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Genetic Comprehensive Report

Animal Name: Honeysuckle

Owner:
Beverley Rutland Manners
Membership Number : Not assigned
Member Body/Breed Club: Not assigned

Approved Collection Method: No

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Genetic Comprehensive Report

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Owner's details

Name:	Beverley Rutland Manners

Animal's Details

Registered Name :	
Pet Name :	Honeysuckle
Registration Number :	
Breed :	Australian Cobberdog
Microchip Number :	
Sex :	
Date of Birth :	Not Provided
Colour :	

Sample Collection Details

Case Number :	23E02570
Collected By :	
Approved Collection :	No
Sample Type :	SWAB

Test Details

Test Requested :	Australian Cobberdog – Full Breed Profile
Pet Name :	Honeysuckle
Date of Test :	24th May 2023

Authorisation

Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported:

.....

George Sofronidis BSc (Hons)

.....

Dr Noam Pik BVSc, MAVS

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Genetic Comprehensive Report

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Animal's Details

Registered Name :	
Pet Name :	Honeysuckle
Registration Number :	
Breed :	Australian Cobberdog
Microchip Number :	
Sex :	
Date of Birth :	Not Provided
Colour :	

P1_2	G G	P3_2	A A	P3_3	A G	P11_3	C C	P12_1	A A	P24_2	A A	P12_3	G G	P30_3	A A
P13_1	C C	P24_3	C C	P31_1	A C	P28_3	A T	P31_3	G G	P25_1	A G	P32_2	C C	P13_2	A T
P13_3	A C	P25_2	G G	P25_3	C C	P32_3	A G	P33_1	G G	P14_1	T T	P10_1	G G	P26_1	A G
P33_3	A G	P26_2	C C	P14_2	C G	P26_3	G G	P14_3	C C	P15_1	A A	P34_1	A C	P34_2	A G
P34_3	A A	P10_3	A C	P15_2	A A	P15_3	C C	P16_3	C C	P35_1	G G	P35_2	G G	P36_1	C C
P17_1	G G	P36_2	C C	P37_2	G G	P17_2	A A	P29_1	G G	P37_3	G G	P38_1	C C	P38_2	A G
P27_1	G G	P17_3	A G	P27_2	A A	P4_3	G G	P18_2	C C	P18_3	A C	P5_1	G G	P11_1	A G
P19_1	T T	P19_2	A G	P5_2	G G	P19_3	G G	P2_1	G G	P2_3	A A	P27_3	A T	P20_1	A A
P20_3	A G	P5_3	G G	P11_2	C C	P6_2	G G	P6_3	C C	P21_1	A A	P21_3	A G	P22_2	A C
P28_1	G G	P7_1	C C	P7_2	A G	P28_2	C G	P7_3	A A	P29_2	G G	P8_1	A G	P22_3	G G
P8_2	G G	P8_3	G G	P23_1	C G	P9_3	A A	P23_2	C C	P23_3	A A	P24_1	A G	P3_1	A G

Genetic Comprehensive Report

Animal's Details

Registered Name :	
Pet Name :	Honeysuckle
Registration Number :	
Breed :	Australian Cobberdog
Microchip Number :	
Sex :	
Date of Birth :	Not Provided
Colour :	

