

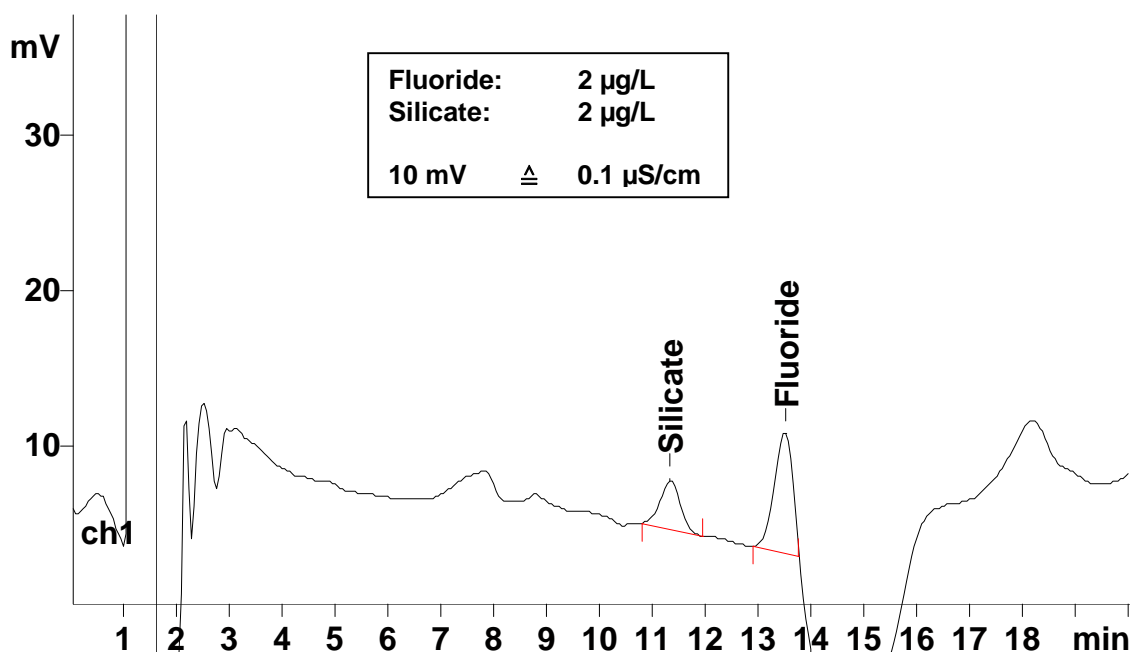
IC Application Note No. N-59

Title: LOD and LOQ for silicate determination besides fluoride according to EPA (MDL procedure)

Summary: Determination of silicate besides fluoride and its limits of determination (LOD) and quantification (LOQ) according to the EPA procedure for method detection limit (MDL) using anion chromatography with direct conductivity detection and Metrohm Inline Calibration .

Sample: 0.5 µg/L silicate standard solution, 2 µg/L silicate /fluoride
Sample Preparation: 10 mL preconcentrated on Hamilton PRP-X 100 Guard (6.1005.020)

Column: 6.1005.100 Starlon A300
Eluent: 0.75 mmol/L sodium hydroxide, 15 mmol/L fructose
Flow: 1.5 mL/min
Injection Volume: 10 µL (for calibrations)



Results: (µg/L)	LOD (EPA) area	LOD (EPA) height	LOQ (EPA) area	LOQ (EPA) height
Silicate / silicon	0.11 / 0.05	0.10 / 0.05	0.34 / 0.16	0.29 / 0.14