1641 Sigman Road PO Box 919 Conyers, GA 30012 1-770-922-8000 ext 164 www.biomassenergylab.com

Report of Analysis



McHale & Associates Inc. Company Contact: James Hollibaugh james.hollibaugh@mchale.org 18378 Redmond Way Redmond WA 98052 **BEL ID Number(s):** BEL123937 Sample Weight (kg): 3.97/3.83 **Product/Commodity:** Sample Received: Woody Biomass 11/24/2013 Sample Designation: 21:12 **Report Date:** 12/3/2013 Packaging: **Plastic Bag Report ID:** BEL123937-1 11/21/2013 Purchase Order # **Date Sampled:** N/A

Compositional Analysis: Proximate/Ultimate Analysis

Parameter	As-Received	Oven Dry	Analytical Method
Total Moisture (%)	36.86		CEN/EN 14774-1
Ash (%)			CEN/EN 14775
Volatiles (%)			CEN/EN 15148
Fixed Carbon (%)			By Difference
Gross Calorific Value (GJ/Tonne)	12.15	19.24	CEN/EN 14918
Net Calorific Value (cV)(GJ/Tonne)			CEN/EN 14918
Net Calorific Value (cP)(GJ/Tonne)			CEN/EN 14918
Carbon (%)			CEN/EN 15104
Hydrogen (%)			CEN/EN 15104
Nitrogen (%)			CEN/EN 15104
Sulfur (%)			CEN/EN 15289
Oxygen (%)			By Difference

Chis Wiberg

Prepared By:

Results shown on this certificate represent only the quantity of sample which was submitted for analysis. BEL does not assume responsibility for selection, representation, and/or sample identifications. Analyses are carried out within the scope of Principal's instructions and with due care and skill in conformity with BEL Terms and Conditions of Business. Claims in respect of services provided will be considered only if based upon failure to take due care proven by the Principal. Liability shall in no circumstances whatsoever exceed a total aggregate sum equal to 10 (ten) times the amount of the fee paid for the service.

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