



Laboratory Analysis Report

Date Printed: 2/20/2009

Report To:

Submitted By:

cc:

Sample ID: KS09020834 Type of Sample: Biodiesel
Sample Date: 02/13/2009 Sample Point:
Sample Description: Biodiesel
Sample Notes:

<u>Method</u>	<u>Results</u>
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D 6584-08 - Free and Total Glycerin in B-100	
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0.000 mass % Free Glycerin
0.290 mass % Monoglyceride
0.100 mass % Diglyceride
0.114 mass % Triglyceride
0.102 mass % Tot. Glycerin

D 93-08 - Flash-Point by Pensky-Martens Closed Cup Tester	
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171 °C

D 2709-06 - Water and Sediment	
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.01 vol. %

D 445-06 - Kinematic Viscosity	
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4.081 cSt @ 40°C

D 874-07 - Sulfated Ash	
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0.000 mass %

D 130-04 - Copper Corrosion	
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1a

D 613-08 - Cetane Number	
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47.6

D 524-04 - Carbon Residue, Ramsbottom	
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0.048 % Carbon Residue

D 664-07 - Acid Number of Petroleum Products by Potentiometric Titration	
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0.47 mg KOH/gram

D 4951-06 - Phosphorous by ICP	
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<0.0001 mass %

Method **Results****D 1160-06 - Distillation at Reduced Press.****Reported in Atmospheric Equivalent Temperatures (AET)**

10 mm Hg
305 °C IBP AET
346 °C 5% Rec. AET
348 °C 10% Rec. AET
348 °C 20% Rec. AET
349 °C 30% Rec. AET
349 °C 40% Rec. AET
350 °C 50% Rec. AET
351 °C 60% Rec. AET
352 °C 70% Rec. AET
354 °C 80% Rec. AET
355 °C 90% Rec. AET
355 °C 95% Rec. AET
399 °C FBP AET
99.0 Vol. %
1.0 Vol. %

D 5453-08b - Total Sulfur by Ultraviolet Fluorescence

0.00019 mass % Sulfur

EN14112-03 - Rancimat @ 110°C**Oxidation Stability**

5.78 Hrs.

EN14538-07 - Elements by ICP**Calcium. Potassium. Magnesium. and Sodium**

<1 Ca ppm ($\mu\text{g/g}$)
<1 K ppm ($\mu\text{g/g}$)
<1 Mg ppm ($\mu\text{g/g}$)
<1 Na ppm ($\mu\text{g/g}$)
<2 Ca + Mg ppm ($\mu\text{g/g}$)
<2 Na + K ppm ($\mu\text{g/g}$)

D 5773 - Cloud Point

34 °F

D 6751-08 A1 - Determination of Fuel Filter Blocking Potential**By Cold Soak Laboratory Filtration**

16 hr
23.0 in Hg
91 sec
mL



2/20/2009

Tests performed meet ASTM D 6751 specifications.



DEPARTMENT of AGRICULTURE
STATE OF MISSOURI
JEFFERSON CITY

JEREMIAH W. (JAY) NIXON
GOVERNOR

DR. JON HAGLER
DIRECTOR

February 19, 2009

*Serving, promoting and protecting the agricultural producers, processors
and consumers of Missouri's food, fuel and fiber products.*

OFFICIAL TEST REPORT

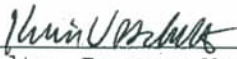
The sample(s) listed below were submitted to our laboratory for testing and were found to meet Missouri's requirements on the following test.

SAMPLE NUMBER	DATE SAMPLED	SAMPLE ID	DISTILLATION TEMPERATURE (Degrees Fahrenheit)					VAPOR PRESS (psi)	FLASH PT. (°F)	SPEC GRAV (°F)	CETNE D4737 (°F)	CLOUD D445 (%)	KIN. VISC (%)	ALCOHOL & SED (%)	WATER SULFR (%)	LEAD q/gal	SAYBT COLOR D156	OCTANE (R+M)/2
			IBP	10%	50%	90%	EP.											
780	02/13/09	B100						351	.8855		35.1			0	.0004			

Gasoline is reported as percent evaporated at 760 mmHg, all other products are reported as percent recovered at 760 mmHg.

A complete analysis may not have been performed on each sample. Columns containing no value means that particular test was not performed on that particular sample, therefore the sample may or may not meet state requirements.

Glycerin: free glycerin = 0.000%, total glycerin = 0.091%


Kevin Upschulte, Program Manager
Fuel Quality Program
573-751-2922