

Medical History Report - Summary for Individual Specimen
HONOLULU ZOO

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=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: 821294
Asiatic elephant                     Age: 34Y Est.        Birth: 24.Jul.1975
Name: MARI
Tag/Band: YELLOW 13 R- LOST BA
=====

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.....2008....

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30.Sep                               Weight: 4605 Kg ( 10149 Lb)

12.Nov  Blood sample: (EDTA) Hematology/Chemistry/Serology results.
        WBC:12.90 *10^3/UL;  HCT: 33.9%;  BUN:11 MG/DL;
19.Nov  Clinical note recorded. (BJ)
20.Nov  Clinical note recorded. (BJ)

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.....2009....

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16.Jan  Clinical note recorded. (LN)

5.Mar   Clinical note recorded. (LN)

14.Apr  Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
        NO PARASITES SEEN

7.May   Blood sample:

3.Sep   Blood sample: Hematology/Chemistry/Serology results.
24.Sep  Clinical note recorded. (RS)
25.Sep  Clinical note recorded. (RS)

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Clinical Pathology Records - Specimen Report
HONOLULU ZOO

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=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: 821294
Asiatic elephant                     Age: 34Y Est.        Birth: 24.Jul.1975
Name: MARI
Tag/Band: YELLOW 13 R- LOST BA
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Collection Information >>
Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Active
Weight: 4605 Kg on 30.Sep.2008
Manual restraint used.

Date of Collection: 12.Nov.2008
Time of Collection:
Collected by: MD
Sample Collection Site: EAR VEIN

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Hematology >>
Analysis Information >>
Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: IDEXX
Date of Analysis: 12.Nov.2008
Time of Analysis:
Analysis by:
Automated analysis.

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Tests and Results >>

WHITE BLOOD CELL COUNT	12.9		*10 ³ /UL
RED BLOOD CELL COUNT	3.22		*10 ⁶ /UL
HEMOGLOBIN	13.6		GM/DL
HEMATOCRIT	33.9		%
MCV	< 105		fL
MCH	42.2		uug
MCHC	> 40.1		gm/dL
SEGMENTED NEUTROPHILS	> 73	(9.417)	% (*10 ³ /UL)
LYMPHOCYTES	< 14	(1.806)	% (*10 ³ /UL)
MONOCYTES	10	(1.290)	% (*10 ³ /UL)
EOSINOPHILS	3	(0.387)	% (*10 ³ /UL)
PLATELET COUNT	256		*10 ³ /UL

Clinical Pathology Records - Specimen Report
HONOLULU ZOO

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ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: 821294
Asiatic elephant                     Age: 34Y Est.        Birth: 24.Jul.1975
Name: MARI
Tag/Band: YELLOW 13 R- LOST BA
=====

