

Data Gathering and Sharing via Advanced WITSML Protocol

GeoWITSML service aggregates multiple data sets at the rig site ranging from surface logging, LWD, and MWD into a single set. The information is then transmitted to the final user (locally or remotely) via a WITSML (Wellsite Information Transfer Standard Markup Language) interface. Client data is then easily accessible using their own client application, helping them to make critical decisions affecting drilling and evaluation.

Benefits

- Simplified data access
- Aggregated Real-Time data
- No extra applications required

- Independent data reporting for integrated projects
- Compatible with third party data
- Early decision making by utilizing all data sets
- Access geological information for bit performance analysis in real-time

Challenges and Solutions

Being able to monitor multiple data sets from various service companies during a single drilling operation can be challenging, let alone from multiple drilling rigs. It often involves the use of many different third party applications.

By utilizing the GeoWITSML service an operator can have access to all real-time data through a single access point. GEOLOG takes care of the integration of third party data so the end user can concentrate on assessing the information for rapid decision making.

Future well planning and identification of areas of improvement for the next well in a drilling campaign often takes place during a post well analysis. Only after all data sets are available for analysis can this be done.

The Real-Time data aggregation of the GeoWITSML service allows operators to implement lessons learned from current well to the next well in the program by analyzing all data from a single source.

Applications

The GeoWITSML service is compatible with third party providers of WITS data. Implementation available for both onshore and offshore drilling environments.

GEOLOG can customize the service to provide on-site solution at the unit or as an external solution in a data center.





Figure 1. Schematic of the solution provided for the client. All WITS data collected through our unit on location, sent to our WITSML server with 24/7 support and then transmitted to client office for analysis.

A major global operator wanted to have GEOLOG aggregate data from MWD, LWD, CEM, and MPD service providers to a single datastore that could then provide all data in WITSML to their company data storage. This task is complicated to ensure compatibility with all 3rd party service companies. Specific custom requirements by the client were asked for: customized mnemonics, customized unit of measures, name of the well/wellbore, lithology codes, and external datastore.

As a result of GEOLOG's 24/7 support and flexible real-time solutions our GeoWITSML service was the only service that could be customized to meet these specific requirements. In the end the customer was able to access data from multiple wells through a single datastore, all while providing data reliability, compatibility and be the single provider to the end users.

Specifications

Protocol	WITSML v 1.3.1 and 1.3.1.1 (API 1.3.1)
Frequency	Up to 1 second (time based data) 0.25 m (Depth based data)
3rd Party Compatibility	Kongsberg, Halliburton, Petrolink, Baker, Verdand, Schlumberger Interact

GEOLOG around the World

