

Environmental Protection Licence 1967

2024 Stormwater Monitoring Data

Point 1 - Berth K2 Outlet

Licensee Name and Address: Port of Newcastle Operations Pty Ltd; Newcastle Bulk Terminal, Heron Road Kooragang NSW 2304.

Type of Monitoring: Discharge water quality monitoring.

Frequency required: Monthly during discharge with exceptions noted in the table below.

Notes: No limits are specified in EPL 1967.

EPL Link: [Link to EPL 1967](#) on EPA POEO Register

Monitoring location:



Figure: Location of EPL 1967 Point 1 (Google Maps, accessed 2022)

Analyte	Units	January 2024	February 2024	March 2024	April 2024	May 2024	June 2024
Date sampled	-	17/01/2024	7/02/2024	25/03/2024	5/04/2024	1/05/2024	7/06/2024
Ammonia as N	mg/L	95.8	60	117	198	55.7	401
Dissolved Aluminium, Al	mg/L	<0.10	0.03	<0.01	<0.01	0.11	0.06
Dissolved Arsenic, As**	mg/L	0.025	0.1	0.011	0.035	0.002	0.003
Dissolved Cadmium, Cd	mg/L	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Lead, Pb	mg/L	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001
Dissolved Mercury	mg/L	<0.0001	<0.0001	<0.0001	0.0006	<0.0001	<0.0001
Dissolved Zinc, Zn	mg/L	<0.050	0.013	0.007	0.05	0.03	0.039
Filterable Reactive Phosphorus	mg/L	24	14.8	130	104 ***	8.87	0.43
Nitrate as N	mg/L	1.75	1.18	0.12	1.8	0.97	1.08
Nitrite as N	mg/L	3.11	3.8	<0.01	0.66	1.13	1.05
pH	pH unit	7.85	7.11	8.57	6.99	7.04	8.95
Sulfate	mg/L	1,870	535	1110	579	31	818
Total Aluminium	mg/L	8.75	3.83	6.38	2.34	1.06	1.17
Total Arsenic**	mg/L	0.04	0.01	0.011	0.035	0.002	0.003
Total Cadmium	mg/L	0.0016	0.0007	0.0031	0.0014	0.0009	0.0004
Total Kjeldahl Nitrogen	mg/L	132	64.6	131	791	732	904
Total Lead	mg/L	0.029	0.015	0.019	0.018	0.008	0.004
Total Mercury	mg/L	0.0001	<0.0001	0.0002	0.0056	<0.0001	<0.0001
Total Nitrogen (calc)	mg/L	136	69.6	131	793	734	906
Total Phosphate	mg/L	299	142	526	306	73.2	46.1
Total Phosphorus	mg/L	97.4	46.5	171	99.8 ***	23.9	15
Total Sulphide	mg/L	1.4	0.2	1.6	<0.1	<0.1	<0.1
Total Sulphur, S	mg/L	2,530	520	890	620	30	880
Total Suspended Solids	mg/L	955	114	593	129	30	302
Total Zinc	mg/L	1.16	0.604	0.694	1.33	0.351	0.202

* insufficient rainfall for sample collection

** only required to be monitored following Sulphate of Ammonia operation

*** ALS Note: It is recognised that the Soluble Reactive Phosphorus concentration is greater than the Total Phosphorus concentration for April K2 sample. However, the difference is within experimental variation of the methods.

Results are continued on next page.

Analyte	Units	July 2024	August 2024	September 2024	October 2024	November 2024	December 2024
Date sampled	-	3/07/2024	15/08/2024	15/09/2024	24/10/2024	12/11/2024	18/12/2024
Ammonia as N	mg/L	359	239	108	124	27.2	72
Dissolved Aluminium, Al	mg/L	0.19	0.12	<0.01	0.1	0.04	<0.01
Dissolved Arsenic, As**	mg/L	0.002	0.003	0.034	0.005	0.005	0.008
Dissolved Cadmium, Cd	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Lead, Pb	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dissolved Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005
Dissolved Zinc, Zn	mg/L	0.147	0.073	0.037	0.053	0.028	0.007
Filterable Reactive Phosphorus	mg/L	0.98	9.89	81.7	6.36	11.8	1.8
Nitrate as N	mg/L	1.89	1.38	1.02	<0.05	1.7	0.84
Nitrite as N	mg/L	1.19	0.74	1.14	0.09	3.23	1.2
pH	pH unit	9.25	9.08	7.5	8.95	8.1	8
Sulfate	mg/L	264	122	307	64	356	2200
Total Aluminium	mg/L	1.91	0.73	5.37	4.81	1.46	0.41
Total Arsenic**	mg/L	0.002	0.003	0.034	0.005	0.007	0.012
Total Cadmium	mg/L	0.0006	0.0002	0.0013	0.0007	0.0004	3.5
Total Kjeldahl Nitrogen	mg/L	2990	316	162	171	30.6	110
Total Lead	mg/L	0.014	0.004	0.02	0.016	0.008	0.014
Total Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005
Total Nitrogen (calc)	mg/L	2993	318	164	171	36	112
Total Phosphate	mg/L	37.3	43.8	405	45.1	65.7	74
Total Phosphorus	mg/L	12.2	14.3	132	14.7	21.4	24
Total Sulphide	mg/L	0.2	<0.1	2.1	0.2	0.7	<0.5
Total Sulphur, S	mg/L	220	120	340	70	320	960
Total Suspended Solids	mg/L	229	18	907	125	309	740
Total Zinc	mg/L	0.689	0.349	0.927	0.73	0.338	0.064

* insufficient rainfall for sample collection.

** only required to be monitored following Sulphate of Ammonia operation.