

Monthly Monitoring Data



Environmental Protection Licence Number: 12693

link to EPL12693 on EPA Public Register: [Click Here](#)

Licensee: Newcastle Coal Infrastructure Group Pty Ltd, Locked Bag 6003, Hunter Region Mail Centre NSW 2310

Premises: Newcastle Coal Infrastructure Group, Cormorant Road, Kooragang NSW 2304

Date Data Obtained: 18 July 2025

Date Published: 8 August 2025

Note: On the 25th of August 2017 an amendment was made to the NCIG Environmental Protection Licence (EPL12693) which removed the requirement for ambient air quality monitoring at Points 7-10 and 14-15. However, NCIG will continue to publish ambient air quality data for these locations previously listed in EPL12693 for the interest of the public.

Depositional Dust Monitoring

Sample Period: 05 Jun 2025 – 07 Jul 2025

Units of Measure: Insoluble Solids (grams per square metre per month (g/m²/month))

Frequency: Monthly

	Monitoring Point 7 - DG3 (Kooragang Island)	Monitoring Point 8 - DG4 (Mayfield Sport Rec Club)	Monitoring Point 9 - DG5 (Mayfield West)	Monitoring Point 10 - DG6 (Sandgate)
Depositional Dust	0.5	0.4	0.8	6.9

High Volume Air Sampling

Units of measure: Micrograms per cubic metre (µg/m³)

Frequency: Weekly

	Monitoring Point 14 - HVAS 1 (Steel River, Mayfield West)			Monitoring Point 15 - HVAS 2 (Crebert Street, Mayfield)			
	TSP	PM10		TSP		PM10	
06-Jun-25	38.7	06-Jun-25	17.1	05-Jun-25	27	05-Jun-25	17
12-Jun-25	29.1	12-Jun-25	14.4	11-Jun-25	15	11-Jun-25	14
18-Jun-25	42.0	18-Jun-25	19.3	17-Jun-25	39	17-Jun-25	19
24-Jun-25	30.3	24-Jun-25	9.9	23-Jun-25	36	23-Jun-25	19
30-Jun-25	32.0	30-Jun-25	16.0	29-Jun-25	26	29-Jun-25	11

NB: Sample period is a 24-hour period on each of the above dates | TSP = Total Suspended Particulates | PM10 = Particulate Matter <10 microns |

Discharge Water Quality Monitoring
Date Data Obtained: 13 June 2025

Discharge Quality Monitoring – Point 34
Sample Dates: 1-9 June 2025
Frequency Requirement: Daily during discharge

Pollutant	Units of Measure	No. of times measured during discharge event	Min value	Mean value	Median value	Max value
Oil and Grease	mg/L	9	<5	<5	<5	<5
pH	pH units	9	8.0	8.3	8.2	8.7
Total Suspended Solids	mg/L	9	<5	5.5	5	9

6 Monthly Groundwater Monitoring

Sampling Point 1, 38, 39 (Background Monitoring Wells)

Groundwater Sampling Point 1 (GW1)

Sample Date: 10 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	7.1
Conductivity	µS/cm	Every 6 Months	13000
Bromide	mg/L	Every 6 Months	12
Aluminium	mg/L	Every 6 Months	<0.01
Arsenic	mg/L	Every 6 Months	0.02
Cadmium	mg/L	Every 6 Months	<0.0001
Copper	mg/L	Every 6 Months	<0.001
Manganese	mg/L	Every 6 Months	0.400
Nickel	mg/L	Every 6 Months	0.004
Zinc	mg/L	Every 6 Months	0.012
Iron	mg/L	Every 6 Months	0.54
Total PAH	µg/L	Every 6 Months	<0.1
TPH C6-9 Fraction	µg/L	Every 6 Months	<10
TPH C10-14 Fraction	µg/L	Every 6 Months	<50
TPH C15-28 Fraction	µg/L	Every 6 Months	<100
TPH C29-36 Fraction	µg/L	Every 6 Months	<100
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	<0.004