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Collection Information >>           Date of Collection: 12.Nov.2008
Health Status: Abnormal             Time of Collection: :
Fasting Time: < 8 hours             Collected by: MD
Activity: Active                     Sample Collection Site: EAR VEIN
Weight: 4605 Kg on 30.Sep.2008
Manual restraint used.

```

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Chemistry >>
Analysis Information >>           Laboratory: IDEXX
Chemistry Sample: Serum             Date of Analysis: 12.Nov.2008
Storage: Fresh                       Time of Analysis:
Sample Quality: No quality problems.  Analysis by:
                                       Automated analysis.

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Tests and Results >>

GLUCOSE	<	68	MG/DL
BLOOD UREA NITROGEN		11	MG/DL
CREATININE	>>	2.5	MG/DL
BUN/creatinine ratio		4.40	
CALCIUM		10.3	MG/DL
PHOSPHORUS		4.2	MG/DL
calcium/phosphorus ratio		2.45	
SODIUM		130	MEQ/L
POTASSIUM		4.6	MEQ/L
sodium/potassium ratio		28.3	
CHLORIDE		92	MEQ/L
BICARBONATE	<	22	MMOL/L
CHOLESTEROL		48	MG/DL
TOTAL PROTEIN (COLORIMETRY)		8.7	GM/DL
ALBUMIN (COLORIMETRY)		3.2	GM/DL
GLOBULIN (COLORIMETRY)		5.5	GM/DL
albumin/globulin ratio		0.582	
ASPARTATE AMINOTRANSFERASE		12	IU/L
TOTAL BILIRUBIN		0.2	MG/DL
DIRECT BILIRUBIN		0.2	MG/DL
INDIRECT BILIRUBIN		0.0	MG/DL
ALKALINE PHOSPHATASE		82	IU/L
CREATINE PHOSPHOKINASE	>	484	IU/L
ANION GAP		21	MEQ/L
FIBRINOGEN		400	MG/DL
GAMMA GLUTAMYLTRANSFERASE		6	IU/L

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<i>ELEPHAS MAXIMUS (no subsp)</i>	Sex: Female	Acc. #: 821294
Asiatic elephant	Age: 34Y Est.	Birth: 24.Jul.1975
Name: MARI		
Tag/Band: YELLOW 13 R- LOST BA		

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Clinical Note: 19.Nov.2008
Microbiology: Fecal swab submitted for enteric pathogen screen.
Req: 2301414 Lab#: L0338514
Lab: Idexx

Results:
Normal Positive Flora - 2+
No Yersinia Isolated
No Campylobacter Isolated (BJ)

Clinical Note: 20.Nov.2008
Microbiology: Fecal swab submitted for enteric pathogen screen.
Req: 18234 Lab#: L0338480
Lab: Idexx

Results:
Normal Positive Flora - 3+
No yersinia Isolated
No Campylobacter Isolated (BJ)

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=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: 821294
Asiatic elephant                     Age: 34Y Est.        Birth: 24.Jul.1975
Name: MARI
Tag/Band: YELLOW 13 R- LOST BA
=====

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Clinical Note:                                     16.Jan.2009
So: Serum Vitamin E levels
Req# 2301461                                     Accession# L1039931
Lab: Idexx

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Results
 Vitamin E 0.50 microgram/mL

Note per lab:
 We've measure serum vitamin E in several hundred elephants of unknown nutritional background. The median concentration is about 1 microgram/mL with a range from the 25th to 75th percentile to 0.75 to 1.3 microgram/mL.

Serum vitamin E concentration is a good indicator of vitamin E status. The animal requirement for vitamin E is not absolute, but varies based on such things as the fatty acid profile of the diet and the oxidative stress placed on teh animal. Therefore, it is impossible to state what deficient, or adequate vitamin E nutriture is for all situations.

Referral test performed at Michigan State University. (LN)

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Clinical Note:                                     5.Mar.2009
So: Serum Vitamin E levels
Req# 2301520                                     Accession# L1634768
Lab: Idexx

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Results:
 Vitamin E 0.35 microgram/mL (LN)

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ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: MARI

Sex: Female Acc. #: 821294
Age: 34Y Est. Birth: 24.Jul.1975

=====

Parasitology Examination:

Submission Data >>

Type: Fecal sample
