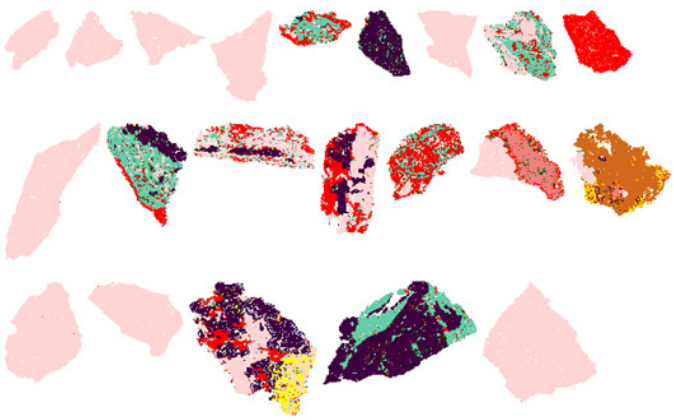
Rock Properties Division

AGAT Laboratories

Drill Cuttings

Drill cuttings are an often overlooked but valuable resource for prospecting and reservoir analyses. While core is an excellent tool used for targeting specific formations and zones, it can be difficult to justify the cost, particularly in new areas of exploration. Cuttings are abundant and readily available in most areas. Historically, cuttings have been viewed as a means to understand stratigraphic positioning while drilling; they also hold information that opens the door to providing a deeper understanding of the reservoir.

AGAT Laboratories has developed unique testing protocols to extract the specific details of the subsurface. From understanding thermal maturity, mineralogy and depositional setting to characterizing the mechanical properties, cuttings provide the opportunity to create high density profiles of the wellbore at a fraction of the cost of core.



Data Extraction

- Imaging by thin section, SEM and QEMScan
- Thermal maturity through source rock analysis and vitrinite reflectance
- Grain density
- Pore size distribution and capillary pressure data by mercury injection
- Mineralogy by X-ray diffraction and X-ray fluorescence
- Particle size distribution by laser diffractometry
- Complete well profiling or multi-well profiling for regional understanding
- Chemostratigraphic profiling
- Well log response correlation and synthetic gamma generation
- Depositional setting and redox conditions through elemental proxy modeling
- Mechanical and petrophysical properties profiling through elemental and mineralogical modeling
- Evaluation of hydrocarbon compositions in wells drilled with water based mud systems
- Porosity and pore size distribution by mercury injection capillary pressure (MICP) testing