MAGELLAN™
MIDSTREAM PARTNERS, L.P.

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:

Method	Results
D 6584-08 - Free and Total Glycerin in B-100	
	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	
	171 °C
D 2709-06 - Water and Sediment	
	.01 vol. %
D 445-06 - Kinematic Viscosity	
	4.081 cSt @ 40°C
D 874-07 - Sulfated Ash	
	0.000 mass %
D 130-04 - Copper Corrosion	
	1a
D 613-08 - Cetane Number	
	47.6
D 524-04 - Carbon Residue, Ramsbottom	
	0.048 % Carbon Residue
D 664-07 - Acid Number of Petroleum Products by Potentiometric Titration	
	0.47 mg KOH/gram
D 4951-06 - Phosphorous by ICP	
	<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 (µg/g)
	<1 K ppm (µg/g)
	<1 Mg ppm (µg/g)
	<1 Na ppm (µg/g)
	<2 Ca + Mg ppm (µg/g)
	<2 Na + K ppm (µg/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.

JEREMIAH W. (JAY) NIXON
GOVERNOR

DEPARTMENT *of* AGRICULTURE
STATE OF MISSOURI
JEFFERSON CITY
Serving, promoting and protecting the agricultural producers, processors and consumers of Missouri's food, fuel and fiber products.

DR. JON HAGLER
DIRECTOR

February 19, 2009

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	DATE	SAMPLE ID	DISTILLATION TEMPERATURE (Degrees Fahrenheit)						VAPOR PRESS	FLASH PT.	SPEC GRAV	CETNE INDEX	CLOUD POINT	KIN. VISC	ALCOHOL	WATER & SED	SULFR	LEAD	SAYBT COLOR	OCTANE
NUMBER	SAMPLED	PROD(OCT)	IBP	10%	50%	90%	EP.	RES	(psi)	(°F)	(°F)	D4737	(°F)	D445	(%)	(%)	(%)	g/gal	D156	(R+M)/2
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%

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