

Muswellbrook Waste & Recycling Centre, 252 Coal Rd Muswellbrook, 2333

Licence Period: 1 December to 30 November

EPA LICENCE NUMBER: 5980

2025 Monitoring Data



Date Sampled	13/02/2025	23/05/2025	15/08/2025	
Results Received	27/02/2025	2/06/2025	29/08/2025	

Sampling Point	RL	EPA ID number		MEASUREMENT			
MPS Leachate Well	214.5	1					
Pollutant	Units	Method	Frequency	Feb-25	May-25	Aug-25	Nov-25
Alkalinity (as calcium carbonate)	mg/l	Grab Sample	Quarterly	2320	1290	1120	
Ammonia	mg/l	Grab Sample	Quarterly	289	169	102	
Biochemical Oxygen Demand (BOD)	mg/l	Grab Sample	Quarterly	7	118	20	
Calcium	mg/l	Grab Sample	Quarterly	129	100	57	
Chemical oxygen demand	mg/l	Grab Sample	Quarterly	603	467	317	
Chloride	mg/l	Grab Sample	Quarterly	995	577	430	
Electrical conductivity	µS/cm	Probe	Quarterly	6440	3670	3040	
Fluoride	mg/l	Grab Sample	Quarterly	0.5	0.3	0.3	
Magnesium	mg/l	Grab Sample	Quarterly	100	67	36	
Nitrate	mg/l	Grab Sample	Quarterly	<0.1	0.1	0.15	
Nitrite	mg/l	Grab Sample	Quarterly	<0.1	0.16	0.38	
Nitrogen (total)	mg/l	Grab Sample	Quarterly	352	158	139	
pH	pH	Probe	Quarterly	7.06	7.06	7.31	
Phosphorus (total)	mg/l	Grab Sample	Quarterly	1.2	0.8	0.71	
Potassium	mg/l	Grab Sample	Quarterly	187	151	113	
Sodium	mg/l	Grab Sample	Quarterly	615	390	299	
Standing Water Level	metres AHD	in situ	Quarterly	203.17	205.07	205.5	
Sulfate	mg/l	Grab Sample	Quarterly	<1	<1	<1	
Total dissolved solids	mg/l	Grab Sample	Quarterly	3230	1930	1520	
Total organic carbon	mg/l	Grab Sample	Quarterly	192	76	93	
Total suspended solids	mg/l	Grab Sample	Quarterly	37	44	25	
Aluminium	mg/l	Grab Sample	Yearly			0.15	
Arsenic	mg/l	Grab Sample	Yearly			0.006	
Barium	mg/l	Grab Sample	Yearly			0.29	
Benzene	µg/l	Grab Sample	Yearly			2	
Cadmium	mg/l	Grab Sample	Yearly			<0.0001	
Chromium	mg/l	Grab Sample	Yearly			0.013	
Cobalt	mg/l	Grab Sample	Yearly			0.005	
Copper	mg/l	Grab Sample	Yearly			0.006	
Ethyl benzene	µg/l	Grab Sample	Yearly			<2	
Iron	mg/l	Grab Sample	Yearly			6.54	
Lead	mg/l	Grab Sample	Yearly			<0.001	
Manganese	mg/l	Grab Sample	Yearly			0.265	
Mercury	mg/l	Grab Sample	Yearly			<0.0001	
Nickel	mg/l	Grab Sample	Yearly			0.018	
Organochlorine Pesticides	µg/l	Grab Sample	Yearly			<0.5	
Organophosphate pesticides	µg/l	Grab Sample	Yearly			<0.5	
Polycyclic aromatic hydrocarbons	µg/l	Grab Sample	Yearly			<0.5	
Toluene	µg/l	Grab Sample	Yearly			<2	
Total petroleum hydrocarbons	µg/l	Grab Sample	Yearly			820	
Total Phenolics	mg/l	Grab Sample	Yearly			<0.05	
Xylene	mg/l	Grab Sample	Yearly			<2	
Zinc	mg/l	Grab Sample	Yearly			0.221	