Purpose: ROUTINE EXAMINATION

Sample id.: 2009-0095
Date collected: **14.Apr.2009**
Time collected: 9:00

Collected from:

Group of specimens housed together.

Enclosure: ME1

Examination Data >>

Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 18.Apr.2009
 at: 14:00
 by: BJ

Tests & Results >>

FLOATATION - NA NITRATE NO PARASITES SEEN

Clinical Pathology Records - Specimen Report
HONOLULU ZOO

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ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: 821294
Asiatic elephant                     Age: 34Y Est.        Birth: 24.Jul.1975
Name: MARI
Tag/Band: YELLOW 13 R- LOST BA
=====

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Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 4605 Kg on 30.Sep.2008
Manual restraint used.

Date of Collection: 7.May.2009
Time of Collection: :
Collected by: MB
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: IDEXX
Date of Analysis: 7.May.2009
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

SELENIUM	0.41	UG/DL
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Clinical Pathology Records - Specimen Report
HONOLULU ZOO

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=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: 821294
Asiatic elephant                     Age: 34Y Est.        Birth: 24.Jul.1975
  Name: MARI
  Tag/Band: YELLOW 13 R- LOST BA
=====

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Collection Information >>
Health Status: Normal                Date of Collection: 3.Sep.2009
Fasting Time: < 8 hours              Time of Collection: :
Activity: Active                      Collected by: MB
Weight: 4605 Kg on 30.Sep.2008       Sample Collection Site: EAR VEIN
Manual restraint used.

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Hematology >>
Analysis Information >>
Anticoagulant:                       Laboratory: IDEXX
Storage: Refrigerated (<48 hours)    Date of Analysis: 3.Sep.2009
Sample Quality: No quality problems.  Time of Analysis:
                                      Analysis by:
                                      Automated analysis.

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Chemistry >>
Analysis Information >>
Chemistry Sample: Serum              Laboratory: IDEXX
Storage: Refrigerated (<48 hours)    Date of Analysis: 3.Sep.2009
Sample Quality: No quality problems.  Time of Analysis:
                                      Analysis by:
                                      Automated analysis.

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Tests and Results >>
                                     SELENIUM           0.57           UG/DL

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=====

<i>ELEPHAS MAXIMUS (no subsp)</i>	Sex: Female	Acc. #: 821294
Asiatic elephant	Age: 34Y Est.	Birth: 24.Jul.1975
Name: MARI		
Tag/Band: YELLOW 13 R- LOST BA		

=====

Clinical Note: 24.Sep.2009

Microbiology: Rectal swab for enteric pathogen screen.
Req# 2301660 Accession#L4115802
Lab: Idexx

Results:
 No Salmonella, Shigella, Pleisiomonas, Edwardseilla, Aeromonas or
Yersinia isolated.
 No Campylobacter isolated. (RS)

Clinical Note: 25.Sep.2009

Microbiology: Rectal swab for enteric pathogen screen.
Req# 2301659 Accession# L4115811
Lab: Idexx

Results:
 No Salmonella, Shigella, Pleisiomonas, Edwardseilla, Aeromonas or
Yersinia isolated.
 No Campylobater Isolated. (RS)

Clinical Pathology Records Report - ISIS/In-House Reference Values
HONOLULU ZOO

Scientific name: *ELEPHAS MAXIMUS*
Common Name: Asiatic elephant

		ISIS Values				
		Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	14.43 ±	4.409	5.800	33.30	(1779)
RBC	*10 ⁶ /UL	3.06 ±	0.51	1.78	5.15	(1501)
HGB	GM/DL	13.2 ±	2.2	6.6	24.9	(1568)
HCT	%	37.1 ±	6.0	20.3	68.0	(1890)
MCH	MG/DL	43.3 ±	4.8	16.6	63.2	(1464)
MCHC	uug	35.4 ±	3.6	16.9	68.6	(1536)
MCV	fL	122.3 ±	13.4	47.1	213.2	(1491)
SEGS	*10 ³ /UL	4.822 ±	2.925	0.291	23.90	(1502)
BANDS	*10 ³ /UL	1.402 ±	2.124	0.000	11.40	(307)
