

The Importance of Quantified Mineralogy at the Wellsite - a New Frontier



## Quantified Mineralogy Utilising FTIR Technology

The team at Ana-min brings to the oil and gas industry a genuinely unique, unmatched, quantitative mineralogical wellsite analysis technology called GeoMin<sup>TM</sup>. This allows for a quantitative mineralogical profile to be created while drilling and compared with mineralogical profiles of offset wells, utilising the same consistent quantitative methodology.

This technology has the sophistication to deliver accurate, reliable quantitative mineralogical profiles efficiently and cost effectively during the drilling process without the need for expensive laboratory based analytical services.

The wellsite unit delivers unsurpassed value while taking up a relatively small area in the mud logging unit (less than 0.25m<sub>2</sub>). Companies can analyse samples while drilling to produce *quantitative mineralogy* and calculated brittleness.

The technology is such a significant change to industry practice that it is fast becoming recognised as an essential wellsite service.

The truly portable and safe (no x-rays or chemicals) wellsite unit offers significant benefits to drilling decisions, minimising or avoiding impacts on drilling costs and improving operational efficiency. The valuable data provided by the GeoMin™ service delivers information that allows for critical decisions to be made about:

- formation damage;
- mineralogical models for log interpretation;
- reservoir porosity, permeability, wettability and fluid saturations;
- geomechanical properties;
- provenance and correlation;
- · completion configuration; and
- CO, geosequestration.

This offers visibility, certainty and value to the decision making process whilst drilling, based on a clear understanding of the quantified well mineralogy.





## GeoMin™ is *Unparalleled* Standalone Technology

## COMPARATIVE TECHNOLOGIES

The GeoMin<sup>TM</sup> mineralogical service delivered by Ana-Min stands alone in its delivery of comprehensive quantitative mineralogy.

Additionally, related technologies such as SEM-EDS, XRD and XRF do not compare to the efficiencies and cost effectiveness of GeoMin™ analysis when considering:

- comparatively small rig footprint of GeoMin™;
- rapid turnaround of a comprehensive dataset;
- safety of the technology;
- simplicity of operation; and
- · accuracy and reliability of the information delivered.

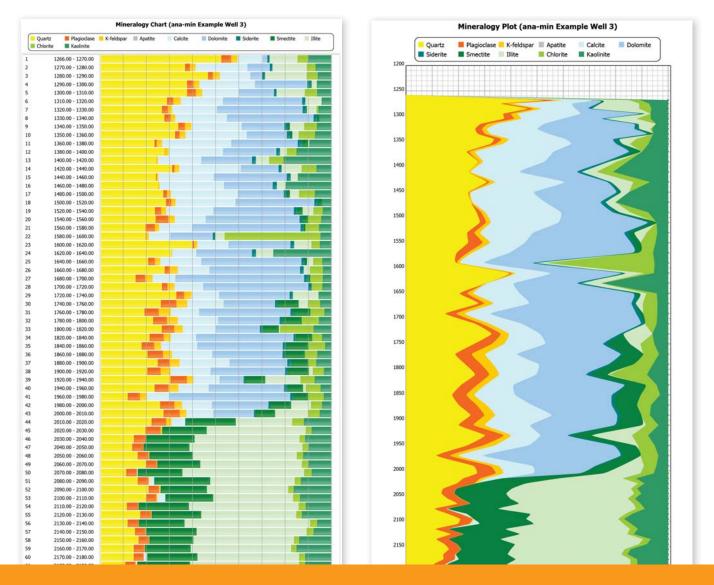
## COST EFFECTIVENESS

In the cost sensitive environment of well budgets, GeoMin™ wellsite analysis presents a low cost - high value critical data gathering service, characterised by:

- Unmatched high value data delivery;
- Reduction in drilling problems and risks;
- Small rig footprint;
- Safe, portable equipment, reducing mobilisation burden;
- Comparatively low rental rates when measured against less comprehensive technologies;
- Reduces delays in data delivery, allowing for confidence in decisions and risk mitigation while drilling;
- Same technology used for pre-well analysis and interpretation at the rig, ensuring consistency and reliability;
- Confidence derived from accurate mineralogical models to assist with log interpretation.

The system is lightweight and portable (weighing approximately 20kg) and easily transported.





GeoMin<sup>™</sup> - the most innovative technology to be delivered to industry in the geological sphere in over 30 years.

