

Quarterly Groundwater Results

May 2025



City of Newcastle - Summerhill Waste Management Centre

141 Minmi Road, Wallsend, NSW

Environment Protection Licence 5897 - Condition M2 – Groundwater Sampling

	CN ID		GW33	GW34	GW35*	GW42**	GW46	GW48	GW49**	GW51
	EPL ID		33	34	35	42	46	48	49	51
Parameter	Units	LOR								
Ammonia	mg/L	0.01	0.78	1.22	4.73		0.73	0.01		0.08
Calcium	mg/L	1	423	136			67	42		8
Chloride	mg/L	1	2380	3020	4310		13700	88		176
Electrical Conductivity	µS/cm	1	10800	9750	13700		9570	957		1390
Iron	mg/L	0.05	52.8	6.18	12.0		4.61	4.14		15.0
Lead	mg/L	0.001	0.003	0.003	0.156		0.002	0.006		0.039
Magnesium	mg/L	1	587	152			157	29		16
Nitrate as N	mg/L	0.01	0.04	0.10	15.0		0.05	0.04		<0.01
pH Value	pH Unit	0.01	5.99	6.74	7.73		6.64	6.38		6.06
Potassium	mg/L	1	40	19			34	5		11
Sodium	mg/L	1	1360	1660			1800	148		270
Sulfate	mg/L	1	3330	382	282		530	108		250
Total Alkalinity as CaCO ₃	mg/L	1	81	547			381	261		203
Total Dissolved Solids	mg/L	10	8130	5750			5680	880		1400
Total Organic Carbon	mg/L	1	5	10	75		6	7		18
Standing Water Level	mAHD	0.01	24.28	27.23	6.63		22.44	38.425	37.43	36.88

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May 2025

	CN ID		GW101*	GW102	GW103	GW104	GW105	GW106**	GW107
	EPL ID		68	69	70	71	72	73	74
Parameter	Units	LOR							
Ammonia	mg/L	0.01		0.07	0.19	1.00	0.77		<0.01
Calcium	mg/L	1		7	62	47	145		15
Chloride	mg/L	1		180	378	2900	4510		373
Electrical Conductivity	µS/cm	1		1410	2310	9010	13800		1970
Iron	mg/L	0.05		8.89	3.82	21.8	42.7		14.1
Lead	mg/L	0.001		0.017	0.005	0.010	0.002		0.018
Magnesium	mg/L	1		16	32	180	347		48
Nitrate as N	mg/L	0.01		0.02	0.02	0.02	<1.10		1.30
pH Value	pH Unit	0.01		6.16	6.05	5.64	6.47		5.81
Potassium	mg/L	1		13	9	31	42		11
Sodium	mg/L	1		278	359	1610	2380		317
Sulfate	mg/L	1		250	70	374	531		372
Total Alkalinity as CaCO ₃	mg/L	1		207	552	232	252		60
Total Dissolved Solids	mg/L	10		1110	1380	5210	8500		1440
Total Organic Carbon	mg/L	1		15	18	6	14		10
Standing Water Level	mBTOC	0.01	-	15.385	8.125	9.66	4.85	16.92	24.77

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May 2025

	CN ID		GW109	GW110	GW111*	GW112*	GW113*	GW114	GW115	GW116
	EPL ID		75	76	77	78	79	80	81	82
Parameter	Units	LOR								
Ammonia	mg/L	0.01	0.10	0.37				0.40	0.03	0.08
Calcium	mg/L	1	12	10				75	36	4
Chloride	mg/L	1	66	131				417	498	341
Electrical Conductivity	µS/cm	1	372	1320				2080	2460	1790
Iron	mg/L	0.05	9.68	15.3				8.51	15.9	13.7
Lead	mg/L	0.001	0.010	0.036				0.003	0.028	0.028
Magnesium	mg/L	1	5	10				51	47	21
Nitrate as N	mg/L	0.01	0.020	<0.10				<0.01	0.04	<0.01
pH Value	pH Unit	0.01	6.51	5.73				6.86	6.69	6.82
Potassium	mg/L	1	4	7				11	6	6
Sodium	mg/L	1	5	265				360	425	358
Sulfate	mg/L	1	14	246				38	226	232
Total Alkalinity as CaCO ₃	mg/L	1	60	183				634	340	181
Total Dissolved Solids	mg/L	10	374	987				1160	1340	1060
Total Organic Carbon	mg/L	1	25	58				12	5	5
Standing Water Level	mBTOC	0.01	5.055	11.825	47.81	-	-	70.155	48.05	67.74

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Parameter	CN ID		GW117	GW118*	GW119*	GW120
	EPL ID		83	84	85	86
	Units	LOR				
Ammonia	mg/L	0.01	0.08			0.02
Calcium	mg/L	1	10			26
Chloride	mg/L	1	285			42
Electrical Conductivity	µS/cm	1	1650			720
Iron	mg/L	0.05	23.2			3.66
Lead	mg/L	0.001	0.012			0.011
Magnesium	mg/L	1	30			17
Nitrate as N	mg/L	0.01	<0.01			0.44
pH Value	pH Unit	0.01	7.28			6.60
Potassium	mg/L	1	5			8
Sodium	mg/L	1	310			105
Sulfate	mg/L	1	233			121
Total Alkalinity as CaCO ₃	mg/L	1	237			181
Total Dissolved Solids	mg/L	10	1010			440
Total Organic Carbon	mg/L	1	7			17
Standing Water Level	mBTOC	0.01	49.16	-	41.45	9.19

Notes:

CN = City of Newcastle

EPL = Environment Protection Licence

LOR = limit of reporting

mAHD = metres above Australian Height Datum

Results preceded by < indicate that the results were below the limit of detection for that analysis

- = no result (non-compliant sample, insufficient water to sample etc)

*Insufficient water for analysis to be conducted

**Unable to be sampled due to blockage in well

Date sampled: 27, 28, 29, 30 May and 2 June 2025

Final data obtained: 10 June 2025

Date published: 20 June 2025

A copy of the Environmental Protection Licence can be viewed at: <http://app.epa.nsw.gov.au/prpoeoapp/> A map showing the location of monitoring points can be viewed at: <http://www.newcastle.nsw.gov.au/Living/Waste-recycling/Summerhill-Waste-management-Centre/Environmental-Monitoring-Data>