

Environmental Protection Licence 1967

2024 Stormwater Monitoring Data

Point 3 - Berth K3 Outlet (discharge to biofiltration pit)

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 3 (Google Maps, accessed 2022, approximate)

Analyte	Units	January 2024	February 2024	March 2024	April 2024	May 2024	June 2024
Date sampled	-	18/01/2024	08/02/2024	25/03/2024	22/04/2024	10/5/2024	07/06/2024
Ammonia as N	mg/L	0.32	0.26	0.93	0.1	0.1	2.69
Dissolved Aluminium, Al	mg/L	<0.1	<0.10	<0.1	<0.1	<0.1	<0.1
Dissolved Arsenic, As**	mg/L	<0.01	<0.10	<0.01	<0.01	0.002	<0.01
Dissolved Cadmium, Cd	mg/L	<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.001
Dissolved Lead, Pb	mg/L	<0.01	<0.010	<0.010	<0.010	<0.001	<0.01
Dissolved Mercury	mg/L	<0.0001	<0.010	<0.010	<0.01	<0.001	<0.01
Dissolved Zinc, Zn	mg/L	<0.05	<0.050	<0.050	<0.050	0.016	<0.05
Filterable Reactive Phosphorus	mg/L	14.8	0.19	2.63	0.15	0.18	0.26
Nitrate as N	mg/L	0.13	0.93	1.76	0.29	0.33	0.94
Nitrite as N	mg/L	<0.05	<0.05	0.01	<0.05	<0.05	0.27
pH	pH unit	8.01	7.9	7.51	7.7	7.9	7.71
Sulfate	mg/L	2,000	2070	2530	1840	1960	1730
Total Aluminium	mg/L	2.81	7.22	5.41	.84	1.79	7.95
Total Arsenic**	mg/L	<0.010	<0.010	<0.010	0.002	0.003	<0.010
Total Cadmium	mg/L	<0.0010	<0.0010	<0.0010	<0.0001	0.0002	<0.001
Total Kjeldahl Nitrogen	mg/L	0.7	0.06	5.1	0.3	0.3	3
Total Lead	mg/L	<0.010	<0.010	<0.010	0.006	<0.010	<0.010
Total Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total Nitrogen (calc)	mg/L	0.8	1.5	6.9	0.6	0.6	4.2
Total Phosphate	mg/L	3.76	0.84	9.73	0.67	1.34	2.23
Total Phosphorus	mg/L	1.23	0.27	3.17	0.22	0.44	0.73
Total Sulphide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Sulphur, S	mg/L	2,760	2550	2410	3010	2300	1900
Total Suspended Solids	mg/L	146	108	140	146	52	73
Total Zinc	mg/L	0.065	0.184	0.179	0.083	0.128	0.116

* insufficient rainfall for sample collection

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

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	16/09/2024	25/10/2024	12/11/2024	18/12/2024
Ammonia as N	mg/L	0.38	0.13	0.67	0.13	0.13	0.58
Dissolved Aluminium, Al	mg/L	<0.1	<0.1	<0.10	<0.1	<0.1	0.01
Dissolved Arsenic, As**	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.001
Dissolved Cadmium, Cd	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0001
Dissolved Lead, Pb	mg/L	<0.010	<0.010	<0.010	<0.001	<0.01	<0.001
Dissolved Mercury	mg/L	<0.01	<0.01	0.011	<0.01	<0.0001	<0.00005
Dissolved Zinc, Zn	mg/L	<0.05	<0.05	<0.050	<0.05	<0.05	0.016
Filterable Reactive Phosphorus	mg/L	0.15	0.14	0.14	0.17	0.24	0.22
Nitrate as N	mg/L	3.16	1.94	2.38	0.71	0.67	0.47
Nitrite as N	mg/L	0.14	<0.05	<0.05	<0.05	<0.05	0.009
pH	pH unit	7.71	7.35	7.8	7.86	7.68	7.8
Sulfate	mg/L	2060	2040	2180	2350	2300	2500
Total Aluminium	mg/L	1.47	2.66	5.39	1.1	2.58	1.4
Total Arsenic**	mg/L	<0.010	<0.010	<0.010	<0.01	<0.01	0.003
Total Cadmium	mg/L	<0.001	<0.0010	<0.0010	<0.001	<0.001	3.6
Total Kjeldahl Nitrogen	mg/L	1.4	0.6	1	0.2	0.5	1.8
Total Lead	mg/L	<0.010	<0.010	0.01	<0.010	<0.01	0.004
Total Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005
Total Nitrogen (calc)	mg/L	4.7	2.54	3.38	0.91	1.17	2.279
Total Phosphate	mg/L	1.3	1.18	2.52	0.62	1.16	0.09
Total Phosphorus	mg/L	0.42	0.39	0.82	0.2	0.38	0.03
Total Sulphide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5
Total Sulphur, S	mg/L	2280	2680	1960	2930	2550	1000
Total Suspended Solids	mg/L	277	154	122	40	84	140
Total Zinc	mg/L	0.082	0.074	0.101	<0.052	0.065	0.15

* insufficient rainfall for sample collection

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