Groundwater Sampling Point 38 (BH21S)

Sample Date: 12 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	10.20
Conductivity	µS/cm	Every 6 Months	1100
Bromide	mg/L	Every 6 Months	3.2
Aluminium	mg/L	Every 6 Months	0.05
Arsenic	mg/L	Every 6 Months	0.003
Cadmium	mg/L	Every 6 Months	<0.0001
Copper	mg/L	Every 6 Months	<0.001
Manganese	mg/L	Every 6 Months	<0.005
Nickel	mg/L	Every 6 Months	0.002
Zinc	mg/L	Every 6 Months	0.003
Iron	mg/L	Every 6 Months	0.06
Total PAH	µg/L	Every 6 Months	170
TPH C6-9 Fraction	µg/L	Every 6 Months	18
TPH C10-14 Fraction	µg/L	Every 6 Months	290
TPH C15-28 Fraction	µg/L	Every 6 Months	<100
TPH C29-36 Fraction	µg/L	Every 6 Months	<100
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	0.17

Groundwater Sampling Point 39 (BH21D)

Sample Date: 12 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	7.30
Conductivity	µS/cm	Every 6 Months	1000
Bromide	mg/L	Every 6 Months	14
Aluminium	mg/L	Every 6 Months	0.03
Arsenic	mg/L	Every 6 Months	<0.001
Cadmium	mg/L	Every 6 Months	<0.0001
Copper	mg/L	Every 6 Months	<0.001
Manganese	mg/L	Every 6 Months	0.290
Nickel	mg/L	Every 6 Months	<0.001
Zinc	mg/L	Every 6 Months	<0.001
Iron	mg/L	Every 6 Months	3.8
Total PAH	µg/L	Every 6 Months	84
TPH C6-9 Fraction	µg/L	Every 6 Months	<10
TPH C10-14 Fraction	µg/L	Every 6 Months	130
TPH C15-28 Fraction	µg/L	Every 6 Months	<100
TPH C29-36 Fraction	µg/L	Every 6 Months	<100
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	0.042

Sampling Point 20,21,22,23,36,37,40,41 (Regular Monitoring Wells)

Groundwater Sampling Point 20 (K9/3N)

Sample Date: 12 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value	Trigger met (Yes/No)*
pH	pH units	Every 6 Months	7.30	No
Conductivity	µS/cm	Every 6 Months	15000	No
Bromide	mg/L	Every 6 Months	20	No
Aluminium	mg/L	Every 6 Months	<0.01	No
Arsenic	mg/L	Every 6 Months	<0.001	No
Cadmium	mg/L	Every 6 Months	<0.0001	No
Copper	mg/L	Every 6 Months	<0.001	No
Manganese	mg/L	Every 6 Months	0.88	No
Nickel	mg/L	Every 6 Months	<0.001	No
Zinc	mg/L	Every 6 Months	0.005	No
Iron	mg/L	Every 6 Months	0.03	No
Total PAH	µg/L	Every 6 Months	<0.1	No
TPH C6-9 Fraction	µg/L	Every 6 Months	<10	No
TPH C10-14 Fraction	µg/L	Every 6 Months	<50	No
TPH C15-28 Fraction	µg/L	Every 6 Months	<100	No
TPH C29-36 Fraction	µg/L	Every 6 Months	<100	No
Cyanide (free)	mg/L	Every 6 Months	<0.004	No
Cyanide (total)	mg/L	Every 6 Months	<0.004	No

Note: If trigger level is met, actions listed in Condition E1.2 of EPL12693 are to be followed.

* Trigger Condition 1 and 2 recalculated each sampling round.

