

# **Bull Evaluation Centre Report**

202017 SILVERSPRINGS SIMMENTALS (End of Test) Test Date: 19 Mar 2020 Days on Test: 118

Centre Manager: JAMES MCKINLAY Start of Test Date: 22 Nov 2019

Phone #: 519-599-6236 End of Test Date: 19 Mar 2020

EMail: jmckinlay@bmts.com Pick Up Date:

Address: 609027 SIDEROAD 12,R.R. #1, RAVENNA, ON, N0H 2E0

Ration Statement:

Note: 1. Check the information on your BULL(s) to ensure the pedigree, birth date, tattoo, and weaning data is complete and accurate.

- 2. For best results clients need to submit complete herd data with complete weaning weights on all their calves to bioTrack, our Herd Evaluation Service. Calves with incomplete herd data will not receive genetic evaluations nor BIO Economic Indexes. If no data is submitted to BIO, then the calves in the bull evaluation centre will be regarded as UNOFFICIAL. Unofficial calves will not receive genetic evaluations, BIO Economic Indexes nor certificates and may not eligible for awards that are offered from time to time.
- 3. If you have questions on data submission, please contact our office.

## A Guide to BIO's Bull and Heifer Evaluation Reports and BIO's Genetic Evaluations

## Report Features

- Objectively Compare all animals using our across breed comparisons -ABCs Allows you to compare all the bulls in the group for their genetics, regardless of their breed. Bulls are listed on the report by the tag number.
- Quickly know where an animal ranks for a trait using the percentile ranking. Our percentile rankings range from 1 (lowest) to 99 (highest) tells you how an animal ranks for the trait you're looking at. All animals are ranked for each trait! The rankings compare all animals evaluated over the past 3 years for that trait.

Across breed Percentiles (%AB) allow you to compare purebred, crossbred, and composite animals across breeds.

Within breed Percentiles (%WB) allow you to compare purebred animals within its breed.

Example: A bull or heifer that has a percentile of 99 (99th percentile) is in the top 1% of all animals evaluated for that trait or index; a bull in the 80th percentile is in the top 20%, etc.

Most current genetic evaluations - The Herd Recording traits (CE, BW, WG, MILK) are updated on the 84-day and End-of-test reports, to reflect the added
information of weights taken on test. The End-of-test evaluations use the animal's on-test performance and all related performance data in the database to
calculate the ABC and are therefore the most current evaluations in the industry.

#### Features of BIO's Genetic Evaluations (ABCs) and Economic Indexes

- Genetic Evaluations the most accurate method to express genetic ability of an animal. They are adjusted for environment and can be used to compare animals across herds and evaluation centres.
- ABC Across Breed EPD or Comparison Estimate of how future progeny of an animal are expected to perform in each of the traits. Comparisons can be made within breeds and across breeds. For example, a bull or heifer with a Yearling Gain ABC of +85 will produce progeny that are on average 50 pounds heavier than progeny from a bull with a Yearling Gain ABC of +35.
- Accuracy Measure of the amount of information used to calculate the ABC. Ranges from 1 (least) to 99 (most). Evaluations based on pedigree information only are noted as 'PE' (pedigree estimate).
- BIO\$: This is an index that considers several traits in determining better bulls when mated to average cows and is aiming at efficient lean meat production for a
  market focused on AA carcasses between 775 and 900 pounds. Use the BIO\$ index to identify top prospect bulls and then look at specific ABC's within that group
  for traits that you value in your operation.
- ABCs (Across Breed EPDs) for all animals evaluated by BIO are on a fixed base. The base is a multi-breed average of animals born 1995-1998:

Trait	CE	BW	WG	MILK	PWG	YG	FAT	REA	%IMF	SC	BIO\$
Base	0	0	+30	+15	+20	+50	0	0	0	0	+2000

## Report Definitions and Legend

## Herd Measurements (BIO believes in Whole Herd Recording)

CE - Calving Ease - The ease or difficulty with which the animal was born. The categories are unassisted (U), easy pull (E), hard pull (H), surgical (S) or malpresentation (M).

BW - Birth weight (lbs) of the animal.

AWW - Adjusted Weaning Weight (Ibs) - The on-farm weaning weight of the animal adjusted to 200 days of age. Adjustments are made for age of dam and sex of calf.

