



# Inverell Landfill

**Sampling Point: All Monitoring Points** **EPL No. 7463**  
**Licence Period 19 November 2023 to 18 November 2024** **Licensee: Inverell Shire Council**  
<http://www.environment.nsw.gov.au/prpoeoapp/Detail.aspx?instid=/463&id=/463&option=licence&searchrange=licence&range=POEO> **144 Otho Street, Inverell**  
**licence&prp=no&status=Issued** **Monitoring Frequency - Quarterly**

**Date Sampled** 20-Feb-24  
**Date Reported** 25-Mar-24  
**Date Published** 5-Apr-24

**Sampling Notes:**

All groundwater monitoring bores (BH1-BH5) and leachate pond (LP1) were sampled on 20 February 2024. The laboratory and field analysis indicate that landfill leachate does not appear to be impacting groundwater. These results remain consistent with historical data for this site.

Sampling point	Units	BH1	BH2a	BH2b	BH3a	BH3b	BD01	BH4	BH5	LP1
EPA Identification		6	7	8	9	10	-	11	12	1
pH (field)	pH unit	6.92	6.74	6.97	6.9	6.93	-	6.86	6.9	7.64
Conductivity	µS/cm	1107	1911	2426	1924	1378	-	2732	1017	733
Standing Water Level	mAHD	607.895	592.885	592.4	594.35	588.02	-	592.84	610.2	-
pH (laboratory)	pH unit	6.9	6.6	6.8	6.8	6.8	6.8	6.8	6.9	7.9
TDS	mg/L	760	1320	1730	1280	920	910	1800	745	475
Sodium	mg/L	33	150	295	145	120	115	155	39	38
Calcium	mg/L	110	140	65	115	120	120	180	120	59
Potassium	mg/L	2.4	1.4	1.8	1.6	3.8	3.8	3	2.3	22
Magnesium	mg/L	105	165	225	170	93	94	255	71	52
Chloride	mg/L	18	180	250	220	42	45	470	22	66
Fluoride	mg/L	0.16	0.25	0.19	0.12	<0.1	<0.1	0.15	<0.1	0.22
Nitrate	mg/L	39	<0.1	0.13	2	0.13	<0.1	<0.1	100	<0.1
Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate as SO4 <sup>2-</sup>	mg/L	17	17	10	8	6	6	26	115	8
Bicarbonate (Alkalinity as CaCO <sub>3</sub> )	mg/L	855	1310	1700	1200	1060	1050	1380	540	445
Phosphate	mg/L	0.12	<0.1	0.16	0.15	<0.1	<0.1	0.14	0.16	0.11
Ammonia as N	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
L/N	ratio	16.77	0.37	0.36	0.88	1.24	1.25	0.56	44.57	1.25
Total Kjeldahl N	mg/L									2.3
Total alkalinity as CaCO <sub>3</sub>	mg/L	700	1070	1390	985	870	860	1130	445	365
Dissolved Iron	mg/L	0.03	0.11	0.03	0.02	0.01	0.03	0.04	0.02	0.15
Dissolved Manganese	mg/L	<0.01	0.72	0.09	0.12	0.27	0.26	0.44	<0.01	0.09
Dissolved Copper	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dissolved Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dissolved Zinc	mg/L	0.01	0.007	0.012	0.006	0.003	0.004	0.005	0.009	0.016
Dissolved Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Dissolved Chromium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dissolved Arsenic	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dissolved Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Biological oxygen demand	mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total organic carbon	mg/L	4	6	6	2	1	2	8	3	42

<b>Total Phenols</b>	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<b>Total P</b>	Mg/L	<0.1	<0.1	<0.1	<0.1	0.46	0.45	<0.1	0.11	<0.1
<b>Polychlorinated Biphenyls (PCBs)</b>	µg/L	-	-	-	-	-	-	-	-	<1
<b>Organochlorine Pesticides (OCs)</b>	µg/L	-	-	-	-	-	-	-	-	<0.5
<b>Organophosphorus Pesticides (OPs)</b>	µg/L	-	-	-	-	-	-	-	-	<0.5
<b>Fumigants</b>	µg/L	-	-	-	-	-	-	-	-	<5
<b>Halogenated Aliphatic Compounds</b>	µg/L	-	-	-	-	-	-	-	-	<50
<b>Halogenated Aromatic Compounds</b>	µg/L	-	-	-	-	-	-	-	-	<5
<b>Trihalomethanes</b>	µg/L	-	-	-	-	-	-	-	-	<5
<b>Phenolic Compounds (total)</b>	µg/L	-	-	-	-	-	-	-	-	<1.0
<b>Polynuclear Aromatic Hydrocarbons</b>	µg/L	-	-	-	-	-	-	-	-	<1.0
<b>Total Petroleum Hydrocarbons (C15 – C28) 2</b>	µg/L	-	-	-	-	-	-	-	-	110
<b>BTEXN</b>	µg/L	-	-	-	-	-	-	-	-	<1
<b>Total Recoverable Hydrocarbons</b>	µg/L	-	-	-	-	-	-	-	-	130
<b>F1 (C6-C10 fraction minus BTEX)</b>	µg/L	-	-	-	-	-	-	-	-	<20
<b>F2 (&gt;C10-C16 fraction minus Naphthalene)</b>	µg/L	-	-	-	-	-	-	-	-	<100
<b>&gt;C16-C34</b>	µg/L	-	-	-	-	-	-	-	-	130
<b>&gt;C34-C40</b>	µg/L	-	-	-	-	-	-	-	-	<100
<b>&gt;C10-C40</b>	µg/L	-	-	-	-	-	-	-	-	130

**Table notes:**

1. All measurements are in mg/L unless stated otherwise;
2. BD01 = blind field duplicate of BH3b;
3. Values preceded with < are below the limit of reporting (LOR);
4. Values highlight in red exceed threshold criteria;
5. \* Threshold concentration derived from background aquifer chemistry;
6. (A1) Threshold concentration derived ANZG (2018); and

7. (H) Hardness Modified Trigger Value adjusted as per ANZG (2018) Table 3.
8. n.d not detected as various detection limits (reported in the laboratory results in the Letter report)
9. <sup>2</sup> All other compounds tested were n.d.
10. – not analysed or measured
11. Blank cell means that there is no threshold value.