

Redefining Drill Core data analysis

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Many geologists know what it's like to wait weeks or months for structural data that has been collected in the field. Worst still is if you are not confident the data you are relying on has the integrity required for you to make those significant mine planning and modelling decisions.

Currently, collecting structural measurements on drill core is a time consuming, manual task, where errors can easily occur. The laborious process of collecting data in the field for many hasn't caught up with the available digital processes that now make this process simple, easy to do and overcomes all those challenges and risks resulting in you questioning the validity of your data.

Then for some, we have the processing and plotting of the data which is a separate process occurring back in the office, which is also manual and time consuming and may occur weeks or even months after the readings are collected. Imagine if this now became a real-time instant process, saving you time and money?

REFLEX saw this need and developed an end-to-end solution for structural logging and the REFLEX IQ-LOGGER is an important component in this solution. The IQ-LOGGER fundamentally changes the approach to drill core analysis. This new device has had an overwhelming positive market response as trial units were rolled-out across the globe.

The new technology aims to change ingrained habits of how geologists collect structural readings, which sounds ambitious but is happening. What was once a timely and onerous task, the IQ-LOGGER's laser protractor allows the user to collect structural readings from diamond drill core without it having to leave the core tray.

In essence the new IQ-LOGGER negates the excessive time required for logging, while the digital transfer of logging data provides a reliable digital audit train. The real-time QA capability via immediate Stereonet prejection, ensures readings are accurate and reliable.

The release of the IQ-LOGGER prototypes into the market earlier this year brought a swift reaction from geologists who applied the new system to vital drill core structural logging.

Terralogic Exploration Incorporated's, Chris Gallagher reported that the IQ-LOGGER "has allowed us to collect literally 10-times the structural data over traditional measurement systems and at a much higher quality".

"The new IQ-LOGGER immediately became an integral part of our daily oriented core analysis and QAQC procedures due to its ease of use, precision, and rapid visual feedback via dynamic stereonet analysis."

"In my opinion, it is an essential tool for any drill based structural study," Gallagher said.

The market response has been overwhelming, spurring the creator behind REFLEX's products, Imdex to fast track advancements of the prototype product.

"With client endorsements like this we are very excited to get more units in the field across our global footprint. We are now aiming to have hundreds in the market over the next six months," stated Michelle Carey, Global Manager, Integrated Solutions for REFLEX.

"Also most encouragingly for me is the interest we've received for the end-to-end Structural geology solution, where the IQ-LOGGER and the IMDEXHUB-IQ sit at the heart of our end-to-end solution for structural geology.

The award winning cloud-based IMDEXHUB-IQ stores core orientation quality control data obtained from the REFLEX ACT core orientation tool, survey measurement data from REFLEX's leading survey instrumentation, and structural data from the REFLEX IQ-Logger.

"People get pretty excited when we show them how we have achieved this with our tools in the IMDEXHUB-IQ. It becomes obvious this is such a massive time saver to be able to do that automatically rather than having to smash files together in excel."

Carey is expecting geologists to start asking more questions about the quality of critical orientation data. She has already run a webinar on 'The Future of Structural Data Collection and Interpretation' and expects the demand for more to increase. This recording of this webinar is available on our website for anyone to listen to.

Imdex, the company behind REFLEX Instruments believes the future of mining is about automation, collaboration and real-time information. Imdex has continued to invest in its technology development which has assisted it to retain its first-leader advantage in many of these areas. They have moved from the past of being focused on providing technology, equipment and fluids to offering end-to-end solutions for their key markets of: Downhole Navigation, Structural Geology, Infield Geo-analysis, Driller Operable Geophysics and Drilling Optimization. Each has the award-winning cloud-based IMDEXHUB-IQ at the heart of the solution offering real-time, secure data access benefits from data in the field.



Image: Terralogic Exploration says implementing the IQLogger into their workflow has allowed it to "collect 10-times the structural data...at much higher quality".

If you are interested in learning more about the product and solutions see some of our videos here:

IQ-LOGGER - <https://youtu.be/G89aw7TxsSc>

REFLEXHUB-IQ - <https://youtu.be/6izbmJldF8U>

Webinar: The Future of Structural Data Collection and Interpretation - <https://youtu.be/YFPbM-Pf3V4>