LYMPHOCYTES	*10 ³ /UL	5.243 ±	3.223	0.196	20.60	(1513)
MONOCYTES	*10 ³ /UL	3.677 ±	2.909	0.000	9.983	(1273)
EOSINOPHILS	*10 ³ /UL	0.465 ±	0.551	0.000	4.520	(1093)
BASOPHILS	*10 ³ /UL	0.173 ±	0.105	0.000	0.508	(119)
NRBC	/100 WBC	1 ±	1	0	3	(85)
PLATE. CNT.	*10 ³ /UL	469 ±	215	121	1394	(428)
RETICS	%	0.8 ±	1.6	0.0	4.4	(10)
GLUCOSE	MG/DL	91 ±	21	33	223	(1257)
BUN	MG/DL	13 ±	4	4	30	(1260)
CREAT.	MG/DL	1.6 ±	0.4	0.7	3.3	(1230)
URIC ACID	MG/DL	0.2 ±	0.3	0.0	3.4	(286)
CA	MG/DL	10.6 ±	0.8	7.8	14.8	(1184)
PHOS	MG/DL	5.0 ±	1.2	1.9	11.1	(724)
NA	MEQ/L	130 ±	6	99	181	(859)
K	MEQ/L	4.6 ±	0.5	3.2	6.6	(861)
CL	MEQ/L	89 ±	4	77	103	(731)
IRON	MCG/DL	65 ±	23	29	158	(82)
MG	MG/DL	2.10 ±	0.53	0.00	2.90	(68)
HCO3	MMOL/L	26.3 ±	3.0	19.0	32.3	(55)
CHOL	MG/DL	48 ±	19	0	189	(599)
TRIG	MG/DL	61 ±	42	10	329	(745)
T.PROT. (C)	GM/DL	8.1 ±	0.8	5.8	11.3	(1227)
T.PROT. (R)	GM/DL	8.4 ±	0.4	7.8	9.2	(23)
ALBUMIN (C)	GM/DL	3.2 ±	0.5	1.9	4.7	(648)
GLOBULIN (C)	GM/DL	5.0 ±	1.0	2.7	8.6	(639)
AST (SGOT)	IU/L	22 ±	11	4	97	(1227)
ALT (SGPT)	IU/L	7 ±	8	0	72	(781)
T. BILI.	MG/DL	0.2 ±	0.2	0.0	1.2	(765)
D. BILI	MG/DL	0.1 ±	0.1	0.0	1.3	(233)
I. BILI.	MG/DL	0.1 ±	0.1	0.0	0.6	(224)
AMYLASE	U/L	3017 ±	2492	0	9866	(170)
ALK.PHOS.	IU/L	143 ±	66	28	641	(1157)
LDH	IU/L	655 ±	703	46	4769	(495)

Clinical Pathology Records Report - ISIS/In-House Reference Values
HONOLULU ZOO

=====
Scientific name: **ELEPHAS MAXIMUS**
Common Name: **Asiatic elephant**
=====

ISIS Values
Mean S.D. Min. Max. (N)

		Mean	S.D.	Min.	Max.	(N)
CPK	IU/L	225 ±	170	23	1260	(486)
OSMOLARITY	MOSMOL/L	264 ±	29	0	325	(98)
ALPHA GLOB.	MG/DL	250.4 ±	353.1	0.7	500.0	(2)
ALPHA-1 GLOB	MG/DL	0.8 ±	0.1	0.7	1.0	(6)
ALPHA-2 GLOB	MG/DL	0.9 ±	0.2	0.7	1.1	(6)
BETA GLOB.	MG/DL	1.0 ±	0.6	0.6	1.4	(2)
Body Temperature:		36.3 ±	0.5	36.0	37.0	(4)
CO2	MMOL/L	24.8 ±	4.0	15.8	37.0	(230)
CORTISOL	UG/DL	2.0 ±	1.0	0.5	5.4	(35)
ESR	MM/HR	98 ±	32	53	130	(7)
FIBRINOGEN	MG/DL	371 ±	181	0	810	(238)
GGT	IU/L	7 ±	5	0	33	(314)
LIPASE	U/L	19 ±	30	0	127	(53)
PROGESTERONE	NG/DL	18.82 ±	62.45	0.020	346.0	(379)
TESTOSTERONE	NG/ML	20.34 ±	27.95	0.570	40.10	(2)
A-TOCOPHEROL	UG/DL	19 ±	15	0	42	(8)
TOTAL T4	MCG/DL	10.0 ±	2.7	4.2	12.6	(10)
T3 UPTAKE	%	28 ±	2	26	29	(2)
ALBUMIN (E)	GM/DL	4.1 ±	0.6	3.5	4.9	(4)
GAMMA GLOB	GM/DL	2.9 ±	2.9	0.0	9.0	(11)

IDEXX VetConnect

1-888-433-9987

Client: ELEPHANT
Patient: 821294
Species:
Breed: ASIAN
 ELEPHANT

Date: 9/24/2009
Gender: FEMALE
Weight:
Age: 33Y

Requisition #:
 2301660
Accession #:
 L4115802
Ordered by: OKIMOTO

HONOLULU ZOO
 151 KAPAHULU AVE.
 HONOLULU, HI 96815
 1-808-971-7180

Account # 1823

STOOL: SALMONELLA & CAMPY

Test	Result	Reference Range	Low	Normal	High
SOURCE:	RECTUM				
STATUS:	FINAL				
COMPLETED CULTURE RESULTS	No Salmonella, Shigella, Pleisiomonas, Edwardseilla, Aeromonas or Yersinia isolated.				
	-				
	NO CAMPYLOBACTER ISOLATED				

IDENTIFICATION



IDEXX VetConnect

1-888-433-9987

Client: ELEPHANT
Patient: 821294
Species:
Breed: ASIAN
 ELEPHANT

Date: 9/24/2009
Gender: FEMALE
Weight:
Age: 33Y

Requisition #:
 2301659
Accession #:
 L4115811
Ordered by: OKIMOTO

HONOLULU ZOO
 151 KAPAHULU AVE.
 HONOLULU, HI 96815
 1-808-971-7180

Account #1823

STOOL: SALMONELLA & CAMPY

Test	Result	Reference Range	Low	Normal	High
SOURCE:	RECTUM				
STATUS:	FINAL				
COMPLETED CULTURE RESULTS	No Salmonella, Shigella, Pleisiomonas, Edwardseilla, Aeromonas or Yersinia isolated.				
	-				
	NO CAMPYLOBACTER ISOLATED				



HONOLULU ZOO
151 KAPAHULU AVE.
HONOLULU, HI 96815

1-808-971-7180

Account: 1823

Owner: ELEPHANT
Patient: 821294
Species:
Breed:
Age: 35
Gender: F

Requisition #: 2301637
Accession #: L3874370
Order rec'd: 09/03/2009
Ordered by: OKIMOTO,B
Reported: 09/10/2009

1-888-433-9987
Online results at
www.veiconnect.com



VITAMIN E				
Test	Result	Reference Range	Flag	Bar Graph
VITAMIN E	0.57	- ug/mL		