BICF2G630103624	C C	BICF2G630111735	A G	BICF2G630122583	A G	BICF2G630133028	A G
BICF2G630133994	A G	BICF2G630149030	G G	BICF2G630200354	A G	BICF2G630209886	A A
BICF2G630220326	A G	BICF2G630221287	A G	BICF2G630264994	A G	BICF2G630276039	G G
BICF2G630276136	A G	BICF2G630306265	G G	BICF2G630326688	A A	BICF2G630328172	G G
BICF2G630328323	A A	BICF2G630367177	A C	BICF2G630409193	A A	BICF2G630453264	C C
BICF2G630474528	A G	BICF2G630499189	G G	BICF2G630539759	G G	BICF2G630552597	A A
BICF2G630653298	A G	BICF2G630666362	G G	BICF2G630691635	G G	BICF2G630704611	A A
BICF2G630708384	A G	BICF2G630762459	A A	BICF2G63078341	G G	BICF2G63088115	A G
BICF2P1010945	A G	BICF2P105070	G G	BICF2P1138733	G G	BICF2P1159837	A G
BICF2P1181787	A A	BICF2P1192522	G G	BICF2P1226745	A A	BICF2P1286728	A G
BICF2P1362405	A G	BICF2P1369088	G G	BICF2P1391407	A G	BICF2P164304	A G
BICF2P184963	G G	BICF2P251850	A C	BICF2P277987	A A	BICF2P345488	A A
BICF2P401677	A G	BICF2P414351	A A	BICF2P42825	A A	BICF2P452541	A G
BICF2P457665	A A	BICF2P464536	A A	BICF2P465276	A G	BICF2P46604	A G
BICF2P46672	G G	BICF2P496466	A G	BICF2P496837	G G	BICF2P567552	A G
BICF2P590440	A A	BICF2P600196	G G	BICF2P615597	A C	BICF2P635478	A A
BICF2P651575	G G	BICF2P651577	A A	BICF2P70891	A A	BICF2P725743	G G
BICF2P728698	A A	BICF2P789367	A G	BICF2P805553	G G	BICF2P840653	A G
BICF2P885380	G G	BICF2P923421	G G	BICF2P950116	G G	BICF2P963969	G G
BICF2P998036	A A	BICF2S22912385	G G	BICF2S22926284	G G	BICF2S22953709	A A
BICF2S23018785	G G	BICF2S23111132	A G	BICF2S23138418	G G	BICF2S23141330	A T
BICF2S23214514	A A	BICF2S23326150	A A	BICF2S23329382	A C	BICF2S23357186	C G
BICF2S2338108	A G	BICF2S23434277	G G	BICF2S23529290	A A	BICF2S23535154	A A
BICF2S23614068	A A	BICF2S2399705	A A	G1425f16S28	A A	TIGRP2P255960_rs9030578	A A
TIGRP2P283310_rs8881748	A A	TIGRP2P328303_rs8531882	A C	TIGRP2P354499_rs9162547	G G	TIGRP2P356245_rs8830240	C C
TIGRP2P362535_rs9130694	A G	TIGRP2P389035_rs9038546	A G				

Genetic Comprehensive Report

Animal's Details

Registered Name :	
Pet Name :	Honeysuckle
Registration Number :	
Breed :	Australian Cobberdog
Microchip Number :	
Sex :	
Date of Birth :	Not Provided
Colour :	