WI - Weaning Index - Within-herd index based on adjusted weaning weight. Use to compare calves in the same pre-weaning management group. A minimum of five calves in a management group is required to receive an index. ET indicates an embryo transplant calf.

#### Test Evaluation Measurements (based on the animal's performance in the evaluation centre)

SOT - Start of Test Weight (lbs)

EOT - End of Test Weight (lbs)

ADG - Average Daily Gain (Ibs/day) - The regressed average daily gain during the animal evaluation period. All monthly weighings are used in determining the adg.

WPDA - Weight Per Day of Age (Ibs/day) - Weight taken at weigh period divided by days of age and includes birth weight.

HH - Hip Height (inches) - Height of the animal over the hip bones at EOT.

FRAME - Frame Score - A 1 to 10 scale calculated using hip height and age, according to Beef Improvement Federation guidelines.

FAT - Backfat (mm) - Measured ultrasonically between the 12th and 13th ribs (grading site) at the end of the test.

REA & AdjREA - Rib Eye Area (square inches) - Measured ultrasonically between the 12th and 13th ribs (grading site) at the end of the test. The AdjREA is adjusted to 365 days of age.

% IMF & Adj% IMF - Percent Intramus cular Fat (Marbling) - Measured ultrasonically between the 12th and 13th ribs (grading site) at the end of test. NR indicates the animal had too little %IMF to measure. Adj %IMF is adjusted to 365 days.

GRADE - %IMF expressed as marbling grade (A, AA or AAA) - PD indicates practically devoid, which is less than 1.86 %IMF. Animals near the border of a category are shown as a combination of the two categories (i.e. A-AA).

SC & AdjSC - Scrotal Circumference (cm) - End of test measure of scrotal circumference. Indication of the semen producing ability of the bull. 'ABN' indicates abnormal testicles (size, shape, injury) and no measurement is taken. AdjSC is adjusted Scrotal circumference and is adjusted to one year of age.

## Genetic Evaluations - Across Breed EPDS (ABCs)

CE - Calving Ease ABC - is a genetic prediction of the increase (+) or decrease (-) in percent <u>unassisted</u> calvings if the bull is mated with heifers that are an average size and have average calving ability.

BW - Birth Weight ABC (Ibs) - The effect the animal will have on the birth weight of their calves.

WG - Weaning Gain ABC (lbs) - The ability of the animal's calves to grow from birth to weaning.

MILK - Milk/ Mothering ability ABC (Ibs of calf at weaning) - The ability of a animal's daughters to provide their calves with milk and mothering ability.

PWG - Post-Weaning Gain ABC (lbs) - Indicates the ability of an animal's calves to grow from weaning to yearling.

YG - Yearling Gain ABC (lbs) - Indicates the ability of a animal's calves to grow from birth to yearling.

FAT - Backfat thickness ABC (mm) - The ability of a animal's progeny to deposit backfat (finishing ability), adjusted to a common age.

REA - Rib Eye Area ABC (s quare inches) - Predictor of the differences in progeny ribeye area (muscling), adjusted to a common age.

% IMF - Intramus cular Fat ABC (Marbling) - The ability of a animal's progeny to deposit marbling fat, adjusted to a common age.

SC - Scrotal Circumference ABC (cm) - Indicates the ability of a bull to transmit scrotal size to male progeny. It is a partial indicator of daughter's age at puberty.