Sampling point	RL	EPA ID number	MEASUREMENT						
MP1 groundwater	225.5	2							
Pollutant	Units	Method	Frequency	Feb-25	May-25	Aug-25	Nov-25		
Alkalinity (as calcium carbonate)	milligrams per litre	Grab Sample	Quarterly		7	111			
Ammonia	milligrams per litre	Grab Sample	Quarterly		0.3	<0.05			
Calcium	milligrams per litre	Grab Sample	Quarterly		11	17			
Chloride	milligrams per litre	Grab Sample	Quarterly		115	144			
Fluoride	milligrams per litre	Grab Sample	Quarterly		0.1	0.4			
Magnesium	milligrams per litre	Grab Sample	Quarterly		14	20			
Nitrate	milligrams per litre	Grab Sample	Quarterly		<0.01	<0.05			
Nitrite	milligrams per litre	Grab Sample	Quarterly		<0.01	<0.05			
Nitrogen (total)	milligrams per litre	Grab Sample	Quarterly		1.9	2.8			
pH	pH	Probe	Quarterly	Dry	5.23	6.18			
Phosphorus (total)	milligrams per litre	Grab Sample	Quarterly		0.28	10.5			
Potassium	milligrams per litre	Grab Sample	Quarterly		1	<1			
Sodium	milligrams per litre	Grab Sample	Quarterly		63	65			
Standing Water Level	metres AHD	in situ	Quarterly		202.05	199.42			
Sulfate	milligrams per litre	Grab Sample	Quarterly		39	20			
Total dissolved solids	milligrams per litre	Grab Sample	Quarterly		333	373			
Total organic carbon	milligrams per litre	Grab Sample	Quarterly		14	21			
Redox potential	millivolts	Probe	Quarterly		73	55			
Temperature	degrees Celsius	Probe	Quarterly		21	19.9			
Aluminium	milligrams per litre	Grab Sample	Yearly			0.27			
Arsenic	milligrams per litre	Grab Sample	Yearly			0.089			
Barium	milligrams per litre	Grab Sample	Yearly			0.066			
Benzene	milligrams per litre	Grab Sample	Yearly			<1			
Cadmium	milligrams per litre	Grab Sample	Yearly			<0.0001			
Chromium	milligrams per litre	Grab Sample	Yearly			0.005			
Cobalt	milligrams per litre	Grab Sample	Yearly			0.232			
Copper	milligrams per litre	Grab Sample	Yearly			0.006			
Ethyl benzene	milligrams per litre	Grab Sample	Yearly			<2			
Lead	milligrams per litre	Grab Sample	Yearly			<0.001			
Manganese	milligrams per litre	Grab Sample	Yearly			2.56			
Mercury	milligrams per litre	Grab Sample	Yearly			<0.0001			
Nickel	milligrams per litre	Grab Sample	Yearly			0.055			
Organophosphate pesticides	milligrams per litre	Grab Sample	Yearly			<0.5			
Organochlorine pesticides	milligrams per litre	Grab Sample	Yearly			<0			
Polycyclic aromatic hydrocarbons	milligrams per litre	Grab Sample	Yearly			<0.5			
Toluene	milligrams per litre	Grab Sample	Yearly			<2			
Total petroleum hydrocarbons	milligrams per litre	Grab Sample	Yearly			<50			
Total phenolics	milligrams per litre	Grab Sample	Yearly			<0.05			
Xylene	milligrams per litre	Grab Sample	Yearly			<2			
Zinc	milligrams per litre	Grab Sample	Yearly			0.01			

