

Stormwater Monitoring Data – EPL 1967 EPL

Year: 2021 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 2021	February 2021	March 2021	April 2021	May 2021	June 2021
Date sampled	-	7/01/2021	2/02/2021	14/03/2021	10/04/2021	4/05/2021	9/06/2021
Date results received	-	25/02/2021	30/03/2021	14/05/2021	11/06/2021	9/07/2021	24/08/2021
Date published	-	19/04/2021	19/04/2021	18/05/2021	24/06/2021	13/07/2021	27/08/2021
pH	pH	7.19	5.7	9.03	8.34	6.7	8.8
Aluminium (dissolved)	mg/L	0.03	0.02	0.18	0.04	<0.1	0.01
Aluminium (total)	mg/L	0.42	0.68	0.24	0.24	0.44	0.99
Ammonia	mg/L	69.5	12.7	544	228	188	528
Arsenic ** (dissolved)	mg/L	0.005	0.012	0.006	0.005	0.011	0.011
Arsenic ** (total)	mg/L	0.006	0.012	0.006	0.005	0.016	0.013
Cadmium (dissolved)	mg/L	<0.0001	0.001	<0.0001	0.0009	<0.0001	<0.0001
Cadmium (total)	mg/L	0.001	0.0033	0.0004	0.001	0.0018	0.0005
Lead (dissolved)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lead (total)	mg/L	0.003	0.003	<0.001	<0.001	0.002	0.005
Mercury (dissolved)	mg/L	0.0003	0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Mercury (total)	mg/L	0.0002	0.0001	<0.0001	<0.0001	<0.0001	0.0003
Nitrate	mg/L	0.05	1.26	0.99	1.5	0.1	1.44
Nitrite	mg/L	<0.05	0.14	0.45	13	0.12	0.78
Total Nitrogen	mg/L	82.2	13.7	542	231	674	1060
Total Kjeldahl Nitrogen	mg/L	82.1	12.3	541	216	674	1060
Phosphate	mg/L	167	310	85.8	30	468	285
Phosphorus (dissolved reactive)	mg/L	<0.05	101	22.7	5.18	148	81.3
Phosphorus (total)	mg/L	54.4	101	28	9.79	153	93.1
Sulfate	mg/L	58	643	74	1250	2110	513
Sulfur	mg/L	70	710	100	1400	2420	560
Sulfide (dissolved)	mg/L	2.5	<0.1	<0.1	<0.1	0.1	<0.1
Total Suspended Solids	mg/L	60	29	18	70	34	76
Zinc (dissolved)	mg/L	0.049	2.74	0.023	0.089	<0.05	0.01
Zinc (total)	mg/L	0.277	3.22	0.092	0.389	0.298	0.769

* insufficient rainfall for sample collection

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

Results are continued on next page.

Analyte	Units	July 2021	August 2021	Sept 2021	Oct 2021	Nov 2021	Dec 2021#
Date sampled	-	17/07/2021	24/08/2021	14/09/2021	30/10/2021	19/11/2021	-
Date results received	-	24/08/2021	16/09/2021	17/11/2021	14/01/2021	14/01/2022	14/01/2022
Date published	-	27/08/2021	17/09/2021	19/11/2021	25/01/2021	25/01/2021	25/01/2021
pH	pH	6.92	8.74	9	6.33	8.33	-
Aluminium (dissolved)	mg/L	<0.01	0.12	0.1	0.01	0.06	-
Aluminium (total)	mg/L	0.03	0.71	0.66	0.12	0.81	-
Ammonia	mg/L	130	170	190	302	111	-
Arsenic ** (dissolved)	mg/L	0.007	0.003	0.002	0.016	0.003	-
Arsenic ** (total)	mg/L	0.007	0.004	0.003	0.031	0.004	-
Cadmium (dissolved)	mg/L	<0.0001	0.0001	0.0003	<0.0001	<0.0001	-
Cadmium (total)	mg/L	0.0001	0.005	0.0005	0.0003	0.0004	-
Lead (dissolved)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	-
Lead (total)	mg/L	<0.001	0.004	0.011	<0.001	0.005	-
Mercury (dissolved)	mg/L	<0.0001	0.0001	<0.0001	0.0002	<0.0001	-
Mercury (total)	mg/L	0.0001	0.0002	<0.0001	0.0001	<0.0001	-
Nitrate	mg/L	0.38	1.81	<0.05	<0.05	0.9	-
Nitrite	mg/L	0.49	1.25	<0.05	73.6	15.6	-
Total Nitrogen	mg/L	137	159	229	400	393	-
Total Kjeldahl Nitrogen	mg/L	136	156	229	332	376	-
Phosphate	mg/L	133	20.2	32.7	695	23.8	-
Phosphorus (dissolved reactive)	mg/L	41.2	2.11	8.23	216	6.18	-
Phosphorus (total)	mg/L	43.5	6.6	10.7	227	7.77	-
Sulfate	mg/L	1780	883	41	1350	721	-
Sulfur	mg/L	2160	920	20	1660	800	-
Sulfide (dissolved)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	-
Total Suspended Solids	mg/L	59	55	79	16	46	-
Zinc (dissolved)	mg/L	0.016	0.072	0.098	0.016	0.024	-
Zinc (total)	mg/L	0.032	0.255	0.43	0.137	0.209	-

* insufficient rainfall for sample collection.

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

Sample was unable to be collected due to equipment malfunction.