Geochemistry for ArcGIS

Exploratory Geochemical Data Analysis
Key Features

**Import data**
It is easy to import survey (X, Y location information) and assay (geochemical lab results) files as separate data sets and then merge them together into one geodatabase. You also have the option to automatically convert negative assay results to a positive value (half detection limit). Formats that are easily imported include: ASCII, Microsoft Excel (.xls), Microsoft Access Database (.mdb), ESRI shapefile (.shp), personal and file geodatabases and acQuire point data.

**Quality control**
Use the quality control and quality assurance functionality to effectively validate and analyze your standards and duplicates, to ensure that all results fall within acceptable limits.

**Importing large volumes of data**
Import and merge multiple data sets, including field, file geodatabases and acQuire (.acq) files. You can also import data from other Ternary or scatter plot tools.

**Querying and selecting**
Interactively select data from statistical tools (histogram, probability, scatter and ternary plots) by categories. You can split, subset and refine data for statistical analysis based on regional geological differences, analytical techniques or sampling types.

**Surface mapping**
Create grids and contour maps from point sample data (streams, soils, rocks, geophysical data). Point data can be easily colour coded based on user-defined population breaks.

**Dynamic data linking**
Instantly see the connection between all your sections, plans and database views using dynamic linking. Select a location on a map and the software highlights the corresponding data value in the database, profile, graph, and drillhole windows in real time.

**Statistical data analysis**
Its range of statistical tools for working with large volumes of geochemical data includes:
- Histogram analysis
- Scatter plots
- Ternary plots
- Probability (or Q-Q) plots
- Statistical reporting
- Pearson’s correlations
- Box plot diagrams

Process any type of surface or subsurface geochemical data in ArcGIS. All these tools allow you to create data selections and to include or exclude selected points from the data. These statistical analysis graphs and diagrams can be saved with your project and be plotted to your map layout.

**Histogram analysis reports**
An interactive histogram tool displays the selected field data, along with field statistics, histogram width, current cursor position and corresponding data value and percentile values. Its dynamic dialog box updates data values whenever you make a change to a corresponding value in the database.

**Scatter plot analysis reports**
Plot one assay element against another assay element in a scatter plot. You can interactively interrogate the data contained within your database and plot to a map. The scatter plot tool supports dynamic linking between itself and the current database, the current map, as well as with any other Scatter or Triplot tool open in the project.

**Box plot analysis reports**
Box plots divide the data from a single assay based on a user-selected categorization channel, such as lithology, soil type, year or sampling method. Plot a figure which summarizes the data distribution for each category. The data minimum and maximum values, as well as the 25%, 50% (median) and 75% break points are shown.