



GLOSSARY OF TERMS

Action Levels - A regulatory or user-defined concentration limit for each constituent. These can be entered by CAS Number or by Action Level Code.

Annular Fill – material placed between the well casing and the outside of the borehole (e.g., filter pack, grout, bentonite).

Archive - a compressed file that contains important GIS\Key files. There are two types of archives:

- Project – project specific data, basemaps, export formats, etc.
- Common – data that's common to all projects (e.g., compounds, action levels; this is data stored in the *common folder*).

To create an archive, open the *Scout Project Manager* and select 'Project' – 'Archive' – 'Create'. At the prompt, select the appropriate type of archive. By default the archive will be placed into the project archive directory (it will create the directory if it does not already exist). To retrieve an archive, select 'Project' – 'Archive' – 'Retrieve'.

Basemap – an electronic map of the project area. A *project* can have multiple basemaps, as long as each basemap is using the same coordinate system (i.e., *drawing orientation* and *drawing scale*). For GIS\Key, the basemap(s) can be created in AutoCAD or ArcView. The basemap(s) must be in the *project folder*, and must be opened directly from the *Scout Project Manager*.

Checked OK (LabBuild) - The record has no *Exceptions* or *Warnings* and can be imported.

Common Directory/Folder – refers to the windows directory (default name "giskey") that stores the GIS\Key database program and data used by all projects (e.g. constituents, action levels). For network configurations, this directory is on the network (e.g. n:\giskey) and for standalone configurations, this directory is on the local machine (c:\giskey).

Common Archive – see *Archive*.

Constituents (database) - Uniquely defines a chemical using the Chemical Abstracts Service Registry Number ("CAS Number", up to 9 digits). A chemical may have up to 10 aliases (i.e., compound names) for a given CAS Number. If a CAS Number has not been defined for a chemical, one can be created. A user-defined CAS Number must begin with an alphanumeric character (e.g., GIS-100-111).

Contour (AutoCAD) – an AutoCAD surface where lines (drawn as polylines) represent a specific value.

Control Sample - sample of known concentration. Provides data for determining accuracy and precision. The control sample and duplicate can be prepared in the field and sent to the lab (Blind Control) or prepared by the lab (Known Control). In GIS\Key control samples are linked to *primary results* by the lab batch id ("Lbatch Id").

Database - See *GIS\Key Database*.

Drawing Orientation (basemap) – North/South must correspond with the Y coordinate of a *basemap* and East/West with the X coordinate. That is, North should always be up in a *basemap*.

Drawing Program – a software program used for *basemaps*. The drawing (a.k.a., mapping) program must be purchased independently and is installed separately on each computer. GIS\Key supports both AutoCAD and ArcView as the drawing program.

Drawing Scale (basemap) – The scale of the basemap must be one drawing unit = one foot (for metric: one drawing unit = one meter). The scale of the map can be checked by measuring the length of an object on the map (number of drawing units), then comparing that with the actual length of that object. The numbers should match exactly.

Duplicate Result - a second sample with the same definers as the *primary result* (i.e., same matrix, Site Id, date, time, depth, lab, method, and cas number). Provides data for determining precision.



GLOSSARY OF TERMS

Electronic Data Deliverables (EDDs) – electronic files from the laboratory that contain testing results. For GIS\Key, this file must be in a specific format. This format is outlined in the “Structure Notes for Lab Deliverables” document available at www.giskey.com under Downloads.

Equipment Blank – See *Rinsate Blank*.

Exceptions/Errors (LabBuild) - a record has an error that will prevent it from being imported.

Field Blank – a sample of the water used to clean the field equipment. Provides data for determining cleanliness. In GIS\Key field blanks are linked to primary samples by the blank id ("Blank Id").

Filter (LabBuild) - command to view records that meet a specific “For” condition. The filter command can be used to view records with specific error or warning codes. The *Exception* and *Warning* codes are stored in the X_Error and X_Warn fields, respectively. For example, if you would like to view only records with a Warning Code of "05", use the “For” condition:

- "05" \$ X_Warn (the "\$" in FoxPro can be read as "is included in").

Flow Data – volume of water pumped from an extraction (pumping) well.

Fluid Levels - water levels in a well. In GIS\Key, the user enters the depth to water relative to a fixed measuring point (e.g., top of casing).

Formation (database) – a four character code used to describe a known geologic unit. For formation patterns to show up on drilling logs, a hatch pattern must exist in AutoCAD (in the acad.pat file) whose name matches the name of the formation.

