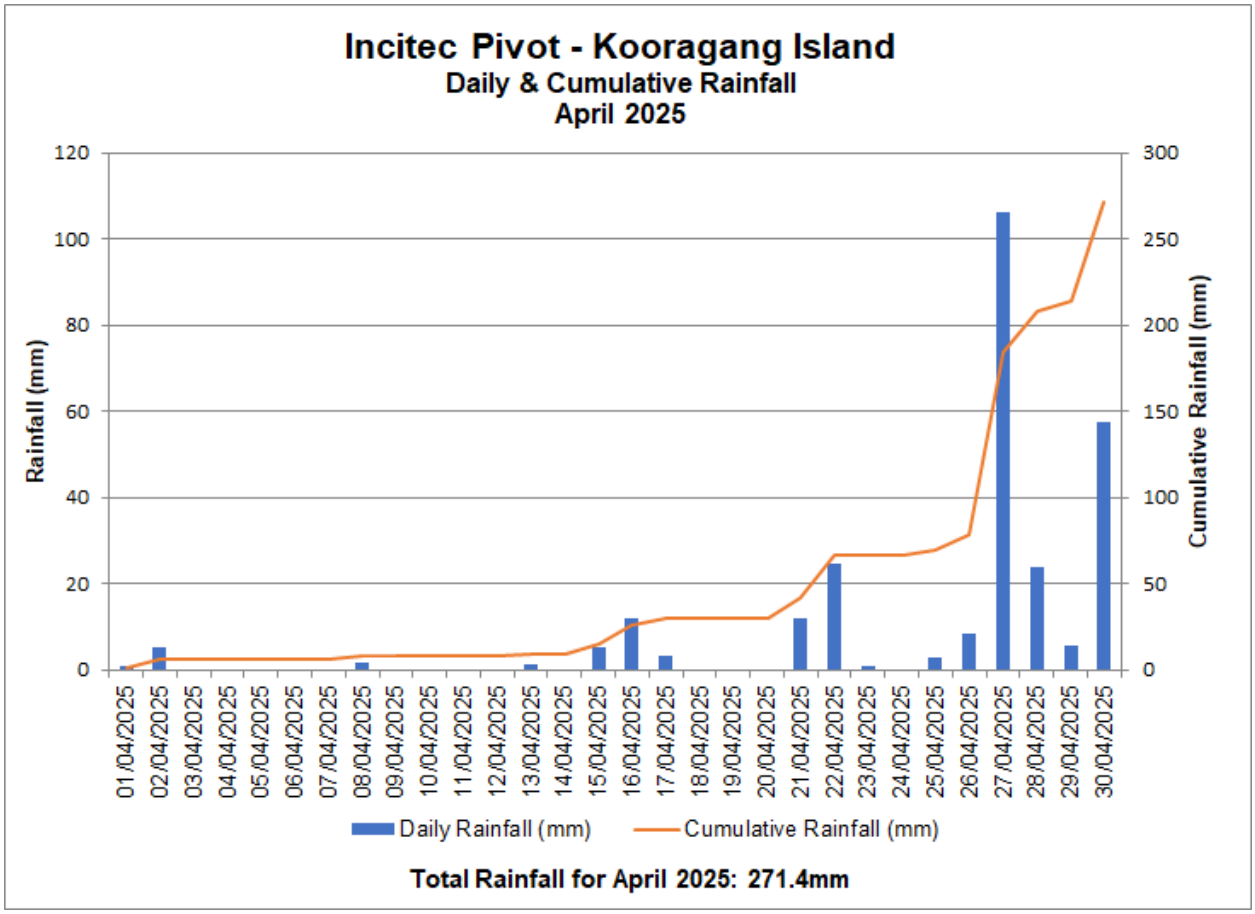


**Figure 1** *April 2025 Rainfall Summary*