BICF2G630102146	G G	BICF2G630149581	A A	BICF2G630159183	G G	BICF2G630170631	A C
BICF2G630187649	T T	BICF2G630187658	A G	BICF2G630204463	A G	BICF2G630209373	A A
BICF2G630209508	G G	BICF2G630255439	A G	BICF2G630271966	A G	BICF2G630274628	A G
BICF2G630307199	A C	BICF2G630340940	A A	BICF2G630340944	A A	BICF2G630365778	A C
BICF2G630382763	A A	BICF2G630437783	C C	BICF2G630449851	G G	BICF2G630467607	A C
BICF2G630488267	G G	BICF2G630504410	G G	BICF2G630552598	A A	BICF2G630558437	G G
BICF2G630594648	G G	BICF2G630634836	A A	BICF2G630641678	G G	BICF2G630646431	N R
BICF2G630689403	A G	BICF2G630798972	A G	BICF2G630814422	A A	BICF2G63090019	A T
BICF2P1019402	A A	BICF2P103615	A G	BICF2P1060087	G G	BICF2P1104630	A A
BICF2P1141966	A G	BICF2P1173491	G G	BICF2P1183665	A G	BICF2P1193353	A G
BICF2P1216677	A G	BICF2P1226838	A G	BICF2P1232055	A G	BICF2P1271174	A G
BICF2P129347	A A	BICF2P129670	G G	BICF2P1308802	A A	BICF2P1310805	C C
BICF2P1344095	A G	BICF2P1346673	A G	BICF2P1357746	A G	BICF2P1454500	A A
BICF2P155421	A C	BICF2P157421	G G	BICF2P182473	G G	BICF2P224656	A A
BICF2P237994	G G	BICF2P246592	A C	BICF2P250787	A A	BICF2P25730	A T
BICF2P283440	G G	BICF2P285489	A G	BICF2P345056	A G	BICF2P347679	G G
BICF2P378969	A C	BICF2P382742	A G	BICF2P415783	G G	BICF2P422152	A A
BICF2P508740	C G	BICF2P516667	G G	BICF2P553317	A G	BICF2P554817	A A
BICF2P561057	A C	BICF2P585943	A G	BICF2P624936	A G	BICF2P635172	A G
BICF2P643134	A A	BICF2P65087	G G	BICF2P651576	A A	BICF2P717226	A C
BICF2P751654	A A	BICF2P774003	A A	BICF2P798404	A G	BICF2P842510	A A
BICF2P856893	A G	BICF2P878175	G G	BICF2P935470	A A	BICF2P990814	G G
BICF2S22910736	A G	BICF2S22913753	A A	BICF2S22928800	A G	BICF2S22943825	A G
BICF2S23028732	A A	BICF2S23031254	C C	BICF2S23049416	A G	BICF2S23057560	A A
BICF2S23124313	A G	BICF2S23126079	A G	BICF2S23246455	A G	BICF2S23250041	C C
BICF2S23333411	A A	BICF2S23356653	G G	BICF2S23429022	A A	BICF2S23449478	A G
BICF2S23519644	G G	BICF2S2351979	A A	BICF2S2359809	A A	BICF2S236196	A A
BICF2S23626625	C C	BICF2S23648905	A G	BICF2S23649947	G G	BICF2S23713161	G G
BICF2S23737033	A A	BICF2S24511913	A G	TIGRP2P106843_rs8858816	A G	TIGRP2P116826_rs8741680	A G
TIGRP2P164720_rs8839809	A G	TIGRP2P177606_rs8886563	C G	TIGRP2P215708_rs8686029	A T	TIGRP2P316532_rs8597522	A A
TIGRP2P372104_rs9153277	A A	TIGRP2P402042_rs9121006	G G	TIGRP2P406551_rs9235397	G G	TIGRP2P407751_rs8803124	A A

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Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : ACHROMATOPSIA (LABRADOR TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : CNGA3
Variant Detected : c.1931_1933delTGG

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : AUTOSOMAL HEREDITARY RECESSIVE NEPHROPATHY
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Collagen type IV alpha 4 chain (COL4A4) on chromosome 25
Variant Detected : Base Substitutionc.115A>Tp.Lys39STOP

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : CENTRONUCLEAR MYOPATHY (LABRADOR RETRIEVER TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : 3-hydroxyacyl-CoA dehydratase 1 (HACD1) also known as PTPLA on chromosome 2
Variant Detected : 236 bp SINE repeat insertion in exon 2 of HACD1

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

Scan to authenticate this Report online

Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : CHONDRODYSTROPHY (CDDY) & INTERVERTEBRAL DISC DISEASE (IVDD) [RESEARCH ONLY]

Result : NEGATIVE FOR CFA18 (SHORT LIMB) VARIANT/HETEROZYGOUS FOR CFA12 VARIANT[1]

Gene : FGF4 Chr 12 and Chr 18

Variant Detected : retrogene insertion in Chr 12 and Chr 18

Chondrodystrophy and Intervertebral Disc Disease type 1 is associated with a FGF4 retrogene on CFA12. The insertion acts in a dominant fashion increasing a dog's risk of the chondrodystrophoid phenotype and IVDD by >50-fold. [2]Further phenotypes associated with CFA12 FGF4 retrogene [3]Disc Herniation: 18-fold increased riskDisc Surgery: 5-15 fold increased risk

Test Reported : COLLIE EYE ANOMALY/CHOROIDAL HYPOPLASIA

Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]

Gene : Non-homologous end joining factor 1 (NHEJ1) on chromosome 37

Variant Detected : Nucleotide Deletion7799 base pair deletion in Intron 4 of the NHEJ1 gene

