

Leeton Shire Council: Groundwater Monitoring Results

		Reporting Period 11 April 2022 to 10 April 2023																								
		1st Quarter 11 Apr to 10 Jul				2nd Quarter 11 Jul to 10 Oct				3rd Quarter 11 Oct to 10 Jan				4th Quarter 11 Jan to 10 Apr												
Bore Hole		1	2	3	4/5h	1	2	3	4/5h	1	2	3	4/5h	1	2	3	4/5h									
Details of inspection		[No. Samples]				[No. Samples]				[No. Samples]				[No. Samples]												
Pollutant	Unit																									
Alkalinity (as calcium carbonate)*	mg/l	0	411	1110	1120	660	0	0	418	1110	1100	423	0	0	408	1030	1030	425	0	0	403	882	1030	398	0	
Ammonia*	mg/l	0	0.1	0.4	0.2	3.3	0	0	0	0.1	0.1	0.1	0.1	0	0	0.1	0.1	0.1	0	0	1.7	0.2	0.5	3.4	0	
Calcium**	mg/l	0	270	390	390	450	0	0	0	260	400	340	240	4	0	175	120	125	175	0	0	220	216	347	231	0
Chloride*	mg/l	0	8010	9400	10000	6580	0	0	0	9530	12900	13000	11000	0	0	9050	8240	6870	8520	0	0	7190	7000	9350	7170	0
Chlorinated volatile compounds	mg/l	0	0.002	0.006	0.006	0.002	0	0	0	0.002	0.002	0	0.002	0	0	0.002	0.002	0.002	0.002	0	0	0.002	0.002	0.002	0	0
Conductivity	µS/cm	30	21.8	30	30.4	30.4	0	0	0	21.8	30.4	30	21.8	0	0	21.4	19.4	30	21.8	0	0	21.4	21.5	27.2	21.1	0
Fluoride*	mg/l	0	1	1	1	1	0	0	0	1	1	1	1	0	0	1	2	2	1	0	0	2	30	190	9	0
Iron**	mg/l	0	0.01	0.01	0.01	0.01	0	0	0	0.01	0.01	0.01	0.01	0	0	0.01	0.1	0.21	0.01	0	0	0.02	0.02	0.02	0.04	0
Magnesium**	mg/l	0	940	1200	1100	710	0	0	0	660	1000	950	600	0	0	310	275	275	300	0	0	454	486	604	400	0
Manganese*	mg/l	0	0.001	0.001	0.7	1	0	0	0	0.001	1.4	1.4	0.001	0	0	0.004	0.089	0.101	0.002	0	0	0.012	0.373	0.012	0.037	0
Nitrate*	mg/l	1	1	1	1	1	0	0	0	1	1	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0
pH	pH	0	6.9	7	6.9	6.5	0	0	0	7.5	7.3	7.4	7.4	0	0	7	7.3	7.3	7	0	0	6.4	0.3	7.1	7	0
Potassium**	mg/l	0	78	99	99	100	0	0	0	81	100	87	77	0	0	129	115	114	127	0	0	174	167	215	170	0
Sodium**	mg/l	0	4500	6500	5600	2900	0	0	0	5100	6000	5800	4200	0	0	3850	3460	3430	3880	0	0	3140	3200	3510	3110	0
Standing Water Level (below well top)	m	0	5.6	7.5	8.1	16.6	0	0	0	5.6	7.4	8.2	16.2	0	0	5.6	7.4	8.2	15.8	0	0	5.5	7.3	8.6	16.6	0
Sulphate	mg/l	0	1040	1850	2040	240	0	0	0	2070	9290	3240	2430	0	0	9300	2530	2030	1730	0	0	960	1140	1990	940	0
Total organic carbon**	mg/l	0	0.7	3	0.8	0.8	0	0	0	0.6	2.7	2.7	0.7	0	0	0.8	3.3	3.7	0.8	0	0	6.2	1.9	0.7	7.2	0
Total Phenolics*	mg/l	0	0.5	0.2	0.2	0.2	0	0	0	0.4	0.2	0.2	0.2	0	0	0.4	0.5	0.2	0.4	0	0	0.4	0.3	0.2	0.5	0

