REPORT NO. C21110-30006

A&L CANADA LABORATORIES INC.

ACCOUNT NUMBER 01541

2136 Jetstream Rd, London, ON, N5V 3P5 Tel (519) 457-2575 Fax: (519) 457-2664



TO:MAD BARN INC 38 MEADOWCLIFF PLACE PETERBURG, ON N0B 2H0

Phone:519-546-1795 Fax:833-623-2276

CERTIFICATE OF ANALYSIS

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LAB NUMBER:1103007 **SAMPLE ID: MIXED FEED**

DATE SAMPLED:

SAMPLE MATRIX: Pelleted Feed

DATE RECEIVED:2021-04-20 **DATE REPORTED:**

SAMPLE CUT: TEST CODE:FD2RIT

DATE PRINTED:2021-04-27

DRY MATTER	TEST CODE.FDZRIT				DATE PRINTED.2021-04-27
DRY MATTER		RESULTS			
Moisture	PARAMETER	AS FED	DRY	UNIT	METHOD
Dry Matter 89.20 100.00 % Calculation	DRY MATTER				
PROTÉIN	Moisture		0.00		AOAC 930.15
Crude Protein 11.81 13.24 % AOAC 990.03 Soluble Crude Protein 29.53 29.53 % of CP Wet Chemistry ADF-CP 0.71 0.80 % Wet Chemistry NDF-CP 2.20 2.47 % Wet Chemistry UIP (Bypass Protein) 35.24 35.24 Est % CP Wet Chemistry FIBRES Acid Detergent Fibre 15.04 16.86 % Wet Chemistry Neutral Detergent Fibre 27.28 30.58 % Wet Chemistry Total Digestible Nutrients 67.59 75.77 % Calculation Lignin 2.08 2.33 % Wet Chemistry ENERGY NE Lactation 1.55 1.74 MCal/Kg Calculation NE Gain 1.06 1.19 MCal/Kg Calculation NE Maintenance 1.70 1.91 MCal/Kg Calculation MINERALS Calcium 0.96 1.08 % Wet Chemistry Copper 39.55 44.34 ug/g Wet Chemistry Potassium <t< td=""><td></td><td>89.20</td><td>100.00</td><td>%</td><td>Calculation</td></t<>		89.20	100.00	%	Calculation
Soluble Crude Protein	PROTEIN				
ADF-CP	Crude Protein	11.81	13.24	%	AOAC 990.03
NDF-CP	Soluble Crude Protein	29.53	29.53	% of CP	Wet Chemistry
UIP (Bypass Protein) 35.24 35.24 Est % CP Wet Chemistry	ADF-CP	0.71	0.80	%	Wet Chemistry
FIBRES Acid Detergent Fibre 15.04 16.86 % Wet Chemistry Neutral Detergent Fibre 27.28 30.58 % Wet Chemistry Total Digestible Nutrients 67.59 75.77 % Calculation Lignin 2.08 2.33 % Wet Chemistry ENERGY Strange of the control	NDF-CP	2.20	2.47	%	Wet Chemistry
FIBRES Acid Detergent Fibre 15.04 16.86 % Wet Chemistry Neutral Detergent Fibre 27.28 30.58 % Wet Chemistry Total Digestible Nutrients 67.59 75.77 % Calculation Lignin 2.08 2.33 % Wet Chemistry ENERGY Wet Chemistry Wet Chemistry NE Lactation 1.55 1.74 MCal/Kg Calculation NE Gain 1.06 1.19 MCal/Kg Calculation NE Maintenance 1.70 1.91 MCal/Kg Calculation MINERALS Calculation Met Chemistry Copper 39.55 44.34 ug/g Wet Chemistry Copper 39.55 44.34 ug/g Wet Chemistry Potassium 1.14 1.28 % Wet Chemistry Potassium 1.14 1.28 % Wet Chemistry Sulphur 0.27 0.30 % Wet Chemistry Magnesium 0.36 0.40 %	UIP (Bypass Protein)	35.24	35.24	Est % CP	Wet Chemistry
Neutral Detergent Fibre Total Digestible Nutrients 27.28 30.58 % Wet Chemistry Total Digestible Nutrients Lignin 2.08 2.33 % Wet Chemistry ENERGY Secondary Wet Chemistry Wet Chemistry ENERGY NE Lactation 1.55 1.74 MCal/Kg Calculation NE Gain NE Maintenance 1.06 1.19 MCal/Kg Calculation MINERALS Calcium 0.96 1.08 % Wet Chemistry Calcium 0.96 1.08 % Wet Chemistry Phosphorus 0.54 0.61 % Wet Chemistry Potassium 1.14 1.28 % Wet Chemistry Sulphur 0.27 0.30 % Wet Chemistry Magnesium 0.36 0.40 % Wet Chemistry Iron 375.95 421.47 ug/g Wet Chemistry Cobalt BDL 0.29 ug/g Wet Chemistry Cobalt BDL 0.29 ug/g <td>FIBRES</td> <td></td> <td></td> <td></td> <td>-</td>	FIBRES				-
Total Digestible Nutrients 67.59 75.77 % Calculation Lignin 2.08 2.33 % Wet Chemistry ENERGY NE Lactation 1.55 1.74 MCal/Kg Calculation NE Gain 1.06 1.19 MCal/Kg Calculation MINERALS Calcium 0.96 1.08 % Wet Chemistry * Copper 39.55 44.34 ug/g Wet Chemistry * Phosphorus 0.54 0.61 % Wet Chemistry * Potassium 1.14 1.28 % Wet Chemistry * Sulphur 0.27 0.30 % Wet Chemistry * Magnesium 0.36 0.40 % Wet Chemistry * Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Che	Acid Detergent Fibre	15.04	16.86	%	Wet Chemistry
