

Analyte List –Groundwater Samples

Field (onsite) measurements:

Specific conductance, in microsiemens per cm at 25 degrees C

pH, in pH units

Temperature, in degrees Celsius

Dissolved oxygen, in milligrams per liter

Laboratory dissolved gas analyses and hydrocarbon isotope analyses:

Gas chromatographic measurement of the concentrations (percent volume) of

Nitrogen (N₂)

Oxygen (O₂)

Carbon Dioxide (CO₂)

Argon (Ar)

Hydrogen (H₂)

Helium (He)

Methane (CH₄), (and methane concentration in mg/L)

Ethane (C₂H₆)

Ethene (C₂H₄)

Propane (C₃H₈)

Butane (iC₄H₁₀, nC₄H₁₀)

Pentane (iC₅H₁₂, nC₅H₁₂)

Total of higher chain hydrocarbons (C₆+)

Mass spectrometric determination of the carbon (C) and hydrogen (deuterium, D) isotope ratios ($\delta^{13}\text{C}$, δD) of methane and $\delta^{13}\text{C}$ of ethane and propane (if concentrations are high enough for analysis)