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Monitoring Point 2															
Pollutant	Unit	1st qtr	2nd qtr	3rd qtr	4th qtr	No. of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample value	Highest sample value					
Alkalinity (as calcium carbonate)	mg/l	411	418	608	403	4	4	403	430	418					
Ammonia	mg/l	0.1	0.1	0.1	1.3	4	4	0.1	0.3	3.3					
Calcium	mg/l	270	260	375	270	4	4	175	233.5	270					
Chloride	mg/l	8010	9530	9000	7190	4	4	7190	9455	9530					
Chlorinated volatile compounds	mg/l	0.002	0.002	0.002	0.002	4	4	0.002	0.002	0.002					
Conductivity	µS/cm	23.8	23.9	23.6	21.9	4	4	21.8	23.3	23.9					
Fluoride*	mg/l	1	1	1	1	4	4	1	1.25	1.4					
Iron**	mg/l	0.01	0.01	0.01	0.01	4	4	0.01	0.015	0.02					
Magnesium**	mg/l	940	660	991	454	4	4	391	513.25	660					
Manganese*	mg/l	0.001	0.001	0.004	0.002	4	4	0.001	0.004	0.002					
Nitrate*	mg/l	1	1	1	1	4	4	1	1	1					
pH	pH	6.9	7.5	7	6.5	4	4	6.5	7.1	7.5					
Potassium**	mg/l	78	81	129	174	4	4	78	115.5	174					
Sodium**	mg/l	4500	5100	3850	3140	4	4	3140	4147.5	5100					
Standing Water Level (below depth)	m (BGL)	5.6	7.4	8.2	16.2	4	4	5.6	7.375	16.2					
Sulphate	mg/l	1040	2070	1930	963	4	4	963	1500.75	2070					
Total organic carbon	mg/l	0.7	3	0.8	0.2	4	4	0.7	1.65	6.9					
Total Phenolics	mg/l	0.5	0.4	0.4	0.4	4	4	0.4	0.425	0.5					

Monitoring Point 3															
Pollutant	Unit	1st qtr	2nd qtr	3rd qtr	4th qtr	No. of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample value	Highest sample value					
Alkalinity (as calcium carbonate)	mg/l	1110	1110	1030	882	4	4	882	933	1110					
Ammonia	mg/l	0.1	0.1	0.1	0.4	4	4	0.1	0.2	0.4					
Calcium	mg/l	390	400	124	216	4	4	124	262.5	400					
Chloride*	mg/l	9400	12900	8240	7000	4	4	7000	9407.5	12900					
Chlorinated volatile compounds	mg/l	0.002	0.002	0.002	0.002	4	4	0.002	0.002	0.002					
Conductivity	µS/cm	30	30.4	29.4	21.5	4	4	21.5	25.375	30.4					
Fluoride*	mg/l	1	1	1	1	4	4	1	1.375	1.4					
Iron**	mg/l	0.01	0.01	0.1	0.01	4	4	0.01	0.015	0.1					
Magnesium**	mg/l	1200	1100	275	486	4	4	275	765.25	1200					
Manganese*	mg/l	0.001	1.6	0.089	0.171	4	4	0.001	0.118	1.6					
Nitrate*	mg/l	1	1	1	1	4	4	1	1	1					
pH	pH	7	7.3	7.3	0.3	4	4	0.3	5.475	7.3					
Potassium**	mg/l	81	100	115	167	4	4	81	120.25	167					
Sodium**	mg/l	6000	6000	3460	3200	4	4	3200	4790	6000					
Standing Water Level (below depth 20.0)	m (BGL)	7.5	7.5	7.4	7.3	4	4	7.5	7.425	7.5					
Sulphate	mg/l	1850	3230	2100	1140	4	4	1140	2177.5	3230					
Total organic carbon	mg/l	3	2.7	3.7	1.9	4	4	1.9	2.825	3.7					
Total Phenolics	mg/l	0.3	0.4	0.5	0.3	4	4	0.3	0.3	0.5					

