

# Certificate of Analysis



Certificate Number: 18-016687

Report Date: October 16, 2018

**Client:**

**ABSOLUTE ENERGY**  
1372 STATE LINE ROAD

IA 50472

UNITED STATES

**Sample Information:**

**SGS Sample Identification:** MW18-10776.001  
**Client Sample Identification:** WET: MDDG 10.02.2018  
**Received:** October 09, 2018  
**Sample/Product Type:** Modified Distiller Dried Grains

Analysis	Result	Units	L.O.Q.	Method
Calcium	0.01	%	0.0028	AOAC 968.08 (ICP)
Copper	N.D.	PPM	2.7889	AOAC 968.08 (ICP)
Iron	36.45	PPM	6.8889	AOAC 968.08 (ICP)
Potassium	0.54	%	0.0694	AOAC 968.08 (ICP)
Magnesium	0.16	%	0.0209	AOAC 968.08 (ICP)
Manganese	7.05	PPM	0.9778	AOAC 968.08 (ICP)
Sodium	0.14	%	0.014	AOAC 968.08 (ICP)
Phosphorus	0.45	%	0.0554	AOAC 968.08 (ICP)
Sulfur	0.33	%	0.021	AOAC 968.08 (ICP)
Zinc	27.99	PPM	5.5556	AOAC 968.08 (ICP)
Aflatoxin B1	N.D.	PPB	1	LC/MS/MS
Aflatoxin B2	N.D.	PPB	1	LC/MS/MS
Aflatoxin G1	N.D.	PPB	1	LC/MS/MS
Aflatoxin G2	N.D.	PPB	1	LC/MS/MS
Aflatoxin Summation	N.D.	PPB	1	LC/MS/MS
DON (Vomitoxin)	1.59	PPM	0.1	LC/MS/MS
Fumonisin B1	N.D.	PPM	0.1	LC/MS/MS
Fumonisin B2	N.D.	PPM	0.1	LC/MS/MS
Ochratoxin	N.D.	PPB	1	LC/MS/MS
T2 toxin	N.D.	PPB	10	LC/MS/MS
Zearalenone	N.D.	PPB	20	LC/MS/MS

Analysis	As Received	On Dry Matter	Units	Method
Drymatter	51.69	--	%	NFTA 2.2.2.5
Moisture	48.31	--	%	NFTA 2.2.2.5
Crude Fiber	4.31	8.34	%	AOAC 962.09
Crude ash content	2.150	4.159	%	AOAC 942.05
NDF	23.54	--	%	ANKOM Technology Method 6
Crude Fat	5.40	10.46	%	AOAC 2003.06 (Petroleum Ether)
Crude Protein	17.11	33.09	%	AOAC 990.03

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](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

Analysis	As Received	On Dry Matter	Units	Method
Acid detergent fiber	5.39	10.43	%	Calculation
Digestable Energy	0.94	1.81	Mcal/lb	Calculation
Metabolizable Energy	0.82	--	Mcal/lb	Calculation
Net Energy Gain	0.35	0.67	Mcal/lb	Calculation
Net Energy Lactation	0.47	0.90	Mcal/lb	Calculation
Net Energy Maintenance	0.51	1.00	Mcal/lb	Calculation
Total digestable nutrients	44.25	85.60	%	Calculation
Starch Content	1.039	2.011	g/100g	AOAC996.11

**Abbreviations:**

L.O.Q.: Limit of Quantification

L.O.D.: Limit of Detection

N/A: Not Applicable

N.D.: Not Detected



Jacob Swanson

Analytical Chemistry Supervisor

Start/End Analysis: 10/09/2018 - 10/16/2018

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](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