ENVIRONMENTAL MONITORING DATA
URALLA LANDFILL, URALLA

1 INTRODUCTION AND BACKGROUND

The Uralla Landfill is located on Rowan Avenue, Uralla NSW 2358. Council is licenced under the Protection of the Environment Operations Act 1997 (POEO Act) as Uralla Shire Council, PO Box 106, Uralla NSW 2358 (licensee) to operate the site under Environmental Protection Licence (EPL) 5899. The site currently disposes waste to land and undertakes waste processing. A copy of the current EPL is provided on Council's website (https://www.uralla.nsw.gov.au/Council-Services/Environment/Environmental-Monitoring).

The EPL requires Council to monitor methane gas, surface water, groundwater, and leachate at various locations across the site (refer **Figure 1** below). The location name, type and the sampling frequency as required by the EPL, are summarised in **Table 1** below.

This document details monitoring results within the last four (4) years (2021 to 2025) as required by the EPA publishing requirements. A link to the current version of this document is available on Council's website. This has been provided to meet Council's obligation under Section 66 (6) of the POEO Act.

Figure 1 *Current EPL Site Monitoring Locations, Uralla Landfill*

Table 1 *EPL Sample Locations and Monitoring Summary*

Historical Sample Identifcation	Environmental Protection Authority Indentifcation	Type of Monitoring	Monitoring Frequency as Required by EPL
US1	EPA 1	Surface Water	Six monthly or during discharge events from EPL2.
EPL2	EPA 2	Leachate Overflow	During overflow events.
Leachate Discharge Volume	EPA 3	Discharge to Irrigation	NA
UW1	EPA 4	Groundwater	Field measurements six monthly, depths recorded quarterly.
UW2	EPA 5	Groundwater	Collect samples six monthly, depths recorded quarterly.
UW3	EPA 6	Groundwater	Collect samples and recorded depths quarterly.
UL1	EPA 7	Leachate	Six monthly.
Surface Methane (AMP2)	EPA 8	Surface methane gas	Quarterly.
Building Methane (AMP1)	EPA 9	Accumlated methane gas	Quarterly.
US2	EPA 10	Surface water - upstream leachate overflow point	During leachate discharge events from EPL2.
US3	EPA 11	Surface water - downstream leachate overflow point	During leachate discharge events from EPL2.

ATTACHMENTS

Attachment A – Surface Water Results

Attachment B – Groundwater Results

Attachment C – Leachate Results

Attachment D – Surface and Accumulated Gas Results

Attachment E – Rainfall Summary and Leachate Pumping Volumes

Attachment A – Surface Water – Point 1

US1 Surface Results Summary

Sample Identification	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1	US1
Date	03-Sep-20	16-Oct-20	16-Feb-21	20-Jul-21	23-Sep-21	16-Dec-21	24-Feb-22	18-May-22	29-Aug-22	05-Jan-23	02-May-23	07-Jul-23	14-Sep-23	05-Dec-23	10-Apr-24	10-Jul-24	10-Oct-24	15-Jan-25	10-Apr-25	25-Jun-25	11-Sep-25	09-Dec-25
Date Received from Laboratory	--	26-Oct-20	25-Feb-21	27-Jul-21	30-Sep-21	04-Jan-22	01-Mar-22	06-Jun-22	05-Sep-22	14-Jan-23	09-May-23	07-Sep-23	22-Sep-23	12-Dec-23	16-Apr-24	18-Jul-24	17-Oct-24	23-Jan-25	17-Apr-25	04-Jul-25	24-Sep-25	16-Dec-25
Date Accessible on Council Website	--	16-Nov-20	26-Mar-21	21-Dec-21	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26
Depth (m top of water surface)	--	0.003	0.003	0.6	0.6	--	--	0.05	0.05	0.03	0	0	0	0	0	0	0	0	0	0	0	0
Volumetric Flow Rate (kL/day)	NF	2.59	0.73	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF
Sample collected by	CodyHart	CodyHart	CodyHart	RCA-ZL	RCA-ZL	RCA-FB	RCA-FB	RCA-SB	RCA-SB	RCA-FB	RCA-KY	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-SH	RCA-SH	RCA-SH
Field Readings																						
Temperature (°C)	--	18.9	18.1	6.43	--	25.98	18.56	15.53	11.95	20.5	10.66	10.76	18.12	16.43	11.7	13.86	13.55	30.29	13.77	10.93	8.98	23.63
pH (pH UNIT)	--	7.28	7.07	7.67	--	8.08	7.76	7.93	7.91	6.17	7.47	7.65	7.53	7.58	7.9	7.83	7.72	10.79	7.77	8.03	7.38	7.77
ORP (mV)	--	-177	131	151	--	33	-6	57	71	193	81	150	41	108	76	63	30	-111	75	252	213	-58
Conductivity (uS/cm)	--	1966	2127	267	--	1210	1430	1330	1270	715	1180	1410	1760	1790	1700	849	1880	1890	1560	934	935	1670
Turbidity (NTU)	--	--	--	160	--	513	--	--	--	--	--	340	191	194	76.9	126	96	202	172	87.5	186	664
Dissolved Oxygen (mg/L)	--	0.86	3.26	6.33	--	1.36	2.4	3.94	4.58	6.12	7.33	5.3	4.85	3.16	5.4	5.43	5.95	3.65	4.02	5.4	4.95	1.55
Salinity (%)	--	--	--	0.012	0.012	0.06	0.072	0.066	0.063	0.035	0.058	0.07	0.089	0.09	0.085	0.042	0.095	0.096	0.078	0.046	0.048	0.084
General Water Quality																						
Total Suspended Soilds	--	58	73	343	--	323	--	1310	--	64	--	22	--	98	--	74	--	--	44	--	197	--
Non Metallic Inorganics																						
Total Organic Carbon	--	23	41	23	--	31	--	29	--	31	--	21	--	31	--	19	--	--	26	--	22	--
Nutrients																						
Ammonia as N		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TKN	--	2.6	3.6	8.4	--	5.6	--	3.4	--	3.9	--	2.4	--	2.3	--	1.7	--	--	1.8	--	1.4	--
Nitrite	--	--	--	<0.1	--	<0.01	--	<0.01	--	--	--	0.04	--	<0.01	--	<0.01	--	--	<0.01	--	0.01	--
Nitrate	--	--	--	0.08	--	0.02	--	0.05	--	--	--	6.55	--	<0.01	--	0.03	--	--	<0.01	--	0.11	--
Total Oxidisable Nitrogen as N	--	<0.01	<0.01	0.08	--	0.02	--	0.05	--	0.86	--	6.59	--	<0.01	--	0.03	--	--	<0.01	--	0.12	--
Total Nitrogen as N	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.805	--	1.5	--
Reactive Phosphorus as P	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Phosphorus as P	--	0.1	0.46	3.14	--	1.19	--	0.68	--	0.46	--	0.13	--	0.32	--	0.14	--	--	0.21	--	0.18	--
Dissolved Major Cations																						
Calcium	--	--	--	10	--	77	--	74	--	39	--	75	--	48	--	41	--	--	70	--	44	--
Magnesium	--	--	--	9	--	62	--	60	--	28	--	62	--	84	--	37	--	--	76	--	43	--
Sodium	--	--	--	24	--	157	--	166	--	71	--	144	--	194	--	91	--	--	173	--	99	--
Potassium	--	--	--	8	--	7	--	4	--	16	--	7	--	5	--	9	--	--	5	--	5	--
Major Anions																						
Hydroxide Alkalinity as $CaCO_3$	--	--	--	<1	--	<1	--	<1	--	<1	--	<1	--	<1	--	<1	--	--	<1	--	<1	--
Carbonate Alkalinity as $CaCO_3$	--	--	--	<1	--	<1	--	<1	--	<1	--	<1	--	<1	--	22	--	--	32	--	<1	--
Bicarbonate Alkalinity as $CaCO_3$	--	--	--	79	--	532	--	580	--	286	--	475	--	694	--	259	--	--	538	--	340	--
Total Alkalinity as $CaCO_3$	--	536	587	79	--	532	--	580	--	286	--	475	--	694	--	282	--	--	570	--	340	--
Sulphate	--	46	40	12	--	44	--	165	--	23	--	145	--	<1	--	16	--	--	<10	--	82	--
Chloride	--	469	326	20	--	175	--	28	--	68	--	38	--	219	--	108	--	--	211	--	17	--
Metals (total)																						
Arsenic	--	0.002	0.003	0.016	--	0.024	--	0.026	--	0.006	--	0.002	--	0.002	--	0.002	--	--	0.009	--	0.006	--
Boron	--	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	<0.0001	<0.0001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	<0.001	<0.001	0.089	--	0.078	--	0.074	--	0.007	--	0.001	--	0.001	--	0.001	--	--	0.003	--	0.009	--
Trivalent Chromium	--	--	--	--	--	--	--	--	--	--	--	<0.01	--	<0.01	--	<0.01	--	--	<0.01	--	<0.01	--
Hexavalent Chromium	--	--	--	--	--	--	--	--	--	--	--	<0.01	--	<0.01	--	<0.01	--	--	<0.01	--	<0.01	--
Copper	--	0.001	<0.001	0.026	--	0.018	--	0.028	--	0.011	--	0.002	--	<0.001	--	0.002	--	--	0.002	--	0.006	--
Iron	--	2.46	2.26	44.2	--	41.6	--	51.1	--	8.59	--	3.05	--	5.48	--	4.18	--	--	14	--	13.6	--
Lead	--	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	2	3.09	3.39	--	3.18	--	6.52	--	1.21	--	1.89	--	3.38	--	1.16	--	--	2.37	--	1.62	--
Nickel	--	--	--	--	--	--	--	--	--	--	--		--	--	--		--	--	--	--	--	--
Zinc	--	0.01	0.006	0.116	--	0.127	--	0.273	--	0.041	--	0.005	--	<0.05	--	<0.005	--	--	0.018	--	0.032	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Benzene, Toluene, Ethylbenzene, Xylene (BTEX)																						
Naphthalene	--	--	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	--	--	--	<5	--	--	--	--		--
Benzene	--	--	--	<0.001	--	<0.001	--	<0.001	--	<0.001	--	<0.001	--	<0.001	--	<0.001	--	--	<0.001	--	<0.001	--
Toluene	--	--	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--
Ethylbenzene	--	--	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--
meta- and para-Xylene	--	--	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--
ortho-Xylene	--	--	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--
Total Xylenes	--	--	--	<0.004	--	<0.004	--	<0.004	--	<0.004	--	<0.004	--	<0.004	--	<0.004	--	--	<0.004	--	<0.004	--

