

## Laboratory Report

<b>Laboratory #:</b>	30371	<b>Call Name:</b>	Sierra
<b>Order #:</b>	12160	<b>Registered Name:</b>	JBC Sierra
<b>Ordered By:</b>	Jennifer Neitzke	<b>Breed:</b>	Border Collie
<b>Ordered:</b>	June 14, 2016	<b>Sex:</b>	Female
<b>Received:</b>	June 27, 2016	<b>DOB:</b>	May 2016
<b>Reported:</b>	July 7, 2016	<b>Registration #:</b>	-

### Results:

Disease	Gene	Genotype	Interpretation
Collie Eye Anomaly	<i>NHEJ1</i>	WT/WT	Normal (clear)
Degenerative Myelopathy	<i>SOD1</i>	WT/WT	Normal (clear)
Intestinal Cobalamin Malabsorption (Border Collie Type)	<i>CUBN</i>	WT/WT	Normal (clear)
Multidrug Resistance 1	<i>ABCB1</i>	WT/WT	Normal (clear)
Neuronal Ceroid Lipofuscinosis 5	<i>CLN5</i>	WT/WT	Normal (clear)
Trapped Neutrophil Syndrome	<i>VPS13B</i>	WT/WT	Normal (clear)

WT, wild type (normal); M, mutant

### Interpretation:

Molecular genetic analysis was performed for six specific mutations reported to be associated with disease in dogs. We identified two normal copies of the DNA sequences in the mutations tested.

### Recommendations:

No mutations were identified. Thus, this dog is not at an increased risk for the diseases caused by or associated with the mutations tested. Because this dog is "clear" of these mutations, this dog will only pass the normal genes on to its offspring. 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. 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.

*\*Note: Preliminary results were reported to the client via phone on July 7, 2016.*

*Collie Eye Anomaly was performed under an exclusive sublicense from OptiGen®, LLC*



**Christina J Ramirez, PhD, DVM, DACVP**  
 Medical Director



**Casey R Carl, DVM**  
 Associate Medical Director

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. These tests were developed and their performance determined by Paw Print Genetics™. This laboratory has established and verified the tests' accuracy and precision. Because all tests performed are DNA-based, rare genomic variations may interfere with the performance of some tests producing false results. If you think these 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.

## Coat Color and Trait Certificate

<b>Call Name:</b>	Sierra	<b>Laboratory #:</b>	30371
<b>Registered Name:</b>	JBC Sierra	<b>Registration #:</b>	-
<b>Breed:</b>	Border Collie	<b>Certificate Date:</b>	Sept. 8, 2017
<b>Sex:</b>	Female		
<b>DOB:</b>	May 2016		

**This canine's DNA showed the following genotype(s):**

Coat Color/Trait Test	Gene	Genotype	Interpretation
A Locus (Agouti)	ASIP	a <sup>t</sup> /a <sup>t</sup>	Tricolor, black and tan
M Locus (Merle)	PMEL	m/m	Non merle

**Interpretation:**

This dog carries two copies of **a<sup>t</sup>** which results in tan points and can also present as a black and tan or tricolor coat color. However, this dog's coat color is also dependent on the E, K, and B genes. The tan point coat color is only expressed if the dog is also E/E or E/e at the E locus and k<sup>y</sup>/k<sup>y</sup> at the K locus. This dog will pass on **a<sup>t</sup>** to 100% of its offspring.

This dog carries two copies of **m** and, therefore, does not have a merle coat color. This dog will pass on **m** to 100% of its offspring.

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.



**Helen F Smith, PhD**  
Assistant Laboratory Director



**Christina J Ramirez, PhD, DVM, DACVP**  
Medical Director

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. These tests were developed and their performance determined by Paw Print Genetics®. This laboratory has established and verified the tests' accuracy and precision. Because all tests performed are DNA-based, rare genomic variations may interfere with the performance of some tests producing false results. If you think these 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.

## Coat Color and Trait Certificate

<b>Call Name:</b>	Sierra	<b>Laboratory #:</b>	30371
<b>Registered Name:</b>	JBC Sierra	<b>Registration #:</b>	-
<b>Breed:</b>	Border Collie	<b>Certificate Date:</b>	Jan. 6, 2017
<b>Sex:</b>	Female		
<b>DOB:</b>	May 2016		

**This canine's DNA showed the following genotype(s):**

Coat Color/Trait Test	Gene	Genotype	Interpretation
M Locus (Merle)	<i>PMEL</i>	m/m	Non merle

### Interpretation:

This dog carries two copies of **m** and, therefore, does not have a merle coat color. This dog will pass on **m** to 100% of its offspring.

Paw Print Genetics<sup>®</sup> 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.



