

# Certificate of Analysis



Certificate Number: 18-005946

Report Date: April 18, 2018

**Client:**

**ABSOLUTE ENERGY**  
1372 STATE LINE RD  
SAINT ANSGAR IA 50472  
UNITED STATES

**Sample Information:**

**SGS Sample Identification:** MW18-03908.001  
**Client Sample Identification:** CHS WEEK 13  
**Received:** April 12, 2018  
**Sample/Product Type:** Distillers dried grains with solubles

Analysis	Result	Units	L.O.Q.	Method
Hunter L Color	60.40		N/A	ColorFlex User's Guide, Ver. 2.5
Calcium	0.02	%(m/m)	0.0124	AOAC 968.08 (ICP)
Copper	4.64	PPM	0.081	AOAC 968.08 (ICP)
Iron	56.75	PPM	0.2428	AOAC 968.08 (ICP)
Potassium	1.10	%(m/m)	0.0044	AOAC 968.08 (ICP)
Magnesium	0.33	%(m/m)	0.0029	AOAC 968.08 (ICP)
Manganese	11.24	PPM	0.0917	AOAC 968.08 (ICP)
Sodium	0.24	%(m/m)	0.0015	AOAC 968.08 (ICP)
Phosphorus	0.89	%(m/m)	0.0063	AOAC 968.08 (ICP)
Sulfur	0.64	%(m/m)	0.0177	AOAC 968.08 (ICP)
Zinc	46.34	PPM	1.4846	AOAC 968.08 (ICP)
Vomitoxin (DON)	1.333	PPM	0.24	Neogen Veratox (ELISA)

Analysis	As Received	On Dry Matter	Units	Method
Drymatter content	89.91	--	%(m/m)	NFTA 2.2.2.5
Moisture content	10.09	--	%(m/m)	NFTA 2.2.2.5
Crude ash content	4.864	5.410	%(m/m)	AOAC 942.05
Crude Fiber	7.98	8.87	%(m/m)	AOAC 962.09
NDF	26.83	--	%	ANKOM Technology Method 6
Crude Fat	9.00	10.01	%(m/m)	AOAC 2003.06 (Petroleum Ether)
Acid detergent fiber	9.97	11.09	%(m/m)	Calculation
Digestable Energy	1.62	1.81	Mcal/lb	Calculation
Metabolizable Energy	1.39	--	Mcal/lb	Calculation
Net Energy Gain	0.60	0.66	Mcal/lb	Calculation
Net Energy Lactation	0.80	0.89	Mcal/lb	Calculation
Net Energy Maintenance	0.89	0.99	Mcal/lb	Calculation
Total digestable nutrients	76.52	85.10	%(m/m)	Calculation
Crude Protein	26.25	29.19	%(m/m)	AOAC 990.03

**Abbreviations:**

**L.O.Q.:** Limit of Quantification    **L.O.D.:** Limit of Detection    **N/A:** Not Applicable    **N.D.:** Not Detected

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 to the sample(s). The Company accepts no 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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Jacob Swanson  
Analytical Chemistry Supervisor  
Start/End Analysis: 04/12/2018 - 04/17/2018

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