Total Digestible Nutrients 67.59 75.77 % Calculation Lignin 2.08 2.33 % Wet Chemistry ENERGY NE 2.08 2.33 % Wet Chemistry NE Lactation 1.55 1.74 MCal/Kg Calculation NE Gain 1.06 1.19 MCal/Kg Calculation MINERALS Calcium 0.96 1.08 % Wet Chemistry * Copper 39.55 44.34 ug/g Wet Chemistry * Phosphorus 0.54 0.61 % Wet Chemistry * Potassium 1.14 1.28 % Wet Chemistry * Sulphur 0.27 0.30 % Wet Chemistry * Magnesium 0.36 0.40 % Wet Chemistry * Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g Wet Chemistry *	Neutral Detergent Fibre	27.28	30.58	%	Wet Chemistry
NE Lactation	Total Digestible Nutrients	67.59	75.77	%	Calculation
NE Lactation	Lignin	2.08	2.33	%	Wet Chemistry
NE Gain NE Maintenance 1.06 1.19 MCal/Kg Calculation MINERALS Calcium 0.96 1.08 % Wet Chemistry * Copper Sphorus 39.55 44.34 ug/g Wet Chemistry * Phosphorus 0.54 0.61 % Wet Chemistry * Potassium 1.14 1.28 % Wet Chemistry * Sulphur 0.27 0.30 % Wet Chemistry * Magnesium 0.36 0.40 % Wet Chemistry * Zinc 85.15 95.46 ug/g Wet Chemistry * Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g Wet Chemistry * Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry * CALCULATION 230.49 230.49 Calculation	ENERGY				•
NE Maintenance 1.70 1.91 MCal/Kg Calculation MINERALS 0.96 1.08 % Wet Chemistry * Copper 39.55 44.34 ug/g Wet Chemistry Phosphorus 0.54 0.61 % Wet Chemistry * Potassium 1.14 1.28 % Wet Chemistry Sulphur 0.27 0.30 % Wet Chemistry Magnesium 0.36 0.40 % Wet Chemistry Zinc 85.15 95.46 ug/g Wet Chemistry Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g Wet Chemistry * Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry CALCULATION 230.49 230.49 Calculation	NE Lactation	1.55	1.74	MCal/Kg	Calculation
MINERALS Calcium 0.96 1.08 % Wet Chemistry * Copper 39.55 44.34 ug/g Wet Chemistry Phosphorus 0.54 0.61 % Wet Chemistry * Potassium 1.14 1.28 % Wet Chemistry Sulphur 0.27 0.30 % Wet Chemistry * Magnesium 0.36 0.40 % Wet Chemistry Zinc 85.15 95.46 ug/g Wet Chemistry * Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g ICP Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry CALCULATION Calculation Calculation OTHER 230.49 230.49 Calculation	NE Gain	1.06	1.19	MCal/Kg	Calculation
Calcium 0.96 1.08 % Wet Chemistry Copper 39.55 44.34 ug/g Wet Chemistry Phosphorus 0.54 0.61 % Wet Chemistry Potassium 1.14 1.28 % Wet Chemistry Sulphur 0.27 0.30 % Wet Chemistry Magnesium 0.36 0.40 % Wet Chemistry Zinc 85.15 95.46 ug/g Wet Chemistry Iron 375.95 421.47 ug/g Wet Chemistry Cobalt BDL 0.29 ug/g ICP Manganese 384.51 431.06 ug/g Wet Chemistry Sodium 0.35 0.39 % Wet Chemistry CALCULATION Calculation Calculation OTHER 230.49 230.49 Calculation	NE Maintenance	1.70	1.91	MCal/Kg	Calculation
Copper 39.55 44.34 ug/g Wet Chemistry Phosphorus 0.54 0.61 % Wet Chemistry * Potassium 1.14 1.28 % Wet Chemistry Sulphur 0.27 0.30 % Wet Chemistry * Magnesium 0.36 0.40 % Wet Chemistry * Zinc 85.15 95.46 ug/g Wet Chemistry * Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g ICP Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry CALCULATION 230.49 230.49 Calculation OTHER	MINERALS				
Phosphorus 0.54 0.61 % Wet Chemistry * Potassium 1.14 1.28 % Wet Chemistry * Sulphur 0.27 0.30 % Wet Chemistry * Magnesium 0.36 0.40 % Wet Chemistry * Zinc 85.15 95.46 ug/g Wet Chemistry * Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g ICP Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry CALCULATION 230.49 230.49 Calculation	Calcium	0.96	1.08	%	Wet Chemistry *