## 202017 SILVERSPRINGS SIMMENTALS



				Genetic	Evalu	atior	าร (02	Apr 20	20)											•	<b>4</b> 4	Y
Tag AN(	)3 Pen		Tattoo	RAD 3G			CE	BW	WG		Milk	PWG	Y	′G	FAT		REA	%IMF	S	С	BIO\$	
HC/Breed Birthdate	P RED ANG 30Apr2019	SUS	SILVERSPRINGS SIMM Colour	MENTALS 519-599-6236	%ab ABC A %wb		92 <b>6</b> 32 76	92 <b>-5.1</b> 57 78	61 <b>43</b> 57	44	86 <b>31</b> 19 87	8 <b>15</b> 48 1	24 <b>5</b> 9	<b>9</b> 46	75 <b>.89</b> 18	PE	20 <b>22</b> PE 73	87 <b>.50</b> F 54	70 PE .99	5 PE	N/R	
	RED PATCHE LDS 10Y	LLS TU	SSION NEXUS ISCON STATEMENT P27		CE	BW 84	AWW 546	WI 100	SOT 560	EOT 1010	ADG 3.75	3.12	НН	Frame	Fat	REA	AdjREA	%lmf	Adj%lmf	Grade	SC	AdjSC
Tag AN1	10 Pen		Tattoo	RAD 10G			CE	BW	WG		Milk	PWG	Y	′G	FAT		REA	%IMF	s	С	BIO\$	
Contact HC/Breed		SUS	SILVERSPRINGS SIMM Colour	MENTALS 519-599-6236	%ab ABC A %wb		92 <b>6</b> 29 77	91 <b>-5.0</b> 54 77	68 <b>45</b> 64	42 2	80 <b>29</b> 17	41 <b>29</b> 46 17	56 <b>75</b> 39	5 44							N/R	
Sire Dam		LLS CF	RACKER JACK		CE	BW 83	593	WI 109	SOT 605	EOT 1065	ADG 4.15	WPDA 3.26	НН	Frame	Fat	REA	AdjREA	%Imf	Adj%Imf	Grade	SC	AdjSC
Tag AN1	18 Pen		Tattoo	RAD 18G			CE	BW	WG		Milk	PWG	Y	′G	FAT		REA	%IMF	- s	С	BIO\$	
Contact HC/Breed Birthdate							87 <b>5</b> 26	83 -3.8 52 56	33 36 28	43	49 <b>23</b> 17	62 <b>35</b> 45 36	49	)   44	.,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5	5 <b>8</b> PE	N/R	
Dam	RED BENCHI RED PATCHE	MARK T	ME CHANGER 1613Y RANSITION 10`14 LI SSION NEXUS		CE	BW 83	AWW 512	WI 94	SOT 600	EOT 1160	ADG 4.72	3.08	НН	Frame	Fat	REA	AdjREA	%lmf	Adj%lmf	Grade	SC	AdjSC
Tag AN2	20 Pen		Tattoo	RAD 20G			CE	BW	WG		Milk	PWG	Y	′G	FAT		REA	%IMF	s	С	BIO\$	
Contact HC/Breed Birthdate	JAMES MCKI P RED ANO 07Mar2019	SUS	SILVERSPRINGS SIMM	MENTALS 519-599-6236	%ab ABC A %wb		78 <b>4</b> 26 42	73 - <b>2.9</b> 52 39	5 <b>24</b> 3	43	30 <b>20</b> 15 20	75 <b>39</b> 44 52	31 <b>63</b> 15	<b>3</b> 44							N/R	
	RED BENCHI Red Patchells	MARK T s Cutie I	ME CHANGER 1613Y RANSITION 10`14 Patootie LY LOADED 540R		CE	BW 80	AWW 429	WI 76	SOT 495	EOT 1050	ADG 4.81	WPDA 2.78	НН	Frame	Fat	REA	AdjREA	%lmf	Adj%Imf	Grade	SC	AdjSC
Tag AN2	22 Pen		Tattoo	RAD 22G			CE	BW	WG		Milk	PWG	Y	′G	FAT		REA	%IMF	s	С	BIO\$	
HC/Breed	JAMES MCKI P RED ANG 08Apr2019 RED LAZY I	SUS	SILVERSPRINGS SIMM Colour	MENTALS 519-599-6236	%ab ABC A		91 <b>6</b> 22 74	89 <b>-4.6</b> 49 70	28 <b>35</b> 23	38	40 <b>22</b> 16 32	41 <b>29</b> 45 17	34 <b>6</b> 4 17	42							N/R	
Sire	RED PATCHE RED BENCH	LLS CF	RACKER JACK		CE	BW 80	496	91	SOT 555	EOT 1060	ADG 4.34	3.06	НН	Frame	Fat	REA	AdjREA	%Imf	Adj%Imf	Grade	SC	AdjSC

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## **202017 SILVERSPRINGS SIMMENTALS**



Genetic Evaluations (02 Apr 2020)