Groundwater Sampling Point 21 (K9/3S)

Sample Date: 12 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value	Exceedance (Yes/No)*
pH	pH units	Every 6 Months	8.2	No
Conductivity	µS/cm	Every 6 Months	1300	No
Bromide	mg/L	Every 6 Months	1.7	No
Aluminium	mg/L	Every 6 Months	<0.01	No
Arsenic	mg/L	Every 6 Months	0.006**	Yes
Cadmium	mg/L	Every 6 Months	<0.0001	No
Copper	mg/L	Every 6 Months	<0.001	No
Manganese	mg/L	Every 6 Months	0.051	No
Nickel	mg/L	Every 6 Months	<0.001	No
Zinc	mg/L	Every 6 Months	0.003	No
Iron	mg/L	Every 6 Months	0.04	No
Total PAH	µg/L	Every 6 Months	<0.1	No
TPH C6-9 Fraction	µg/L	Every 6 Months	<10	No
TPH C10-14 Fraction	µg/L	Every 6 Months	<50	No
TPH C15-28 Fraction	µg/L	Every 6 Months	<100	No
TPH C29-36 Fraction	µg/L	Every 6 Months	<100	No
Cyanide (free)	mg/L	Every 6 Months	<0.004	No
Cyanide (total)	mg/L	Every 6 Months	<0.004	No

Note: If trigger level is met, actions listed in Condition E1.2 of EPL12693 are to be followed.

* Trigger Condition 1 and 2 recalculated each sampling round.

** Resample result (24/7/25)

Groundwater Sampling Point 22 (K11/1)

Sample Date: 12 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value	Exceedance (Yes/No)*
pH	pH units	Every 6 Months	7.50	No
Conductivity	µS/cm	Every 6 Months	700	No
Bromide	mg/L	Every 6 Months	1.1	No
Aluminium	mg/L	Every 6 Months	<0.01	No
Arsenic	mg/L	Every 6 Months	<0.001	No
Cadmium	mg/L	Every 6 Months	<0.0001	No
Copper	mg/L	Every 6 Months	<0.001	No
Manganese	mg/L	Every 6 Months	0.91	No
Nickel	mg/L	Every 6 Months	<0.001	No
Zinc	mg/L	Every 6 Months	0.014**	No
Iron	mg/L	Every 6 Months	0.87	No
Total PAH	µg/L	Every 6 Months	<0.1	No
TPH C6-9 Fraction	µg/L	Every 6 Months	<10	No
TPH C10-14 Fraction	µg/L	Every 6 Months	<50	No
TPH C15-28 Fraction	µg/L	Every 6 Months	<100	No
TPH C29-36 Fraction	µg/L	Every 6 Months	<100	No
Cyanide (free)	mg/L	Every 6 Months	<0.004	No
Cyanide (total)	mg/L	Every 6 Months	<0.004	No

Note: If trigger level is met, actions listed in Condition E1.2 of EPL12693 are to be followed.

* Trigger Condition 1 and 2 recalculated each sampling round.

** Resample result (24/7/25)

Groundwater Sampling Point 23 (K11/1S)

Sample Date: 12 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value	Exceedance (Yes/No)*
pH	pH units	Every 6 Months	8.1	No
Conductivity	µS/cm	Every 6 Months	6000	No
Bromide	mg/L	Every 6 Months	8.6	No
Aluminium	mg/L	Every 6 Months	0.01	No
Arsenic	mg/L	Every 6 Months	<0.001	No
Cadmium	mg/L	Every 6 Months	<0.0001	No
Copper	mg/L	Every 6 Months	<0.001	No
Manganese	mg/L	Every 6 Months	0.12**	Yes
Nickel	mg/L	Every 6 Months	<0.001	No
Zinc	mg/L	Every 6 Months	0.003	No
Iron	mg/L	Every 6 Months	0.24**	Yes
Total PAH	µg/L	Every 6 Months	<0.2	No
TPH C6-9 Fraction	µg/L	Every 6 Months	<10	No
TPH C10-14 Fraction	µg/L	Every 6 Months	<50	No
TPH C15-28 Fraction	µg/L	Every 6 Months	<100	No
TPH C29-36 Fraction	µg/L	Every 6 Months	<100	Yes
Cyanide (free)	mg/L	Every 6 Months	<0.004	No
Cyanide (total)	mg/L	Every 6 Months	<0.004	No

Note: If trigger level is met, actions listed in Condition E1.2 of EPL12693 are to be followed.

