

KOOTINGAL LANDFILL - YEARLY SUMMARY FOR 2022/2023

Licence Number - 6013

Kootingal Solid Waste Landfill - New England Highway, Kootingal NSW, 2352 Licencee - Tamworth Regional Council

Council

Public Register

<https://www.epa.nsw.gov.au/licensing-and-regulation/public-registers>

LICENCE PERIOD:

17th Oct 2023 - 16th Oct 2024

PQL = Practical Quantitation Limit LOR = Limit of Reporting

N/A = not applicable

Point 1 - Surface Area

Concentration Limits: Point 1: TSS (Total Suspended Solids) - 50mg/L, 100 percentile concentration limit

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			Value	Value	Value	Value
			Alkalinity (as calcium carbonate)	m g/L	Special Frequency 1	
Calcium	m g/L	Special Frequency 1				
Chloride	m g/L	Special Frequency 1				
Chromium (Hexavalent)	m g/L	Special Frequency 1				
Conductivity (In situ)	µS/cm	Special Frequency 1				
Dissolved Oxygen (In situ)	m g/L	Special Frequency 1				
Fluoride	m g/L	Special Frequency 1				
Iron	m g/L	Special Frequency 1				
Magnesium	m g/L	Special Frequency 1				
Manganese	m g/L	Special Frequency 1				
Nitrate	m g/L	Special Frequency 1				
Nitrite	m g/L	Special Frequency 1				
Nitrogen (ammonia)	m g/L	Special Frequency 1				
pH (In situ)	pH Units	Special Frequency 1				
Potassium	m g/L	Special Frequency 1				
Sodium	m g/L	Special Frequency 1				
Sulfate	m g/L	Special Frequency 1				
Temperature (In situ)	oC	Special Frequency 1				
Total Kjeldahl Nitrogen	m g/L	Special Frequency 1				
Total Organic Carbon	m g/L	Special Frequency 1				
Total Phenolics	µg/L	Special Frequency 1				
Total Suspended Solids	m g/L	Special Frequency 1				
Volumetric Flow Rate	KL/Day	Special Frequency 1				
Zinc	m g/L	Special Frequency 1				
Organochlorine Pesticides	µg/L	Special Frequency 1				
Organophosphate Pesticides	µg/L	Special Frequency 1				

NOTE: Special Frequency 1 - once in each 6-monthly period at a time of stormwater discharge

Point 2 - Leachate Pond

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			06.12.2023	13.03.2024		
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			19.12.2023	27.03.2024		
Value	Value	Value	Value			
Alkalinity (as calcium carbonate)	m g/L	Quarterly	193	DRY		
Calcium	m g/L	Quarterly	42	DRY		
Chloride	m g/L	Quarterly	27	DRY		
Chromium (Hexavalent)	m g/L	Quarterly	<0.01	DRY		
Conductivity (In situ)	µS/cm	Quarterly	0.58	DRY		
Dissolved Oxygen (In situ)	m g/L	Quarterly	8.1	DRY		
Fluoride	m g/L	Quarterly	0.14	DRY		
Iron	m g/L	Quarterly	0.64	DRY		
Magnesium	m g/L	Quarterly	13	DRY		
Manganese	m g/L	Quarterly	0.117	DRY		
Nitrate	m g/L	Quarterly	<0.1	DRY		
Nitrite	m g/L	Quarterly	<0.1	DRY		
Nitrogen (ammonia)	m g/L	Quarterly	<0.5	DRY		
pH (In situ)	pH Units	Quarterly	7.9	DRY		
Potassium	m g/L	Quarterly	85	DRY		
Sodium	m g/L	Quarterly	29	DRY		
Sulfate	m g/L	Quarterly	24	DRY		
Temperature (In situ)	oC	Quarterly	24	DRY		
Total Kjeldahl Nitrogen	m g/L	Quarterly	4.5	DRY		
Total Organic Carbon	m g/L	Quarterly	59	DRY		
Total Phenolics	µg/L	Quarterly	<0.05	DRY		

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Total Suspended Solids	m g/L	Quarterly	20	DRY		
Zinc	m g/L	Quarterly	<0.005	DRY		
Organochlorine Pesticides	µg/L	Quarterly	<0.5	DRY		
Organophosphate Pesticides	µg/L	Quarterly	<.05	DRY		