			Genetic	Evalu	ıatior	ns (02	Apr 20	20)											•	<b>-</b>	Yey
Tag AN28	Pen	Tattoo	RAD 28G			CE	BW	WG	1	Milk	PWG	Y	/G	FAT		REA	%IMF	= S	C	BIO\$	
HC/Breed P Birthdate 01Ap	3/4 RED ANGU	- SILVERSPRINGS SIM JS 7/32 SM 1/32 XX 0 Colour CDETOUR 2W	MENTALS 519-599-6236	%ab ABC / %wb	Acc	75 <b>4</b> 29	78 -3.3 54	73 <b>47</b> 4		43 <b>22</b> 16	98 <b>56</b> 46	9 <sup>2</sup> 103	4 <b>3</b> 45							N/R	
		CRACKER JACK		CE	BW	AWW	WI	SOT	EOT	ADG	WPDA	НН	Frame	Fat	REA	AdjREA	%lmf	Adj%lmf	Grade	sc	AdjSC
Dam RAD DamSire MA	26D RYWOOD LEX	LUTHOR		U	83	553	101	635	1270	5.37	3.60										
Tag AN44	Pen	Tattoo	RAD 44G			CE	BW	WG	1	Milk	PWG	Y	/G	FAT		REA	%IMF	= S	SC	BIO\$	
	RED ANGUS	- SILVERSPRINGS SIM Colour	MENTALS 519-599-6236	%ab		<b>84 5</b> 29	81 -3.6 57	8 <b>26</b> 4	15	67 <b>27</b> 22	83 <b>42</b> 49	'	<b>3</b> 47	93 <b>1.38</b> F	PE .	23 16 PE	91 <b>.53</b> F	-	9 PE	N/R	
SireSire RE	D LAZY MC CO	DETOUR 2W		%wb		55	52	5		66	63	23	3	75		82	68	5	4		
Dam <b>RED</b>	PATCHELLS ( BIRCHLAWN I D GP CATALY:			CE	82	442	WI 81	520	1055	4.53	2.92	HH	Frame	Fat	REA	AdjREA	%Imf	Adj%Imf	Grade	s SC	AdjSC
Tag AN54	Pen	Tattoo	RAD 54G			CE	BW	WG		Milk	PWG	Y	/G	FAT		REA	%IMF	= s	SC	BIO\$	
HC/Breed P F Birthdate 22Ma	RED ANGUS ar2019	- SILVERSPRINGS SIM  Colour	MENTALS 519-599-6236	%ab ABC / %wb		90 <b>5</b> 33 70	85 <b>-4.0</b> 57	8 <b>27</b> 4	14	32 19	4 <b>9</b> 48 1	36	<b>6</b> 46	84 <b>1.14</b> F 45	PE .	15 <b>28</b> PE 57	95 <b>.60</b> F 83	6 FE .7	<b>5</b> PE	N/R	
Sire RED Dam RAD	PATCHELLS T			CE	BW 85	AWW 441	WI 81	SOT 520	EOT 1030	ADG 4.25	WPDA 2.84	НН	Frame	Fat	REA	AdjREA	%Imf	Adj%lmf	Grade	SC	AdjSC
Tag AN82	Pen	Tattoo	RAD 82G			CE	BW	WG	1	Milk	PWG	Y	/G	FAT		REA	%IMF	= 8	SC	BIO\$	
Contact JAM HC/Breed P I Birthdate 28Ma	RED ANGUS	- SILVERSPRINGS SIM  Colour	MENTALS 519-599-6236	%ab ABC / %wb		86 <b>5</b> 28 60	84 - <b>3.9</b> 53 58	61 <b>43</b> F 57	E 2	79 <b>29</b> PE 80	95 <b>50</b> 45 88	88 <b>93</b> 79	3 PE							N/R	
Sire RED Dam RAD	PATCHELLS (	CRACKER JACK		CE	BW 84	AWW N/A	WI	SOT 645	EOT 1245	ADG 4.99	WPDA 3.49	НН	Frame	Fat	REA	AdjREA	%Imf	Adj%lmf	Grade	SC	AdjSC
DamSire RE	Pen	ZU Tattoo	CC 121G			CE	BW	WG		Milk	PWG	Y	/G	FAT		REA	%IMF	= s	sc	BIO\$	
Contact JAM HC/Breed P ( Birthdate 13Ma	CHAROLAIS ar2019	- SILVERSPRINGS SIM  Colour		%ab ABC / %wb		30 <b>0</b> 14 78	31 . <b>2</b> 44 79	59 <b>43</b> 3	33	13 <b>15</b> 10	63 <b>35</b> 40 39	63 <b>78</b> 39	<b>3</b> 37							N/R	
Sire CED	Z FIREMAKER ARVALE YELL D-BAR NASCA	OWSTONE 25Y		CE	BW 88	AWW 510	WI 93	SOT 625	EOT 1150	ADG	WPDA 3.09	НН	Frame	Fat	REA	AdjREA	%Imf	Adj%lmf	Grade	sc	AdjSC
DamSire <b>KE</b>				U	88	510	93	0∠5	1150	4.67	3.09										

