

## Laboratory Report

**Laboratory #:** 479508  
**Order #:** 222537  
**Ordered By:** Madison Vasquez  
**(Co-)Owner:** Kourtney Haddix  
**Ordered:** March 14, 2025  
**Received:** March 31, 2025  
**Reported:** April 17, 2025

**Call Name:** Rita  
**Registered Name:** Red Prairie Goldenbadger Bottoms Up  
**Breed:** Golden Retriever  
**Sex:** Female  
**DOB:** Nov. 2024  
**Registration #:** -

### Results:

Disease	Gene	Genotype	Interpretation
Congenital Myasthenic Syndrome (Golden Retriever Type)	COLQ	WT/WT	Normal (Clear)
Degenerative Myelopathy (Common Variant)	SOD1	WT/WT	Normal (Clear)
Dystrophic Epidermolysis Bullosa (Golden Retriever Type)	COL7A1	WT/WT	Normal (Clear)
Exercise-Induced Collapse	DNM1	WT/WT	Normal (Clear)
Ichthyosis (Golden Retriever Type 1)	PNPLA1	WT/M	Carrier
Ichthyosis (Golden Retriever Type 2)	ABHD5	WT/WT	Normal (Clear)
Muscular Dystrophy (Golden Retriever Type)	DMD	WT/WT	Normal/Clear Female
Neuronal Ceroid Lipofuscinosis 5 (Golden Retriever Type)	CLN5	WT/WT	Normal (Clear)
Osteogenesis Imperfecta (Golden Retriever Type)	COL1A1	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Golden Retriever 1	SLC4A3	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Golden Retriever 2	TTC8	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Progressive Rod-Cone Degeneration	PRCD	WT/WT	Normal (Clear)

WT, wild type (normal); M, mutant; Y, Y chromosome (male)

### Interpretation:

Molecular genetic analysis was performed for 12 specific mutations reported to be associated with disease in dogs. We identified two normal copies of the DNA sequences in 11 of the mutations tested. Thus, this dog is not at an increased risk for the diseases associated with these 11 mutations. However, we identified one normal copy and one mutant copy of the DNA sequences for *PNPLA1*. Thus, this dog is a carrier of Ichthyosis (Golden Retriever Type 1).

### Recommendations:

Ichthyosis (Golden Retriever Type 1) is inherited in an autosomal recessive fashion. Based on this, and the fact that this dog showed a mutation in one copy of the *PNPLA1* gene, this dog is a carrier of this disease. Although dogs that carry only one copy of this mutation will not be clinically affected, if bred with another carrier, the pairing could produce affected offspring. To avoid producing affected offspring, this dog should be bred with dogs that are normal (WT/WT) for this gene. Dogs related to this dog have an increased risk to be affected by or

carry the mutated gene. Additional testing for this mutation is indicated for related dogs.

Paw Print Genetics® has genetic counseling available to you at no additional charge to answer any questions about these test results, their implications and potential outcomes in breeding this dog.

Paw Print Genetics® performed the tests listed on this dog. The genes/diseases reported here were selected by the client. Normal results do not exclude inherited mutations not tested in these or other genes that may cause medical problems or may be passed on to offspring. The results included in this report relate only to the items tested using the sample provided. These tests were developed and their performance determined by Paw Print Genetics. This laboratory has established and verified the test(s)' accuracy and precision with >99.9% sensitivity and specificity. The presence of mosaicism may not be detected by this test. Non-paternity may lead to unexpected results. This is not a breed identification test. Because all tests performed are DNA-based, rare genomic variations may interfere with the performance of some tests producing false results. If you think any results are in error, please contact the laboratory immediately for further evaluation. In the event of a valid dispute of results claim, Paw Print Genetics will do its best to resolve such a claim to the customer's satisfaction. If no resolution is possible after investigation by Paw Print Genetics with the cooperation of the customer, the extent of the customer's sole remedy is a refund of the fee paid. In no event shall Paw Print Genetics be liable for indirect, consequential or incidental damages of any kind. Any claim must be asserted within 60 days of the report of the test results.