Sampling Point	RL	EPA ID number	MEASUREMENT - MP2				MEASUREMENT - MP2A				
MP2/2A groundwater	213	3	Frequency	Feb-25	May-25	Aug-25	Nov-25	Feb-25	May-25	Aug-25	Nov-25
Pollutant	Units	Method	Frequency	Feb-25	May-25	Aug-25	Nov-25	Feb-25	May-25	Aug-25	Nov-25
Alkalinity (as calcium carbonate)	milligrams per litre	Grab Sample	Quarterly	157	180	245		271	227	238	
Ammonia	milligrams per litre	Grab Sample	Quarterly	5.41	6.09	5.89		0.01	0.1	<0.05	
Calcium	milligrams per litre	Grab Sample	Quarterly	97	107	110		189	190	203	
Chloride	milligrams per litre	Grab Sample	Quarterly	771	790	804		738	783	829	
Fluoride	milligrams per litre	Grab Sample	Quarterly	0.4	0.4	0.3		0.1	<0.1	<0.1	
Magnesium	milligrams per litre	Grab Sample	Quarterly	243	257	286		58	62	55	
Nitrate	milligrams per litre	Grab Sample	Quarterly	<0.01	<0.01	<0.05		0.2	0.23	0.43	
Nitrite	milligrams per litre	Grab Sample	Quarterly	<0.01	<0.01	<0.05		<0.01	<0.01	<0.05	
Nitrogen (total)	milligrams per litre	Grab Sample	Quarterly	8.9	8.4	9.8		0.3	0.3	0.7	
pH	pH	Probe	Quarterly	6.15	6.26	6.34		6.25	6.31	6.32	
Phosphorus (total)	milligrams per litre	Grab Sample	Quarterly	0.46	0.15	0.28		0.17	0.35	0.31	
Potassium	milligrams per litre	Grab Sample	Quarterly	11	9	16		8	7	10	
Sodium	milligrams per litre	Grab Sample	Quarterly	679	719	696		267	279	291	
Standing Water Level	metres AHD	in situ	Quarterly	195.24	195.42	195.51		165.88	165.48	165.6	
Sulfate	milligrams per litre	Grab Sample	Quarterly	1720	1740	1920		110	100	61	
Total dissolved solids	milligrams per litre	Grab Sample	Quarterly	3410	3220	4220		2310	1850	2450	
Total organic carbon	milligrams per litre	Grab Sample	Quarterly	23	34	56		<1	6	<1	
Redox potential	millivolts	Probe	Quarterly	-48	-22	-18		122	31	40	
Temperature	degrees Celsius	Probe	Quarterly	24.7	23.9	21.6		23.4	22.5	20.3	
Aluminium	milligrams per litre	Grab Sample	Yearly			0.19				0.06	
Arsenic	milligrams per litre	Grab Sample	Yearly			0.003				<0.001	
Barium	milligrams per litre	Grab Sample	Yearly			0.02				0.021	
Benzene	milligrams per litre	Grab Sample	Yearly			<1				<1	
Cadmium	milligrams per litre	Grab Sample	Yearly			0.0001				<0.0001	
Chromium	milligrams per litre	Grab Sample	Yearly			0.002				0.003	
Cobalt	milligrams per litre	Grab Sample	Yearly			0.049				0.003	
Copper	milligrams per litre	Grab Sample	Yearly			<0.001				0.008	
Ethyl benzene	milligrams per litre	Grab Sample	Yearly			<2				<2	
Lead	milligrams per litre	Grab Sample	Yearly			0.001				<0.001	
Manganese	milligrams per litre	Grab Sample	Yearly			8.82				0.31	
Mercury	milligrams per litre	Grab Sample	Yearly			<0.0001				0.0018	
Nickel	milligrams per litre	Grab Sample	Yearly			0.106				0.011	
Organophosphate pesticides	milligrams per litre	Grab Sample	Yearly			<0.5				<0.5	
Organochlorine pesticides	milligrams per litre	Grab Sample	Yearly			<0.5				<0.5	
Polycyclic aromatic hydrocarbons	milligrams per litre	Grab Sample	Yearly			<0.5				<0.5	
Toluene	milligrams per litre	Grab Sample	Yearly			<2				<2	
Total petroleum hydrocarbons	milligrams per litre	Grab Sample	Yearly			<100				<50	
Total phenolics	milligrams per litre	Grab Sample	Yearly			<0.5				<0.05	
Xylene	milligrams per litre	Grab Sample	Yearly			<2				<2	
Zinc	milligrams per litre	Grab Sample	Yearly			0.194				0.008	