Phosphorus 0.54 0.61 % Wet Chemistry * Potassium 1.14 1.28 % Wet Chemistry * Sulphur 0.27 0.30 % Wet Chemistry * Magnesium 0.36 0.40 % Wet Chemistry * Zinc 85.15 95.46 ug/g Wet Chemistry * Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g ICP Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry CALCULATION 230.49 230.49 Calculation	Copper	39.55	44.34	ug/g	Wet Chemistry
Sulphur 0.27 0.30 % Wet Chemistry * Magnesium 0.36 0.40 % Wet Chemistry Zinc 85.15 95.46 ug/g Wet Chemistry * Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g ICP Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry CALCULATION 230.49 230.49 Calculation OTHER	Phosphorus	0.54	0.61		Wet Chemistry *
Magnesium 0.36 0.40 % Wet Chemistry Zinc 85.15 95.46 ug/g Wet Chemistry * Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g ICP Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry CALCULATION 230.49 230.49 Calculation OTHER	Potassium	1.14	1.28	%	Wet Chemistry
Magnesium 0.36 0.40 % Wet Chemistry Zinc 85.15 95.46 ug/g Wet Chemistry * Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g ICP Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry CALCULATION CALCULATION Calculation OTHER 230.49 230.49 Calculation	Sulphur	0.27	0.30		
Zinc 85.15 95.46 ug/g Wet Chemistry * Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g ICP Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry CALCULATION Calculation Relative Feed Value 230.49 230.49 Calculation		0.36	0.40	%	
Iron 375.95 421.47 ug/g Wet Chemistry * Cobalt BDL 0.29 ug/g ICP Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry CALCULATION Relative Feed Value 230.49 230.49 Calculation OTHER		85.15	95.46	ug/g	
Cobalt BDL 0.29 ug/g ICP Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry CALCULATION Relative Feed Value 230.49 230.49 Calculation OTHER	Iron	375.95	421.47		
Manganese 384.51 431.06 ug/g Wet Chemistry * Sodium 0.35 0.39 % Wet Chemistry CALCULATION Relative Feed Value 230.49 230.49 Calculation OTHER	Cobalt	BDL	0.29		
Sodium 0.35 0.39 % Wet Chemistry CALCULATION Relative Feed Value 230.49 230.49 Calculation OTHER	Manganese	384.51	431.06		Wet Chemistry *
CALCULATION Relative Feed Value 230.49 230.49 Calculation OTHER		0.35	0.39		
Relative Feed Value 230.49 230.49 Calculation OTHER	CALCULATION				•
		230.49	230.49		Calculation
	OTHER				
2	Starch	5.42	6.08	%	Wet Chemistry

^{* -} accredited test

BDL - Not Detected



The results of this report relate to the sample submitted and analyzed

Results Authorized By:

Ron Piett, Feed & Forages Specialist

A&L Canada Laboratories Inc. is accredited by the Standards Council of Canada for specific tests as listed on www.scc.ca and by the Canadian Association for Laboratory Accreditation as listed on www.cala.ca

Additional information available upon request

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LAB NUMBER:1103007 **SAMPLE ID: MIXED FEED**

DATE SAMPLED:

SAMPLE MATRIX: Pelleted Feed

DATE RECEIVED:2021-04-20

SAMPLE CUT:

DATE REPORTED:

TEST CODE:FD2RIT

DATE PRINTED:2021-04-27

RESULTS						
PARAMETER	AS FED	DRY	UNIT	METHOD		
Crude Fat	13.3	14.86	%	AOCS Am5-04		
ESC (Simple Sugar)	11.2	12.51	%	Wet Chemistry		
Molybdenum	1.25	1.40	ug/g	Wet Chemistry *		
NFĆ	29	32.23	%	•		
Ash	8.11	9.09	%			

* - accredited test **BDL** - Not Detected



The results of this report relate to the sample submitted and analyzed

Results Authorized By: Ron Piett, Feed & Forages Specialist