Table 2. Reporting limits and data-quality objectives (DQOs) for accuracy, precision, and blanks for solution analyses performed by the USGS Laboratory in Troy, N.Y.

[ANC, acid-neutralizing capacity; CV, coefficient of variation; DQO, data-quality objective; µmol/L, micromoles per liter; QC, quality control]

Constituent or property	Reporting limit (µmol/L)	Accuracy				Precision	Filter and analytical blanks DQO (µmol/L)
		Low-concentration QC sample		High-concentration QC sample		Environmental triplicate samples DQO (CV)	
		DQO (percent error)	Concentration (µmol/L)	DQO (percent error)	Concentration (µmol/L)		
Acid-neutralizing capacity[1]	none	10	-39.9	10	-125	15	none
Aluminum, total monomeric	1.5	15	7.41	10	18.5	15	1
Aluminum, organic monomeric[2]	1.5	none	none	none	none	15	1
Aluminum, total	1	15	1.49	10	11.2	15	1
Ammonium	2	15	7.14	10	17.9	15	1.5
Boron	0.5	10	1.85	10	7.4	10	1
Calcium	2	10	25	10	99.8	10	1
Carbon, dissolved organic[3]	41	15	83.3	10	416	10	18
Chloride	3	10	8.47	10	84.7	10	2
Magnesium	1	10	10.3	10	41.1	10	0.5
Nitrate (ion chromatography)	2	15	4.84	15	48.4	10	0.3
Nitrate (colorimetric method)	5	15	42.9	10	100	none	none
Nitrite	0.5	15	7.14	15	28.6	10	1
Nitrogen, total dissolved	0.5	20	21.4	15	100	10	2
pH[4]	none	10	-4.44	20	-6.88	10	none
Potassium	1	10	6.4	10	25.6	10	0.5
Silicon	6	10	35.6	10	107	10	3
Sodium	1	10	10.9	10	43.5	10	1
Specific conductance[5]	none	10	-17	10	-39	10	1.5
Sulfate	2	10	8.33	10	83.3	10	0.3
Turbidity[6]	none	5	none	none	none	none	none

[1]ANC: values in parentheses are in microequivalents per liter. For values within ±20 microequivalents per liter, an absolute DQO of ±6 microequivalents per liter is used for precision.

[2]QC samples for organic monomeric aluminum are unavailable.

[3]Concentrations are expressed as micromoles carbon per liter.

[4]pH: percent error and coefficient of variation are calculated from $[H^+]$. Values in parentheses are in pH units.

[5]Specific conductance: values in parentheses are in microsiemens per centimeter.

[6]Comparison standards must be within 5 percent of the daily response factor of the instrument.