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : CONE-ROD DYSTROPHY I - PRA (CRD -4/CORD I)

Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]

Gene : RPGR interacting protein 1 (RPGRIP1) on chromosome 15

Variant Detected :
Nucleotide Insertionc.338-339InsA(29)GGAAGCAACAGGATGp.Thr59STOP (frameshift and premature stop codon)

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : CONGENITAL MACROTHROMBOCYTOPENIA
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Tubulin beta 1 class VI (TUBB1) on Chromosome 24
Variant Detected : Base Substitutionc.745G>Ap.Asp249Asn

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : CONGENITAL MYASTHENIC SYNDROME (LABRADOR RETRIEVER TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : 2-hydroxyacyl-CoA lyase 1 (COLQ) on chromosome 23
Variant Detected : Base Substitutionc.1010T>Cp.Ile337Thr

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : CURLY COAT DRY EYE SYNDROME (CAVALIER TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Family with sequence similarity 83 member H (FAM83H) on chromosome 13
Variant Detected : Nucleotide Deletionc.991delG

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : CYSTINURIA (SLC3A1) LABRADOR RETRIEVER TYPE
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Solute carrier family 3 member 1 (SLC3A1) on chromosome 10
Variant Detected : Nucleotide Deletionc.350delGp.Gly117Alafs*41

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : DEGENERATIVE MYELOPATHY
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Superoxide dismutase 1 (SOD1) on chromosome 31
Variant Detected : Base Substitutionc.118G>Ap.Glu40Lys

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : EHLERS-DANLOS SYNDROME (LABRADOR TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : COL5A1, chr9
Variant Detected : c.3038delGp.Gly1013ValfsTer260

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : ELLIPTOCYTOSIS B-SPECTRIN (LABRADOR RETRIEVER/POODLE TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Spectrin beta erythrocytic (SPTB) Chromosome 8
Variant Detected : Base Substitutionc.6384C>TThr2110Met

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : EPISODIC FALLING SYNDROME (CAVALIER TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Brevican (BCAN) Chromosome 7
Variant Detected : Nucleotide Deletion and Nucleotide Insertion15.7 kb deletion ins(GGCCTT)

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : EXERCISE INDUCED COLLAPSE (RETRIEVER TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : DNM1
Variant Detected : Base Substitution c.767 G>T

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : GANGLIOSIDOSIS GM2 (POODLE TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Hexosaminidase subunit beta (HEXB) on Chromosome 2
Variant Detected : Nucleotide Deletionc.391delGp.Val95fsX

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : GENERALISED PRA 1 (GOLDEN RETRIEVER TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Solute carrier family 4 member 3 (SLC4A3) on chromosome 37
Variant Detected : C.2601-2602 Insertion Cp.Glu868Arg-frameshiftX104

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : GLOBOID CELL LEUKODYSTROPHY/KRABBE'S DISEASE
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Galactosylceramidase (GALC) on Chromosome 8
Variant Detected : Base Substitutionc.473A>Cp.Tyr158Ser

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : GLOMERULOPATHY (PLN) KIRREL2
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : KIRREL2
Variant Detected : K2:c.1877C>G

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : GLOMERULOPATHY (PLN) NPHS1
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : NPHS1
Variant Detected : N1:c.3067G>A

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : HEREDITARY NASAL PARAKERATOSIS/DRY NOSE (LABRADOR RETRIEVER TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Suppressor of variegation 3-9 homolog 2 (SUV39H2) on chromosome 2
Variant Detected : Base Substitutionc.972T>Gp.Asn324Lys

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : HYPERURICOSURIA
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Solute carrier family 2 member 9 (SLC2A9) on chromosome 3
Variant Detected : Base Substitutionc.563G>Tp.Cys188Phe

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : IVERMECTIN SENSITIVITY MDR1 (MULTI DRUG RESISTANCE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : MDR1 on Chromosome 14
Variant Detected : Deletion 4bp AGAT

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : MACULAR CORNEAL DYSTROPHY (LABRADOR TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : LOC4
Variant Detected : c.814C>A