Sampling Point	RL	EPA ID number	MEASUREMENT - MP4				MEASUREMENT - MP4A				
MP4/4A groundwater	228	4									
Pollutant	Units	Method	Frequency	Feb-25	May-25	Aug-25	Nov-25	Feb-25	May-25	Aug-25	Nov-25
Alkalinity (as calcium carbonate)	milligrams per litre	Grab Sample	Quarterly	421	213	231		559	509	507	
Ammonia	milligrams per litre	Grab Sample	Quarterly	3.07	0.74	1.48		0.13	0.33	0.09	
Calcium	milligrams per litre	Grab Sample	Quarterly	167	52	65		96	111	89	
Chloride	milligrams per litre	Grab Sample	Quarterly	244	72	58		106	110	90	
Fluoride	milligrams per litre	Grab Sample	Quarterly	0.4	0.4	0.5		0.1	0.1	<0.1	
Magnesium	milligrams per litre	Grab Sample	Quarterly	30	14	12		25	25	18	
Nitrate	milligrams per litre	Grab Sample	Quarterly	<0.01	<0.01	0.06		<0.01	0.02	<0.05	
Nitrite	milligrams per litre	Grab Sample	Quarterly	<0.01	<0.01	<0.05		<0.01	<0.01	<0.05	
Nitrogen (total)	milligrams per litre	Grab Sample	Quarterly	10.7	4.6	4.6		0.3	0.5	0.8	
pH	pH	Probe	Quarterly	6.65	6.72	6.96		6.95	7.11	7.16	
Phosphorus (total)	milligrams per litre	Grab Sample	Quarterly	0.59	0.17	0.4		0.24	0.09	0.44	
Potassium	milligrams per litre	Grab Sample	Quarterly	4	4	2		4	3	4	
Sodium	milligrams per litre	Grab Sample	Quarterly	93	55	46		162	165	156	
Standing Water Level	metres AHD	in situ	Quarterly	195.6	195.69	195.48		171.83	171.71	171.74	
Sulfate	milligrams per litre	Grab Sample	Quarterly	104	15	16		57	65	75	
Total dissolved solids	milligrams per litre	Grab Sample	Quarterly	996	414	398		808	774	760	
Total organic carbon	milligrams per litre	Grab Sample	Quarterly	50	38	<1		1	9	21	
Redox potential	millivolts	Probe	Quarterly	-76	-57	-12		-3	207	151	
Temperature	degrees Celsius	Probe	Quarterly	23.5	22.3	21.6		24.1	21.6	19.8	
Aluminium	milligrams per litre	Grab Sample	Yearly			1.51				1.15	
Arsenic	milligrams per litre	Grab Sample	Yearly			0.002				<0.001	
Barium	milligrams per litre	Grab Sample	Yearly			0.021				0.073	
Benzene	milligrams per litre	Grab Sample	Yearly			<1				<1	
Cadmium	milligrams per litre	Grab Sample	Yearly			<0.0001				0.0001	
Chromium	milligrams per litre	Grab Sample	Yearly			0.003				0.002	
Cobalt	milligrams per litre	Grab Sample	Yearly			0.003				0.002	
Copper	milligrams per litre	Grab Sample	Yearly			0.008				0.005	
Ethyl benzene	milligrams per litre	Grab Sample	Yearly			<2				<2	
Lead	milligrams per litre	Grab Sample	Yearly			0.003				0.001	
Manganese	milligrams per litre	Grab Sample	Yearly			0.295				0.101	
Mercury	milligrams per litre	Grab Sample	Yearly			<0.0001				<0.0001	
Nickel	milligrams per litre	Grab Sample	Yearly			0.014				0.009	
Organochlorine pesticides	milligrams per litre	Grab Sample	Yearly			<0.5				<0.5	
Organophosphate pesticides	milligrams per litre	Grab Sample	Yearly			<0.5				<0.5	
Polycyclic aromatic hydrocarbons	milligrams per litre	Grab Sample	Yearly			<0.5				<0.5	
Toluene	milligrams per litre	Grab Sample	Yearly			<2				<2	
Total petroleum hydrocarbons	milligrams per litre	Grab Sample	Yearly			<50				<50	
Total phenolics	milligrams per litre	Grab Sample	Yearly			<0.05				<0.05	
Xylene	milligrams per litre	Grab Sample	Yearly			<2				<2	
Zinc	milligrams per litre	Grab Sample	Yearly			0.058				0.089	

