



## NEWS

FOR IMMEDIATE RELEASE

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### **Indiana Beans Pass the Permaflo Cold Test in Alaska Morristown, IN – Integrity Biofuels**

Integrity Biofuels is proud to be part of a joint effort with the Indiana Soybean Alliance and Purdue University using Indiana Soybeans to create Permaflo Biodiesel. Permaflo is a biodiesel further refined to separate saturated from unsaturated methyl esters. Unsaturated methyl esters have a lower cloud point. This eliminates the problem of biodiesel freezing up and clogging fuel filters in low temperatures. This cold weather trait traditionally has been a challenge for biodiesel users in cold climates.

Permaflo technology was developed at Purdue University through funding from the Indiana Soybean Alliance (ISA). ISA intends to license the process and make it available to biodiesel producers in the near future. Integrity Biofuels was tasked with taking the university theory from the laboratory to the production floor. The team at Integrity put the theory to the test, adapted the process to commercial scale, and after four months produced several thousand gallons of the finished product. 250 gallons were shipped to Alaska to be tested in the coldest temperatures in North America. The 1,300 mile round-trip from Anchorage to the Artic Circle was the perfect field test of the new biodiesel refining technology. In a combined effort with the University of Alaska Fairbanks, representatives from Indiana Soybean Alliance, Purdue University, and Integrity Biofuels made the journey north to push the fuel to the limit. All testing was successful. The B100 pure biodiesel operated a bus, a pickup, and a generator in temperatures as low as negative 24 degrees Fahrenheit without issues of any freezing or clogging of fuel lines or filters.

“This is a major breakthrough for biodiesel. The fuel ran perfect in the frigid temperatures we tested it in. This technology has proven it can drastically lower

the cloud point of biodiesel and eliminate that potential problem with the fuel”  
said John Whittington, Vice-President of Integrity Biofuels.

For more images, and day to day accounts of the trip please visit  
[www.integritybiofuels.com](http://www.integritybiofuels.com)



Photo on the left courtesy of Indiana Soybean Alliance: Mike Yoder, Doug Morrow, Trevor Glick, Dr. Bernie Tao, John Whittington and Dr. Andy Soria stand by the pickup truck running on B100 Permaflo Biodiesel. The truck was filled by an unheated tote outside in 20 degree F temperatures.

Photo on the right courtesy of Indiana Soybean Alliance: John Whittington stands next to a tote of Permaflo Biodiesel sitting out in the elements of the Alaskan winter! The tote was shipped from Indiana in late February and arrived in Anchorage 8 days later. The fuel was used to power 2 University of Alaska vehicles for several days and a stationary generator overnight at the Arctic Circle.



**Integrity Biofuels**  
**Dedicated to Producing Premium Renewable Fuel**  
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