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : MALIGNANT HYPERTHERMIA
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Ryanodine receptor 1 (RYR1) on Chromosome 1
Variant Detected : Base Substitutionc.1640T>Cp.Val547Ala

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : MICROPHTHALMIA, ANOPHTHALMIA & COLOBOMA (WHEATEN TERRIER TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : RBP4 gene
Variant Detected : c.282_284del

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : MILD DISPROPORTIONATE DWARFISM (LABRADOR TYPE)*
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : COL11A2
Variant Detected :

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : MUCOPOLYSACCHARIDOSIS VI (POODLE TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene :
Variant Detected :

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : MYOTUBULAR MYOPATHY X-LINKED*
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : MTM1 on Chromosome X
Variant Detected : Base Substitution c.465C>A

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : NARCOLEPSY (LABRADOR)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Hypocretin receptor 2 (HCRTR2) on Chromosome 12
Variant Detected : Base Substitutionc.1105+5G>Asplice site mutation

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : NEONATAL ENCEPHALOPATHY (POODLE TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Activating transcription factor 2 (ATF2) on Chromosome 36
Variant Detected : Base Substitutionc.152T>Gp.Met51Arg

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : PHOSPHOFRUCTOKINASE DEFICIENCY (SPANIEL TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Phosphofructokinase muscle (PFKM) on Chromosome 27
Variant Detected : Base Substitutionc.2228G>Ap.Trp743STOP

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : PROGRESSIVE ROD CONE DEGENERATION (PRCD) - PRA
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Photoreceptor disc component (PRCD) on Chromosome 9
Variant Detected : Base Substitutionc.5 G>Ap.Cys2Tyr

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : PYRUVATE KINASE DEFICIENCY (CANINE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : PKLR
Variant Detected : Deletion of C

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : SKELETAL DYSPLASIA 2 (MILD DISPROPORTIONATE DWARFISM)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Collagen alpha-2(XI) chain gene (COL11A2) on chromosome 12
Variant Detected : Base Substitutionc.143G>Cp.Arg48Pro

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : STARGARDT DISEASE (RETINAL DEGENERATION)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : ABCA4
Variant Detected : c.4176insC

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : TRAPPED NEUTROPHIL SYNDROME (BORDER COLLIE TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Vacuolar protein sorting 13 homolog B (VPS13B) on Chromosome 13
Variant Detected : Nucleotide DeletionCanFam 2.1 (g.4411956_4411960delGTTT)

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : VON WILLEBRAND'S DISEASE TYPE I
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : VWF
Variant Detected : c.7437G>A

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : E LOCUS - (CREAM/RED/YELLOW)
Result : **E/e - BLACK CARRIES EXTENSION [YELLOW/WHITE/APRICOT/RUBY/RED]**[1]
Gene : MC1R
Variant Detected : Em (point mutation) > E (wild type) > e (point mutation) chr5:63694334-63694334: C>T

One copy of black (E) and one copy of red/yellow/cream/apricot/white. These "e" colours are dependent on breed. The "e" allele is non-functional. May produce yellow/white/apricot/ruby or red offspring if mated to another carrier of "e".

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : EM (MC1R) LOCUS - MELANISTIC MASK
Result : **E^m/E^n - ONE COPY OF MASK ALLELE DETERMINED BY A SERIES**[1]
Gene : MC1R
Variant Detected : Base Substitution G>A

1 copy of mask and 1 copy of red/yellow – dog has mask and carries red/yellow/cream. Carries one dominant allele and one recessive allele.

Test Reported : BROWN (345DELPRO) DELETION
Result : **b^d/b^d - BROWN/CHOCOLATE, LIVER OR RED [DELETION]**[1]
Gene : TYRP1
Variant Detected : Base Substitution (Point Mutation)

Two copies of brown present – black pigmented (if present) is diluted to brown. Red/yellow dogs have brown noses and foot pads (liver pigment).