GIS\Key – A software program designed for data management and presentation of environmental geology data. The program can store data for:

- Geology
- Hydrology
- Chemistry
- Radiology
- NPDES

GIS\Key can generate the following outputs:

- Report Tables
- AutoCAD Maps (e.g., contour diagrams)
- Custom Exports (e.g., to Excel)
- Boring Logs
- Cross Sections
- Statistics
- ArcView Maps

GISKeyCommonInstall.exe - Installs the *Common directory* portion of GIS\Key. This program must be copied to and run on a local computer, not on the network. For a *network configuration*, this install program should be run once to create only one giskey folder on a network drive (e.g., m:\giskey). For *standalone configurations*, this install program should be used to create one *common folder* on each computer (e.g., c:\giskey31).

GISKEYCommonUpdate.exe - Updates the *Common directory* portion of GIS\Key for versions 3.2 or newer.

GIS\Key Database – The data management portion of GIS\Key; used for entering and changing data. To start the database program, double click the Database 3.x icon from *Scout*.



GLOSSARY OF TERMS

GISKeyWorkstationInstall.exe - Installs the *Scout* software. This install program must be run on a local computer (not on the network) and will create a Scout folder on a local drive (e.g., c:\scout).

GISKeyWorkstationUpdate.exe - Updates the Scout portion of GIS\Key for version 4.0 or newer.

Grid Mesh – a contoured surface in AutoCAD. Grid meshes are created for display on cross-sections.

Historical Ranges (database) - Used to establish historical minimum and maximum concentrations for a specific *site*. These can then be used to identify if new results are out of the historical range.

Key Fields - see *Primary Key*.

Lab Blanks - Samples of clean water used to document clean analytical equipment. Provides data for determining cleanliness. In GIS\Key lab blanks are linked to *primary results* by the lab batch id ("Lbatch Id").

LabBuild – software program used for viewing, checking, and importing *electronic data deliverables* (EDDs).

Laboratory Methods (database) - A "lab method" identifies a laboratory's analytical method. The "lab method list" provides a default constituent list for data entry, relates QA/QC results to primary results, and defines Data Quality Objectives.

License - Licenses are purchased from GIS\Solutions. For *network configurations*, the number of licenses represents the number of people that can use the software at any one time. For example, if Consultant A purchased two network licenses, they can install the software on as many computers as they like, but only two computers can run the software at a time. For *standalone configurations*, the number of licenses represents the number of computers that can have the software installed. For example, if Consultant B purchased two *standalone configuration* licenses, they can only install the software on two computers.

License Key – is a unique number given to each computer that has the software installed. GIS\Key uses this number to identify who is logged into the software.

Matrix - The material of the sample (soil or water). Air or vapor data can be entered as either soil or water data (and then is usually given a unique Program Code, e.g. V for Vapor).

Matrix Spike - known quantity of chemical added to a sample containing an unknown quantity of chemical. The matrix spike can be created in the field (Field Spike) or in the laboratory (Lab Spike). Provides data for determining accuracy and precision. In GIS\Key spikes are linked to *primary results* by the lab batch id ("Lbatch Id").

Method Blanks - Samples of clean water processed through analytical equipment Provides data for determining cleanliness. In GIS\Key method blanks are linked to *primary results* by the lab batch id ("Lbatch Id").

Milliequivalent Factors - Used for the calculation of charge balances in water samples.

Network Install/Configuration – an installation of GIS\Key where the *common folder* is installed on a networked server (e.g., g:\giskey31) and *Scout* is installed on every computer that will be running the software. All users must have full rewrite access to the networked server. For a network configuration, the number of *licenses* determines the number of concurrent users allowed to use the software.

Other Units (database) – a two character code used to define a user-defined geologic unit or contact (e.g. the top of a water bearing zone, the top of an aquitard, the bottom of a water bearing zone).

Polyface Mesh (AutoCAD) – a contoured surface where a specific color represents a range of values (e.g., 100 to 1000 ug/l is red, 1000 to 10,000 ug/l is blue).

Preparation Fractions - A one character field that records the preparation procedure of a sample (e.g., T for Total, D for Dissolved).



GLOSSARY OF TERMS

Primary Key – for each table, the primary key represents the fields (columns) that uniquely identify a record. For example, in the compound table (primary key is cas_num + alias number) each record has a different combination of cas number and alias number.

Primary Results - the "official" result, as opposed to QA/QC results. For example, MW-01 was sampled on 11/11/2002, analyzed for 8260 by ACME Labs, and found to have a concentration of Benzene at 2.0 ug/l. A primary result is defined by a *sample*, *test*, and *result*.

Program Codes (database) - a user-defined, single-character code for identifying specific *samples* or water level measurements. Program codes can be used to classify your data into categories such as Routine Monitoring, Excavated, Air Samples, and Hydraulic Tests. Program Codes are used in both the Hydrology and Chemistry modules. To define a Program Code, select Shared - Program Codes.

Project – refers to a facility location. A project may contain multiple areas of contamination (e.g. SWMUs, Areas of Concern). Each project must have a specific folder (e.g., m:\lovecanal) which contains all the files and data for this project.

Project Archive – see *Archive*.