Sampling Point	RL	EPA ID number	MEASUREMENT				
MP6 groundwater	213	5					
Pollutant	Units	Method	Frequency	Feb-25	May-25	Aug-25	Nov-25
Alkalinity (as calcium carbonate)	milligrams per litre	Grab Sample	Quarterly	Dry	Dry		
Ammonia	milligrams per litre	Grab Sample	Quarterly				
Calcium	milligrams per litre	Grab Sample	Quarterly				
Chloride	milligrams per litre	Grab Sample	Quarterly				
Fluoride	milligrams per litre	Grab Sample	Quarterly				
Magnesium	milligrams per litre	Grab Sample	Quarterly				
Nitrate	milligrams per litre	Grab Sample	Quarterly				
Nitrite	milligrams per litre	Grab Sample	Quarterly				
Nitrogen (total)	milligrams per litre	Grab Sample	Quarterly				
pH	pH	Probe	Quarterly				
Phosphorus (total)	milligrams per litre	Grab Sample	Quarterly				
Potassium	milligrams per litre	Grab Sample	Quarterly				
Sodium	milligrams per litre	Grab Sample	Quarterly				
Standing Water Level	metres AHD	in situ	Quarterly				
Sulfate	milligrams per litre	Grab Sample	Quarterly				
Total dissolved solids	milligrams per litre	Grab Sample	Quarterly				
Total organic carbon	milligrams per litre	Grab Sample	Quarterly				
Redox potential	millivolts	Probe	Quarterly				
Temperature	degrees Celsius	Probe	Quarterly				
Aluminium	milligrams per litre	Grab Sample	Yearly				
Arsenic	milligrams per litre	Grab Sample	Yearly				
Barium	milligrams per litre	Grab Sample	Yearly				
Benzene	milligrams per litre	Grab Sample	Yearly				
Cadmium	milligrams per litre	Grab Sample	Yearly				
Chromium	milligrams per litre	Grab Sample	Yearly				
Cobalt	milligrams per litre	Grab Sample	Yearly				
Copper	milligrams per litre	Grab Sample	Yearly				
Ethyl benzene	milligrams per litre	Grab Sample	Yearly				
Lead	milligrams per litre	Grab Sample	Yearly				
Manganese	milligrams per litre	Grab Sample	Yearly				
Mercury	milligrams per litre	Grab Sample	Yearly				
Nickel	milligrams per litre	Grab Sample	Yearly				
Organochlorine pesticides	milligrams per litre	Grab Sample	Yearly				
Organophosphate pesticides	milligrams per litre	Grab Sample	Yearly				
Polycyclic aromatic hydrocarbons	milligrams per litre	Grab Sample	Yearly				
Toluene	milligrams per litre	Grab Sample	Yearly				
Total petroleum hydrocarbons	milligrams per litre	Grab Sample	Yearly				
Total phenolics	milligrams per litre	Grab Sample	Yearly				
Xylene	milligrams per litre	Grab Sample	Yearly				
Zinc	milligrams per litre	Grab Sample	Yearly				