<p>We've measured serum vitamin E in several hundred elephants of unknown nutritional background. The median concentration is about 1 ug/mL with a range from the 25th to 75th percentile of 0.75 to 1.3 ug/mL.</p> <p>Serum vitamin E concentration is a good indicator of vitamin E status. The animal requirement for vitamin E is not absolute, but varies based on such things as the fatty acid profile of the diet and the oxidative stress placed on the animal. Therefore, it is impossible to state what deficient, or adequate, vitamin E nutrition is for all situations.</p>				
Referral test performed at Michigan State University.				

1-888-433-9987
Online results at
www.vetconnect.com

VITAMIN E				
Test	Result	Reference Range	Flag	Bar Graph
VITAMIN E	0.41	- ug/mL		
<p>We've measured serum vitamin E in several hundred elephants of unknown nutritional background. The median concentration is about 1 ug/mL with a range from the 25th to 75th percentile of 0.75 to 1.3 ug/mL.</p> <p>Serum vitamin E concentration is a good indicator of vitamin E status. The animal requirement for vitamin E is not absolute, but varies based on such things as the fatty acid profile of the diet and the oxidative stress placed on the animal. Therefore, it is impossible to state what deficient, or adequate, vitamin E nutriture is for all situations.</p> <p>Referral test performed at Michigan State University.</p>				



HONOLULU ZOO
151 KAPAHULU AVE.
HONOLULU, HI 96815

1-808-971-7180

Account: 1023

Owner: ELEPHANT
Patient: 821294
Species:
Breed: ASIAN ELEPHANT
Age:
Gender: F

Requisition #: 2301520
Accession #: L1534768
Order recv'd: 03/05/2009
Ordered by: OKIMOTO,B
Reported: 03/11/2009

1-888-433-9987
Online results at
www.vetconnect.com

VITAMIN E				
Test	Result	Reference Range	Flag	Bar Graph
VITAMIN E	0.35	- ug/mL		
<p>We've measured serum vitamin E in several hundred elephants of unknown nutritional background. The median concentration is about 1 ug/mL with a range from the 25th to 75th percentile of 0.75 to 1.3 ug/mL.</p> <p>Serum vitamin E concentration is a good indicator of vitamin E status. The animal requirement for vitamin E is not absolute, but varies based on such things as the fatty acid profile of the diet and the oxidative stress placed on the animal. Therefore, it is impossible to state what deficient, or adequate, vitamin E nutriture is for all situations.</p> <p>Referral test performed at Michigan State University.</p>				



HONOLULU ZOO
151 KAPAHULU AVE.
HONOLULU, HI 96815

Owner: ELEPHANT
Patient: 821294
Species:
Breed:
Age: 33
Gender: F



1-888-433-9987

1-808-871-7180

Online results at

Account: 1823

www.vetconnect.com

Requisition #: 2301461
Accession #: L1039931
Order rec'd: 01/16/2009
Ordered by: OKIMOTO,B
Reported: 01/21/2009

VITAMIN E				
Test	Result	Reference Range	Flag	Bar Graph
VITAMIN E	0.50	- ug/mL		
<p>We've measured serum vitamin E in several hundred elephants of unknown nutritional background. The median concentration is about 1ug/ml with a range from the 25th to 75th percentile fo 0.75 to 1.3 ug/ml.</p> <p>Serum vitamin E concentration is a good indicator of vitamin E status. The animal requirement for vitamin E is not absolute, but varies based on such things as the fatty acid profile of the diet and the oxidative stress placed on the animal. Therefore, it is impossible to state what deficient, or adequate, vitamin E nutriture is for all situations.</p> <p>Referral test performed at Michigan State University.</p>				

1-888-433-9987
Online results at
www.vetconnect.com

STOOL: SALMONELLA & CAMPY	
Test	Result
SOURCE:	STOOL 1
STATUS:	FINAL
COMPLETED CULTURE RESULTS	NORMAL POSITIVE FLORA - 2+
<p>This may include alpha strep, gamma strep, Lactobacillus, Corynebacterium species and non-hemolytic Staph.</p> <p>-</p> <p>NO ENTERIC PATHOGENS ISOLATED - This includes Salmonella, Shigella, Pleisiomonas, Edwardsiella, and Aeromonas sp.</p> <p>-</p> <p>NO YERSINIA ISOLATED</p> <p>-</p> <p>NO CAMPYLOBACTER ISOLATED</p>	



HONOLULU ZOO
151 KAPAHULU AVE.
HONOLULU, HI 96815

1-808-971-7180

Account: 1823

Owner: ELEPHANT
Patient: 821294
Species:
Breed: INDIAN ELEPHANT
Age: 33
Gender: M

