

Client Reference Number:

Job Location: Texoga, Safe Fuels  
Vessel: ST 1

Our Reference Number: US230-0066067

Lab Reference Number: 2011-DRPK-018374

Description	Method	Test	Result	Units	Spec Limit
<b>Biodiesel S/T 1 Equal UML Composite Before Load</b>					
2011-DRPK-018374-007	EN 14538	Group I Metals (Na + K)	< 1.0	mg/kg	Max 5.0
		Group II Metals (Ca + Mg)	< 1.0	mg/kg	Max 5.0
	ASTM D93	Procedure Used	C		
		Corrected Flash Point	168.0	°C	Min 130.0
	EN 14110	Methanol Content	0.01	%(m/m)	Max 0.20
	ASTM D2709	Sediment and Water	<0.005	Vol %	Max 0.050
	ASTM D445	Kinematic Viscosity @ 104 °F/ 40 °C	4.090	mm <sup>2</sup> /s	1.9 - 6.0
	ASTM D874	Sulfated Ash	< 0.005	Wt %	Max 0.020
	ASTM D5453	Sulfur Content	< 1.0	mg/kg	Max 15
	ASTM D130	Biodiesel-Cu Corrosion 50°C (122°F)/3 hr	1a		Max 3
	ASTM D613	Cetane Number	49.1		Min 47.0
	ASTM D2500	Cloud Point	-2	°C	
	ASTM D4530 MOD	Average Micro Method Carbon Residue (6751)	< 0.001	Wt %	Max 0.050
	ASTM D664	Procedure Used	B		
		Acid Number	0.14	mg KOH/g	Max 0.50
	ASTM D7501	Volume Filtered	300	ml	
		B100 CSFT Time	85	sec	
	ASTM D6584	Free Glycerin	< 0.005	Wt %	Max 0.020
		Monoglycerides	0.327	Wt %	
		Diglycerides	0.090	Wt %	
		Triglycerides	< 0.050	Wt %	
		Total Glycerin	0.102	Wt %	Max 0.240
	ASTM D4951	Phosphorus	< 1	ppm	Max 10
	ASTM D1160	IBP	334	°C	
		AET @ 5% Recovery	346	°C	
		AET @ 10% Recovery	347	°C	
		AET @ 20% Recovery	348	°C	
		AET @ 30% Recovery	348	°C	
		AET @ 40% Recovery	349	°C	
		AET @ 50% Recovery	350	°C	
		AET @ 60% Recovery	350	°C	
		AET @ 70% Recovery	351	°C	
		AET @ 80% Recovery	351	°C	
		AET @ 90% Recovery	352	°C	Max 360
		AET @ 95% Recovery	354	°C	
		FBP	360	°C	
		% Recovered	99.0	%	
		% Loss	0.0	%	
		% Residue	1.0	%	
		Cold Trap Volume	0.0	ml	
EN 15751	Oxidation Stability	7.2	h	Min 3.0	
	Test Temperature	110	°C		



## Report of Analysis

This report has been reviewed for accuracy, completeness, and comparison against specifications when available. The reported results are only representative of the samples submitted for testing and are subject to confirmation upon completion of the final report, which may contain warnings, exceptions and terms and conditions which are pertinent to the data supplied herein. It is the position of Intertek that the final report is the prevailing document, and that the use of interim documents by the client is at their own risk. This report shall not be reproduced except in full without written approval of the laboratory.

Signed: \_\_\_\_\_  
Intertek  
David Reece

Date: \_\_\_\_\_

Reviewed By: \_\_\_\_\_  
Jon Coffman  
Intertek

Date: 24-Dec-2011