Point 3 - Leachate Overflow Point

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			Value	Value	Value	Value
Alkalinity (as calcium carbonate)	m g/L	Special Frequency 2				
Calcium	m g/L	Special Frequency 2				
Chloride	m g/L	Special Frequency 2				
Chromium (Hexavalent)	m g/L	Special Frequency 2				
Conductivity (In Situ)	µS/cm	Special Frequency 2				
Dissolved Oxygen (In Situ)	m g/L	Special Frequency 2				
Fluoride	m g/L	Special Frequency 2				
Iron	m g/L	Special Frequency 2				
Magnesium	m g/L	Special Frequency 2				
Manganese	m g/L	Special Frequency 2				
Nitrate	m g/L	Special Frequency 2				
Nitrite	m g/L	Special Frequency 2				
Nitrogen (ammonia)	m g/L	Special Frequency 2				
pH (In Situ)	pH Units	Special Frequency 2				
Potassium	m g/L	Special Frequency 2				
Sodium	m g/L	Special Frequency 2				
Sulfate	m g/L	Special Frequency 2				
Temperature (In Situ)	°C	Special Frequency 2				
Total Kjeldahl Nitrogen	m g/L	Special Frequency 2				
Total Organic Carbon	m g/L	Special Frequency 2				
Total Phenolics	µg/L	Special Frequency 2				
Total Suspended Solids	m g/L	Special Frequency 2				
Volumetric Flow Rate (estimate)	KL/Day	Special Frequency 2				
Zinc	m g/L	Special Frequency 2				
Organochlorine Pesticides	µg/L	Special Frequency 2				
Organophosphate Pesticides	µg/L	Special Frequency 2				

NOTE: Special Frequency 2 - once in the first 24 hours after detection of the discharge and then weekly whilst the discharge continues

Point 4 - Groundwater Monitoring Bore - BH1

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			06.12.2023	13.03.2024	13.06.2024	
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			19.12.2023	27.03.2024	02.07.2024	
Value	Value	Value	Value			
Alkalinity (as calcium carbonate)	m g/L	Quarterly	320	289	64	
Biological Oxygen Demand	m g/L	Quarterly	<2	<2	3	
Calcium	m g/L	Quarterly	126	105	21	
Chloride	m g/L	Quarterly	134	116	30	
Fluoride	m g/L	Quarterly	1.11	<1	<.10	
Iron	m g/L	Quarterly	0.36	0.17	4.4	
Magnesium	m g/L	Quarterly	97	80	8	
Manganese	m g/L	Quarterly	0.594	0.529	0.097	
Nitrate	m g/L	Quarterly	49.25	50.81	0.78	
Nitrogen (ammonia)	m g/L	Quarterly	<0.5	<0.5	<0.10	
pH (In Situ)	pH Units	Quarterly	6.4	6.5	6.2	
Potassium	m g/L	Quarterly	15	17	6	
Sodium	m g/L	Quarterly	110	73	42	
Sulfate	m g/L	Quarterly	56	71	<2	
Total Dissolved Solids	m g/L	Quarterly	1184	996	204	
Total Organic Carbon	m g/L	Quarterly	29	27	21	
Total Phenolics	µg/L	Quarterly	<0.5	<1	<0.05	
Organochlorine Pesticides	µg/L	Yearly	<PQL	<PQL	<PQL	
Organophosphate Pesticides	µg/L	Yearly	<PQL	<PQL	<PQL	

Point 5 - Groundwater Bore BH2

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			06.12.2023	13.03.2024	13.06.2024	
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained

