

**Carmichael Coal Mine Project**

**Groundwater Quality data**

**September 2025**













Sample Type:	REG	REG	REG	REG	REG	REG	REG	REG	REG						
Sample Date:	04/09/2025	04/09/2025	04/09/2025	04/09/2025	04/09/2025	04/09/2025	04/09/2025	04/09/2025	04/09/2025						
Client sample ID (1st):	C19029SP	C556P1	C833SP	C975SP	C983SPR	C18004SP	Duplicate E	Duplicate F							
Hydro-stratigraphic unit:	Colinlea Sandstone	Rewan Formation	Colinlea Sandstone	Colinlea Sandstone	Rewan Formation	Weathered Tertiary									
Analyte grouping/Analyte	Unit														
pH Value	pH Unit	8.15	6.64	8.01	6.72	6.48	7.32	6.75	7.05						
Electrical Conductivity @ 25°C	µS/cm	916	227	976	581	381	42100	314	574						
Total Dissolved Solids @180°C	mg/L	584	198	570	333	247	37800	205	349						
Total Alkalinity as CaCO3	mg/L	339	28	226	42	14	201	28	42						
Sulfate as SO4 - Turbidimetric	mg/L	<1	11	<1	25	8	778	6	24						
Chloride	mg/L	115	40	209	147	108	15500	72	155						
Calcium	mg/L	6	<1	20	2	2	3180	7	6						
Magnesium	mg/L	4	1	6	7	6	1290	5	13						
Sodium	mg/L	230	43	199	117	71	5120	42	98						
Potassium	mg/L	7	2	18	6	4	18	4	18						
Aluminium	mg/L	<0.01	0.02	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01						
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001						
Cadmium	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001						
Chromium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	0.001	<0.001						
Cobalt	mg/L	<0.001	0.002	<0.001	<0.001	0.001	<0.005	<0.001	<0.001						
Copper	mg/L	<0.001	<0.001	<0.001	<0.001	0.005	<0.005	0.002	0.001						
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	<0.005	<0.001	<0.001						
Manganese	mg/L	0.016	0.029	0.260	0.040	0.002	0.388	0.005	0.001						
Molybdenum	mg/L	<0.001	<0.001	0.002	<0.001	<0.001	<0.005	<0.001	<0.001						
Nickel	mg/L	<0.001	<0.001	<0.001	<0.001	0.002	0.016	<0.001	<0.001						
Selenium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01						
Silver	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001						
Uranium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	0.016	<0.001	<0.001						
Vanadium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01						
Zinc	mg/L	<0.005	<0.005	<0.005	0.017	0.006	<0.025	0.017	<0.005						
Boron	mg/L	0.36	0.15	0.23	0.21	0.16	1.40	0.14	0.18						
Iron	mg/L	0.30	0.71	0.87	0.05	<0.05	1.16	<0.05	<0.05						
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001						
Fluoride	mg/L	5.3	0.2	1.3	0.2	<0.1	0.1	<0.1	<0.1						
Ammonia as N	mg/L	0.15	<0.01	0.19	<0.01	<0.01	<0.01	<0.01	<0.01						
Nitrite as N	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01						
Nitrate as N	mg/L	<0.01	<0.01	<0.01	0.05	0.20	<0.01	0.20	0.13						
Total Phosphorus as P	mg/L	0.03	0.02	0.01	<0.01	<0.01	<0.05	<0.01	<0.01						
Sulfide as S2-	mg/L	<0.10	<0.10	0.64	<0.10	<0.10	<0.10	<0.10	<0.10						
C6 - C9 Fraction	µg/L	<20	<20	<20	<20	<20	<20	<20	<20						
C6 - C10 Fraction	µg/L	<20	<20	<20	<20	<20	<20	<20	<20						
>C10 - C40 Fraction (sum)	µg/L	<100	<100	<100	<100	<100	<100	<100	<100						
Sum of BTEX	µg/L	<1	<1	<1	<1	<1	<1	<1	<1						