Requisition #: 18234
Accession #: L0338480
Order rec'd: 11/13/2008
Ordered by: OKIMOTO
Reported: 11/20/2008

1-888-433-9987
Online results at
www.vetconnect.com

STOOL: SALMONELLA & CAMPY	
Test	Result
SOURCE:	STOOL 2
STATUS:	FINAL
COMPLETED CULTURE RESULTS	NORMAL POSITIVE FLORA - 3+
This may include alpha strep, gamma strep, Lactobacillus, Corynebacterium species and non-hemolytic Staph.	
-	
NO ENTERIC PATHOGENS ISOLATED - This includes Salmonella, Shigella, Pleisiomonas, Edwardsiella, and Aeromonas sp.	
-	
NO YERSINIA ISOLATED	
-	
NO CAMPYLOBACTER ISOLATED	

Clinical Pathology Records - Specimen Report
HONOLULU ZOO

- page 1 -

ELEPHAS MAXIMUS (no subsp.)

Sex: Female

Acc. #: 821294

Asiatic elephant

Age: 33Y Est.

Birth: 24.Jul.1975

Name: MARI

Tag/Eand: YELLOW 13 R- LOST EA

Collection Information >>

Health Status: Abnormal

Date of Collection: 12.Nov.2008

Fasting Time: < 8 hours

Time of Collection:

Activity: Active

Collected by: MD

Weight: 4605 Kg on 30.Sep.2008

Sample Collection Site: EAR VEIN

Manual restraint used.

Hematology >>

Analysis Information >>

Anticoagulant: EDTA

Laboratory: IDEXX

Storage: Fresh

Date of Analysis: 12.Nov.2008

Sample Quality: No quality problems.

Time of Analysis:

Analysis by:

Automated analysis.

Tests and Results >>

				ISIS Reference Values >>			
				Mean	S.D.	Min.	Max. (N)
WBC	*10 ³ /UL		12.9	14.43±	4.409	5.800	33.30 (1779)
RBC	*10 ⁶ /UL		3.32	3.06±	0.51	1.78	5.15 (1501)
HGB	GM/DL		13.6	13.2±	2.2	6.6	24.9 (1568)
HCT	%		33.9	37.1±	6.0	20.3	68.0 (1890)
MCV	fL	<	105	122.3±	13.4	47.1	213.2 (1491)
MCH	ug		42.2	43.3±	4.8	16.6	63.2 (1464)
MCHC	gm/dL	>	40.1	35.4±	3.6	16.9	68.6 (1536)
SEGS	% (*10 ³ /UL)	>	73 (9.417)	4.822±	2.925	0.291	23.90 (1502)
LYMPHOCYTES	% (*10 ³ /UL)	<	14 (1.806)	5.243±	3.223	0.196	20.60 (1513)
MONOCYTES	% (*10 ³ /UL)		10 (1.290)	3.677±	1.399	0.000	9.983 (1273)
EOSINOPHILS	% (*10 ³ /UL)		3 (0.387)	0.465±	0.551	0.000	4.520 (1093)
PLATE. CNT.	*10 ³ /UL		256	469±	215	121	1394 (428)

ISIS reference values are for ELEPHAS MAXIMUS

Printed on: 13.Nov.2008

/ISIS/MeMARS/5.53.a

Clinical Pathology Records - Specimen Report
HONOLULU ZOO

ELEPHAS MAXIMUS (no subsp)

Sex: Female

Acc. #: 821294

Asiatic elephant

Age: 33Y Est.

Birth: 24.Jul.1975

Name: MARI

Tag/Band: YELLOW 13 R- LOST BA

Collection Information >>

Health Status: Abnormal

Fasting Time: < 8 hours

Activity: Active

Weight: 4605 Kg on 30.Sep.2008

Manual restraint used.

Date of Collection: 12.Nov.2008

Time of Collection:

Collected by: MD

Sample Collection Site: BAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum

Storage: Fresh

Sample Quality: No quality problems.

Laboratory: IDEXX

Date of Analysis: 12.Nov.2008

Time of Analysis:

Analysis by:

Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL	<	68	91±	21	33	223	(1257)
BUN	MG/DL		11	13±	4	4	30	(1260)
CREAT.	MG/DL	>>	2.5	1.6±	0.4	0.7	3.3	(1230)
BUN/Cr ratio			4.40					
CA	MG/DL		10.3	10.6±	0.4	7.8	14.8	(1184)
PHOS	MG/DL		4.2	5.0±	1.2	1.9	11.1	(724)
Ca/P ratio			2.45					
NA	MEQ/L		130	130±	6	99	131	(859)
K	MEQ/L		4.6	4.6±	0.5	3.2	6.6	(861)
Na/K ratio			28.3					
CL	MEQ/L		92	89±	4	77	103	(731)
HCO3	MMOL/L	<	22	26.3±	3.0	19.0	32.3	(55)
CHOL	MG/DL		48	48±	19	0	189	(599)
T.PROT. (C)	GM/DL		8.7	8.1±	0.8	5.8	11.3	(1227)
ALBUMIN (C)	GM/DL		3.2	3.2±	0.5	1.9	4.7	(648)
GLOBULIN (C)	GM/DL		5.5	4.9±	1.0	2.7	8.6	(639)
Alb/Glob. rae			0.582					
AST (SGOT)	IU/L		13	22±	11	4	97	(1227)
T. BILI.	MG/DL		0.2	0.2±	0.3	0.0	1.2	(765)
D. BILI.	MG/DL		0.2	0.1±	0.1	0.0	1.1	(233)
I. BILI.	MG/DL		0.0	0.1±	0.1	0.0	0.6	(224)
ALK. PHOS.	IU/L		82	107±	66	28	641	(1157)
CPK	IU/L	>	484	325±	170	23	1260	(436)
ANION GAP	MEQ/L		31					
GGT	IU/L		1	7±	6	0	33	(314)

ISIS reference values are for ELEPHAS MAXIMUS

Printed on: 13.Nov.2008

/ISIS/MeDARKS/5 53.a

REPORT NO. 1460 VOL 01 0

National Veterinary Services Laboratories
1800 Dayton Road Ames, Iowa 50010
Phone (515) 663-7266 Fax (515) 663-7397
Tuberculosis Laboratory Test Report Page 1 of 2
