

DIAGNOSTIC CASE REPORT

U. S. GEOLOGICAL SURVEY-BIOLOGICAL RESOURCES DIVISION
NATIONAL WILDLIFE HEALTH CENTER-HONOLULU FIELD STATION
P. O. BOX 50167, 300 ALA MOANA BLVD., Rm. 8-132
HONOLULU, HAWAII 96850
Tel: 808-792-9520, Fax: 792-9596, Email: thierry_work@usgs.gov

Case Number: 25591

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Species submitted (n):

Turtle: Green (14)

SPECIMENS SUBMITTED: Blood-Chilled

These turtles were sampled in a collaboration between UH Hilo MOP program, George Balazs, NOAA, and USGS. The objective was to assess health of sea turtles near the ongoing lava outflow at Kapoho to determine any potential impacts. Animals were captured by MOP students and evaluated by NOAA and USGS. Each turtle underwent a physical exam comprising visualization of integument, eyes, and oral cavity, weight, measurement of SCL, and procurement of blood to measure packed cell volume and total solids.

Acc	Animal	TagNo	Diagnosis
1	Turtle: Green	R423E16304F	Undetermined-Normal tissue
2	Turtle: Green	982000364287051	Undetermined-Normal tissue
3	Turtle: Green	422D52140E	Undetermined-Normal tissue
4	Turtle: Green	470C786F50	Undetermined-Normal tissue
5	Turtle: Green	422F0C2435	Undetermined-Normal tissue
6	Turtle: Green	9823000364999102	Undetermined-Normal tissue
7	Turtle: Green	982000364284419	Undetermined-Normal tissue
8	Turtle: Green	982000364287469	Undetermined-Normal tissue
9	Turtle: Green	48534F3E0A	Undetermined-Normal tissue
10	Turtle: Green	982000364283879	Undetermined-Normal tissue
11	Turtle: Green	982000364283905	Undetermined-Normal tissue
12	Turtle: Green	470C676F14	Undetermined-Normal tissue
13	Turtle: Green	4C3B537A25	Undetermined-Normal tissue
14	Turtle: Green	424E3F0149	Undetermined-Normal tissue

Comments: 14 turtles were examined of which 13 were bled (blood could not be obtained for one animal). No significant abnormalities were seen in any of the turtles physically or behaviorally. The weights (mean±SD;range) (27.2±9.1;12.5-40.2 kg) and straight carapace length (58±7.6; 45.2-66.8 cm) were within normal limits as were the total proteins (4.7±0.6;3.2-5.6) and packed cell volumes (33.5±2.9;29-38). Based on normal physical exams and the aforementioned parameters, these appeared to be normal healthy turtles.

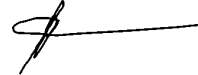
Management: There was no evidence that these animals were adversely affected by ongoing lava flows at Kapoho. Whether the same applies to turtles closer to the lava is unclear. Vigilance for debilitated or abnormally behaving turtles might be warranted if this continues to be a concern.

Report Date (mm/dd/yyyy): 8/31/2018

Necropsy report: Enclosed

Copies of this report sent to:

Mr. George Balazs (NOAA)



If you have questions regarding this case, contact Thierry M. Work MS, DVM, MPVM at 808-792-9520. Include above Case Number. Diagnostic findings may not be used for publication without the pathologist's knowledge and consent.

NOTE: Information in this report supersedes any information from previous reports regarding this case .

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 1
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(R423E16304F)
SPECIES:(Turtle: Green) AGE:(Subadult) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (36.4 kg), Straight carapace length (66.1 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-30%, TotalSolids-5 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	()	(M00010)	(GA3850)	()	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 2
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(982000364287051)
SPECIES:(Turtle: Green) AGE:(Immature) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (18.6 kg), Straight carapace length (51.5 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-33%, TotalSolids-3.2 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	()	(M00010)	(GA3850)	()	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 3
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(422D52140E)
SPECIES:(Turtle: Green) AGE:(Subadult) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (36.4 kg), Straight carapace length (66.5 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

Laboratory Results

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	(	(M00010)	(GA3850)	(((

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 4
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(470C786F50)
SPECIES:(Turtle: Green) AGE:(Immature) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (27 kg), Straight carapace length (55.9 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-35%, TotalSolids-4.4 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	()	(M00010)	(GA3850)	()	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 5
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(422F0C2435)
SPECIES:(Turtle: Green) AGE:(Subadult) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (39.5 kg), Straight carapace length (66.3 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-38%, TotalSolids-5 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	(	)	(M00010)	(GA3850)	()(

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 6
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(9823000364999102)
SPECIES:(Turtle: Green) AGE:(Immature) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (15.6 kg), Straight carapace length (47.8 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-29%, TotalSolids-4.8 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	(	)	(M00010)	(GA3850)	()()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 7
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(982000364284419)
SPECIES:(Turtle: Green) AGE:(Immature) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (29.7 kg), Straight carapace length (59.8 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-31%, TotalSolids-5.4 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	(	)	(M00010)	(GA3850)	()()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 8
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(982000364287469)
SPECIES:(Turtle: Green) AGE:(Immature) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (22.5 kg), Straight carapace length (56.5 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-30%, TotalSolids-4.4 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	()	(M00010)	(GA3850)	()	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 9
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(48534F3E0A)
SPECIES:(Turtle: Green) AGE:(Subadult) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (40.2 kg), Straight carapace length (66.8 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-37%, TotalSolids-5 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	()	(M00010)	(GA3850)	()	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 10
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(982000364283879)
SPECIES:(Turtle: Green) AGE:(Immature) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (17.2 kg), Straight carapace length (49.5 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-34%, TotalSolids-4.8 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	(	)	(M00010)	(GA3850)	()()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

N A T I O N A L W I L D L I F E H E A L T H C E N T E R
N E C R O P S Y R E P O R T

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 11
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(982000364283905)
SPECIES:(Turtle: Green) AGE:(Immature) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (12.4 kg), Straight carapace length (45.2 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-32%, TotalSolids-5 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	(	)	(M00010)	(GA3850)	()()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 12
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(470C676F14)
SPECIES:(Turtle: Green) AGE:(Immature) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (24.3 kg), Straight carapace length (54.2 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-37%, TotalSolids-5.6 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	()	(M00010)	(GA3850)	()	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 13
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(4C3B537A25)
SPECIES:(Turtle: Green) AGE:(Immature) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (26.4 kg), Straight carapace length (60.4 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-34%, TotalSolids-4.4 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	()	(M00010)	(GA3850)	()	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25591
Accession: 14
Date Collected: 7/9/2018
Date Examined: 7/10/2018
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION:(Good) POSTMORTEM:(Good) EUTHANASIA:(Not euthanized)
TAG TYPE:(Other band) TAG NO.:(424E3F0149)
SPECIES:(Turtle: Green) AGE:(Immature) SEX:(Unknown)
MORPHOMETRICS: Weight carcass (33.4 kg), Straight carapace length (64.9 cm).
COLLECTION-SITE:(Punaluu Hawaii) AREA:(Hawaii) STATE:(Hawaii) COUNTRY:(United States)
HISTORY:

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: .

Samples

SECIMENS RECEIVED: Blood-Chilled.

Laboratory Results

HEMATOLOGY: Hematocrit-35%, TotalSolids-4 g/dl (7/10/2018).

COMMENTS:None

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Undetermined-Normal tissue	(	)(M00010	)(GA3850)()()(

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Open)