

Carmichael Coal Mine Project

Groundwater Quality data

July 2025

Sample Type:	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	
Sample Date:	29/07/2025	29/07/2025	29/07/2025	29/07/2025	29/07/2025	29/07/2025	27/07/2025	29/07/2025	29/07/2025	28/07/2025	28/07/2025	28/07/2025	30/07/2025	30/07/2025	30/07/2025	
Client sample ID (1st):	C18014SP	C19008SP	C19014SP	C19015SP	C19022SP	C919016SPR	HD02	Joshua Spring	DUPLICATE A	DUPLICATE B	GW FIELD BLANK	GW TRIP BLANK	C032P2	C034P3	C035P1	
Hydro-stratigraphic unit:	Spring Discharge Clematis SSt	Rewan Formation	Clematis Sandstone	Dunda Beds	Weathered Tertiary	Rewan Formation	Clematis Sandstone	Spring Discharge Clematis SSt	#N/A	#N/A	#N/A	#N/A	Bandanna Formation	Colinlea Sandstone	Rewan Formation	
Analyte grouping/Analyte	Unit															
pH Value	pH Unit	9.31	8.60	8.41	8.17	6.59	8.66	7.52	7.61	7.32	8.16	5.71	----	8.25	6.77	7.11
Electrical Conductivity @ 25°C	µS/cm	803	989	674	730	56600	784	246	560	686	726	<1	----	1300	1840	3870
Total Dissolved Solids @180°C	mg/L	565	700	485	450	46700	505	175	420	430	430	<10	----	736	1140	2180
Total Alkalinity as CaCO3	mg/L	187	153	142	142	231	194	63	111	100	140	3	----	329	98	149
Sulfate as SO4 - Turbidimetric	mg/L	14	<1	<1	<1	2430	<1	2	8	9	<1	<1	----	<1	26	50
Chloride	mg/L	138	232	118	145	19300	130	31	93	158	147	<1	----	219	514	1050
Calcium	mg/L	8	5	2	2	2420	4	3	11	4	3	<1	----	9	21	13
Magnesium	mg/L	31	<1	<1	<1	1330	<1	2	3	1	<1	<1	----	4	11	14
Sodium	mg/L	94	180	137	140	8700	162	42	88	122	141	<1	----	259	302	698
Potassium	mg/L	17	4	9	5	25	3	7	20	18	5	<1	----	4	12	5
Aluminium	mg/L	<0.01	0.02	<0.01	<0.01	<0.05	0.02	0.24	<0.01	<0.01	<0.01	<0.01	----	<0.01	<0.01	<0.01
Arsenic	mg/L	0.002	0.002	<0.001	<0.001	0.012	0.001	0.004	<0.001	0.002	<0.001	<0.001	----	0.004	<0.001	0.002
Cadmium	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	----	<0.0001	<0.0001	<0.0001
Chromium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	----	<0.001	<0.001	<0.001
Cobalt	mg/L	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	----	<0.001	<0.001	<0.001
Copper	mg/L	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	----	<0.001	<0.001	<0.001
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	----	<0.001	<0.001	<0.001
Manganese	mg/L	0.002	0.026	0.010	0.039	2.50	0.020	0.389	0.062	0.015	0.039	<0.001	----	0.031	0.217	0.112
Molybdenum	mg/L	0.006	0.003	<0.001	<0.001	<0.005	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	----	0.007	<0.001	<0.001
Nickel	mg/L	0.005	<0.001	<0.001	<0.001	<0.005	<0.001	0.001	<0.001	0.001	<0.001	<0.001	----	<0.001	<0.001	<0.001
Selenium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	----	<0.01	<0.01	<0.01
Silver	mg/L	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	----	<0.001	<0.001	<0.001
Uranium	mg/L	0.001	<0.001	<0.001	<0.001	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	----	<0.001	<0.001	<0.001
Vanadium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	----	<0.01	<0.01	<0.01
Zinc	mg/L	<0.005	<0.005	<0.005	<0.005	0.039	<0.005	<0.005	<0.005	0.075	<0.005	<0.005	----	<0.005	0.120	0.022
Boron	mg/L	0.12	0.06	0.15	0.11	4.15	<0.05	0.07	0.15	0.14	0.11	<0.05	----	0.37	0.22	0.72
Iron	mg/L	<0.05	<0.05	0.19	0.06	15.0	<0.05	1.56	<0.05	1.61	0.06	<0.05	----	0.10	2.78	0.20
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	----	<0.0001	<0.0001	<0.0001
Fluoride	mg/L	0.2	0.2	0.4	0.4	0.3	0.4	0.2	0.5	0.2	0.4	<0.1	----	1.2	0.2	0.6
Ammonia as N	mg/L	<0.01	0.27	0.13	0.15	0.06	0.24	0.21	0.01	0.18	0.14	<0.01	----	0.43	0.11	0.04
Nitrite as N	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	----	<0.01	<0.01	<0.01
Nitrate as N	mg/L	9.52	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	----	0.03	<0.01	0.10
Total Phosphorus as P	mg/L	0.08	0.02	0.18	0.03	0.06	0.01	0.10	<0.01	0.03	0.02	<0.01	----	0.03	<0.01	<0.01
Sulfide as S2-	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.22	<0.10	<0.10	<0.10	<0.10	<0.10	----	0.33	<0.10	<0.10
C6 - C9 Fraction	µg/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	----	<20	<20	<20
C6 - C10 Fraction	µg/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	----	<20	<20	<20
>C10 - C40 Fraction (sum)	µg/L	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	----	<100	<100	<100
Sum of BTEX	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	----	<1	<1	<1