Project Directory/Folder – is a windows directory that stores all the data for a particular *project* (e.g., c:\DemoProj). This directory can be on a network or local computer.

RCL – Reporting Constituent List. See *Reporting List*.

Reindex (database) - a FoxPro command that sorts the data in existing tables. To reindex, select 'Project' - 'Reindex' from the *Scout Project Manager*.

Replace (LabBuild) - command to edit values in a field (column). The command is used to replace values in a particular "Field", with values in the "With" box, whenever the "For" condition is true.

Reporting Lists or Reporting Constituent Lists (RCL) - Reporting Lists are used to create a user-defined list of constituents for tables and reports. The user can specify the sequence of the constituents, the constituent alias name, and the concentration units.

Result – for a given *sample* and *test*, the result represents the concentration of a particular compound. A result is uniquely identified by the CAS Number. You only need to input "detectable" concentrations. GIS\Key assumes that a blank concentration is non-detectable at either limit 1 or limit 2. See also *Primary Result*.

Result Sets - A set of results that represents a specific run by the laboratory (e.g., at a specific dilution). For example, a laboratory's first run may contain concentrations outside the range of the instrument. The laboratory will then dilute the sample and reanalyze. GIS\Key can store each of the result sets and the "official result set". The "official result set" will be a combination of all the result sets (runs by the lab). The "official result set" is always result set 1, regardless of the existence of multiple result sets. Each individual result set (laboratory run) will be entered as result set numbers 2 through 9.

Review Codes - Defines review or validation qualifiers. CLP (Contract Laboratory Program) review codes are laboratory qualifiers. Expert review codes are user-defined qualifiers (e.g., provided by an expert data validator).

Rinsate Blank (a.k.a., Equipment Blank) - sample of clean water passed through sampling equipment. Provides data for determining cleanliness. In GIS\Key rinsate blanks are linked to *primary results* by the sample delivery group identifier ("SDG ID").

Sample – a physical sample (water or soil) taken in the field and submitted to a laboratory for testing. A sample is uniquely defined by:

- *matrix* (soil or water)
- site id
- sample date



GLOSSARY OF TERMS

- sample time
- sample depth.

Scout – The software component of GIS\Key that resides on each machine. The Scout software allows the user to select a specific *project*, access different portions of the program, and query the data. Scout must be installed on each computer (e.g., c:\scout), regardless of whether it is a *network* or *standalone configuration*.

Scout Project Manger – main interface for running all GIS\Key software. The Scout Project Manager is used to select projects, start the Scout Reporting Tools, open the database, or open an AutoCAD drawing.

Scout Reporting Tool – software for querying data and generating a particular output (e.g. tables, graphs).

Screen Intervals (database) – depth information for the screened (slotted) casing.

Site (a.k.a. Sample Sites) – refers to a borehole location (e.g., MW-01, EB-58). Each site must be assigned a unique Site Id used for querying, but can have up to 26 *site aliases*.

Site Alias - different names for a *site*. GIS\Key allows a user to select a certain class of site aliases (e.g., site names required by EPA) to be displayed on outputs.

Site Groups – A user-defined group of *sites* used for querying (e.g. SHALLOW).

Soil Unit (database) - Two character code used to describe the soil type (e.g. USCS codes). For soil unit patterns to show up on drilling logs, a hatch pattern must exist in the acad.pat file (in the AutoCAD\support directory) whose name matches the name of the soil unit.

Split Sample - a second sample with the same definers as the primary *sample* (i.e., same matrix, Site Id, date, time, and depth), but sent to a different laboratory. Provides data for determining precision.

Standalone Install/Configuration – All the GIS\Key software is installed on one computer. Each standalone install will be completely independent (e.g., have an independent list of compounds and action levels). Standalone configurations typically run significantly faster than *network configurations*.

Statistics Module - an add-on module to *GIS\Key* that calculates statistical data for the selected *primary results*.

Surrogates - Known quantity of a chemical added to each *sample*. Provides data for determining accuracy and precision.

Test - an analytical method performed on a *sample*. For a given *sample*, a test is uniquely defined by:

- laboratory (e.g., ACME).
- analytical method (e.g. 8260, 8270).
- *preparation fraction* (e.g., Total, Dissolved, TCLP).

For example: on Sample A, ACME laboratory ran EPA Method 6010 for the dissolved fraction of metals.

Travel Blank – see *Trip Blank*.

Trip Blank (a.k.a., Travel Blank) - sample of clean water that travels with the *samples* to labs. Provides data for determining cleanliness. In GIS\Key, trip blanks are linked to *primary results* by the custody id ("Custody").

Warnings (LabBuild) – records that may have an error, but can be imported.

Well Attributes (database) – GIS\Key can store hydraulic conductivity and specific yield data for a well.

Zone Descriptions - A "Zone" is a one character code that defines a water bearing zone. "Zone A" usually represents the shallowest water bearing zone.