NF - No flow at time of sampling

All results are in units of mg/L unless otherwise stated

Attachment B – Groundwater – Point 4

UW1 Groundwater Results Summary

Sample Identification		Sample collected by	Date Sampled	Date Accessible on Council Website	Groundwater Level (m TOC)	Groundwater Level (m AHD)	**Field Readings**	Temperature (°C)	pH (pH Units)	ORP (mV)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
UW1		CodyHart	15-Feb-20	17-Mar-20	18.88	84.23		--	--	--	--	--	--
UW1		CodyHart	17-Jun-20	14-Jul-20	18.98	84.13		18.3	6.9	143	1699	--	2.75
UW1		CodyHart	03-Sep-20	02-Oct-20	18.95	84.16		--	--	--	--	--	--
UW1		CodyHart	16-Oct-20	16-Nov-20	18.91	84.20		20.7	6.84	179	1695	--	3.18
UW1		CodyHart	16-Feb-21	26-Mar-21	18.91	84.13		--	--	--	--	--	--
UW1		RCA-ZL	20-Jul-21	21-Dec-21	18.90	84.21		15.02	6.63	170	1760	455	4.1
UW1		RCA-ZL	23-Sep-21	19-Mar-26	18.97	84.14		--	--	--	--	--	--
UW1		RCA-FB	16-Dec-21	19-Mar-26	18.89	84.22		20.57	7.04	131	1630	93.5	4.32
UW1		RCA-FB	24-Feb-22	19-Mar-26	18.99	84.12		19.17	6.83	150	1590	--	3.36
UW1		RCA-SB	25-May-22	19-Mar-26	19.01	84.10		17.9	6.84	224	1530	209	3.1
UW1		RCA-FB	29-Aug-22	19-Mar-26	19.00	84.12		17.23	7.32	177	1560	209	3.42
UW1		RCA-FB	05-Jan-23	19-Mar-26	18.85	84.26		17.41	7.28	157	1620	--	4.78
UW1		RCA-KY	02-May-23	19-Mar-26	18.92	84.19		13.94	7.1	58	1760	--	5.32
UW1		RCA-FB	07-Jul-23	19-Mar-26	18.83	84.28		15.64	6.97	91	1790	--	4.06
UW1		RCA-FB	14-Sep-23	19-Mar-26	18.87	84.24		17.75	6.73	156	1730	>1000	3.07
UW1		RCA-FB	04-Dec-23	19-Mar-26	18.86	84.25		17.48	6.57	220	1700	860	3.23
UW1		RCA-FB	10-Apr-24	19-Mar-26	18.8	84.31		17.6	6.95	173	1660	637	4.37
UW1		RCA-FB	10-Jul-24	19-Mar-26	18.79	84.32		16.08	7.05	191	1693	453	3.99
UW1		RCA-FB	10-Oct-24	19-Mar-26	18.84	84.27		17.42	6.62	178	1700	267	3.42
UW1		RCA-FB	15-Jan-25	19-Mar-26	18.71	84.40		18.28	9.51	6	1620	10.5	2.99
UW1		RCA-FB	10-Apr-25	19-Mar-26	18.84	84.27		20.88	6.69	245	1490	278	3.23
UW1		RCA-SH	25-Jun-25	19-Mar-26	18.65	84.46		16.27	6.91	313	1570	233	3.57
UW1		RCA-SH	10-Sep-25	19-Mar-26	18.61	84.50		16.81	6.61	210	1550	190	7.73
UW1		RCA-SH	09-Dec-25	19-Mar-26	18.74	84.37		18.17	6.95	135	1600	197	4.63

