

AET RESEARCH AND DEVELOPMENT CAPABILITIES

The Innovation Center has 7500 square feet dedicated to high end chemistry capabilities for reaction testing and analysis, performance testing equipment specific to energy needs, and analytical instruments dedicated to both basic analysis and challenges from our customers. The table below is a partial list of instrumentation and capabilities.

Core Chemistry Tools	Performance Testing Equipment	Water Analysis Instruments
HT Reaction Glassware	Analytical Rheometer (multiple uses)	ICP-OES (salt content)
Lipholizer	HPHT Viscometer (thick fluids)	Karl-Fischer Titration (water)
High shear mixing	HPHT Rheometer (multiple uses)	UV-Vis Spectrophotometer (organic impurities)
Distillation	Viscometers (multiple uses)	Conductivity (TDS)
Precision Dosing	Dynamic Fluid Loss (Cw and spurt)	Titration
LT Heat Testing	Fluid Loss (Cw and spurt)	pH
HT Reaction Heater	Gel Permeation Chromatography (Polymers)	Colorimeter
Closed Atmosphere Stirring	Lubrisometer (Lubricants)	Melting Point Apparatus (purity)
Fume Hoods	IFT-Rheology Cell (Surfactants)	Flash Point Testing (DOT and HSE)
HT Drying	Tribology-Rheology Cell (Lubricants)	
Precision Mass Balance	Soxhlet Extraction (SARA)	
HT Heat Testing	Amott Cells (imbibition)	
Solids Separation	Flow Loop (FRs)	
Non-contact High Energy Mixing	Du Nouy Ring (Surfactants)	
Microscopes	Goniometer (surfactants)	
Dynamic Dosing Equipment	Cold Finger System (Paraffin/Asphaltene)	