* Trigger Condition 1 and 2 recalculated each sampling round.

** Resample result (24/7/25)

Groundwater Sampling Point 36 (BH20S)

Sample Date: 12 June 2025

Pollutant	Units of Measure	Frequency	Recorded Value	Exceedance (Yes/No)*
pH	pH units	Every 6 Months	6.70	No
Conductivity	µS/cm	Every 6 Months	1100	No
Bromide	mg/L	Every 6 Months	<0.5	No
Aluminium	mg/L	Every 6 Months	<0.01	No
Arsenic	mg/L	Every 6 Months	0.003	No
Cadmium	mg/L	Every 6 Months	<0.0001	No
Copper	mg/L	Every 6 Months	<0.001	No
Manganese	mg/L	Every 6 Months	2.6	No
Nickel	mg/L	Every 6 Months	0.005	No
Zinc	mg/L	Every 6 Months	0.015	No
Iron	mg/L	Every 6 Months	3.2	No
Total PAH	µg/L	Every 6 Months	0.12	No
TPH C6-9 Fraction	µg/L	Every 6 Months	<10	No
TPH C10-14 Fraction	µg/L	Every 6 Months	<50**	No
TPH C15-28 Fraction	µg/L	Every 6 Months	<100	No
TPH C29-36 Fraction	µg/L	Every 6 Months	<100	No
Cyanide (free)	mg/L	Every 6 Months	<0.004	No
Cyanide (total)	mg/L	Every 6 Months	<0.004	No

Note: If trigger level is met, actions listed in Condition E1.2 of EPL12693 are to be followed.

* Trigger Condition 1 and 2 recalculated each sampling round.

** Resample result (24/7/25)

Groundwater Sampling Point 37 (BH20D)

Sample Date: 12 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value	Exceedance (Yes/No)*
pH	pH units	Every 6 Months	6.4	No
Conductivity	µS/cm	Every 6 Months	46000**	Yes
Bromide	mg/L	Every 6 Months	60	No
Aluminium	mg/L	Every 6 Months	<0.01	No
Arsenic	mg/L	Every 6 Months	0.008**	Yes
Cadmium	mg/L	Every 6 Months	<0.0001	No
Copper	mg/L	Every 6 Months	<0.001	No
Manganese	mg/L	Every 6 Months	11	No
Nickel	mg/L	Every 6 Months	0.026	No
Zinc	mg/L	Every 6 Months	0.011	No
Iron	mg/L	Every 6 Months	43	No
Total PAH	µg/L	Every 6 Months	0.37	No
TPH C6-9 Fraction	µg/L	Every 6 Months	<10	No
TPH C10-14 Fraction	µg/L	Every 6 Months	<50	No
TPH C15-28 Fraction	µg/L	Every 6 Months	<100	No
TPH C29-36 Fraction	µg/L	Every 6 Months	<100	No
Cyanide (free)	mg/L	Every 6 Months	<0.004	No
Cyanide (total)	mg/L	Every 6 Months	<0.004	No

Note: If trigger level is met, actions listed in Condition E1.2 of EPL12693 are to be followed. These actions include notifying the EPA and resampling the location to confirm the elevated concentration.

* Trigger Condition 1 and 2 recalculated each sampling round.

