

Stormwater Monitoring Data – EPL 1967 EPL

Year: 2020 calendar year

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

Location: Point 1 (Berth K2 Outlet)

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 2021)

Analyte	Units	January 2020	February 2020	March 2020	April 2020	May 2020	June 2020
Date sampled	-	18/01/2020	9/02/2020	26/03/2020	30/04/2020	25/05/2020	14/06/2020
pH	pH	6.64	6.37	6.15	7.27	8.86	9.17
Aluminium (dissolved)	mg/L	<0.01	<0.01	0.12	<0.01	0.06	0.14
Aluminium (total)	mg/L	1.04	0.45	2.01	0.58	0.42	0.72
Ammonia	mg/L	11	1.38	16.8	125	173	300
Arsenic ** (dissolved)	mg/L	0.002	0.001	0.004	0.009	0.002	<0.001
Arsenic ** (total)	mg/L	0.006	0.002	0.005	0.012	0.003	<0.001
Cadmium (dissolved)	mg/L	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Cadmium (total)	mg/L	0.0005	0.0005	0.0013	0.0006	0.0003	0.0005
Lead (dissolved)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lead (total)	mg/L	0.014	0.006	0.016	0.025	0.002	0.005
Mercury (dissolved)	mg/L	<0.0001	<0.0001	<0.0001	0.0005	<0.0001	<0.0001
Mercury (total)	mg/L	<0.0001	<0.0001	<0.0001	0.0029	<0.0001	<0.0001
Nitrate	mg/L	<0.05	0.34	2.06	<0.05	0.96	0.19
Nitrite	mg/L	<0.05	1.08	<0.05	<0.05	0.34	0.49
Total Nitrogen	mg/L	13.9	2.9	41.9	128	258	275
Total Kjeldahl Nitrogen	mg/L	13.9	1.5	39.8	128	257	274
Phosphate	mg/L	41.2	14.4	84.9	289	29.1	15
Phosphorus (dissolved reactive)	mg/L	11.5	5.1	24.1	89.5	0.91	4.06
Phosphorus (total)	mg/L	13.4	4.7	27.7	94.2	9.49	4.9
Sulfate	mg/L	160	53	43	102	872	10
Sulfur	mg/L	160	50	60	100	840	<10
Sulfide (dissolved)	mg/L	<0.1	<0.1	0.1	0.2	<0.1	<0.1
Total Suspended Solids	mg/L	63	27	198	55	93	33
Zinc (dissolved)	mg/L	0.016	0.128	0.111	0.008	0.069	0.051
Zinc (total)	mg/L	0.481	0.23	0.506	0.267	0.379	0.247

* insufficient rainfall for sample collection

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

Results are continued on next page.

Analyte	Units	July 2020	August 2020	Sept 2020	Oct 2020	Nov 2020	Dec 2020
Date sampled	-	14/07/2020	10/08/2020	9/09/2020	24/10/2020	13/11/2020	15/12/2020
pH	pH	9.04	8.65	8.45	7.95	8.18	7.17
Aluminium (dissolved)	mg/L	0.04	0.08	0.14	<0.1	0.04	<0.1
Aluminium (total)	mg/L	0.81	0.26	0.63	<0.1	0.2	0.41
Ammonia	mg/L	85.8	142	396	70.4	234	0.06
Arsenic ** (dissolved)	mg/L	0.002	0.006	<0.001	<0.01	0.01	<0.01
Arsenic ** (total)	mg/L	0.004	0.006	0.005	<0.01	0.012	<0.010
Cadmium (dissolved)	mg/L	<0.0001	<0.0001	<0.0001	<0.001	0.0003	<0.001
Cadmium (total)	mg/L	0.0005	<0.0001	0.0007	<0.001	0.0002	<0.0010
Lead (dissolved)	mg/L	<0.001	<0.001	<0.001	<0.01	<0.001	<0.01
Lead (total)	mg/L	0.005	0.002	0.003	<0.01	0.002	<0.010
Mercury (dissolved)	mg/L	<0.0001	<0.0001	0.0003	<0.0001	<0.0001	<0.0001
Mercury (total)	mg/L	<0.0001	<0.0001	0.0005	<0.0001	<0.0001	<0.0001
Nitrate	mg/L	0.45	0.52	0.46	0.51	<0.05	<0.05
Nitrite	mg/L	0.42	2.16	0.1	0.91	8.05	<0.05
Total Nitrogen	mg/L	178	147	433	70.2	223	24.6
Total Kjeldahl Nitrogen	mg/L	177	145	432	68.8	215	24.6
Phosphate	mg/L	13.9	53	38.9	28.3	78.9	25.1
Phosphorus (dissolved reactive)	mg/L	3.18	17.1	6.09	9.29	15.1	7.88
Phosphorus (total)	mg/L	4.54	17.3	12.7	9.22	25.7	8.19
Sulfate	mg/L	13	51	80	1880	185	1920
Sulfur	mg/L	<10	60	320	2340	230	1700
Sulfide (dissolved)	mg/L	<0.1	<0.1	3.3	<0.1	<0.1	<0.1
Total Suspended Solids	mg/L	34	14	127	10	41	44
Zinc (dissolved)	mg/L	0.015	0.028	0.061	<0.05	0.017	<0.05
Zinc (total)	mg/L	0.254	0.085	0.562	<0.052	0.099	0.194

* insufficient rainfall for sample collection

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