



Report of Analysis

Client: Integrity Biofuels LLC	Client Reference Number:
Job Location: Morristown, IN, USA	None
Our Reference Number: US150-0017786	

Sample ID: 2009-CHGO-002139-001	Date Taken:
Sample Designated As: Biodiesel	Date Submitted: 21-August-2009
Vessel/Location: Morristown, IN	Date Tested: 25-August-2009
Representing: C0013T20081909	Drawn By: Client

Method	Test	Result	Units
ASTM D6751 A1 Proposed	Cold Soak Filterability of Biodiesel Blend Fuels		
	Volume Filtered	300	ml
	B100 Filtration Time	99	sec
EN 14538	Determination of Ca and Mg Content by ICP OES		
	Calcium Content	< 1.0	mg/kg
	Magnesium Content	< 1.0	mg/kg
	Potassium Content	< 1.0	mg/kg
ASTM D93	Sodium Content	<2.5	mg/kg
	Pensky-Martens Closed Cup Flash Point		
ASTM D2709	Procedure Used	A	
	Corrected Flash Point	126.5	°C
ASTM D445	Water and Sediment in Middle Distillate Fuels (Centrifuge Method)		
	Sediment and Water	<0.05	Vol %
ASTM D874	Kinematic / Dynamic Viscosity		
	Kinematic Viscosity @ 104 °F/ 40 °C	4.095	mm ² /s
ASTM D5453	Sulfated Ash from Lubricating Oils and Additives		
	Sulfated Ash	< 0.005	Wt %
ASTM D130	Determination of Total Sulfur in Light Hydrocarbons, Spark Ignition Engine Fuel, Diesel Engine Fuel, and Engine Oil by Ultraviolet Fluorescence.		
	Sulfur Content	<0.0001	Wt %
ASTM D 6890	Corrosion - Copper Strip		
	Biodiesel-Cu Corrosion 50°C (122°F)/3 hr	1a	
ASTM D5773	Determination of Ignition Delay (ID) and Derived Cetane Number (DCN)		
	Ignition Delay (ID)	4.12	ms
	Derived Cetane Number (DCN)	49.7	
	Average Charge Air Temperature	546.2	°C
ASTM D4530	Cloud Point (Constant Cooling Rate Method)		
	Automatic Cloud Point	1.6	°C
	Automatic Cloud Point	34.9	°F
ASTM D664	Micro Carbon Residue		
	Micro Method Carbon Residue	0.01	Wt %
ASTM D6584	Acid Number of Petroleum Products by Potentiometric Titration		
	Procedure Used	A	
	Acid Number	0.35	mg KOH/g
ASTM D6584	Determination of Free and Total Glycerin in B-100 Biodiesel Methyl Esters By Gas Chromatography		
	Free Glycerin	0.015	Wt %



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ASTM D6584	Determination of Free and Total Glycerin in B-100 Biodiesel Methyl Esters By Gas Chromatography		
	Monoglycerides	0.547	Wt %
	Diglycerides	0.052	Wt %
	Triglycerides	0.001	Wt %
	Total Glycerin	0.165	Wt %
ASTM D4951	Additive Elements in Lubricating Oils by ICP-AES		
	Phosphorus	<0.2	ppm
ASTM D1160	Distillation of Petroleum Products at Reduced Pressure		
	IBP	341	°C
	AET @ 5% Recovery	350	°C
	AET @ 10% Recovery	350	°C
	AET @ 20% Recovery	350	°C
	AET @ 30% Recovery	350	°C
	AET @ 40% Recovery	350	°C
	AET @ 50% Recovery	351	°C
	AET @ 60% Recovery	351	°C
	AET @ 70% Recovery	351	°C
	AET @ 80% Recovery	351	°C
	AET @ 90% Recovery	352	°C
	AET @ 95% Recovery	353	°C
	FBP	362	°C
	% Recovered	99.0	%
% Loss	0.0	%	
% Residue	1.0	%	
	Cold Trap Volume	0.0	ml
EN 14112	Determination of Oxidation Stability (Accelerated Oxidation Test)		
	Oxidation Stability	3.4	hr
	Operating Temp (usually 110 deg C)	110	°C
EN 14110	Determination of Methanol Content		
	Methanol Content	0.02	%(m/m)

Signed: _____

Date: _____

Intertek
Melanie McMahon, Laboratory Manager