Attachment B – Groundwater – Point 5

UW2 Groundwater Results Summary

Sample Identification	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2	UW2
Date Sampled	17-Jun-20	03-Sep-20	16-Oct-20	16-Feb-21	20-Jul-21	23-Sep-21	16-Dec-21	24-Feb-22	18-May-22	28-Aug-22	05-Jan-23	02-May-23	07-Jul-23	15-Sep-23	05-Dec-23	10-Apr-24	10-Jul-24	10-Oct-24	15-Jan-25	10-Apr-25	25-Jun-25	11-Sep-25	09-Dec-25
Date Received from Laboratory	24-Jun-20	--	26-Oct-20	--	27-Jul-21	30-Sep-21	04-Jan-22	01-Mar-22	06-Jun-22	05-Sep-22	14-Jan-23	09-May-23	07-Sep-23	22-Sep-23	12-Dec-23	16-Apr-24	18-Jul-24	17-Oct-24	23-Jan-25	17-Apr-25	04-Jul-25	24-Sep-25	16-Dec-25
Date Accessible on Council Websit	14-Jul-20	02-Oct-20	16-Nov-20	26-Mar-21	21-Dec-21	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26
Groundwater Level (m TOC)	9.71	9.65	9.60	--	9.32	9.29	9.1	9.13	9.04	8.91	8.65	8.63	8.585	8.62	8.6	8.63	8.61	8.59	8.52	8.63	8.55	8.36	8.39
Groundwater Level (m AHD)	78.15	78.21	78.26	78.35	78.54	78.57	78.76	78.73	78.82	78.95	79.21	79.23	79.28	79.24	79.26	79.23	79.25	79.27	79.34	79.23	79.31	79.50	79.47
Sample collected by	CodyHart	CodyHart	CodyHart	CodyHart	RCA-ZL	RCA-ZL	RCA-FB	RCA-FB	RCA-SB	RCA-SB	RCA-FB	RCA-KY	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-SH	RCA-SH	RCA-SH
Field Readings																							
Temperature (°C)	16.2	--	18.1	--	13.21	--	18.8	18.79	15.69	16.04	17.02	13.61	13.43	14.18	17.02	15.59	15.85	16.33	19.08	15.72	15.55	13.74	18.58
pH (pH UNIT)	7.21	--	7.02	--	7.06	--	7.28	7.31	7.24	7.53	7.6	7.25	7.32	6.93	7.17	7.21	7.22	6.9	9.97	7.06	7.31	7.01	7.17
ORP (mV)	105	--	174	--	104	--	113	103	192	120	182	12	165	190	163	150	153	108	-26	264	291	189	140
Conductivity (uS/cm)	1681	--	1689	--	1770	--	1550	1520	1570	1540	1690	1880	1930	1920	1780	1790	1913	1860	1790	1820	1840	1840	1950
Turbidity (NTU)	--	--	--	--	32.1	--	36.4	--	373	--	359	128	541	1.98	560	116	380	174	208	149	91	235	50.2
Dissolved Oxygen (mg/L)	0.43	--	0.24	--	3.85	--	3.21	2.45	2.85	2.67	2.61	3.22	3.21	2.18	2.64	2.35	2.53	2.05	2.42	2.47	2.93	2.65	2.04
Salinity (%)	--	--	--	--	0.086	--	0.078	0.076	0.079	0.077	0.085	0.095	0.098	0.097	0.09	0.091	0.097	0.094	0.091	0.092	0.093	0.093	0.099
Methane Gas (ppm)	--	--	--	--	2.6	--	3.7	2.4	2.2	2.95	2.4	2.8	2.1	2.4	0	2.4	2	2.5	0.1	0.1	0.0	0.0	0.0
Non Metallic Inorganics																							
Total Organic Carbon	9	--	15	--	3	--	10	--	11	--	12	--	16	--	12	--	19	--	--	13	--	12	--
Dissolved Oxygen	0.43	--	0.24	--	9.2	--	7.1	--	10.5	--	7.7	--	8.6	--	9.6	--	8.4	--	--	10	--	9.8	--
Free Carbon Dioxide as CO2	153	--	158	--	21	--	33	--	18	--	21	--	27	--	26	--	5	--	--	6	--	61	--
Total Carbon Dioxide as CO2	--	--	--	--	637	--	519	--	609	--	640	--	621	--	--	--	473	--	--	541	--	648	--
Nutrients																							
Ammonia as N	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TKN	0.8	--	1	--	1	--	0.8	--	1.1	--	1.6	--	1.1	--	1	--	1.2	--	--	0.9	--	0.9	--
Nitrite	--	--	--	--	<0.01	--	<0.01	--	<0.01	--	--	--	0.005	--	<0.01	--	<0.01	--	--	<0.01	--	0.01	--
Nitrate	--	--	--	--	0.09	--	0.12	--	0.09	--	--	--	0.06	--	0.12	--	0.05	--	--	0.08	--	0.09	--
Total Oxidisable Nitrogen as N	0.03	--	0.02	--	0.09	--	0.12	--	0.09	--	0.06	--	0.06	--	0.12	--	0.05	--	--	0.08	--	0.10	--
Total Nitrogen as N	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.98	--	1.0	--
Reactive Phosphorus as P	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Phosphorus as P	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Major Anions																							
Hydroxide Alkalinity as $CaCO_3$	--	--	--	--	<1	--	<1	--	<1	--	<1	--	<1	<1	<1	<1	<1	<1	--	<1	--	<1	--
Carbonate Alkalinity as $CaCO_3$	--	--	--	--	<1	--	<1	--	<1	--	<1	--	<1	<1	<1	<1	12	<1	--	21	--	<1	--
Bicarbonate Alkalinity as $CaCO_3$	--	--	--	--	700	--	552		672	--	703	--	675	675	675	675	526	675	--	598	--	667	--
Total Alkalinity as $CaCO_3$	653	--	707	--	700	--	552	--	672	--	703	--	675	--	673	--	538	--	--	619	--	667	--
Chloride	224	--	232	--	213	--	214	--	199	--	224	--	226	--	214	--	278	--	--	248	--	227	--
Metals (dissolved)																							
Arsenic	0.006	--	0.006	--	0.006	--	0.005	--	0.004	--	0.005	--	0.002	--	0.003	--	0.005	--	--	0.004	--	0.004	--
Iron	<0.005	--	0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	--	<0.05	--	<0.05	--
Manganese	0.044	--	0.054	--	0.064	--	0.019	--	0.021	--	0.009	--	0.019	--	0.012	--	0.034	--	--	0.015	--	0.008	--
Benzene, Toluene, Ethylbenzene, Xylene (BTEX)																							
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
meta- and para-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ortho-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Xylenes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

