# IQ-LOGGER Conventions

- The following conventions are used for the IQ-LOGGER. Users can confirm that dip and dip directions are correctly calculated by either measuring the core manually in an orientation frame (aka rocket launcher) or entering the alpha and beta angles into a software package such as GeoCalculator.

- *Hole Dip:* Measured from the horizontal plane with negative values downwards, for example -90° is a vertical hole

- *Hole Azimuth:* 0°-360° from True North.

- *Alpha Angle (α):* The acute angle between the long core axis and the long axis of the ellipse plane. (0°-90°).

- *Beta Angle (β) :* The angle between the orientation reference line on the core and the bottom of the ellipse looking down hole, measured in a clockwise sense (0°-360°).
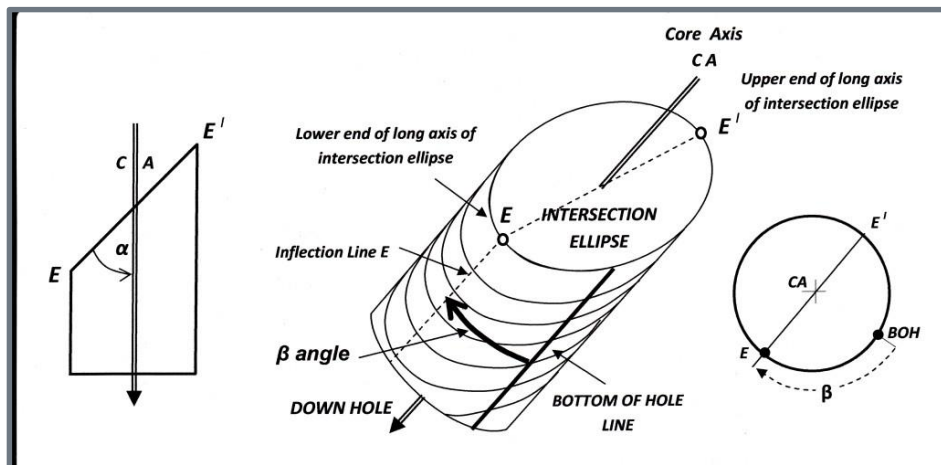

Alpha and Beta Angle relationships.

From http://rogermarjoribanks.com/measuring-structures-oriented-core/# accessed September 2016

- *Dip Direction:* Direction of the dip of the plane relative to true north (0°-360°).

IQ-LOGGER Conventions

- ***Gamma Angle (γ):*** For a lineation lying on a plane and passing through the centre of the ellipse. Measured clockwise from the orientation line to the first intercept of the lineation with the core surface. (0°-180°). Angle 1 in the figure below.

After: Marjoribanks R. 2010, Geological Methods in Mineral Exploration and Mining 2nd ed.
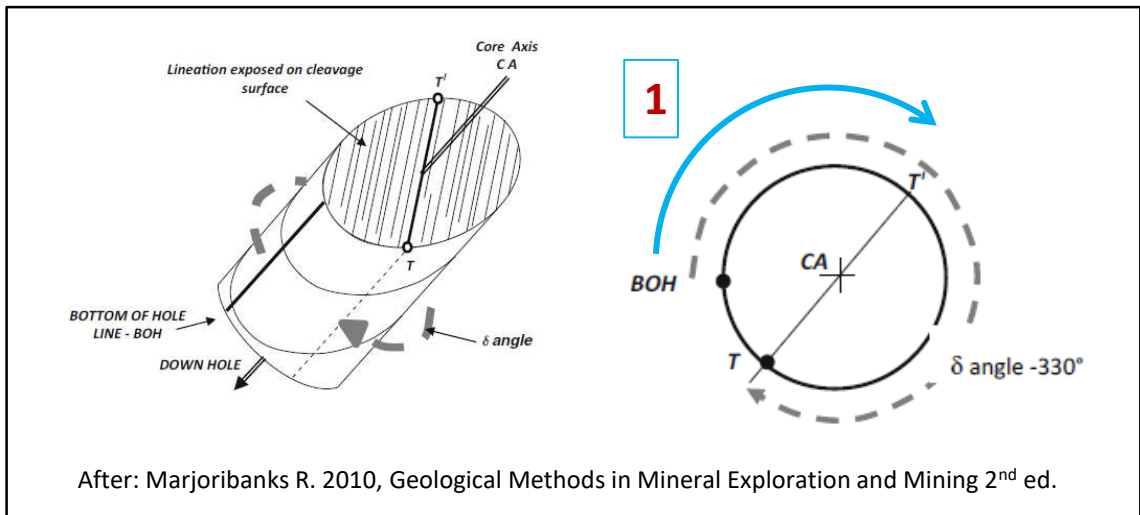
- When the feature type is a lineation, the plunge and plunge direction of the lineation are recorded in the dip and dip direction fields respectively. When plotted on a stereonet the Lineation point/s should fall on the great circle of the plane, if correctly measured.