** Resample result (24/7/25)

Groundwater Sampling Point 40 (BH23S)

Sample Date: 11 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value	Exceedance (Yes/No)*
pH	pH units	Every 6 Months	7.9	No
Conductivity	µS/cm	Every 6 Months	940	No
Bromide	mg/L	Every 6 Months	<0.5**	No
Aluminium	mg/L	Every 6 Months	0.02	No
Arsenic	mg/L	Every 6 Months	0.001	No
Cadmium	mg/L	Every 6 Months	<0.0001	No
Copper	mg/L	Every 6 Months	<0.001	No
Manganese	mg/L	Every 6 Months	0.310	No
Nickel	mg/L	Every 6 Months	<0.001	No
Zinc	mg/L	Every 6 Months	0.002	No
Iron	mg/L	Every 6 Months	0.03	No
Total PAH	µg/L	Every 6 Months	2.6	No
TPH C6-9 Fraction	µg/L	Every 6 Months	<10	No
TPH C10-14 Fraction	µg/L	Every 6 Months	<50	No
TPH C15-28 Fraction	µg/L	Every 6 Months	<100	No
TPH C29-36 Fraction	µg/L	Every 6 Months	<100	No
Cyanide (free)	mg/L	Every 6 Months	<0.004	No
Cyanide (total)	mg/L	Every 6 Months	<0.018	No

Note: If trigger level is met, actions listed in Condition E1.2 of EPL12693 are to be followed.

* Trigger Condition 1 and 2 recalculated each sampling round.

** Resample result (24/7/25)

Groundwater Sampling Point 41 (BH23D)

Sample Date: 11 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value	Exceedance (Yes/No)*
pH	pH units	Every 6 Months	6.70	Yes
Conductivity	µS/cm	Every 6 Months	15000	No
Bromide	mg/L	Every 6 Months	19	No
Aluminium	mg/L	Every 6 Months	<0.01	No
Arsenic	mg/L	Every 6 Months	<0.001	No
Cadmium	mg/L	Every 6 Months	<0.0001	No
Copper	mg/L	Every 6 Months	<0.001	No
Manganese	mg/L	Every 6 Months	0.88	No
Nickel	mg/L	Every 6 Months	<0.001	No
Zinc	mg/L	Every 6 Months	0.012	Yes
Iron	mg/L	Every 6 Months	9.5	No
Total PAH	µg/L	Every 6 Months	<0.1	No
TPH C6-9 Fraction	µg/L	Every 6 Months	<10	No
TPH C10-14 Fraction	µg/L	Every 6 Months	<50**	No
TPH C15-28 Fraction	µg/L	Every 6 Months	<100	No
TPH C29-36 Fraction	µg/L	Every 6 Months	<100	No
Cyanide (free)	mg/L	Every 6 Months	<0.004	No
Cyanide (total)	mg/L	Every 6 Months	<0.009	No

Note: If trigger level is met, actions listed in Condition E1.2 of EPL12693 are to be followed.

* Trigger Condition 1 and 2 recalculated each sampling round.

** Resample result (24/7/25)

Sampling Point 24,25,26,27,28,29,30,31,32,33 (Additional Contingency Wells)

Groundwater Sampling Point BHe23S (Note: BHe23S has been used as a substitute to Monitoring Point 24 (K11/3E), which no longer exists due to previous impacts to the bore).

Sample Date: N/A

Note: Sampling Point BHe23S was unable to be sampled in this monitoring round as the well was dry.

Groundwater Sampling Point 25 (BHe23D) (Note: BHe23D has been used as a substitute to Monitoring Point 25 (K11/3W), which no longer exists due to previous impacts to the bore).