All results are in units of mg/L unless otherwise stated

Attachment B – Groundwater – Point 6

UW3 Ground Water Results Summary

Sample Identification	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3	UW3
Date Sampled	15-Feb-20	17-Jun-20	03-Sep-20	16-Oct-20	16-Feb-21	20-Jul-21	23-Sep-21	16-Dec-21	24-Feb-22	18-May-22	28-Aug-22	05-Jan-23	02-May-23	07-Jul-23	15-Sep-23	05-Dec-23	10-Apr-24	10-Jul-24	10-Oct-24	15-Jan-25	10-Apr-25	26-Jun-25	11-Sep-25	10-Dec-25
Date Received from Laboratory	26-Feb-20	24-Jun-20	14-Sep-20	26-Oct-20	25-Feb-21	27-Jul-21	30-Sep-21	04-Jan-22	01-Mar-22	06-Jun-22	05-Sep-22	14-Jan-23	09-May-23	07-Sep-23	22-Sep-23	12-Dec-23	16-Apr-24	17-Oct-24	17-Oct-24	23-Jan-25	17-Apr-25	04-Jul-25	24-Sep-25	16-Dec-25
Date Accessible on Council Websit	17-Mar-20	14-Jul-20	02-Oct-20	16-Nov-20	26-Mar-21	21-Dec-21	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26
Groundwater Level (m TOC)	9.96	10.06	10.02	9.98	--	8.42	7.54	6.53	6.03	5.36	5.16	4.74	4.93	5.015	5.21	5.37	5.64	5.83	5.9	5.85	6.19	6.16	5.92	5.89
Groundwater Level (m AHD)	80.67	80.57	80.61	80.65	80.83	82.21	83.09	84.1	84.6	85.27	85.47	85.89	85.697	85.61	85.42	85.26	84.99	84.80	84.73	84.78	84.44	84.47	84.71	84.74
Sample collected by	CodyHart	CodyHart	CodyHart	CodyHart	CodyHart	RCA-ZL	RCA-ZL	RCA-FB	RCA-FB	RCA-SB	RCA-SB	RCA-FB	RCA-KY	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-SH	RCA-SH	RCA-SH
Field Readings																								
Temperature (°C)	17.9	15.8	13.7	18.5	17.4	13.52	16.29	22.01	18.34	16.66	15.97	16.77	15.5	13.01	15.24	16.9	16.51	15.82	16.37	17.24	17.67	15.54	14.46	17.13
pH (pH UNIT)	6.34	6.61	6.4	6.39	6.43	6.38	6.73	6.62	6.93	6.57	6.67	7.2	6.49	6.59	6.23	6.3	6.55	6.65	6.21	9.16	6.37	6.24	6.36	6.57
ORP (mV)	171	159	147	139	134	159	139	123	122*	147	196	137	72	176	225	181	161	192	160	20	230	288	239	160
Conductivity (uS/cm)	2213	2206	2230	2189	2261	2420	2590	2410	2370	2410	2490	2760	3090	3130	3160	3030	3430	3250	3230	3130	3100	3250	3320	3290
Turbidity (NTU)	--	--	--	--	--	9	--	45.8	--	125	--	19	9.5	58.7	29.8	798	8.2	34.1	2.5	1.6	1.4	24.8	66.0	25.9
Dissolved Oxygen (mg/L)	0.57	0.26	0.29	0.34	0.21	2.65	1.92	2.04	1.91	1.62	0.58	1.58	1.97	2.02	0.94	0.64	1.73	1.7	0.88	0.79	0.91	1.15	1.96	2.51
Salinity (%)	--	--	--	--	--	0.126	0.133	0.124	0.121	0.124	0.127	0.142	0.157	0.163	0.164	0.158	0.161	0.17	0.168	0.163	0.161	0.169	0.173	0.171
Methane Gas (ppm)	--	--	--	--	--	3.7	2.7	3.6	3	16.5	9.1	2.8	7.2	20.9	4.8	2.5	2.5	2.08	2.4	0.2	6.8	4.1	6.6	3.1
Non Metallic Inorganics																								
Total Organic Carbon	10	25	41	14	34	19	20	14	24	23	23	28	24	31	11	27	28	21	18	25	34	25	11	33
Dissolved Oxygen (mg/L)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Free Carbon Dioxide as CO2	469	440	337	469	455	144	101	184	192	71	75	85	132	77	158	114	134	14	378	302	22	357	454	535
Total Carbon Dioxide as CO2	--	--	--	--	--	684	702	734	846	722	717	784	832	768	868	--	879	536	1100	1050	686	1040	1250	1350
Nutrients																								
Ammonia as N	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TKN	2.8	1	2.1	2	3	2.7	2.4	2.4	2.3	3	2.2	4.1	2.7	2.9	3.2	3	2.3	3.7	2.5	2.6	2.8	2.1	2.5	2.2
Nitrite	--	--	--	--	--	0.25	0.28	0.32	--	0.27	0.45	--	0.51	0.5	0.54	0.5	0.55	0.56	0.51	0.55	0.56	0.57	0.61	0.55
Nitrate	--	--	--	--	--	11.2	10	11.8	--	12.5	12.4	--	11.3	11.5	11	11.2	8.64	8.26	7.58	8.1	6.18	6.59	5.67	4.82
Total Oxidisable Nitrogen as N	12.7	11.2	10.4	9.14	11.6	11.5	10.3	12.1	11.7	12.8	12.9	11.6	11.8	12	11.5	11.7	9.19	8.82	8.09	8.65	6.74	7.16	6.28	5.37
Total Nitrogen as N	--	--	--	--	--	--	--	--	--	--	15.1	--	14.5	14.9	--	--	--	--	--	11.25	9.54	9.26	8.78	7.57
Reactive Phosphorus as P	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Phosphorus as P	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Major Anions																								
Hydroxide Alkalinity as $CaCO_3$	--	--	--	--	--	<1	--	<1	--	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as $CaCO_3$	--	--	--	--	--	<1	--	<1	--	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as $CaCO_3$	--	--	--	--	--	614	683	624	744	740	730	794	795	785	807	823	846	593	825	848	755	779	903	928
Total Alkalinity as $CaCO_3$	680	687	587	620	607	614	683	624	744	740	730	794	795	785	807	823	846	593	825	848	755	779	903	928
Chloride	378	376	365	375	419	400	420	449	434	434	494	499	519	510	456	486	477	584	489	524	539	550	537	532
Metals (dissolved)																								
Arsenic	0.053	0.047	0.052	0.057	0.053	0.047	0.047	0.043	0.044	0.043	0.048	0.047	0.046	0.048	0.047	0.045	0.051	0.003	0.050	0.040	0.047	0.047	0.049	0.046
Iron	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Manganese	0.019	0.017	0.019	0.02	0.029	0.019	0.014	0.016	0.028	0.018	0.015	0.015	0.017	0.018	0.021	0.023	0.028	0.030	0.020	0.030	0.034	0.033	0.036	0.042

All results are in units of mg/L unless otherwise stated

* Field sheets recorded 1.22mV but comparisons with historical data suggest this was an error

