

Appendix 6

GROUNDWATER MONITORING DATA

Site ID	Date	Time	Depth to Ground - m bgl	Depth to Stand - m btoc	Field Parameters			Dissolved Metals														Major Cations				Major Anions						Total Dissolved Solids	Comments											
					pH - Field	EC - Field - μ s/cm	Temp - Field - $^{\circ}$ C	Aluminium (Al) - mg/L	Arsenic (As) - mg/L	Barium (Ba) - mg/L	Beryllium (Be) - mg/L	Cadmium (Cd) - mg/L	Chromium (Cr) - mg/L	Cobalt (Co) - mg/L	Copper (Cu) - mg/L	Iron (Fe) - mg/L	Lead (Pb) - mg/L	Manganese (Mn) - mg/L	Nickel (Ni) - mg/L	Vanadium (V) - mg/L	Zinc (Zn) - mg/L	Mercury (Hg) - mg/L	pH - Lab	EC - Lab - μ s/cm	Calcium (Ca) - mg/L	Magnesium (Mg) - mg/L	Sodium (Na) - mg/L	Potassium (K) - mg/L	Total Cations - meq/L	Chloride (Cl) - mg/L	Sulfate (SO4) - mg/L			Hydroxide Alkalinity as CaCO3 - mg/L	Carbonate Alkalinity as CaCO3 - mg/L	Bicarbonate Alkalinity as CaCO3 - mg/L	Alkalinity - mg/L	Total Anions - meq/L	Ionic Balance	Ammonia as Nitrogen (N)	Nitrite as N	Nitrate as N	Nitrite and Nitrate as N (NOX)	
ANZECC guideline*					5	0.5		0.01	1	1	1	0.1		1	20	0.002		1000			1000					1000													4000					
3709	21-Jun-11	910			7.05	4420	18.5																																		Covered by Pump			
	22-Sep-11	1100			6.76	4937	20.1																																		Ivanhoe tank tap			
	3-Apr-12	1200			7.05	4340	25.5	0.57	0.011	0.314	<0.001	0.0003	0.002	<0.001	1.41	26	0.117	0.048	0.003	0.03	4.15	<0.0001	7.9	5520	128	232	848	18	62.8	1400	100	<1	<1	767	767	56.9	4.94	<0.01	0.02	6.12	6.14	3220	Ivanhoe tank tap	
	11-Jul-12	1115			7.29	4480	17.8																																	Pump over bore				
	11-Oct-12	850			7.08	5570	19.2	0.01	0.001	0.294	<0.001	<0.0001	<0.001	<0.001	0.034	3.36	0.004	0.033	0.002	<0.01	1.93	<0.0001	7.76	6550	157	235	925	15	67.8	1710	142	<1	<1	849	849	68.2	0.28	0.02	0.05	0.47	0.52	3560	Ivanhoe tank tap	
	7-Dec-12	1125			6.95	5470	24.7																																	Pump over bore				
	18-Mar-13	1045	14.58	14.98																																					Pump cap over bore			
	11-Apr-13	0900			6.99	5560	21.4	<0.01	0.001	0.261	<0.001	0.0004	<0.001	<0.001	0.021	0.77	0.006	0.016	<0.001	<0.01	4.7	<0.0001	7.54	5960	142	225	700	19	56.5	1300	97	<1	<1	783	783	54.3	1.97	<0.01	<0.01	2.69	2.69	3340		
	11-Sep-13	0830			7.03	5460	20.2	0.07	0.003	0.331	<0.001	0.0006	0.001	<0.001	0.104	4.52	0.03	0.03	0.002	<0.01	1.67	<0.0001	7.6	6200	147	217	888	14	64.2	1420	96	<1	<1	831	831	58.7	4.48	<0.01					3660	
44677	15-Dec-11	1200			7.1	4080	24																																		Bore covered			
	2-Apr-12	1300			7.2	3810	25.2	<0.01	<0.001	0.462	<0.001	<0.0001	<0.001	<0.001	0.004	<0.05	<0.001	<0.001	<0.001	<0.01	0.019	<0.0001	7.71	4790	202	253	531	6	54.2	1380	81	<1	<1	524	524	51.1	2.91	<0.01	<0.01	3.18	3.18	2980	Bore covered	
	20-Jun-12	1320			7.1	4370	18.1																																		Bore covered with scale and grass			
	12-Sep-12	1230			7.1	4360	22.8	<0.01	<0.001	0.406	<0.001	<0.0001	<0.001	<0.001	0.002	<0.05	<0.001	<0.001	<0.001	<0.01	0.013	<0.0001	7.53	4880	99	244	504	6	47.1	1280	72	<1	<1	586	586	49.3	2.31	0.06	<0.01	3.01	3.01	2750	Bore covered with scale and grass	
	7-Dec-12	1115			7.1	4320	23.9																																		Bore covered with scale and grass			
	18-Mar-13	1120			7.0	4340	22.7	<0.01	0.001	0.44	<0.001	<0.0001	<0.001	<0.001	0.003	<0.05	0.017	<0.001	<0.001	<0.01	0.037	<0.0001	7.42	4910	188	236	523	5	51.7	1260	77	<1	<1	525	525	47.6	4.07	<0.01	<0.01	3.43	3.43	2770	Bore covered with scale	
	9-Jul-13	1130			8.3	4470	17.1																																		Bore covered with scale			
	6-Sep-13	1140			7.06	4420	23	<0.01	<0.001	0.466	<0.001	<0.0001	<0.001	<0.001	0.009	<0.05	<0.001	0.002	<0.001	<0.01	0.052	<0.0001	7.52	4920	180	237	518	5	51.2	1200	73	<1	<1	556	556	46.5	4.78	0.02					3040	

* ANZECC guideline - stock drinking water (cattle)





