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# Certificate of Analysis

<b>Client:</b> HOMELAND ENERGY SOLUTIONS 2779 IA HIGHWAY 24	<b>Sample Number:</b> MW12-00304.001	<b>Page 1 of 2</b>
	<b>Report Date:</b> January 19, 2012	
	<b>Received:</b> January 13, 2012	
	<b>Sample Type:</b> Syrup	
<b>LAWLER</b> IA      52154	<b>Sample Description:</b>	
UNITED STATES		
<b>Sample Identification:</b> 011212-S		

Analysis	Result	Units	Detection Limit	Uncertainty	Limits	Method
Phosphorous content as received	0.82	%(m/m)	0.01			AOAC 968.08
Potassium content as received	1.21	%(m/m)	0.00			AOAC 968.08
Calcium content as received	N.D.	%(m/m)	0.01			AOAC 968.08
Magnesium content as received	0.32	%(m/m)	0.00			AOAC 968.08
Zinc content as received	21.71	PPM	1.48			AOAC 968.08
Manganese content as received	10.85	PPM	0.09			AOAC 968.08
Copper content as received	2.52	PPM	0.08			AOAC 968.08
Iron content as received	48.11	PPM	0.24			AOAC 968.08
Sodium content as received	0.21	%(m/m)	0.00			AOAC 968.08
Sulfur content as received	0.43	%(m/m)	0.02			AOAC 968.08

Analysis	As Received	On Dry Matter	Units	Method
Moisture content	65.19	--		NFTA 2.2.2.5
Drymatter content	34.81	--		NFTA 2.2.2.5
Crude ash content	1.90	5.47		AOAC 942.05
Crude fat content	2.78	7.97	%(m/m)	AOAC 2003.06
Crude protein content	7.37	21.16	%(m/m)	AOAC 972.43 (Nx6.25)

**Abbreviations:**

N.D.: Not Detected

**Data Start/End Analysis :** 01/13/2012 - 01/18/2012

\* Analytical results were determined by a third party laboratory. Information concerning the subcontracted laboratory is available upon request. Liability for the subcontracted results remain with the subcontracted laboratory.

WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was(were) drawn and/or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate the the sample(s). The Company accepts nor liability with regard to the origin or source from which the sample(s) is/are said to be extracted.

The sample condition upon arrival was acceptable for testing unless otherwise noted.

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Angela Carlson  
Analytical Lab Manager

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