Sample Date: 11 June 2025

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.00
Conductivity	µS/cm	Special Frequency 1	13000
Bromide	mg/L	Special Frequency 1	15
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	<0.001
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.98
Nickel	mg/L	Special Frequency 1	0.003
Zinc	mg/L	Special Frequency 1	0.003
Iron	mg/L	Special Frequency 1	0.11
Total PAH	µg/L	Special Frequency 1	<0.1
TPH C6-9 Fraction	µg/L	Special Frequency 1	<10
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<100
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 26 (K11/2W)**Sample Date:** 11 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.4
Conductivity	µS/cm	Special Frequency 1	5700
Bromide	mg/L	Special Frequency 1	6.1
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	<0.001
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.048
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.002
Iron	mg/L	Special Frequency 1	0.03
Total PAH	µg/L	Special Frequency 1	<10
TPH C6-9 Fraction	µg/L	Special Frequency 1	<50
TPH C10-14 Fraction	µg/L	Special Frequency 1	<100
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<50
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 27 (K11/2E)**Sample Date:** 11 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.10
Conductivity	µS/cm	Special Frequency 1	1300
Bromide	mg/L	Special Frequency 1	1.4
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	0.003
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.460
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.002
Iron	mg/L	Special Frequency 1	5.2
Total PAH	µg/L	Special Frequency 1	<0.1
TPH C6-9 Fraction	µg/L	Special Frequency 1	<10
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<100
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 28 (K9/4W)**Sample Date:** 10 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.30
Conductivity	µS/cm	Special Frequency 1	6300
Bromide	mg/L	Special Frequency 1	5.1
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	<0.001
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.190
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.012
Iron	mg/L	Special Frequency 1	2
Total PAH	µg/L	Special Frequency 1	<0.1
TPH C6-9 Fraction	µg/L	Special Frequency 1	<10
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<100
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 29 (K9/4E)**Sample Date:** 10 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.20
Conductivity	µS/cm	Special Frequency 1	3800
Bromide	mg/L	Special Frequency 1	3.8
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	0.001
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	1.40
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.008
Iron	mg/L	Special Frequency 1	0.98
Total PAH	µg/L	Special Frequency 1	0.28
TPH C6-9 Fraction	µg/L	Special Frequency 1	<10
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<100
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 30 (K9/2W)**Sample Date:** 10 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.5
Conductivity	µS/cm	Special Frequency 1	1400
Bromide	mg/L	Special Frequency 1	2.7
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	0.003
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.980
Nickel	mg/L	Special Frequency 1	0.002
Zinc	mg/L	Special Frequency 1	0.018
Iron	mg/L	Special Frequency 1	0.17
Total PAH	µg/L	Special Frequency 1	<0.1
TPH C6-9 Fraction	µg/L	Special Frequency 1	<10
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<100
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 31 (K9/2E)**Sample Date:** 10 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.30
Conductivity	µS/cm	Special Frequency 1	22000
Bromide	mg/L	Special Frequency 1	34
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	<0.001
Cadmium	mg/L	Special Frequency 1	0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.720
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.005
Iron	mg/L	Special Frequency 1	0.57
Total PAH	µg/L	Special Frequency 1	<0.1
TPH C6-9 Fraction	µg/L	Special Frequency 1	<10
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<100
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 32 (BHe29D) (Note: BHe29D has been used as a substitute to Monitoring Point 32 (K10/4W), which no longer exists due to previous impacts to the bore).

Sample Date: 11 Jun 2025

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.2
Conductivity	µS/cm	Special Frequency 1	6800
Bromide	mg/L	Special Frequency 1	19
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	<0.001
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.14
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.003
Iron	mg/L	Special Frequency 1	0.08
Total PAH	µg/L	Special Frequency 1	<0.1
TPH C6-9 Fraction	µg/L	Special Frequency 1	<10
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<100
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 33 (BHe26S) (Note: BHe26S has been used as a substitute to Monitoring Point 33 (DM10), which no longer exists due to previous impacts to the bore).

