

Analytical Determinations

Parameter	Requested Detection Limits mg/L	SGS Method Detection Limit mg/L	Minimum Volume Required mL**	Cost per Sample
pH	0.1	0.05	50	
Conductivity	0.2	1		
Bicarbonate	5	2		<i>incl. with pH</i>
Carbonate	5	2		<i>incl. with pH</i>
Hydroxide	5	2		<i>incl. with pH</i>
Alkalinity, Total (as CaCO ₃)	5	2		<i>incl. with pH</i>
Turbidity	0.1	0.13	40	
Fluoride	0.05	0.06	15	
Total Suspended Solids	3	2	500*	
Ammonia-N	0.005	0.04	15	
Total Organic Carbon	1 (January) 0.5 (April)	0.2	15	
Anions			10	
Chloride	1	0.2		
Nitrate+Nitrite	0.006	0.06		
Nitrate	0.006	0.05		
Nitrite	0.002	0.06		
Sulphate	0.05	0.5		
Extractable Iron by ICP-OES	0.005	0.01	25	
Extractable Manganese by ICP-OES	0.001	0.001		
Mercury (Hg) - Total	0.00002	0.0001(RL) 0.00002(MDL)	41	
Mercury (Hg) - Dissolved	0.00002	0.0001(RL) 0.00002(MDL)	41	
Ultra-Low Metals (Total) ICP-OES/MS			50	
Hardness (as CaCO ₃)	---	0.5		
Silver (Ag)	0.0001	0.00003		
Aluminum (Al)	0.0003	0.0001		
Arsenic (As)	0.00003	0.0002		
Boron (B)	0.001	0.001		
Barium (Ba)	0.00005	0.00005		
Beryllium (Be)	0.0002	0.00004		
Bismuth (Bi)	0.00003	0.00002		
Calcium (Ca)	0.02	0.03		
Cadmium (Cd)	0.00005	0.00006		
Cobalt (Co)	0.0001	0.000007		
Chromium (Cr)	0.00006	0.0003		
Copper (Cu)	0.0006	0.0001		
Iron (Fe)	0.005	0.01		
Lithium (Li)	0.0001	0.002		
Phosphorus	0.001	0.01		
Potassium (K)	0.02	0.01		
Magnesium (Mg)	0.004	0.003		
Manganese (Mn)	0.0001	0.00004		
Molybdenum (Mo)	0.00006	0.00005		
Sodium (Na)	0.005	0.01		
Nickel (Ni)	0.00006	0.0007		
Lead (Pb)	0.00005	0.00002		
Antimony (Sb)	0.00003	0.0002		
Selenium (Se)	0.0001	0.001		
Silicon (Si)	0.1	0.01		
Strontium (Sr)	0.0001	0.0001		
Tin (Sn)	0.0001	0.0003		
Uranium (U)	0.00005	0.00002		
Vanadium (V)	0.00005	0.00006		
Zinc (Zn)	0.0008	0.0003		



Environmental Services

Ultra-Low Metals (Dissolved) ICP-OES/MS				
Hardness (as CaCO ₃)	---	0.5		
Silver (Ag)	0.0001	0.00003		
Aluminum (Al)	0.0003	0.0001		
Arsenic (As)	0.00003	0.0002		
Boron (B)	0.001	0.001		
Barium (Ba)	0.00005	0.00005		
Beryllium (Be)	0.0002	0.00004		
Bismuth (Bi)	0.00003	0.00002		
Calcium (Ca)	0.02	0.03		
Cadmium (Cd)	0.00005	0.00006		
Cobalt (Co)	0.0001	0.000007		
Chromium (Cr)	0.00006	0.0003		
Copper (Cu)	0.0006	0.0001		
Iron (Fe)	0.005	0.01		
Lithium (Li)	0.0001	0.002		
Phosphorus	0.001	0.01		
Potassium (K)	0.02	0.01		
Magnesium (Mg)	0.004	0.003		
Manganese (Mn)	0.0001	0.00004		
Molybdenum (Mo)	0.00006	0.00005		
Sodium (Na)	0.005	0.01		
Nickel (Ni)	0.00006	0.0007		
Lead (Pb)	0.00005	0.00002		
Antimony (Sb)	0.00003	0.0002		
Selenium (Se)	0.0001	0.001		
Silicon (Si)	0.1	0.01		
Strontium (Sr)	0.0001	0.0001		
Tin (Sn)	0.0001	0.0003		
Uranium (U)	0.00005	0.00002		
Vanadium (V)	0.00005	0.00006		
Zinc (Zn)	0.0008	0.0003		
Ion Balance	---	---	---	
TDS (Calculated)	---	---	---	included