

## Community Fuels Teams with Alternative Petroleum Technologies on Project to Reduce Biodiesel NOx Emissions

Community Fuels biodiesel will be used exclusively by Alternative Petroleum Technologies in a demonstration at the Port of Los Angeles of technology developed to eliminate the increase in NOx emissions associated with biodiesel.

Encinitas, California, August 23, 2010 — Alternative Petroleum Technologies (APT) has developed an emulsified biodiesel fuel (a proprietary blend of water, a surfactant additive and biodiesel) that eliminates the increased emissions of nitrogen oxides (NOx) associated with biodiesel use. This technology has been used in both on-road and offroad diesel engines to prove the NOx mitigation benefit of emulsified biodiesel blends relative to conventional biodiesel. APT chose to use exclusively biodiesel produced by Community Fuels in a demonstration of their technology at the Port of Los Angeles. The exceptionally high quality and consistency of the Community Fuels biodiesel will be critical for ensuring the accuracy and precision of this demonstration. The APT emulsified biodiesel fuel has reduced NOx emissions over a wide range of biodiesel blend levels. At the B20 blend level (20% biodiesel, 80% petroleum diesel), NOx emissions from the emulsified biodiesel were 4.9% lower compared to conventional biodiesel and only 0.6% higher compared to 100% ULSD, effectively mitigating the NOx increase associated with biodiesel. In addition, emissions of particulate matter and hydrocarbons were also significantly lower for the emulsified biodiesel relative to conventional biodiesel and ULSD.

The potential for increased NOx emissions has emerged as an issue of concern associated with the use of biodiesel. While the use of biodiesel reduces emissions of greenhouse gases, carbon monoxide, sulfates, particulates, and hydrocarbons relative to petroleum diesel, NOx emissions can increase. A report titled "Comprehensive Analysis of Biodiesel Impacts" published by the EPA in 2002 documented increases of NOx emissions from 2% to 15% resulting from biodiesel use, depending on the source of the biodiesel and engine operating conditions. NOx emissions, which contribute to the formation of ground-level ozone ("smog") and are linked with a number of adverse effects on the respiratory system, are classified as a "criteria air pollutant" by the EPA.

Lisa Mortenson, CEO of Community Fuels, said, "The issue of NOx emissions will become more problematic as biodiesel use continues to grow. The emulsified biodiesel fuel technology will allow for the use of biodiesel as a strategy for meeting the California Low Carbon Fuel Standard emission reduction targets while also mitigating the NOx impact". Bill Hagstrand, Vice President of APT, said, "This technology is viable in older engines as well as newer engines, both on-road and off-road, and with varying percentage biodiesel blends. As a result, the technology has a broad applicability in today's biodiesel environment and engine population".

## ABOUT COMMUNITY FUELS:

American Biodiesel, Inc. does business as Community Fuels and is committed to quality, innovation and operational excellence in biodiesel production and biodiesel-related research. The company's state-ofthe-art biodiesel production and research facility is located at the Port of Stockton, California. In addition to its commercial production, Community Fuels has multiple research projects in process to develop innovative feedstocks and transformative technologies to reduce the cost and increase the sustainability of biodiesel production. You can learn more about Community Fuels at <u>www.communityfuels.com</u>.

## ABOUT ALTERNATIVE PETROLEUM TECHNOLOGIES:

Alternative Petroleum Technology (APT) is an environmental technology company dedicated to comprehensive cost-effective solutions to environmental problems. We offer technologies and expertise to help operators of compression-ignition engines and industrial boilers meet increasingly stringent emissions requirements. We are developing new ways to help international power plant operators meet the constantly growing demand for electricity with heavier oil products that are made to burn cleanly, more efficiently and economically. Additionally, we are meeting the challenge of providing even cleaner combusting biodiesel fuels with new generations of emulsified fuels. You can learn more about Alternative Petroleum Technologies at <u>www.altpetrol.com</u>.