Attachment C – Leachate Water – Point 7

UL1 Leachate Results Summary

Sample Identification	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1
Date Sampled	17-Jun-20	16-Feb-21	20-Jul-21	23-Sep-21	16-Dec-21	24-Feb-22	18-May-22	29-Aug-22	05-Jan-23	02-May-23	07-Jul-23	14-Sep-23	05-Dec-23	10-Apr-24	10-Jul-24	10-Oct-24	15-Jan-25	10-Apr-25	25-Jun-25	11-Sep-25	09-Dec-25
Date Received from Laboratory	24-Jun-20	25-Feb-21	27-Jul-21	30-Sep-21	04-Jan-22	01-Mar-22	06-Jun-22	05-Sep-22	14-Jan-23	09-May-23	07-Sep-23	22-Sep-23	12-Dec-23	16-Apr-24	18-Jul-24	17-Oct-24	23-Jan-25	17-Apr-25	04-Jul-25	24-Sep-25	16-Dec-25
Date Accessible on Council Website	14-Jul-20	26-Mar-21	21-Dec-21	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26	19-Mar-26
Depth in pond (m top of water surface)	--	0.3	0.75	0.4	Overland Flow	0.4	0.7	0.8	<0.2	0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0	0.8	<0
Sample collected by	CodyHart	CodyHart	RCA-ZL	RCA-ZL	RCA-FB	RCA-FB	RCA-SB	RCA-SB	RCA-FB	RCA-KY	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-FB	RCA-SH	RCA-SH	RCA-SH
Field Readings																					
Temperature (°C)	18.4	24.1	9.12	--	24.29	--	13.5	--	21.03	--	9.91	20.18	24	16.84	13.48	17.76	28.35	20.47	14.11	11.15	26.65
pH (pH UNIT)	7.35	8.14	7.78	--	8.35	--	7.81	--	8	--	8.11	7.69	9.61	8.98	8.16	7.91	11.48	8.25	7.73	7.71	8.4
ORP (mV)	-79	157	140	--	94	--	-15	--	166	--	141	76	114	127	169	113	-51	150	254	222	121
Conductivity (uS/cm)	4275	2141	1920	--	1420	--	1590	--	1430	--	1580	1710	1080	1330	1350	1870	1530	1340	1360	1610	1620
Turbidity (NTU)	--	--	5.9	--		--	--	--	15	--	68.8	13.6	202	27.6	33.3	6.9	150	53.9	7.4	32	75.6
Dissolved Oxygen (mg/L)	1.56	6.6	5.67	--	4.6	--	4.36	--	19.91	--	9.62	1.73	11.01	9.76	4.69	5	5.25	4.57	5.6	4.25	5.77
Salinity (%)	--	--	0.096	0.096	--	--	--	--	0.072	--	0.078	0.086	0.053	0.066	0.067	0.094	0.076	0.066	0.068	0.08	0.081
Non Metallic Inorganics																					
Total Organic Carbon	45	13	47	--	46	--	61	--	41	--	41	--	41	--	24	--	--	43	--	32	--
Nutrients																					
Ammonia as N	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TKN	180	24.8	28	--	6.2	--	19.4	--	23.4	--	19.2	--	7	--	9.8	--	--	7	--	15.1	--
Nitrite	--	--	0.21	--	--	--	--	--	--	--	0.18	--	0.13	--	0.19	--	--	0.21	--	0.15	--
Nitrate	--	--	9.78	--	--	--	--	--	--	--	0.29	--	0.02	--	0.89	--	--	0.66	--	0.46	--
Total Oxidisable Nitrogen as N	2.41	4.41	9.99	--	10	--	0.44	--	0.91	--	0.47	--	0.15	--	1.08	--	--	0.87	--	0.61	--
Total Nitrogen as N	--	--	--	--	--	--	--	--	--	--	19.67	--	--	--	--	--	--	7.87	--	15.7	--
Reactive Phosphorus as P	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Phosphorus as P	1.18	0.06	0.08	--	0.15	--	0.19	--	0.71	--	0.19	--	0.37	--	0.07	--	--	0.16	--	0.04	--
Major Anions																					
Hydroxide Alkalinity as $CaCO_3$	--	--	<1	--	<1	--	<1	--	<1	--	<1	--	<1	--	<1	--	--	<1	--	<1	--
Carbonate Alkalinity as $CaCO_3$	--	--	<1	--	<1	--	<1	--	<1	--	<1	--	78	--	23	--	--	21	--	<1	--
Bicarbonate Alkalinity as $CaCO_3$	--	--	689	--	518	--	730	--	624	--	654	--	281	--	381	--	--	457	--	655	--
Total Alkalinity as $CaCO_3$	1933	867	689	--	518	--	730	--	624	--	654	--	359	--	404	--	--	478	--	655	--
Chloride	339	254	193	--	162	--	155	--	140	--	146	--	142	--	165	--	--	179	--	127	--
Metals (total)																					
Arsenic	0.06	0.002	0.002	--	0.003	--	0.002	--	0.004	--	0.003	--	0.004	--	0.002	--	--	0.007	--	0.001	--
Boron	0.88	0.59	0.42	--	0.37	--	0.47	--	0.42	--	0.37	--	0.46	--	0.35	--	--	0.38	--	0.35	--
Cadmium	<0.0001	<0.0001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	0.017	0.003	0.005	--	0.005	--	0.008	--	--	--	0.004	--	0.002	--	0.002	--	--	0.003	--	0.002	--
Trivalent Chromium	--	--	--	--	--	--	--	--	--	--	<0.01	--	<0.01	--	<0.01	--	--	<0.01	--	<0.01	--
Hexavalent Chromium	--	--	--	--	--	--	--	--	--	--	<0.01	--	<0.01	--	<0.01	--	--	0.02	--	<0.01	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	16.9	0.48	0.55	--	0.39	--	1.96	--	1.5	--	2.05	--	0.87	--	0.66	--	--	1.19	--	0.37	--
Lead	<0.001	<0.001	<0.001	--	<0.001	--	<0.001	--	<0.001	--	<0.001	--	<0.001	--	<0.001	--	--	0.001	--	<0.001	--
Manganese	0.88	0.59	0.759	--	0.088	--	0.821	--	0.378	--	1.15	--	0.191	--	0.554	--	--	0.194	--	0.537	--
Nickel	0.034	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	0.013	0.014	0.046	--	0.013	--	0.02	--	0.008	--	0.006	--	0.011	--	<0.005	--	--	0.007	--	0.006	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene, Toluene, Ethylbenzene, Xylene (BTEX)																					
Naphthalene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.004	ND	<0.001	--	<0.001	--	<0.001	--	<0.001	--	<0.001	--	<0.001	--	<0.001	--	--	<0.001	--	<0.001	--
Toluene	ND	ND	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--
Ethylbenzene	ND	ND	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--
meta- and para-Xylene	ND	ND	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--
ortho-Xylene	ND	ND	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--
Total Xylenes	ND	ND	<0.004	--	<0.004	--	<0.004	--	<0.004	--	<0.004	--	<0.004	--	<0.004	--	--	<0.004	--	<0.004	--
Organochlorine Pesticides (OCP)																					
alpha-BHC	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
HCB	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
beta-BHC	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
gamma-BHC	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
delta-BHC	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Heptachlor	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Aldrin	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Heptachlor epoxide	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
trans-Chlordane	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
alpha-Endosulfan	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
cis-Chlordane	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Dieldrin	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
DDE	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Endrin	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
beta-Endosulfan	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
DDD	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Endrin aldehyde	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Endosulfan sulfate	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
DDT	ND	ND	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--
Endrin ketone	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Methoxychlor	ND	ND	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--