Test Reported : BROWN (GLNT331STOP) STOP CODON
Result : **B^s/B^s - DOES NOT CARRY BROWN/RED/LIVER or CHOCOLATE [STOP CODON]**[1]
Gene : TYRP1
Variant Detected : Point Mutation

Does not carry the brown stop codon. Please refer to the other brown variants to clarify potential colour for offspring.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : BROWN (SER41CYS) INSERTION CODON
Result : **b^c/b^c - BROWN/CHOCOLATE, LIVER OR RED [INSERTION]**[1]
Gene : TYRP1
Variant Detected : Base Substitution (Point Mutation)

Two copies of brown present – black pigmented (if present) is diluted to brown. Red/yellow dogs have brown noses and foot pads (liver pigment).

Test Reported : LIVER [TYRP1] (LANCASHIRE HEELER TYPE)
Result : **B^e/B^e - DOES NOT CARRY BROWN/LIVER [TYRP1]**[1]
Gene :
Variant Detected :

Test Reported : D (DILUTE) LOCUS
Result : **D/D - NO COPY OF MLPH-D ALLELE (DILUTE) - PIGMENT IS NORMAL**[1]
Gene : MLPH
Variant Detected : Base Substitution

Full colour, no dilute gene present. The D allele modifies the Melanophillin (MLPH) gene. This animal cannot produce "dilute" offspring. Please Note: There are other dilute variants d2 (Sloughi, Chow Chow & Thai Ridgeback) and rare d3 (Italian Greyhound & Chihuahua) so this test/result may not identify dilute in these breeds.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : K LOCUS (DOMINANT BLACK)
Result : K/K - DOMINANT BLACK - SOLID [WILL NOT BE BRINDLED or EXPRESS AGOUTI][1]
Gene : CBD103
Variant Detected : Deletion of GGG

Two copies of dominant black (K) are present. No brindle/red or fawn offspring will be produced. Will not express Agouti phenotype. This can also referred to as KB. In some breeds the K locus is fixed so all dogs will be KK. This (the K Locus) can be modified by other genes eg.liver, dilute, greying or merle. Red can only be added through the e locus.

Test Reported : A LOCUS (FAWN/SABLE;TRI/TAN POINTS)
Result : a^t/a^t - TAN POINTS/BLACK & TAN or TRICOLOUR MAY BE BRINDLED [SEE K LOCUS][1]
Gene : ASIP
Variant Detected : Base Substitution 246 G>T(A82S); G>A (R83H): C>T (p.R96C)

Homozygous for black and tan/tricolour (no hidden colours) allele. Tri factored/white factored in dogs that have white points. No Bi Factoring (Black White & Tan). Animals are primarily black and have areas of pheomelanin (tan) which tends to be seen on the leg and stomach areas, the side of he head and spots above the eyes. Please note the colour and distribution of pheomelanin "tan" will be dependent on the breed and other colour genes. Please note that any genes on the "A" series will only be expressed if the K locus is kk, kkbr or kbrkbr.

Test Reported : PIED (BOTH SINE AND REPEAT VARIANTS)
Result : sp/sp - TWO COPIES OF PIEBALD [NEARLY SOLID WHITE, PARTI COAT COLOUR][1]
Gene : MITF-M on Chromosome 20
Variant Detected :
g.chr20:21836563insSINELength polymorphism (repeat CAGA) chr20:21839332-21839366 MITF-M

Piebald. The dog carries two copies of the Melanocyte Inducing Transcription Factor (MITF) "sp" allele.Carries a single copy of the Melanocyte Inducing Transcription Factor (MITF) "sp" allele. In some breeds the dog may have limited random coat colour deletion, this can vary from a few white hairs up to half white. For some breeds pied is any amount of white on the dog at all, for others it is a dog that is predominantly white. It has also been shown that sp/sp does not present as piebald in many wolves and nordic dog breeds. The dog may pass on the "sp" allele to offspring. The dog may have limited coat colour and will always pass on the "sp" allele to any offspring.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : MERLE

Result : **m [171bp] / m [171bp] - NON MERLE SOLID COAT (NO CHANGE TO COAT or EYE COLOUR)**[1]

Gene : SILV

Variant Detected :

250 base pair SINE insertion, oligo(dA)-rich tails with length polymorphism. Detects and reports all the 7 alleles on the M Locus (Mh, M, Ma+, Ma, Mc+, Mc and m)

There are many factors that may influence a Merle result, these include mosaicism (merle expressed in different cell types) or the amount of circulating merle copies within the sample type. If this result does not match your phenotype please contact Orivet to request retest or re-analysis of the sample.