Monitoring Point 4															
Pollutant	Unit	1st qtr	2nd qtr	3rd qtr	4th qtr	No. of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample value	Highest sample value					
Alkalinity (as calcium carbonate)	mg/l	1120	1100	1030	1030	4	4	1030	1067.5	1120					
Ammonia	mg/l	0.2	0.1	0.1	0.5	4	4	0.1	0.225	0.5					
Calcium	mg/l	400	340	175	216	4	4	175	290.5	400					
Chloride*	mg/l	10000	13000	6870	9350	4	4	6870	9805	13000					
Chlorinated volatile compounds	mg/l	0.002	0	0.002	0.002	4	4	0.002	0.002	0.002					
Conductivity	µS/cm	30.4	30.7	30	27.2	4	4	30	27.075	30.7					
Fluoride*	mg/l	1	1	1	1	4	4	1	1	1					
Iron**	mg/l	0.01	0.01	0.21	0.01	4	4	0.01	0.025	0.21					
Magnesium**	mg/l	1100	910	275	824	4	4	275	787.25	1100					
Manganese*	mg/l	0.7	1.6	0.101	0.012	4	4	0.012	0.6025	1.6					
Nitrate*	mg/l	1	1	1	1	4	4	1	1	1					
pH	pH	6.9	7.3	7.3	7.1	4	4	6.9	7.15	7.3					
Potassium**	mg/l	81	114	115	215	4	4	81	118.75	215					
Sodium**	mg/l	5500	5800	3430	3110	4	4	3110	4585	5800					
Standing Water Level (below depth 20.0)	m (BGL)	8.1	8.2	8.2	8.6	4	4	8.6	8.275	8.6					
Sulphate	mg/l	2040	3240	2030	2995	4	4	2030	2925	3240					
Total organic carbon	mg/l	0.8	2.7	3.7	0.7	4	4	0.6	1.925	3.7					
Total Phenolics	mg/l	0.2	0.2	0.2	0.2	4	4	0.2	0.2	0.2					

Monitoring Point 5(b)															
Pollutant	Unit	1st qtr	2nd qtr	3rd qtr	4th qtr	No. of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample value	Highest sample value					
Alkalinity (as calcium carbonate)	mg/l	660	423	425	398	4	4	398	476.5	660					
Ammonia	mg/l	3.3	0.1	0.1	3.4	4	4	0.1	1.225	3.4					
Calcium	mg/l	400	340	175	216	4	4	175	274	400					
Chloride*	mg/l	6580	11000	8520	7170	4	4	6580	8317.5	11000					
Chlorinated volatile compounds	mg/l	0.002	0.002	0.002	0.002	4	4	0.002	0.002	0.002					
Conductivity	µS/cm	18.9	21.8	21.8	21.1	4	4	18.9	21.025	21.8					
Fluoride*	mg/l	1	1	1	1	4	4	1	1	1					
Iron**	mg/l	0.01	0.01	0.01	0.04	4	4	0.01	0.0175	0.04					
Magnesium**	mg/l	720	600	120	400	4	4	120	320	720					
Manganese*	mg/l	1	0.001	0.002	0.017	4	4	0.001	0.255	1					
Nitrate*	mg/l	1	1	1	1	4	4	1	1	1					
pH	pH	6.3	7.4	7	7	4	4	6.3	6.975	7.4					
Potassium**	mg/l	100	77	127	170	4	4	77	118.5	170					
Sodium**	mg/l	2500	4200	3400	3110	4	4	2500	3422.5	4200					
Standing Water Level (below depth 25.0)	m (BGL)	16.8	16.2	15.8	15.6	4	4	16.8	16.26	16.8					
Sulphate	mg/l	3480	2410	1700	940	4	4	940	140						