

Certificate of Analysis



Certificate Number: 18-007978

Report Date: May 23, 2018

Client:

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

Sample Information:

SGS Sample Identification: MW18-05321.001
Client Sample Identification: CHS WEEK 18
Received: May 16, 2018
Sample/Product Type: Distillers dried grains with solubles

Analysis	Result	Units	L.O.Q.	Method
Hunter L Color	59.31		N/A	ColorFlex User's Guide, Ver. 2.5
Calcium	0.02	%(m/m)	0.0124	AOAC 968.08 (ICP)
Copper	4.63	PPM	0.081	AOAC 968.08 (ICP)
Iron	57.25	PPM	0.2428	AOAC 968.08 (ICP)
Potassium	1.14	%(m/m)	0.0044	AOAC 968.08 (ICP)
Magnesium	0.34	%(m/m)	0.0029	AOAC 968.08 (ICP)
Manganese	11.52	PPM	0.0917	AOAC 968.08 (ICP)
Sodium	0.26	%(m/m)	0.0015	AOAC 968.08 (ICP)
Phosphorus	0.92	%(m/m)	0.0063	AOAC 968.08 (ICP)
Sulfur	0.72	%(m/m)	0.0177	AOAC 968.08 (ICP)
Zinc	48.51	PPM	1.4846	AOAC 968.08 (ICP)
Vomitoxin (DON)	1.072	PPM	0.24	Neogen Veratox (ELISA)

Analysis	As Received	On Dry Matter	Units	Method
Drymatter content	89.39	--	%(m/m)	NFTA 2.2.2.5
Moisture content	10.61	--	%(m/m)	NFTA 2.2.2.5
Crude ash content	5.119	5.726	%(m/m)	AOAC 942.05
Crude Fiber	7.96	8.90	%(m/m)	AOAC 962.09
NDF	27.17	--	%	ANKOM Technology Method 6
Crude Fat	8.64	9.67	%(m/m)	AOAC 2003.06 (Petroleum Ether)
Acid detergent fiber	9.95	11.13	%(m/m)	Calculation
Digestable Energy	1.62	1.81	Mcal/lb	Calculation
Metabolizable Energy	1.37	--	Mcal/lb	Calculation
Net Energy Gain	0.59	0.66	Mcal/lb	Calculation
Net Energy Lactation	0.80	0.89	Mcal/lb	Calculation
Net Energy Maintenance	0.88	0.99	Mcal/lb	Calculation
Total digestable nutrients	76.05	85.07	%(m/m)	Calculation
Crude Protein	27.59	30.86	%(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.

This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or



Jacob Swanson
Analytical Chemistry Supervisor
Start/End Analysis: 05/16/2018 - 05/23/2018

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.

This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or