Test Reported : LONG HAIR GENE (CANINE C95F)

Result : **POSITIVE - SHOWING THE PHENOTYPE**[1]

Gene : FGF5

Variant Detected : p.Cys95Phe c284G>T (Point Mutation)

The phenotype/trait tested is present. Please Note this can vary from breed to breed and within breed.

Test Reported : SHEDDING (MC5R)

Result :

SHD/SHD [LOW SHEDDING] - NO COPIES OF THE SHEDDING (MC5R) VARIANT DETECTED [REFER TO R151W (IC) FOR LEVEL]

1

Gene : MC5R

Variant Detected :

The dog will (may) exhibit low or no levels of shedding. Please Note: this level is also dependent on the furnishing allele. If the dog has no IC (R151W) phenotype will be low shedding.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : COAT COMPOSITION CFA28 GENE (DOUBLE/SINGLE COAT)
Result : **UDC/udc - ONE COPY OF THE DOUBLE COAT (DENSE UNDERCOAT) PHENOTYPE DETECTED**[1]
Gene : CFA28
Variant Detected :

Moderate to Low Shedding please refer to IC result to clarify level of shedding

Test Reported : CURLY COAT/HAIR CURL (KRT71 R151W)
Result :
ONE COPY OF THE KRT71 R151W (CU/Cu) VARIANT DETECTED - MOST LIKELY TO HAVE MODERATE 'WAVY' CURLY COAT PHENOTYPE
1
Gene : KRT71 (R151W)
Variant Detected : chr27:2539211-2539211: c.451C>T

Please note there are other additional curly coat genes/variant that will impact the curly coat phenotype.

Test Reported : CURLY COAT PHENOTYPE (KRT71 - P.SER422ARGFSTER)
Result :
NEGATIVE FOR THE KRT71 (p.Ser422ArgfsTer) VARIANT - NOT SHOWING THE CURLY COAT (C2) PHENOTYPE
1
Gene : KRT71
Variant Detected : c.1266_1273delCCTGAAGCinsACA p. Ser422ArgfsTer

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Sample with Lab ID Number 23E02570 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : IMPROPER COAT (RSPO2)

Result : **IC2/ic2 - CARRIES ONE COPY THE IMPROPER COAT RSPO2 (DELETION) VARIANT DETECTED**[1]

Gene : RSPO2

Variant Detected : 167 bp insertion in 3'UTR region

Please Note: This is one of the 3 IC variants that are associated with IC.There may be other causes of this condition in dogs and a carrier result does not exclude a different mutation in this gene or any other gene that may result in a similar genetic trait.

Owner's Name : Beverley Rutland Manners **Pet Name :** Honeysuckle

Microchip Number **Approved Collection Method :** No

Glossary of Genetic Terms (Results)

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NEGATIVE / CLEAR [NO VARIANT DETECTED]

No presence of the variant (mutation) has been detected. The animal is clear of the disease and will not pass on any disease-causing mutation.

CARRIER [ONE COPY OF THE VARIANT DETECTED]

This is also referred to as HETEROZYGOUS. One copy of the normal gene and copy of the affected (mutant) gene has been detected. The animal will not exhibit disease symptoms or develop the disease. Consideration needs to be taken if breeding this animal - if breeding with another carrier or affected or unknown then it may produce an affected offspring.

POSITIVE / AT RISK [TWO COPIES OF THE VARIANT DETECTED]

Two copies of the disease gene variant (mutation) have been detected also referred to as HOMOZYGOUS for the variant. The animal may show symptoms (affected) associated with the disease. Appropriate treatment should be pursued by consulting a Veterinarian.

POSITIVE HETEROZYGOUS [ONE COPY OF THE DOMINANT VARIANT DETECTED]

Also referred to as POSITIVE ONE COPY or POSITIVE HETEROZYGOUS. This result is associated with a disease that has a dominant mode of inheritance. One copy of the normal gene (wild type) and affected (mutant) gene is present. Appropriate treatment should be pursued by consulting a Veterinarian. This result can still be used to produce a clear offspring.

