



DIVERSIFIED

WELL LOGGING, LLC

Surface Measurement While Drilling™

Mass Spectrometry

Applications and Benefits:

- Bit wear and/or failure prediction
- Motor wear and/or failure prediction
- GOR variability identification
- Porosity variability indicators
- Permeability variability indicators
- Secondary permeability mapping
- Depletion insight from fault proximity and/or offset production
- Fluid compartment boundaries
- Fluid composition analysis
- High-confidence H2S identification
- H2S mitigation insights
- Water saturation guidance
- Sweet spot identification

More Information Contact DWL:

info@dwl-usa.com

711 West 10th Street
Reserve
Louisiana
70084

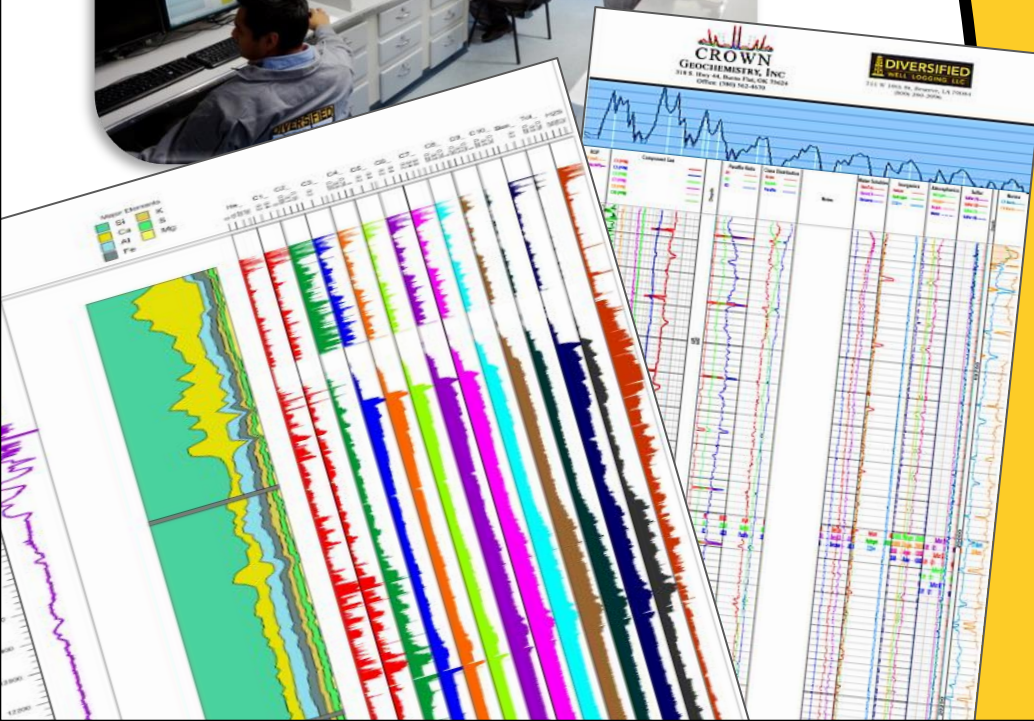
1-800-280-2096



Through the use of realtime mass spectrometry **Diversified Well Logging** will provide Operators a far more **precise understanding** of the nature of the drilled formations and downhole environment. This improved knowledge will translate into **economic benefits** in drilling, completion and production.

Among its many benefits in formation/reservoir evaluation mass spectrometry will give insights into **petroleum type and quality** - distinguishing between oil and gas, indicating wetness, allowing **finger-printing** of hydrocarbons in stacked reservoirs, and aids in the **identification** of **undesirable gases** such as H2S.

When **Cuttings Chemistry** is added, DWL delivers a truly powerful geological service with **high value** but **low cost**.



Surface Measurement While Drilling (SMWD)



OUR SMWD SERVICE FAMILY

Hybrid Mud Logging

- Integrated elemental and gas analysis
- Modelled mineralogy, lithology
- Fifty samples per day analyzed
- Two daily reports

Automated Remote Mud Logging

- Hi-definition sample collection
- Remote sample observation
- Auto-packaged for geochem

Advanced Gas Service

- Gas quality control and analysis
- Mass spectrometry
- Isotube collection

Chemosteering

- Pre-drill chemostratigraphic studies
- Elemental GR for depth tracking and sample QA/QC
- Remote & Wellsite Chemosteering
- Post well analysis including modeling mineralogy, TOC, rock mechanical properties, sedimentology, provenance and depositional environment
- Post well chemostratigraphic correlation and integration into geological models