

Jeramie J. Adams, Ph.D.
Program Manager of Hydrocarbons
Asphalt and Petroleum Technology



Jeramie Adams obtained his PhD in Chemistry from the University of Wyoming (UW) in 2008, and continued there for the next four years as a postdoctoral researcher on the development of homogenous organometallic catalysts and highly oxidizing excited state photoactive materials. During his time at UW he also explored supramolecular chemistry, inorganic photochemistry, in-depth organo-phosphorous chemistry, dehydrogenation of alkanes, hydrosilylation and olefin polymerization.

Dr. Adams joined WRI in 2012 and has managed a variety of industry lead initiatives, commercial projects and Federal projects including the Heavy Oil Research Consortium, the Processing Improvement of Problematic Crudes research consortium, the Asphalt Industry Research Consortium and most recently the DOE project Consortium for Affordable Carbon Fibers in the US. Many projects emphasize the relationship between chemistry and physical properties or other phenomena. Other areas of active research include chemical characterization of hydrocarbons including coal extracts, crude oils, waxes, asphaltenes, pyrolyzed asphaltenes, interfacial asphaltenes, asphalts and pitch materials; modulation of crude oil emulsions; asphaltene adsorption; treatment of waxy crude oils; chemical modification of oxygen functional groups in petroleum, coal and biomass; conversion of isotropic coal tar pitch and petroleum pitch to anisotropic mesophase for carbon fibers; heat exchanger fouling; coking; co-processing of materials under approximate delayed coker conditions; partial upgrading; extraction of liquids from coals; advanced carbon materials; atmospheric to high vacuum distillations; and producing new rejuvenators, PG performance enhancers and antioxidant products for the asphalt industry through chemical synthesis.