Sample Date: -

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.7
Conductivity	µS/cm	Special Frequency 1	1500
Bromide	mg/L	Special Frequency 1	1.4
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	0.005
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.069
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.004
Iron	mg/L	Special Frequency 1	<0.01
Total PAH	µg/L	Special Frequency 1	<0.1
TPH C6-9 Fraction	µg/L	Special Frequency 1	<10
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<100
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	0.016

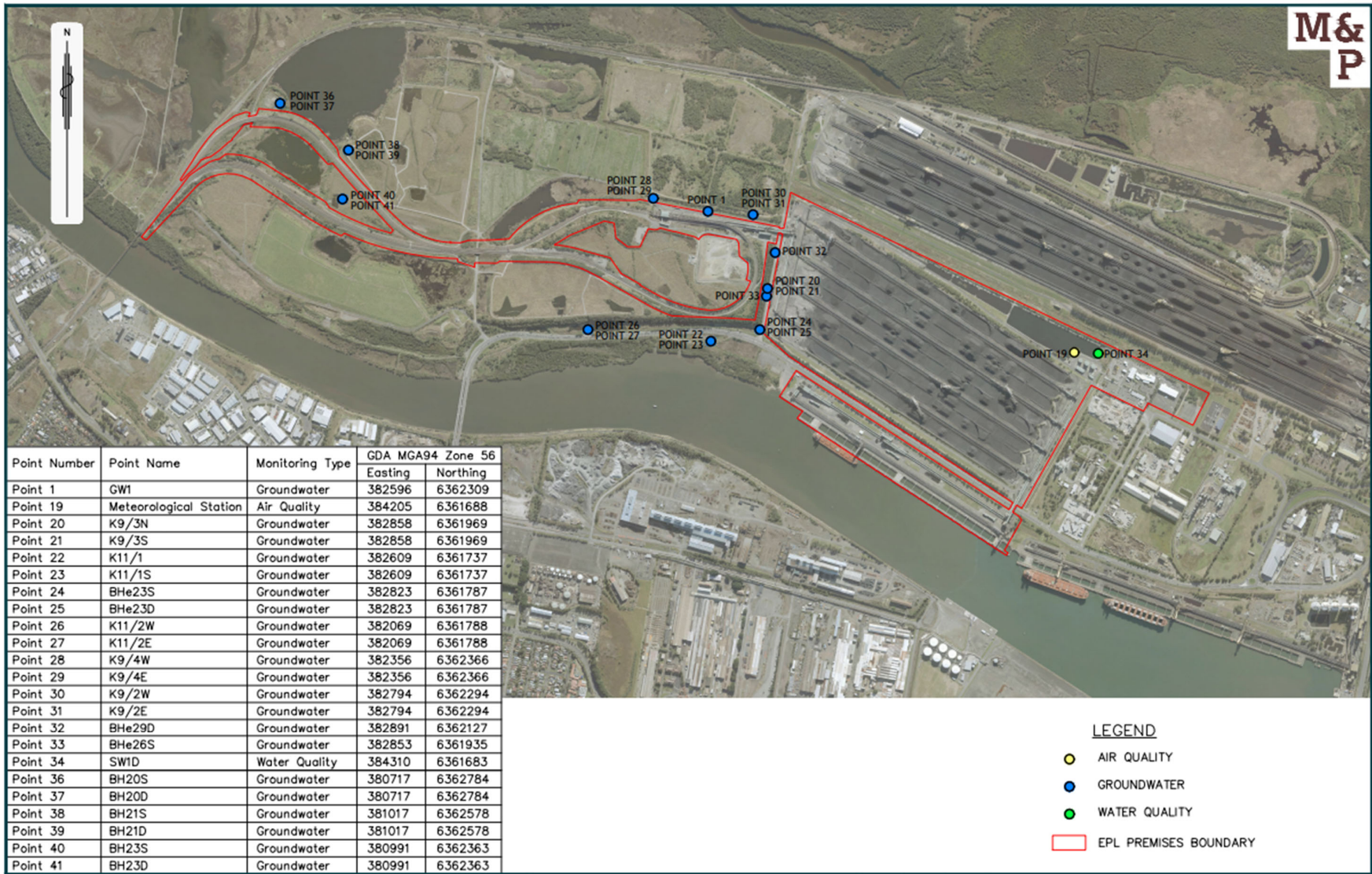


Figure 1: Groundwater, Surface Water and Additional Ambient Air Quality Monitoring Locations.