

Environmental Protection Licence 1967

2023 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 below table.

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 2023	February 2023	March 2023	April 2023	May 2023	June 2023
Date sampled	-	4/01/2023	14/02/2023	14/03/2023	13/04/2023	17/05/2023	23/06/2023
Date results received	-	3/03/2023	3/03/2023	5/05/2023	5/05/2023	11/7/2023	11/07/2023
Date published	-	16/03/2023	16/03/2023	10/05/23	10/05/23	20/07/2023	20/07/2023
Ammonia as N	mg/L	31.3	669	755	584	161	746
Dissolved Aluminium, Al	mg/L	<0.10	<0.01	<0.01	0.13	0.02	0.23
Dissolved Arsenic, As**	mg/L	<0.010	0.011	0.011	0.003	0.01	0.002
Dissolved Cadmium, Cd	mg/L	<0.0010	<0.0001	<0.0001	<0.0001	<0.0001	0.0002
Dissolved Lead, Pb	mg/L	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001
Dissolved Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Zinc, Zn	mg/L	<0.050	0.036	0.018	0.026	0.009	0.174
Filterable Reactive Phosphorus	mg/L	14.3	227	83.2	0.43	47.1	0.52
Nitrate as N	mg/L	2.06	<0.05	<0.05	0.75	0.67	2.61
Nitrite as N	mg/L	1.2	<0.05	<0.05	2.37	0.8	2.37
pH	pH unit	7.65	7.77	7.11	7.25	8.13	8.79
Sulfate	mg/L	1520	906	844	1570	379	1340
Total Aluminium	mg/L	<0.10	3.03	2	23.8	2.44	3.8
Total Arsenic**	mg/L	0.01	0.037	0.027	0.059	0.012	0.01
Total Cadmium	mg/L	<0.0010	0.001	0.0013	0.0074	0.0009	0.0016
Total Kjeldahl Nitrogen	mg/L	28.3	748	744	1240	212	3300
Total Lead	mg/L	<0.010	0.014	0.012	0.16	0.013	0.023
Total Mercury	mg/L	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001
Total Nitrogen (calc)	mg/L	30.4	748	744	1240	213	3300
Total Phosphate	mg/L	43.8	805	325	125	260	39.4
Total Phosphorus	mg/L	14.3	263	106	40.8	84.8	12.8
Total Sulphide	mg/L	<0.1	8.3	10	21.6	4.3	0.8
Total Sulphur, S	mg/L	1560	840	850	1420	460	1400
Total Suspended Solids	mg/L	83	178	137	137	2400	669
Total Zinc	mg/L	<0.052	0.846	0.669	4.42	0.777	0.883

* insufficient rainfall for sample collection

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

Results are continued on next page.

Analyte	Units	July 2023	August 2023	Sept 2023	Oct 2023	Nov 2023	Dec 2023
Date sampled	-	24/07/2023	6/08/2023	8/09/2023	27/10/2023		
Date results received	-	01/09/2023	26/09/2023	26/09/2023	13/11/2023		
Date published	-	15/09/2023	29/09/2023	29/09/2023	17/11/2023		
Ammonia as N	mg/L	319	49.6	456	69.7		
Dissolved Aluminium, Al	mg/L	0.14	<0.01	0.37	<0.01		
Dissolved Arsenic, As**	mg/L	0.002	0.003	0.006	0.007		
Dissolved Cadmium, Cd	mg/L	<0.0001	<0.0001	<0.0001	<0.0001		
Dissolved Lead, Pb	mg/L	<0.001	<0.001	<0.001	<0.001		
Dissolved Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001		
Dissolved Zinc, Zn	mg/L	0.054	0.062	0.042	<0.005		
Filterable Reactive Phosphorus	mg/L	1.09	16.9	2.24	22.3		
Nitrate as N	mg/L	0.56	0.18	<0.05	0.98		
Nitrite as N	mg/L	1.28	0.48	<0.05	0.44		
pH	pH unit	8.85	8.72	8.36	7.95		
Sulfate	mg/L	509	75	582	281		
Total Aluminium	mg/L	6.15	6.73	8.61	19.6		
Total Arsenic**	mg/L	0.036	0.03	0.032	0.098		
Total Cadmium	mg/L	0.0025	0.0028	0.0019	0.0043		
Total Kjeldahl Nitrogen	mg/L	456	158	590	87.9		
Total Lead	mg/L	0.032	0.044	0.031	0.071		
Total Mercury	mg/L	<0.0001	0.0001	<0.0001	0.0002		
Total Nitrogen (calc)	mg/L	457	159	590	89.3		
Total Phosphate	mg/L	271	903	1190	1070		
Total Phosphorus	mg/L	88.5	294	390	348		
Total Sulphide	mg/L	1.2	1	6.5	2.3		
Total Sulphur, S	mg/L	700	70	970	330		
Total Suspended Solids	mg/L	1329	1720	2980	48		
Total Zinc	mg/L	1.32	1.5	1.43	3.13		

* insufficient rainfall for sample collection.

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