Attachment C – Leachate Water – Point 7 (Cont'd) UL1 Leachate Results Summary

Sample Identification	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1	UL1
Dichlorvos	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Demeton-S-methyl	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Monocroptophos	ND	ND	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--
Dimethoate	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Diazinon	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Chlorpyrifos-methyl	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Parathion-methyl	ND	ND	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--
Malathion	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Fenthion	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
ChlorpyrifosD	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Parathion	ND	ND	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	<0.002	--	--	<0.002	--	<0.002	--
Pirimiphos-ethyl	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Chlorfenvinphos	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Bromophos-ethyl	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Fenamiphos	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Prothiofos	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Ethion	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Carbophenothion	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Azinphos-methyl	ND	ND	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	<0.0005	--	--	<0.0005	--	<0.0005	--
Volatile Organic Compounds (VOC)																					
Styrene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	--	--	<0.005	--
Isopropylbenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	--	--	<0.005	--
n-Propylbenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	--	--	<0.005	--
1.3.5-Trimethylbenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	--	--	<0.005	--
sec-Butylbenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	--	--	<0.005	--
1.2.4-Trimethylbenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	--	--	<0.005	--
tert-Butylbenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	--	--	<0.005	--
p-Isopropyltoluene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	--	--	<0.005	--
n-Butylbenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	--	--	<0.005	--
Vinyl Acetate	ND	ND	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	--	--	--	<0.05	--
2-Butanone (MEK)	ND	ND	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	--	--	--	<0.05	--
4-Methyl-2-pentanone (MIBK)	ND	ND	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	--	--	--	<0.05	--
2-Hexanone (MBK)	ND	ND	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	--	--	--	<0.05	--
Carbon disulfide	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	--	--	<0.005	--
2.2-Dichloropropane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.2-Dichloropropane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
cis-1.3-Dichloropropylene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
trans-1.3-Dichloropropylene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.2-Dibromoethane (EDB)	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Dichlorodifluoromethane	ND	ND	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	--	<0.05	--	<0.05	--
Chloromethane	ND	ND	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	--	<0.05	--	<0.05	--
Vinyl chloride	ND	ND	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	--	<0.05	--	<0.05	--
Bromomethane	ND	ND	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	--	<0.05	--	<0.05	--
Chloroethane	ND	ND	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	--	<0.05	--	<0.05	--
Trichlorofluoromethane	ND	ND	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	<0.05	--	--	<0.05	--	<0.05	--
1.1-Dichloroethene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Iodomethane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
trans-1.2-Dichloroethene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.1-Dichloroethane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
cis-1.2-Dichloroethene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.1.1-Trichloroethane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.1-Dichloropropylene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Carbon Tetrachloride	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.2-Dichloroethane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Trichloroethene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Dibromomethane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.1.2-Trichloroethane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.3-Dichloropropane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Tetrachloroethene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.1.1.2-Tetrachloroethane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
trans-1.4-Dichloro-2-butene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
cis-1.4-Dichloro-2-butene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.1.2.2-Tetrachloroethane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.2.3-Trichloropropane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Pentachloroethane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.2-Dibromo-3-chloropropane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Hexachlorobutadiene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Chlorobenzene	0.011	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Bromobenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
2-Chlorotoluene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
4-Chlorotoluene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.3-Dichlorobenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.4-Dichlorobenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.2-Dichlorobenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.2.4-Trichlorobenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
1.2.3-Trichlorobenzene	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Chloroform	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Bromodichloromethane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Dibromochloromethane	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--
Bromoform	ND	ND	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	<0.005	--	--	<0.005	--	<0.005	--

Attachment D – Gas Monitoring

Surface and Accumulated Methane Gas Results Summary

Date Sampled	Samples collected by	Detected Locations	Methane (CH_4) by volume in air (ppm)	Methane (CH_4) by volume in air (% v/v)	Methane (CH_4) as % Lower Explosive Limit (5% v/v)	Date Accessible on Council Website
20-Jul-21	RCA-ZL	Nil Detected	--	--	--	21-Dec-21
23-Sep-21	RCA-ZL	Nil Detected	--	--	--	21-Dec-21
16-Dec-21	RCA-FB	Irrigation Drainage Channel	686.4	0.07	1.37	19-Mar-26
23-Feb-22	RCA-FB	North Western Corner	21,296.90	2.13	42.59	19-Mar-26
23-Feb-22	RCA-FB	Edge of Leachate Spraying (East)	4,679.70	0.47	9.36	19-Mar-26
23-Feb-22	RCA-FB	Area South East of Erosion	3,798.90	0.38	7.60	19-Mar-26
23-Feb-22	RCA-FB	Western Edge of Leachate Irrigation Area	1,224.50	0.12	2.45	19-Mar-26
23-Feb-22	RCA-FB	Edge of Leachate Spraying (West)	959.5	0.10	1.92	19-Mar-26
17-May-22	RCA-SB	North Western Corner	7,888.20	0.79	15.78	19-Mar-26
17-May-22	RCA-SB	North Western Corner	1,808.10	0.18	3.62	19-Mar-26
17-May-22	RCA-SB	Area East of Erosion	4,181.80	0.42	8.36	19-Mar-26
17-May-22	RCA-SB	Area East of Erosion	2,233.90	0.22	4.47	19-Mar-26
17-May-22	RCA-SB	Area East of Erosion	21,877.40	2.19	43.75	19-Mar-26
17-May-22	RCA-SB	Area South East of Erosion	15,475.60	1.55	30.95	19-Mar-26
17-May-22	RCA-SB	Area South East of Erosion	1,136.50	0.11	2.27	19-Mar-26
17-May-22	RCA-SB	Central Drainage Channel	3,670.10	0.37	7.34	19-Mar-26
17-May-22	RCA-SB	Central Drainage Channel	5,156.70	0.52	10.31	19-Mar-26
17-May-22	RCA-SB	Western Edge of Leachate Irrigation Area	766.3	0.08	1.53	19-Mar-26
17-May-22	RCA-SB	Western Edge of Leachate Irrigation Area	705.5	0.07	1.41	19-Mar-26
26-Aug-22	RCA-SB	Bare soil to north of active tipping area	2446	0.24	4.89	19-Mar-26
05-Jan-23	RCA-FB	Bare soil to north of active tipping area.	717.1	0.07	1.43	19-Mar-26
05-Jan-23	RCA-FB	Vegetated area to the south of the active tipping area.	661.4	0.07	1.32	19-Mar-26
05-Jan-23	RCA-FB	Vegetated area near tyres and drum collection point.	924.4	0.09	1.85	19-Mar-26
01-May-23	RCA-KY	Slope soil at southwest of active tipping area	2,700	0.27	5.40	19-Mar-26
01-May-23	RCA-KY	Bare soil to north of active tipping	6,000	0.60	12.00	19-Mar-26
06-Jul-23	RCA-FB	Bare soil / grassed area to north of active tipping area.	21,000	2.10	42.00	19-Mar-26
06-Jul-23	RCA-FB	Bare soil / grassed area to north of active tipping area.	6,800	0.68	13.60	19-Mar-26
06-Jul-23	RCA-FB	Vegetated area to the south of the active tipping area.	546	0.05	1.09	19-Mar-26
06-Jul-23	RCA-FB	Vegetated area in irrigation area.	1,400	0.14	2.80	19-Mar-26
06-Jul-23	RCA-FB	Bare soil near tyres and drum collection point.	660	0.07	1.32	19-Mar-26
06-Jul-23	RCA-FB	Bare soil near tyres and drum collection point.	3,400	0.34	6.80	19-Mar-26
14-Sep-23	RCA-FB	Bare soil to north of active tipping area.	800	0.08	1.60	19-Mar-26
14-Sep-23	RCA-FB	Bare soil and grassed area to north of active tipping face	4,200	0.42	8.40	19-Mar-26
14-Sep-23	RCA-FB	Pile of waste to the south of the active tipping area.	4,200	0.42	8.40	19-Mar-26
14-Sep-23	RCA-FB	1m to north of waste pile	1,500	0.15	3.00	19-Mar-26
14-Sep-23	RCA-FB	3m to north of waste pile	3,000	0.30	6.00	19-Mar-26
14-Sep-23	RCA-FB	Vegetated area near tyres and drum collection point.	4,200	0.42	8.40	19-Mar-26
05-Dec-23	RCA-FB	Near drainage ditch north of active tipping area	1,784	0.18	3.57	19-Mar-26
05-Dec-23	RCA-FB	Bare patch, north of the active tipping area.	2,871	0.29	5.74	19-Mar-26
05-Dec-23	RCA-FB	Near pile of rubbish, south of the active tipping area.	1,939	0.19	3.88	19-Mar-26
05-Dec-23	RCA-FB	Fully vegetated drainage ditch, south of irrigation area	1,817	0.18	3.63	19-Mar-26
05-Dec-23	RCA-FB	Vent at base	150,100	15.01	300.20	19-Mar-26
10-Apr-24	RCA-FB	Vent at base	1,400	0.14	2.80	19-Mar-26
10-Jul-24	RCA-FB	Grassed area to north of active tipping area.	720	0.07	1.44	19-Mar-26
10-Jul-24	RCA-FB	Grassed area to north of active tipping area.	1,710	0.17	3.42	19-Mar-26
10-Jul-24	RCA-FB	Hole in grassed area to the north of active tipping area.	1,985	0.20	3.97	19-Mar-26
10-Jul-24	RCA-FB	Additional hole in grass area to north of tipping area.	1,612	0.16	3.22	19-Mar-26
10-Jul-24	RCA-FB	north western corner	2,100	0.21	4.20	19-Mar-26
10-Jul-24	RCA-FB	5cm hole in north western corner	6,990	0.70	13.98	19-Mar-26

