

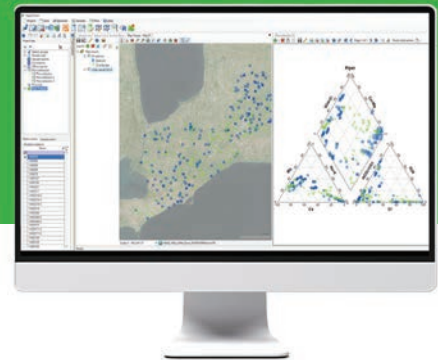


AquaChem

Water Quality Analysis And Geochemical Speciation Modeling Software



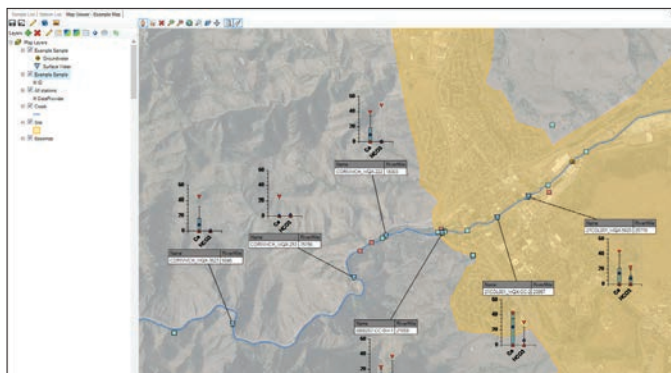
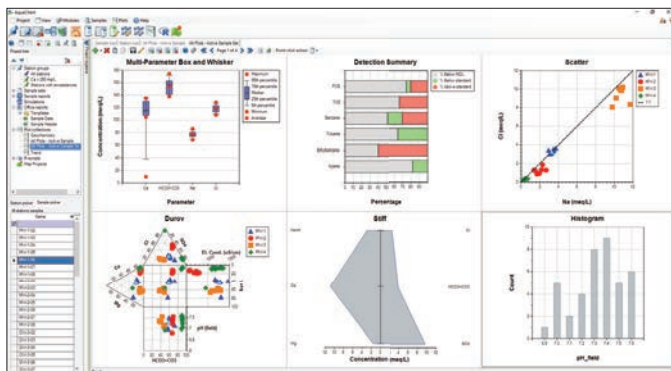
The go-to application for managing and evaluating geochemical and water quality data. AquaChem features a fully customizable database of physical and chemical parameters with integrated plotting, mapping, scripting, and reporting tools, along with a seamless integrated interface for PHREEQC, the popular USGS model for geochemical speciation.



Why Choose AquaChem?

Benefits:

- Increase analysis and reporting efficiency with an extensive suite of geochemical plots and integrated reporting tools.
- Easily demonstrate regulatory compliance with chemical exceedance analyses and automated reporting tools.
- Quickly identify potential violations of regulatory limits.
- Save time by generating geochemical plots, speciation models, and reports for multiple locations and samples simultaneously.



Data Input and Analysis:

AquaChem uses reported values in commonly measured units for each sample to automatically calculate additional geochemical values, including:

- **Ion Analyses:** Water type/facies; Sum of ions, Cations, and Anions, Electroneutrality, Hardness, Alkalinity, Estimated TDS.
- **Exceedances:** Exceeds Active Standards or Natural Occurrence Range.
- **Agricultural and Irrigation Indices:** Sodium adsorption ratio, Magnesium Hazard, and Residual Sodium Carbonate.
- **Scaling and Corrosion Calculations:** Langelier Saturation, Larson-Skold Index, Puckorius Scaling, and Ryznar Stability Indices.
- **Organic Calculations:** Calculated Total Organic Carbon and Total Organic Halides.
- **Isotope Infiltration:** z(180), T(180), z(2H), T(2H).
- **Date/Time Calculations:** Month, Season, Year.
- **PHREEQC:** One-click calculation of activities and saturation indices, interface for setting up and running more advanced geochemical and speciation simulations.

AquaChem also includes on-the-fly unit conversion and simple to complex manual calculations.

Plotting and Mapping

AquaChem renders samples in a variety of plot types selected from dynamically queried criteria or static lists to help evaluate data and reduce the time to generate reports:

- **Geochemical:** Piper, Stiff, Durov, Schoeller, Wilcox, Ternary, Giggenbach, Ludwig Langelier, Meteoric Water Line.
- **Statistical:** Box and Whisker, Histogram, Quantile, Probability.
- **General:** Scatter, Pie, Time Series, Detection Summary, Stacked Bar, Radial.
- **Mapping:** Plot sample data directly on maps, load basemaps and shapefiles, add callout tables and plots of any type listed above.

Applications:

- Analyze & report aqueous geochemistry of municipal groundwater supply wells.
- Report analytical lab results of samples from contaminated sites.
- Manage water quality data from sanitary landfills.
- Identify mineralization trends for mining exploration and process water management.
- Identify water quality guideline exceedances.

Software Solutions For Groundwater

At Waterloo Hydrogeologic, we offer a comprehensive suite of applications that meets the needs of any groundwater project: from data management to analysis of hydraulic and geochemical properties, modeling/simulation, visualization and reporting. Our modern hydrogeologic toolset will help you fast-track your groundwater projects with more efficient and robust evaluations and help provide decision makers with clearer and more defensible insights.

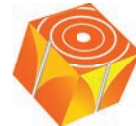
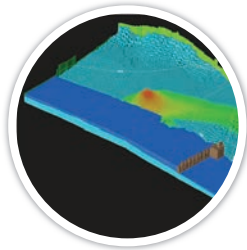
With an over 30-year history of trust by industry professionals, our industry-leading software is used by consultants, regulatory agencies, industry, and educational institutions in over 100 countries.



Visual MODFLOW Flex

3D Groundwater Flow And Transport Modeling And Analysis

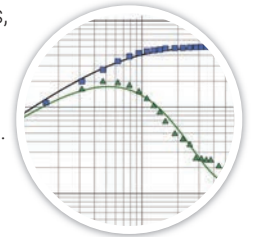
The industry-standard 3D groundwater flow and solute transport modeling interface for developing USGS MODFLOW models. Flex integrates numeric engines, conceptual modeling, advanced 2D/3D visualization, and calibration tools in a single application.



AquiferTest Pro

Pumping & Slug Test Analysis And Interpretation

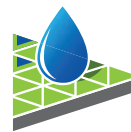
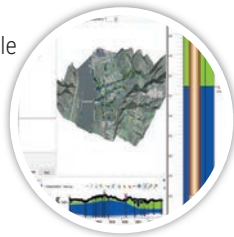
The easy-to-use software package for analysis, interpreting and visualizing pumping and slug test data. AquiferTest Pro offers all the tools needed to accurately interpret data from all types of aquifers in all types of test conditions.



Hydro GeoAnalyst

From Data Discovery to Delivery

The most comprehensive and customizable environmental data management system available on the market. Used around the world, HGA's secure and easy-to-use modular interface integrates customizable database structures with state-of-the-art tools for data management, interpretation, statistical analysis, mapping, charting, 2D/3D visualizations, and automated reporting. It scales from individual practitioners to government agencies and large multi-national industrial clients.



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