Sampling Point		EPA ID number	MEASUREMENT				
Point 1 surface water		6		Feb-25	May-25	Aug-25	Nov-25
Pollutant	Units	Method	Frequency				
Alkalinity (as calcium carbonate)	milligrams per litre	Grab Sample	Quarterly	Dry	17	28	
Ammonia	milligrams per litre	Grab Sample	Quarterly		0.32	0.07	
BOD	milligrams per litre	Grab Sample	Quarterly		5	4	
COD	milligrams per litre	Grab Sample	Quarterly		78	65	
Electrical conductivity	microsiemens per cent	Probe	Quarterly		151	208	
Nitrate	milligrams per litre	Grab Sample	Quarterly		0.09	<0.05	
Nitrite	milligrams per litre	Grab Sample	Quarterly		0.01	<0.03	
Nitrogen (total)	milligrams per litre	Grab Sample	Quarterly		1	1.1	
pH	pH	Probe	Quarterly		6.67	6.75	
Potassium	milligrams per litre	Grab Sample	Quarterly		5	5	
Total dissolved solids	milligrams per litre	Grab Sample	Quarterly		285	220	
Total organic carbon	milligrams per litre	Grab Sample	Quarterly		16	18	
Total suspended solids	milligrams per litre	Grab Sample	Quarterly		20	14	
Redox potential	millivolts	Probe	Quarterly		32	11	
Dissolved oxygen	milligrams per litre	Probe	Quarterly		62.10%	65.10%	

Sampling Point		EPA ID number	MEASUREMENT				
Point 2 surface water		7		Feb-25	May-25	Aug-25	Nov-25
Pollutant	Units	Method	Frequency				
Alkalinity (as calcium carbonate	milligrams per litre	Grab Sample	Quarterly	209	156	212	
Ammonia	milligrams per litre	Grab Sample	Quarterly	0.48	0.63	1.06	
BOD	milligrams per litre	Grab Sample	Quarterly	11	7	6	
COD	milligrams per litre	Grab Sample	Quarterly	212	335	332	
Electrical conductivity	microsiemens per cent	Probe	Quarterly	1070	1480	1670	
Nitrate	milligrams per litre	Grab Sample	Quarterly	0.08	18	8.11	
Nitrite	milligrams per litre	Grab Sample	Quarterly	<0.01	0.51	0.56	
Nitrogen (total)	milligrams per litre	Grab Sample	Quarterly	10.9	31.1	20.6	
pH	pH	Probe	Quarterly	7.27	7.17	7.35	
Potassium	milligrams per litre	Grab Sample	Quarterly	138	228	251	
Total dissolved solids	milligrams per litre	Grab Sample	Quarterly	1000	1250	1400	
Total organic carbon	milligrams per litre	Grab Sample	Quarterly	83	107	126	
Total suspended solids	milligrams per litre	Grab Sample	Quarterly	129	91	12	
Redox potential	millivolts	Probe	Quarterly	45	86	110	
Dissolved oxygen	milligrams per litre	Probe	Quarterly	84.50%	66.00%	52.00%	

Sampling Point		EPA ID number		MEASUREMENT			
Point 3 surface water		8		Feb-25	May-25	Aug-25	Nov-25
Pollutant	Units	Method	Frequency				
Alkalinity (as calcium carbonate)	milligrams per litre	Grab Sample	Quarterly	267	114	124	
Ammonia	milligrams per litre	Grab Sample	Quarterly	0.1	0.38	0.17	
BOD	milligrams per litre	Grab Sample	Quarterly	13	8	5	
COD	milligrams per litre	Grab Sample	Quarterly	255	193	223	
Electrical conductivity	microsiemens per cent	Probe	Quarterly	1300	1080	1030	
Nitrate	milligrams per litre	Grab Sample	Quarterly	<0.01	16.1	7.2	
Nitrite	milligrams per litre	Grab Sample	Quarterly	<0.01	0.27	0.14	
Nitrogen (total)	milligrams per litre	Grab Sample	Quarterly	10.9	24.3	16.3	
pH	pH	Probe	Quarterly	8.84	7.43	7.57	
Potassium	milligrams per litre	Grab Sample	Quarterly	209	172	151	
Total dissolved solids	milligrams per litre	Grab Sample	Quarterly	1100	1020	1140	
Total organic carbon	milligrams per litre	Grab Sample	Quarterly	101	67	84	
Total suspended solids	milligrams per litre	Grab Sample	Quarterly	51	82	23	
Redox potential	millivolts	Probe	Quarterly	74	66	114	
Dissolved oxygen	milligrams per litre	Probe	Quarterly	15.45%	68.50%	70.00%	