Attachment D – Gas Monitoring (Cont'd) Surface and Accumulated Methane Gas Results Summary

Date Sampled	Samples collected by	Detected Locations	Methane (CH_4) by volume in air (ppm)	Methane (CH_4) by volume in air (% v/v)	Methane (CH_4) as % Lower Explosive Limit (5% v/v)	Date Accessible on Council Website
10-Jul-24	RCA-FB	Disturbed area to the west of tipping area	600	0.06	1.20	19-Mar-26
10-Jul-24	RCA-FB	Grassed area to the west of tipping area, in front of emergency assembly area.	700	0.07	1.40	19-Mar-26
10-Jul-24	RCA-FB	Dirt pile to the south of tipping area	600	0.06	1.20	19-Mar-26
10-Jul-24	RCA-FB	1m north of dirt pile to the south of tipping area	2,188	0.22	4.38	19-Mar-26
10-Jul-24	RCA-FB	Vent at the base	1,000	0.10	2.00	19-Mar-26
10-Oct-24	RCA-FB	Grassed area to north of active tipping area	986	0.10	1.97	19-Mar-26
15-Jan-25	RCA-FB	Grassed area, north of the active tipping area.	1,800	0.18	3.60	19-Mar-26
15-Jan-25	RCA-FB	Grassed area, northwest of the active tipping area.	1,350	0.14	2.70	19-Mar-26
15-Jan-25	RCA-FB	Cleared area with small stockpile, south southwest of the active tipping area.	3,200	0.32	6.40	19-Mar-26
10-Apr-25	RCA-FB	Base of the northern vent	8,000	0.80	16.00	19-Mar-26
10-Apr-25	RCA-FB	Top of the northern vent	1,700	0.17	3.40	19-Mar-26
10-Apr-25	RCA-FB	North face – along work fence north-west of stockpile	780	0.08	1.56	19-Mar-26
10-Apr-25	RCA-FB	North face – grassed area	2,070	0.21	4.14	19-Mar-26
10-Apr-25	RCA-FB	North face – grassed area	1,260	0.13	2.52	19-Mar-26
10-Apr-25	RCA-FB	North face – grassed area	4,040	0.40	8.08	19-Mar-26
10-Apr-25	RCA-FB	North face – grass/gravel area	1,250	0.13	2.50	19-Mar-26
10-Apr-25	RCA-FB	North face – gravel area	556	0.06	1.11	19-Mar-26
10-Apr-25	RCA-FB	North face – grass/gravel area near stockpile	1,250	0.13	2.50	19-Mar-26
10-Apr-25	RCA-FB	North face – grass/gravel area near stockpile	3,000	0.30	6.00	19-Mar-26
10-Apr-25	RCA-FB	Northwest face - gravel	4,835	0.48	9.67	19-Mar-26
10-Apr-25	RCA-FB	Northwest face on top of stockpile	7,800	0.78	15.60	19-Mar-26
10-Apr-25	RCA-FB	Northwest face past star picket	12,000	1.20	24.00	19-Mar-26
10-Apr-25	RCA-FB	West face	7,600	0.76	15.20	19-Mar-26
10-Apr-25	RCA-FB	Southwest of tipping area	3,300	0.33	6.60	19-Mar-26
10-Apr-25	RCA-FB	Southwest – 3 m northwest of stockpile	41,000	4.10	82.00	19-Mar-26
10-Apr-25	RCA-FB	Southwest of tipping area next to drain	2,515	0.25	5.03	19-Mar-26
10-Apr-25	RCA-FB	Near shipping container	570	0.06	1.14	19-Mar-26
25-Jun-25	RCA - SH	Grassed area, north of the active tipping area.	2,300	0.23	4.60	19-Mar-26
25-Jun-25	RCA - SH	Grassed area, north of the active tipping area.	1,800	0.18	3.60	19-Mar-26
25-Jun-25	RCA - SH	Grassed area, northwest of the active tipping face	2,500	0.25	5.00	19-Mar-26
25-Jun-25	RCA - SH	Grassed area, west of the active tipping face	2,000	0.20	4.00	19-Mar-26
25-Jun-25	RCA - SH	Grassed area near the stockpile at the end of the western face	1,800	0.18	3.60	19-Mar-26
25-Jun-25	RCA - SH	Grassed area, west of the active tipping face, near drain	800	0.08	1.60	19-Mar-26
10-Sep-25	RCA - SH	North face–grassed area	1,400	0.14	2.80	19-Mar-26
10-Sep-25	RCA - SH	North face–grassed area	1,400	0.14	2.80	19-Mar-26
10-Sep-25	RCA - SH	North face – grassed area	980	0.10	1.96	19-Mar-26
10-Sep-25	RCA - SH	North face – closer to Northwest corner	700	0.07	1.40	19-Mar-26
10-Sep-25	RCA - SH	North face – closer to Northwest corner	4,200	0.42	8.40	19-Mar-26
10-Sep-25	RCA - SH	North face -- Northwest corner	3,400	0.34	6.80	19-Mar-26
10-Sep-25	RCA - SH	Western face	1,500	0.15	3.00	19-Mar-26
10-Sep-25	RCA - SH	South face – close to pumps	800	0.08	1.60	19-Mar-26
10-Sep-25	RCA - SH	Southwest corner – near small stockpile	14,000	1.40	28.00	19-Mar-26
10-Dec-25	RCA - SH	Upper cell, on the border of the lower cell.	8,000	0.80	16.00	19-Mar-26
10-Dec-25	RCA - SH	Upper cell, near the western face	2,500	0.25	5.00	19-Mar-26
10-Dec-25	RCA - SH	Upper cell, near the western face	3,500	0.35	7.00	19-Mar-26
10-Dec-25	RCA - SH	Small stockpile southwest of the upper cell, near the leachate dam pumps	800	0.08	1.60	19-Mar-26
10-Dec-25	RCA - SH	Grassed area near the small stockpile at the end of the western face	14,000	1.40	28.00	19-Mar-26