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			19.12.2023	27.03.2024	02.07.2024	
			Value	Value	Value	Value
Alkalinity (as calcium carbonate)	m g/L	Quarterly	660	630	621	
Biological Oxygen Demand	m g/L	Quarterly	2	2	<2	
Calcium	m g/L	Quarterly	150	163	143	
Chloride	m g/L	Quarterly	172	200	150	
Fluoride	m g/L	Quarterly	1.27	1.25	1.16	
Iron	m g/L	Quarterly	4.26	1.5	0.6	
Magnesium	m g/L	Quarterly	108	100	88	
Manganese	m g/L	Quarterly	108	100.00	3.76	
Nitrate	m g/L	Quarterly	14.23	11.46	8.16	
Nitrogen (ammonia)	m g/L	Quarterly	<0.5	< 0.5	<1	
pH (In Situ)	pH Units	Quarterly	6.7	6.8	6.6	
Potassium	m g/L	Quarterly	13	13	13	
Sodium	m g/L	Quarterly	230	190	236	
Sulfate	m g/L	Quarterly	259	240	203	
Total Dissolved Solids	m g/L	Quarterly	1,456	1420	1312	
Total Organic Carbon	m g/L	Quarterly	7	6	9	
Total Phenolics	µg/L	Quarterly	<0.05	< 1	<0.05	
Organochlorine Pesticides	µg/L	Yearly	<PQL	<PQL	<PQL	
Organophosphate Pesticides	µg/L	Yearly	<PQL	<PQL	<PQL	

Point 6 - Groundwater Bore BH3

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			06.12.2023	13.03.2024	13.06.2024	
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			19.12.2023	27.03.2024	02.07.2024	
Value	Value	Value	Value			
Alkalinity (as calcium carbonate)	m g/L	Quarterly	642	485	471	
Biological Oxygen Demand	m g/L	Quarterly	<2	3	<2	
Calcium	m g/L	Quarterly	107	78	76	
Chloride	m g/L	Quarterly	69	46	46	
Fluoride	m g/L	Quarterly	1.4	1.59	1.07	
Iron	m g/L	Quarterly	0.38	0.17	0.18	
Magnesium	m g/L	Quarterly	71	41	45	
Manganese	m g/L	Quarterly	0.411	0.959	0.674	
Nitrate	m g/L	Quarterly	0.96	< 1	0.38	
Nitrogen (ammonia)	m g/L	Quarterly	<0.5	< 0.5	< 0.5	
pH (In Situ)	pH Units	Quarterly	6.7	7.0	11.1	
Potassium	m g/L	Quarterly	10	11	11	
Sodium	m g/L	Quarterly	138	98	121	
Sulfate	m g/L	Quarterly	41	25	28	
Total Dissolved Solids	m g/L	Quarterly	916	676	646	
Total Organic Carbon	m g/L	Quarterly	9	9	8	
Total Phenolics	µg/L	Quarterly	<0.05	< 1	< 0.05	
Organochlorine Pesticides	µg/L	Yearly	<PQL	<PQL	<PQL	
Organophosphate Pesticides	µg/L	Yearly	<PQL	<PQL	<PQL	

Point 7 - Groundwater Bore BH4

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			06.12.2023	13.03.2024	13.06.2024	
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			19.12.2023	27.03.2024	02.07.2024	
Value	Value	Value	Value			
Alkalinity (as calcium carbonate)	m g/L	Quarterly	DRY	DRY	DRY	
Biological Oxygen Demand	m g/L	Quarterly	DRY	DRY	DRY	
Calcium	m g/L	Quarterly	DRY	DRY	DRY	
Chloride	m g/L	Quarterly	DRY	DRY	DRY	
Fluoride	m g/L	Quarterly	DRY	DRY	DRY	
Iron	m g/L	Quarterly	DRY	DRY	DRY	
Magnesium	m g/L	Quarterly	DRY	DRY	DRY	
Manganese	m g/L	Quarterly	DRY	DRY	DRY	
Nitrate	m g/L	Quarterly	DRY	DRY	DRY	
Nitrogen (ammonia)	m g/L	Quarterly	DRY	DRY	DRY	
pH (In Situ)	pH Units	Quarterly	DRY	DRY	DRY	
Potassium	m g/L	Quarterly	DRY	DRY	DRY	
Sodium	m g/L	Quarterly	DRY	DRY	DRY	
Sulfate	m g/L	Quarterly	DRY	DRY	DRY	
Total Dissolved Solids	m g/L	Quarterly	DRY	DRY	DRY	

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Total Organic Carbon	m g/L	Quarterly	DRY	DRY	DRY	
Total Phenolics	µg/L	Quarterly	DRY	DRY	DRY	
Organochlorine Pesticides	µg/L	Yearly	DRY	DRY	DRY	
Organophosphate Pesticides	µg/L	Yearly	DRY	DRY	DRY	