

Barbara Goodrich
Manager, Engine Fluids
John Deere Product Engineering Center

Barb has over 20 years engineering experience in the petroleum and engine industries. Her key experience includes positions at BP, Octel, Southwest Research Institute (SwRI) and the Army Materiel Systems Analysis Activity (AMSAA).

At AMSAA, she was the leader and coordinator of the combustion methodology team which developed a vulnerability model for use in assessing whether the use of fire-resistant fuel (water-in-fuel emulsion) in the battlefield theater would reduce personnel and military vehicle casualties.

During her nine plus years as a Senior Research Engineer at SwRI, she worked as a project manager in automotive emissions, engine lubricants and fuels, and the petroleum products research areas. She was the co-principal investigator on a multi-client consortium project investigating lube oil contribution to particulate and its effect on aftertreatment devices. Project deliverables were several methods to quantify lube oil contribution to particulate matter (PM) and a method for measuring oil consumption under transient conditions. She chaired the two Heavy-Duty Engine Oil Classification Panel (HDEOCP) task forces that developed the viscosity and soot measurement methods used in the MACK T-8 engine oil test and subsequent heavy-duty engine oil tests, where soot-laden oil is a concern. In addition, she was the project manager for the Cummins L10 Injector Depositing Test (L10-IDT) and the International Truck HEUI Engine Oil Aeration Test (EOAT) and Shear Test.

At both BP and Octel, she had diesel fuel additive package formulation responsibilities. At BP, she also monitored state, federal and OEM status of alternative fuels such as biodiesel. In addition, she oversaw testing of biodiesel blends including cold flow, storage stability and emissions evaluations, and determination of blend concentrations using Beer's Law.

Barb joined John Deere two months ago as Manager, Engine Fluids. She has oversight of liquid fuels, lubricants and coolants. Her current focus is on biodiesel.

Barb received a B.S. in Mechanical Engineering and an M.S. in Chemical Engineering from Michigan State University.