NORMAL BY PARENTAGE HISTORY

The sample submitted has had its parentage verified by DNA. By interrogating the DNA profiles of the Dam, Sire and Offspring this information together with the history submitted for the parents excludes this animal from having this disease. The controls run confirm that the dog is NORMAL for the disease requested.

NORMAL BY PEDIGREE

The sample submitted has had its parentage verified by Pedigree. The pedigree has been provided and details(genetic testing reports) of the parents have been included. Parentage could not be determined via DNA profile as no sample was submitted.

NO RESULTS AVAILABLE

Insufficient information has been provided to provide a result for this test. Sire and Dam information and/or sample may be required. This result is mostly associated with tests that have a patent/license and therefore certain restrictions apply. Please contact the laboratory to discuss.

INDETERMINABLE

The sample submitted has failed to give a conclusive result. This result is mainly due to the sample failing to "cluster" or result in the current grouping. A recollection is required at no charge.

DNA PROFILE

Also known as a DNA fingerprint. This is unique for the animal. No animal shares the same DNA profile. An individual's DNA profile is inherited from both parents and can be used for verifying parentage (pedigrees). This profile contains no disease or trait information and is simply a unique DNA signature for that animal.

Glossary of Genetic Terms (Results)

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PARENTAGE VERIFICATION/ QUALIFIES/CONFIRMED OR DOES NOT QUALIFY/EXCLUDED

Parentage is determined by examining the markers on the DNA profile. A result is generated and stated for all DNA parentage requests.Parentage confirmation reports can only be generated if a DNA profile has been carried out for Dam, Offspring and possible Sire/s.

PENDING

PENDING

TRAIT (PHENOTYPE)

A feature that an animal is born with (a genetically determined characteristic).Traits are a visual phenotype that range from colour to hair length, and also includes certain features such as tail length. If an individual is AFFECTED for a trait then it will show that characteristic eg.AFFECTED for the B (Brown) Locus or bb will be brown/chocolate.

POSITIVE – SHOWING THE PHENOTYPE

The animal is showing the trait or phenotype tested.

CLARIFICATION OF GENETIC TESTING

The goal of genetic testing is to provide breeders with relevant information to improve breeding practices in the interest of animal health.However, genetic inheritance is not a simple process, and may be complicated by several factors. Below is some information to help clarify these factors.

The goal of genetic testing is to provide breeders with relevant information to improve breeding practices in the interest of animal health.However, genetic inheritance is not a simple process, and may be complicated by several factors. Below is some information to help clarify these factors.

1) Some diseases may demonstrate signs of what Geneticists call "genetic heterogeneity". This is a term to describe an apparently single condition that may be caused by more than one mutation and/or gene

2) It is possible that there exists more than one disease that presents in a similar fashion and segregates in a single breed. These conditions -although phenotypically similar - may be caused by separate mutations and/or genes.

3) It is possible that the disease affecting your breed may be what Geneticists call an "oligogenic disease". This is a term to describe the existence of additional genes that may modify the action of a dominant gene associated with a disease. These modifier genes may for example give rise to a variable age of onset for a particular condition, or affect the penetrance of a particular mutation such that some animals may never develop the condition.

The range of hereditary diseases continues to increase and we see some that are relatively benign and others that can cause severe and/or fatal disease. Diagnosis of any disease should be based on pedigree history, clinical signs, history (incidence) of the disease and the specific genetic test for the disease. Penetrance of a disease will always vary not only from breed to breed but within a breed, and will vary with different diseases. Factors that influence penetrance are genetics, nutrition and environment. Although genetic testing should be a priority for breeders, we strongly recommend that temperament and phenotype also be considered when breeding.

Orivet Genetic Pet Care aims to frequently update breeders with the latest research from the scientific literature. If breeders have any questions regarding a particular condition, please contact us on (03) 9534 1544 or admin@orivet.com and we will be happy to work with you to answer any relevant questions.