### UNIVERSITY OF CALIFORNIA, DAVIS

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO

VETERINARY GENETICS LABORATORY SCHOOL OF VETERINARY MEDICINE ONE SHIELDS AVENUE



SANTA BARBARA • SANTA CRUZ

TELEPHONE: (530) 752-2211 FAX: (530) 752-3556

### CATTLE PARENTAGE AND GENETIC MARKER REPORT

**SARA HAAS** 150322 COUNTY ROAD 16 GERING, NE 69341

DAVIS, CALIFORNIA 95616-8744

NC45022 Case:

03-May-2018 Date Received:

Print Date: 07-May-2018

6940-6251-7654-1102 Report ID: Verify report at www.vgl.ucdavis.edu/myvgl/verify.html

Name: TAYLOR'S MOONSHINE Reg:

YOB: Sex: Male Breed: Mini-Mid Jerseys

Reg: 4930 Sire: ALPHA Dam: Reg:

# PARENTAGE ANALYSIS

Taylor's Moonshine qualifies as an offspring of Alpha 4930 without consideration of the dam.

### **GENETIC MARKERS**

LOCUS	TYPE	LOCUS	TYPE	LOCUS	TYPE
BM1818	262	BM1824	180/188	BM2113	135/137
BRR	250/254	CYP21	198	ETH003	117
ETH10	215/217	ETH225	144/150	INRA23	200/214
RM006	118	RM067	102	SPS115	248/252
TGLA122	169	TGLA126	117	TGLA227	95
TGLA53	168/182				

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## DEXTER / POLLED TEST RESULTS

**SARA HAAS** 150322 COUNTY ROAD 16 GERING, NE 69341

NC45022 Case: 03-May-2018 Date Received:

Print Date: 07-May-2018

Report ID: 3776-1161-9250-2073

Verify report at www.vgl.ucdavis.edu/myvgl/verify.html

Reg: Name: TAYLOR'S MOONSHINE

YOB: Sex: Male Breed: Mini-Mid Jerseys

Sire: ALPHA Reg: 4930 Dam: Reg:

Bant.	Tieg.	
MC1R (EXTENSION)		
Not Requested		
DUN		
Not Requested		
РНА		
Not Requested		
POLLED	POLLED. Two copies of the Polled-Friesian molecular marker are present. All offspring will be polled.	
Pf/Pf		
BULLDOG DWARFISM - BD1	ormal, does not have the Dexter BD1 Bulldog mutation.	
N/N	3	
BULLDOG DWARFISM - BD2		
Not Requested		

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## MILK PROTEIN DNA TEST REPORT

SARA HAAS 150322 COUNTY ROAD 16 GERING, NE 69341

*Case:* NC45022

Date Received: 03-May-2018

 Print Date:
 07-May-2018

 Report ID:
 1695-3077-8535-9071

Verify report at www.vgl.ucdavis.edu/myvgl/verify.html

Name: TAYLOR'S MOONSHINE Reg:

YOB: Sex: Male Breed: Mini-Mid Jerseys

Sire: ALPHA Reg: 4930
Dam: Reg:

Beta Casein	Kappa Casein	Beta Lactoglobulin
A2/A2	Not Requested	Not Requested

In the A2C nomenclature for A2 genotyping, the Beta Casein above corresponds to A2/A2.

Beta Casein (A2 Genotyping)\* - milk yield and protein content. The A2 variant has been shown to have a positive association with milk yield and protein content. The expanded beta casein test reflected in this report detects variants A1, A2, A3, B, C, D, E, F, G, H1, H2, I, K and L.

Based on the aminoacid present in position 67 these variants can be classified into 2 groups - A1 and A2. Variants in the A1-group (Histidine) are A1, B, C, F and G. Variants in the A2-group (Proline) are A2, A3, D, E, H1, H2, I, K and L. The levels of bioactive peptide beta-casomorphin 7 (BCM7) produced from the metabolism of beta casein is several-fold higher for variants in the A1 group than in the A2 group. Higher levels of BCM7 have been associated with negative health effects in humans. Relative to levels of BCM7 production, variants within each group behave similarly but may differ in other properties.

**Kappa Casein** - protein yield and percentage. The A variant and AA genotype are associated with higher milk production. The B variant and BB genotype are associated with increased milk protein and casein content, and better cheese yield. Relative to protein content and cheese production, BB is the most favorable genotype, AB is intermediate and AA is the least favorable.

Beta Lactoglobulin - milk yield and whey protein content. The A variant is associated with increased milk yield and whey protein content. The B variant is associated with increased casein and fat content and is favorable for cheese production.

\* The beta case in test was redesigned by the VGL to detect other known variants and improve resolution of the A2 genotyping test. This change applies to all samples tested since December 9, 2016. For more information, please see https://vgl.ucdavis.edu/services/A2Genotyping.php

VGL is an A2 Corporation Limited (A2C) accredited and registered A2 Gene Tester. A2C owns various intellectual property rights (including patent rights, trademarks, and technical and commercial know how) relating to the commercial production and sale of a2<sup>TM</sup> branded milk or milk with reduced beta casein A1. It is possible that commercial use of test results may fall within the scope of such intellectual property rights, so if you intend to form a herd of animals used to produce a2<sup>TM</sup> branded milk or milk with reduced beta casein A1 on a commercial scale, you should contact A2C for more information.