**Blake C Ballif, PhD**  
Laboratory & Scientific Director



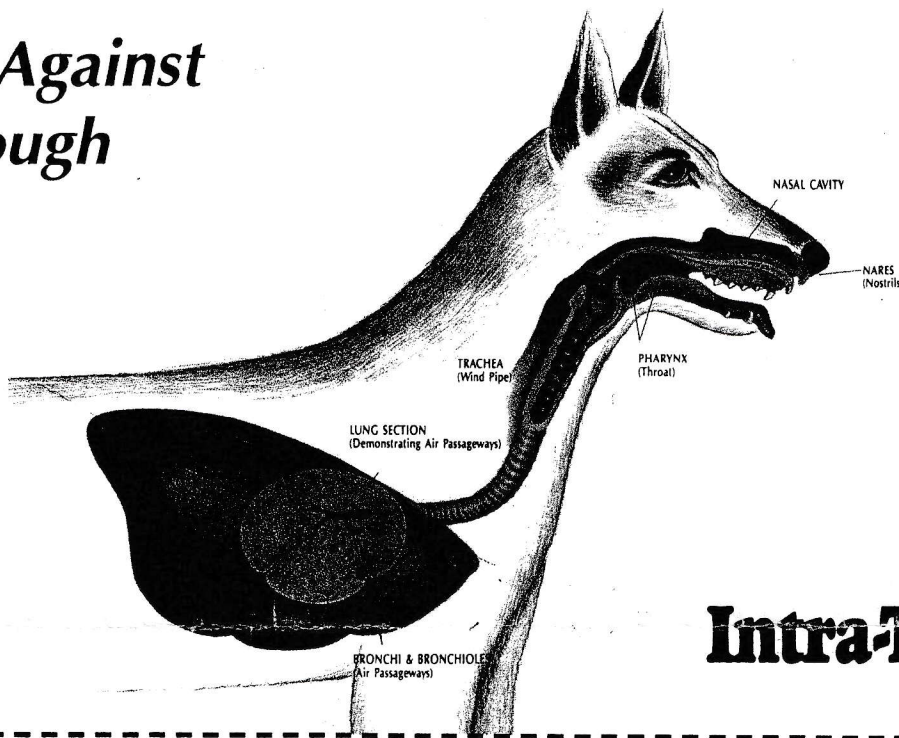
**Christina J Ramirez, PhD, DVM, DACVP**  
Medical Director

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. These tests were developed and their performance determined by Paw Print Genetics<sup>®</sup>. This laboratory has established and verified the tests' accuracy and precision. Because all tests performed are DNA-based, rare genomic variations may interfere with the performance of some tests producing false results. If you think these 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.



# Guarding Against Canine Cough

SPV-INT-54



## Intra-Trac II

### CANINE COUGH VACCINATION CERTIFICATE

Dog Name: Sierra Owner Name: Jennifer Neitzke  
 Veterinarian: A. Michael Manzoni DVM Veterinarian's Signature: A. Michael Manzoni DVM  
 Date of Vaccination: 11-24-2017 Serial No. 2268731 Exp. Date: 29 2020  
 Revaccination Date: 11-23-2018  
 History of Other Vaccinations: DA2PPV exp 11-23-2018  
Lepto exp 11-23-2018  
 Other Information: Rabies exp 11-23-2020

NOTE: This information provided by Schering-Plough Animal Health, makers of

### Intra-Trac II



**VILLAGE VETERINARY CLINIC**  
 A. M. Manzoni DVM  
 105 W. Saginaw St.  
 HEMLOCK, MICHIGAN 49828  
 800-642-2186



**RABIES VACCINATION CERTIFICATE**  
 NASPHV FORM 51 (revised 2007)

RABIES TAG # **4914**

Owner's Name & Address Print Clearly

MICROCHIP #

LAST **Nietzke** FIRST **Jennifer** M.I.

TELEPHONE # **860-4157**

NO [REDACTED] STREET [REDACTED] CITY **Hemlock** STATE **MI** ZIP **48626**

SPECIES  
 DOG   
 CAT   
 FERRET   
 OTHER   
 (specify)

AGE **1 1/2** MONTHS   
 YEARS

SIZE **28.8'**  
 Under 20 lbs.   
 20 - 50 lbs.   
 Over 50 lbs.

PREDOMINANT BREED  
**border collie**

PREDOMINANT COLORS/  
 MARKINGS  
**blonde**

ANIMAL NAME  
**Sierra**

ANIMAL CONTROL LICENSE  1 YR  3 YR  OTHER

VETERINARIAN'S NAME  
**A. Michael Manzoni DVM**

DATE VACCINATED  
**11-24-2017**  
 MONTH/DAY/YEAR

PRODUCT NAME  
**IMRAB**

LICENSE NUMBER  
**MI 6901905774**

MANUFACTURER  
**MER**  
 FIRST 3 LETTERS

VETERINARIAN'S SIGNATURE  
**A. Michael Manzoni DVM**

NEXT VACCINATION DUE BY  
**11-23-2020**  
 MONTH/DAY/YEAR

1 YR USDA Licensed Vaccine  
 3 YR USDA Licensed Vaccine  
 4 YR USDA Licensed Vaccine  
 Initial Dose  Booster Dose  
**12246**  
 VACCINE SERIAL (LOT) NUMBER

VILLAGE VETERINARY CLINIC  
 ADDRESS  
**A. M. Manzoni DVM**  
**105 W. Saginaw St.**  
**HEMLOCK, MICHIGAN 48626**  
**928 642 2735**