Attachment E – Rainfall Summary and Leachate Pumping Volumes

Monthly Rainfall and Leachate Irrigation Summary

Daily Rainfall summarised as monthly rainfall (mm)	Rainfall (mm) Year 2018	Date Accessible on Council Website	Rainfall (mm) Year 2019	Date Accessible on Council Website	Rainfall (mm) Year 2020	Date Accessible on Council Website	Rainfall (mm) Year 2021	Date Accessible on Council Website	Rainfall (mm) Year 2022	Date Accessible on Council Website	Rainfall (mm) Year 2023	Date Accessible on Council Website	Rainfall (mm) Year 2024	Date Accessible on Council Website	Rainfall (mm) Year 2025	Date Accessible on Council Website	Rainfall (mm) Year 2026	Date Accessible on Council Website
January	27.5	19-Feb-18	26.0	16-May-19	133.5	14-Jul-20	92.4	21-Dec-21	120.8	19-Mar-26	69.6	19-Mar-26	42	19-Mar-26	112.8	19-Mar-26	23	19-Mar-26
February	54.0	08-Aug-18	15.0	16-May-19	180.5	14-Jul-20	117.4	21-Dec-21	63.4	19-Mar-26	33	19-Mar-26	26	19-Mar-26	23.2	19-Mar-26	55.4	19-Mar-26
March	21.4	08-Aug-18	66.5	16-May-19	91.5	14-Jul-20	122.5	21-Dec-21	242	19-Mar-26	174	19-Mar-26	30.6	19-Mar-26	134.4			
April	25.0	08-Aug-18	29.5	12-Sep-19	45.0	14-Jul-20	32.8	21-Dec-21	23	19-Mar-26	34	19-Mar-26	126	19-Mar-26	90.8			
May	8.0	08-Aug-18	39.1	12-Sep-19	47.0	14-Jul-20	32	21-Dec-21	77.6	19-Mar-26	7.4	19-Mar-26	78.2	19-Mar-26	86.2			
June	10.7	08-Aug-18	17.1	12-Sep-19	57.2	14-Jul-20	81.8	21-Dec-21	17.8	19-Mar-26	40	19-Mar-26	59.2	19-Mar-26	27.4			
July	44.2	08-Oct-18	19.0	12-Sep-19	60.9	02-Oct-20	98.8	21-Dec-21	54	19-Mar-26	26.8	19-Mar-26	77.4	19-Mar-26	120.4			
August	12.0	08-Oct-18	4.5	12-Sep-19	51.5	02-Oct-20	88.2	21-Dec-21	81	19-Mar-26	13.2	19-Mar-26	32.4	19-Mar-26	82.4			
September	42.0	08-Oct-18	7.0	05-Nov-19	40.0	16-Nov-20	41.6	21-Dec-21	134.6	19-Mar-26	4.2	19-Mar-26	49.2	19-Mar-26	43.6			
October	57.0	09-Nov-18	23.0	17-Mar-20	130.0	16-Nov-20	92.4	21-Dec-21	158	19-Mar-26	33.2	19-Mar-26	58	19-Mar-26	27.4			
November	73.0	12-Feb-19	13.5	17-Mar-20	26	21-Dec-21	190.4	21-Dec-21	56.8	19-Mar-26	60.6	19-Mar-26	108	19-Mar-26	99.4			
December	48.0	12-Feb-19	29.6	17-Mar-20	233.8	21-Dec-21	82.6	19-Mar-26	54.4	19-Mar-26	107.6	19-Mar-26	33.8	19-Mar-26	57.8			
Total Rainfall (mm)	**422.8**	--	**289.8**	--	**1096.9**	--	**1072.9**	--	**1083.4**	--	**603.6**	--	**720.8**	--	**905.8**	--	**78.4**	--

Rain data from 19 January 2018 to 12 April 2018 taken from BOM station 056034 located at Dumaresq Street Uralla, approixmately 1km from the landfill site

Monthly Leachate Discharge to Irrigation Area	Time (hrs) Year 2018	Volume Pumped (kL) Year 2018	Date Accessible on Council Website	Time (hrs) Year 2019	Volume Pumped (kL) Year 2019	Date Accessible on Council Website	Time (hrs) Year 2020	Volume Pumped (kL) Year 2020	Date Accessible on Council Website	Time (hrs) Year 2021	Volume Pumped (kL) Year 2021	Date Accessible on Council Website	Time (hrs) Year 2022	Volume Pumped (kL) Year 2022	Date Accessible on Council Website	Time (hrs) Year 2023	Volume Pumped (kL) Year 2023	Date Accessible on Council Website	Time (hrs) Year 2024	Volume Pumped (kL) Year 2024	Date Accessible on Council Website	Time (hrs) Year 2025	Volume Pumped (kL) Year 2025	Date Accessible on Council Website
January	108 to 191	423.0	19-Feb-18	--	--	16-May-19	53.0	208.0	14-Jul-20	53	795	21-Dec-21	629	9435	19-Mar-26	193	2895	19-Mar-26	26	390	19-Mar-26	0	0	19-Mar-26
February	--	--	08-Aug-18	--	--	16-May-19	74.5	292.0	14-Jul-20	74.5	1118	21-Dec-21	479	7185	19-Mar-26	254	3810	19-Mar-26	22	330	19-Mar-26	11	165	19-Mar-26
March	--	--	08-Aug-18	--	--	16-May-19	49.0	192.0	14-Jul-20	49	735	21-Dec-21	579	8685	19-Mar-26	156	2340	19-Mar-26	18	270	19-Mar-26	45	675	19-Mar-26
April	--	--	08-Aug-18	--	--	12-Sep-19	152.3	597.0	14-Jul-20	547	8205	21-Dec-21	572	8580	19-Mar-26	64	960	19-Mar-26	62	930	19-Mar-26	8	120	19-Mar-26
May	--	--	08-Aug-18	--	--	12-Sep-19	66.8	262.0	14-Jul-20	534	8010	21-Dec-21	600	9000	19-Mar-26	102	1530	19-Mar-26	52	780	19-Mar-26	48	720	19-Mar-26
June	--	--	08-Aug-18	--	--	12-Sep-19	35.0	137.0	14-Jul-20	469	7035	21-Dec-21	--	--	19-Mar-26	55	825	19-Mar-26	35	525	19-Mar-26	16	240	19-Mar-26
July	--	--	08-Oct-18	--	--	12-Sep-19	87.6	343.0	02-Oct-20	546	8190	21-Dec-21	188	2820	19-Mar-26	112	1680	19-Mar-26	66	990	19-Mar-26	48	720	19-Mar-26
August	--	--	08-Oct-18	--	--	12-Sep-19	46.2	181.0	02-Oct-20	502	7530	21-Dec-21	186	2790	19-Mar-26	91	1365	19-Mar-26	42	630	19-Mar-26	177	2655	19-Mar-26
September	--	--	08-Oct-18	--	--	05-Nov-19	31.4	123.0	16-Nov-20	344	5160	21-Dec-21	136	2040	19-Mar-26	43	645	19-Mar-26	33	495	19-Mar-26	207	3105	19-Mar-26
October	--	--	09-Nov-18	--	--	17-Mar-20	23.0	90.0	16-Nov-20	493	7395	21-Dec-21	176	2640	19-Mar-26	134	2010	19-Mar-26	23	345	19-Mar-26	142	2130	19-Mar-26
November	--	--	12-Feb-19	--	--	17-Mar-20	108.0	1620	21-Dec-21	523	7845	21-Dec-21	183	2745	19-Mar-26	40	600	19-Mar-26	17	255	19-Mar-26	116	1740	19-Mar-26
December	--	--	12-Feb-19	--	--	17-Mar-20	275.0	4125	21-Dec-21	486	7290	21-Dec-21	178	2670	19-Mar-26	77	1155	19-Mar-26	11	165	19-Mar-26	63	945	19-Mar-26
Total Time (hrs)/Volume Pumped (kL)	**108 to 191**	**423.0**	--	--	--	--	**1001.8**	**8170.0**	--	**4620.5**	**69308.0**	--	**3906.0**	**58590.0**	--	**1321.0**	**19815.0**	--	**407.0**	**6105.0**	--	**881.0**	**553200.0**	--

Pump rate is 3.92kL/hr for old pump - Up to Oct 2020

Pump rate is 15kL/hr for new pump - From Nov 2020