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Check us out online at----  
[www.WoroneckiRanchQuarterHorses.com](http://www.WoroneckiRanchQuarterHorses.com)  
Or email, call or stop by the ranch.  
[woroneckiranch@westriv.com](mailto:woroneckiranch@westriv.com)

## **5 Panel Information as it Pertains to Woronecki Ranch Quarter Horses**

At Woronecki Ranch Quarter Horses we order a genetic kit through AQHA and the results are sent to VGL laboratory of the School of Veterinary Medicine at the University of California, Davis. VGL is internationally recognized as a pioneer and expert in DNA-based animal testing. The effects of these equine diseases are wide-ranging, from mild and manageable to severe and terminal. We have compiled a short description of each disorder tested. **In many instances we only test the necessary specific test based upon the parents test results. If both parents are N/N on all or some diseases then the offspring is also N/N on those diseases by default. Please see ALL PAGES of this document link.**

**Glycogen Branching Enzyme Deficiency (GBED)** doesn't allow a foal to store enough sugar in its cells for energy, function of the brain, heart and skeletal muscles. Most die within couple weeks of age, but none have been known to survive more than 2 months of age. These foals are often still born. GBED is a recessive trait and only horses that inherit both recessive genes from each parent (G/G) will be afflicted. **Carriers (N/G) and non-carriers (N/N) will have no problems in their lives as they will NOT be afflicted at all and they will be able to perform all performance activities. If deciding to breed a carrier (N/G) it is highly advised to not breed to another carrier to avoid producing afflicted offspring.**

**Hereditary Equine Regional Dermal Asthenia (HERDA)** causes the skin on a horse's back to literally peel away. The skin will slough becoming loose and tented to never return to its original position. HERDA is a recessive trait and only horses that inherit both recessive genes from each parent (HDR/HDR) will be afflicted. **Carriers (N/HDR) and non-carriers (N/N) will have no problems in their lives as they will NOT be afflicted at all and they will be able to perform all performance activities. If deciding to breed a carrier (N/HDR) it is highly advised to not breed to another carrier to avoid producing afflicted offspring**

**Hyperkalemic Periodic Paralysis (HYPP)** is a muscle condition that leads to weak muscles or severe twitching of the muscles. In most cases symptoms include tremors, weakness, cramping, sweating and inability to relax. In severe cases horse can collapse from a heart attack or respiratory failure and die. **HYPP is a dominant trait and carriers (N/H) will be afflicted, but can be managed with careful nutritional care. It is highly recommended NOT to breed a carrier.**

**Malignant Hyperthermia (MH)** is a rare but deadly disorder triggered by the use of anesthesia, muscle relaxant succinylcholine and stress. The horse will often experience high heart rate along with rapid breathing and extreme fever. This can also lead to death in some cases. Some horses are also a carrier of PSSM along with MH. **MH is a dominant trait and carriers will be afflicted if undergoing surgery or extreme stress. It is highly recommended NOT to breed a carrier.**

**Polysaccharide Storage Myopathy (PSSM1)** is when the muscles store too much glycogen causing muscle stiffness and muscle tying up. Most horses experience pain with strenuous exercise. **PSSM1 is a dominant trait but carriers (N/PSSM1) can be managed with proper diet and exercise. It is highly recommended NOT to breed a carrier.**

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**Whizzin Lena (AQHA 3562722)**

**1997 Bay Mare**

GBED Status N/N

HERDA Status N/N

HYPP Status N/N

MH Status N/N

PSSM1 Status N/N

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## Equine Genetic Testing Report



**Submitted By** AG118705  
Susie Turton  
Box 1235  
Sundre, AB T0M1X0  
CANADA

**Subject Horse**

Date Received: 3/8/2014

Horse Name: **Whizzin Lena**  
Breed: Quarter Horse  
Phenotype: Bay  
Sex: Mare

Lab Reference #: 00053611  
Registration: 3562722  
Birth: 1997

**Sire**

Sire Name: Topsail Whiz  
Breed: Quarter Horse  
Registration: 2675816  
Phenotype:

**Dam**

Dam Name: Petra Lena  
Breed: Quarter Horse  
Registration: 2306118  
Phenotype:

**Coat Color and Pattern Testing**

Tobiano	
Frame Overo	
Sabino 1	
Splashed White 1	
Splashed White 2	
Splashed White 3	
Appaloosa (LP)	
Red/Black Factor	
Agouti	
Cream Dilution	
Dun Dilution	
Silver Dilution	
Champagne	
Pearl Dilution	
Gray	

**Genetic Disorders**

X	HYPP	n/n	Clear: Negative for the HYPP gene mutation.
X	HERDA	N/N	Clear: Negative for the HERDA gene mutation.
X	GBED	N/N	Clear: Negative for the GBED gene mutation.
X	PSSM 1	n/n	Clear: Negative for the PSSM Type 1 gene mutation.
X	MH	n/n	Clear: Negative for the MH gene mutation found in Quarter horses and related breeds.
	JEB		
	CA		
	LFS		

**Genetic Marker Results**

Run Date:

-	-	-	-	-	-	-
AHT4	AHT3	ASB12	ASB2	ASB23	AVN	CA205P
-	-	-	-	-	-	-
WPS3	HIS9	HIS7	H1C10	H1G1	LEX3	LEX30
-	-	-	-	-	-	-
WHL20	WHL11	WHL1	WHL2	WHL3	WHL4	

CA = Cerebellar Ataxia  
GBED = Glycogen branching enzyme deficiency  
HERDA = Hereditary equine regional intestinal ataxia  
HYPP = Hyperkalemic Periodic Paralysis  
JEB = Junctional Epithelioma-Bullous Skin/Dial Pustule  
LFS = Lavender Foal Syndrome  
LWD = Lethal White Overo  
MH = Maligned Hyperkalemia  
PSSM1 = Polysaccharide Storage Myopathy Type 1

**Additional Comments**

Thank you for choosing Animal Genetics Inc.