## 202017 SILVERSPRINGS SIMMENTALS



## Constin Evaluations (02 Apr 2020)

		Genetic	Evalua	tions	(02	Apr 20	20)											•	<b>-</b>	
Tag <b>SM11</b> Pen	Tattoo JJMC 211	IG		CE		BW	WG		Milk	PWG	Y	′G	FAT	.	REA	%IMF	S	С	BIO\$	
Contact JAMES MCKINLAY HC/Breed P 1/2 SIMMENTA Birthdate 07Apr2019 SireSire GRFA 121A	- SILVERSPRINGS SIMMENTALS L 1/2 AR 0 519- Colour	599-6236	%ab ABC Ac %wb	64 c <b>3</b>	22	63 <b>-2.2</b> 51	78 <b>48</b>		74 <b>28</b> 16	91 <b>46</b> 45	89 <b>9</b> 4	) I 43	67 <b>.59</b>	PE	24 14 PE	64 <b>.22</b> F	8: PE <b>1.1</b>		N/R	
Sire RED GRIST FIRE FL Dam FVFR RED MARIE 5					ww	WI	SOT	EOT		WPDA	НН	Frame	Fat	REA	AdjREA	%Imf	Adj%lmf	Grade	SC	AdjSC
DamSire WS PRIME BEEF 2	28		U	85	593	108	630	1190	4.75	3.43										
Tag SM19 Pen	Tattoo JJMC 19	)G		CE		BW	WG		Milk	PWG	Y	'G	FAT	•	REA	%IMF	= s	С	BIO\$	
HC/Breed P 1/2 SIMMENTA Birthdate 20Apr2019	Colour	599-6236	%ab ABC Ac %wb	67 c <b>3</b>	24	66 <b>-2.4</b> 51	94 <b>58</b>		92 <b>33</b> 21	49 <b>31</b> 45	83 <b>89</b>	3 <b>)</b> 43	65 <b>.51</b>	PE	23 17 PE	69 <b>.29</b> F	6° PE . <b>7</b> °	7 <b>7</b> PE	N/R	
SireSire NLDF YANKEE 31 Sire JJMC 29D	91		CE E	BW A	ww	WI	SOT	EOT	ADG	WPDA	НН	Frame	Fat	REA	AdjREA	%Imf	Adj%lmf	Grade	SC	AdjSC
Dam BJLS 39U DamSire RAD 5R			U	87	673	123	720	1215	4.32	3.64										
Tag <b>SM24</b> Pen	Tattoo JJMC 124	1G		CE		BW	WG		Milk	PWG	Y	'G	FAT		REA	%IMF	s	С	BIO\$	
Contact JAMES MCKINLAY HC/Breed P SIMMENTAL Birthdate 09Apr2019	- SILVERSPRINGS SIMMENTALS 519- Colour	599-6236	%ab ABC Ac	51 c <b>2</b> 85	19	39 <b>5</b> 48	99 <b>69</b> 94	35	63 <b>26</b> 10	99 <b>69</b> 41 99	99 <b>138</b>	38	53 <b>.15</b> 83	PE					N/R	
SireSire Sire Sire Dam Sunny Valley C MAPLE KEY DUKE SULLYS CAMEO DamSire 3D RED POWER 1	OF EARL				WW 635	WI 116	SOT 695	EOT 1360	ADG 5.86	WPDA 3.94	НН	Frame	Fat	REA	AdjREA	%Imf	Adj%lmf	Grade	SC	AdjS0
Tag <b>SM30</b> Pen	Tattoo JJMC 30	)G		CE		BW	WG		Milk	PWG	Y	'G	FAT		REA	%IMF	= s	С	BIO\$	
HC/Breed P SIMMENTAL Birthdate 01Apr2019	Colour	599-6236	%ab ABC Ac %wb	51 c <b>2</b> 85	26	43 <b>8</b> 52 80	96 <b>60</b> 83		28 <b>19</b> 13 7	54 <b>33</b> 43 48	87 <b>93</b> 71	42	42 <b>05</b> 60	PE					N/R	
SireSire SUNNY VALLEY D Sire MAPLE KEY DUKE Dam SILVER SPRINGS 2	OF EARL				ww	WI	SOT	EOT	ADG		НН	Frame	Fat	REA	AdjREA	%Imf	Adj%lmf	Grade	SC	AdjSC
DamSire MARYWOOD LEX			U	85	581	106	630	1100	4.15	3.12										
Tag <b>SM39</b> Pen	Tattoo JJMC 39	)G		CE		BW	WG		Milk	PWG	Y	'G	FAT		REA	%IMF	S	С	BIO\$	
HC/Breed P 3/4 RED ANGU Birthdate 29Mar2019	Colour	599-6236	%ab ABC Ac %wb	94 c <b>6</b>	28	93 <b>-5.3</b> 51	84 <b>51</b>		91 <b>33</b> 12	6 <b>13</b> 45	34 <b>6</b> 4	l 43	70 <b>.74</b>	PE	30 05 PE	83 <b>.46</b> F	6 <b>6</b>	1 <b>7</b> PE	N/R	
Sire Sire RED SILVEIRAS N Sire RED PATCHELLS T			CE I	BW A	ww	WI	SOT	EOT	ADG	WPDA	НН	Frame	Fat	REA	AdjREA	%Imf	Adj%lmf	Grade	SC	AdjS0
Dam JJMC 41A DamSire LDS 2X			U	82 (	630	115	735	1195	3.98	3.36										