FEDERAL RELAY SERVICE (Voice/TTY/ASCII/Spanish)
1-800-877-8339

***** This is a confidential report for official use only. *****
Accession: 515577 Date Received: 10/22/2008

Establishment No.: H1OKIM1
OKIMOTO, DR. BEN F.
151 KAPAHULU AVE.

Referral Number:
Owner: HONOLULU ZOO
City: HONOLULU
State: HI

HONOLULU, HI 96815
Fax: 8089713950

Preservation:

Retain Tag:

Species: Elephant

NVSL ID	Case #	Sample ID	Animal ID
1970894	090618	8-12-08	1A/821294
			Mycobacteria Isolation
			Diagnosis: No Isolation Made
			Specimen Submitted
			TRUNK WASH
1970895	090619	8-13-08	1B/821294
			Mycobacteria Isolation
			Diagnosis: No Isolation Made
			Specimen Submitted
			TRUNK WASH
1970896	090620	8-14-08	1C/821294
			Mycobacteria Isolation
			Diagnosis: Acid Fast Organism Isolated
			Specimen Submitted
			TRUNK WASH

The Mycobacterium species isolated from the diagnostic specimen

DISTRIBUTION:

Submitter
12/29/2008

Approved By: Sulee Robbe-Austerma
National Veterinary Services Laboratories

National Veterinary Services Laboratories
1800 Dayton Road Ames, Iowa 50010
Phone (515) 663-7266 Fax (515) 663 7397
Tuberculosis Laboratory Test Report Page 2 of 2
FEDERAL RELAY SERVICE (Voice/TTY/ASCII/Spanish)
1-800-877-8339

***** This is a confidential report for official use only. *****
Accession: 575577 Date Received: 10/22/2008

Establishment No.: H10K1M1
OKIMOTO, DR. BEN F.
151 KAPAHULU AVE.

Referral Number:
Owner: HONOLULU ZOO
City: HONOLULU
State: HI

HONOLULU, HI 96815
Fax: 8089713950

Preservation:

Retain Tag:

Species: Elephant

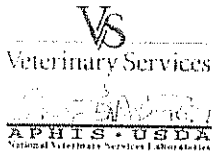
NVSL ID	Case #	Sample ID	Animal ID
---------	--------	-----------	-----------

submitted was not part of the Mycobacterium tuberculosis complex.

DISTRIBUTION:

Submitter
12/29/2008

Approved By: Sulee Robbe-Austerma
National Veterinary Services Laboratories



National Veterinary Services Laboratories
 PO Box 844
 Ames, Iowa 50010
 Phone: 515-337-7514 Fax: 515-337-7938
 FEDERAL RELAY SERVICE (Voice/TTY/ASCII/Spanish) 1-800-877-8339
 The USDA is an equal opportunity provider and employer.

FINAL REPORT

Laboratory Test Report

***** This is a confidential report intended for official use only. *****

Owner Honolulu Zoo Honolulu, HI	Accession Number:	09-018676
Submitter Ben F. Okimoto Honolulu Zoo 151 Kapahulu Ave. Honolulu, HI 96815 FAX# 808-971-3950	NFC Control Number: Date Collected: Date Received: Date Completed: Collected By: Purpose: Referral/Retain Tag Number:	19809020629 09/08/2009 11/06/2009 Maurice Bolosan General Diagnostic
	This is a billable case.	

NOTE: Condition of the sample(s) was adequate unless otherwise noted.

Animal ID: 821294/MARI Case #: TB09-09050 Sample: 1A-8/31/09 Specimen Type: Trunk
Washings Species: Elephant, Asian

Mycobacterial Culture Result No Isolation Made

Animal ID: 821294/MARI Case #: TB09-09051 Sample: 1B-9/1/09 Specimen Type: Trunk
Washings Species: Elephant, Asian

Mycobacterial Culture Result Acid fast bacteria recovered
 Isolate Mycobacterium species- not M. tuberculosis complex

Animal ID: 821294/MARI Case #: TB09-09052 Sample: 1C-9/2/09 Specimen Type: Trunk
Washings Species: Elephant, Asian

Mycobacterial Culture Result No Isolation Made

Animal ID: 920002/VALGAI Case #: TB09-09053 Sample: 2A-8/31/09 Specimen Type: Trunk
Washings Species: Elephant, Asian

Mycobacterial Culture Result Acid fast bacteria recovered
 Isolate Mycobacterium species- not M. tuberculosis complex

Animal ID: 920002/VALGAI **Case #:** TB09-09054 **Sample:** 2B-9/1/09 **Specimen Type:** Trunk
Washings Species: Elephant, Asian

Mycobacterial Culture Result

No Isolation Made

Animal ID: 920002/VALGAI **Case #:** TB09-09055 **Sample:** 2C-9/2/09 **Specimen Type:** Trunk
Washings Species: Elephant, Asian

Mycobacterial Culture Result

No Isolation Made

Results authorized by:

Dr. Beth Harris, Head, Mycobacteria and Brucella Section
NVSL MB General Phone: 515-663-7388

Medical History Report - Summary for Individual Specimen
HONOLULU ZOO