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## 202017 SILVERSPRINGS SIMMENTALS



#### Genetic Evaluations (02 Apr 2020)

			Ochelle	Lvaiu	ation	3 (02	74PI 20	20)													_
Tag SM66	Pen	Tattoo	JJMC 66G		(	CE	BW	WG		Milk	PWG	Y	G	FAT		REA	%IMF	S	С	BIO\$	
		- SILVERSPRINGS SIN	-	%ab		80	73	66		55	20	41		56		25	59	5	3		
HC/Breed P	1/2 RED ANGU	JS 15/32 SM 1/32 XX 0	519-599-6236	ABC A	Acc	<b>4</b> 30	<b>-2.9</b> 53	45	42	24 12	<b>23</b> 46	68	44	.22 F	'E	.13 PE	<b>.14</b> P	E .54	4 PE	N/R	
Birthdate 28Ma	ar2019	Colour		%wb																	
SireSire RE	D SIX MILE GA	ME FACE 164Y																			
Sire RED	<b>PATCHELLS I</b>	PHOENIX		CE	BW	AWW	WI	SOT	EOT	ADG	WPDA	НН	Frame	Fat	REA	AdjREA	%Imf	Adj%Imf	Grade	SC	AdjSC
Dam <b>JJM</b> (	C 16E			11	83	563	103	580	1085	4.38	3.04										
DamSire MA	RYWOOD LEX	LUTHOR			03	505	103	300	1000	7.30	3.04										

#### 202017 SILVERSPRINGS SIMMENTALS

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Genetic Evaluations (02 Apr 2020)

# **Breed Summary Averages**

Breed	#	% U	BWT	AWW	SOT	28D	56D	84D	EOT	ADG	WPDA	Hip Height	Frame Score	Back Fat	REA	Adj REA	%IMF	Adj %IMF	Scrotal
RED ANGUS	10	100	83	516	587	718	876	996	1114	4.49	3.15								
CHAROLAIS	1	100	88	510	625	715	895	1050	1150	4.67	3.09								
SIMMENTAL	2	100	86	608	663	763	950	1115	1230	5.01	3.53								
CROSSBRED	3	100	85	610	643	755	913	1047	1163	4.48	3.37								
Group Averages	16	100	84	546	609	730	893	1024	1140	4.56	3.24								

Provision and Use of Information Produced by BIO. As part of the terms and conditions of Beef Improvement Ontario (BIO) Beef Evaluation Services, it is understood that information provided by BIO including, but not limited to, genetic and carcass evaluations are produced using the very best knowledge available and are pursuant to generally accepted industry standards. The raw data and pedignee used in calculations is provided by the client. The information provided by BIO is for comparative purposes only for both the animal consignor and buyer. This information is provided for the purpose of general guidance only to beef producers. The purchaser and/or user of this information agrees that may be incurred as a result of receipt of and/or reliance upon this general comparative information. This clause shall be a complete defense to any dain brought by the purchaser and/or user in relation to such services.

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