```

=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: 920002
Asiatic elephant                     Age: 23Y 10M 18D     Birth: 24.Dec.1985
Name: VAIGAI
=====

```

.....2008....

2.Apr Parasitology examination: (FOLLOW-UP/RECHECK EXAMINATION) Fecal sample
NO PARASITES SEEN

30.Sep Weight: 4424 Kg (9750 Lb)

.....2009....

16.Jan Clinical note recorded. (LN)

5.Mar Clinical note recorded. (LN)

14.Apr Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

7.May Blood sample:

3.Sep Blood sample:

=====

<i>ELEPHAS MAXIMUS (no subsp)</i>	Sex: Female	Acc. #: 920002
Asiatic elephant	Age: 23Y 10M 18D	Birth: 24.Dec.1985
Name: VAIGAI		

=====

Parasitology Examination:

Submission Data >>

Type: Fecal sample
Purpose: FOLLOW-UP/RECHECK EXAMINATION

Sample id.: 2008-0078
Date collected: 2.Apr.2008
Time collected: 8:00
Collected by: MD

Collected from:

From an individual specimen.

Enclosure: ME1

Examination Data >>

Storage: refrigerated
Consistency: formed
Gross appearance: Not specified

Date examined: 4.Apr.2008
at: 14:00
by: BJ

Tests & Results >>

FLOATATION - NA NITRATE NO PARASITES SEEN

```

=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: 920002
Asiatic elephant                     Age: 23Y 10M 18D     Birth: 24.Dec.1985
Name: VAIGAI
=====

```

Clinical Note: 16.Jan.2009

So: Serum Vitamin E level
 Req# 2301462 Accession# L1039402
 Lab: Idexx

Results:
 Vitamin E 0.39 microgram/mL

We've measured serum Vitamin E in several hundred elephants of unknown nutritional background. The median concentration is about 1 microgram/mL with a range from the 25th to 75th percentile of 0.75 to 1.3 microgram/mL.

Serum vitamin E concentration is a good indicator of vitamin E status. The animal requirement for vitamin E is not absolute, but varies based on such things as the fatty acid profile of the diet and the oxidative stress placed on the animal. Therefore, it is impossible to state what deficient, or adequate, vitamin E nutriture is for all situations.

Referral test performed at Michigan State University (LN)

Clinical Note: 5.Mar.2009

So: Serum Vitamin E levels
 Req# 2301521 Accession# L1629150
 Lab: Idexx

Results:
 Vitamin E 0.10 microgram/mL (LN)

Submission Data >>	Sample id.: 2009-0095
Type: Fecal sample	Date collected: 14.Apr.2009
Purpose: ROUTINE EXAMINATION	Time collected: 9:00

Collected from: Enclosure: ME1
 Group of specimens housed together.

Examination Data >>	Date examined: 18.Apr.2009
Storage: refrigerated	at: 14:00
Consistency: formed	by: BJ
Gross appearance: Typical	

=====

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: VAIGAI

Sex: Female Acc. #: 920002
Age: 23Y 10M 18D Birth: 24.Dec.1985

=====

Parasitology Examination:

Tests & Results >>

FLOATATION - NA NITRATE

NO PARASITES SEEN

Clinical Pathology Records - Specimen Report
HONOLULU ZOO

```

=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: 920002
Asiatic elephant                     Age: 23Y 10M 18D     Birth: 24.Dec.1985
Name: VAIGAI
=====

```

```

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 4424 Kg on 30.Sep.2008
Manual restraint used.

Date of Collection: 7.May.2009
Time of Collection: :
Collected by: MB
Sample Collection Site: EAR VEIN

```

```

Chemistry >>
Analysis Information >>
Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: IDEXX
Date of Analysis: 7.May.2009
Time of Analysis:
Analysis by:
Automated analysis.

```

```

Tests and Results >>
SELENIUM           0.22           UG/DL

```

Clinical Pathology Records - Specimen Report
HONOLULU ZOO

=====

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: VAIGAI

=====

Sex: Female Acc. #: 920002
Age: 23Y 10M 18D Birth: 24.Dec.1985

=====

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 4424 Kg on 30.Sep.2008
Manual restraint used.

Date of Collection: 3.Sep.2009
Time of Collection: :
Collected by: MB
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: IDEXX
Date of Analysis: 3.Sep.2009
Time of Analysis:
Analysis by: MB
Automated analysis.

Tests and Results >>

SELENIUM 0.18 UG/DL

Clinical Pathology Records Report - ISIS/In-House Reference Values
HONOLULU ZOO

Scientific name: **ELEPHAS MAXIMUS**
 Common Name: **Asiatic elephant**

		ISIS Values				
		Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	14.43 ±	4.409	5.800	33.30	(1779)
RBC	*10 ⁶ /UL	3.06 ±	0.51	1.78	5.15	(1501)
HGB	GM/DL	13.2 ±	2.2	6.6	24.9	(1568)
HCT	%	37.1 ±	6.0	20.3	68.0	(1890)
MCH	MG/DL	43.3 ±	4.8	16.6	63.2	(1464)
MCHC	uug	35.4 ±	3.6	16.9	68.6	(1536)
MCV	fL	122.3 ±	13.4	47.1	213.2	(1491)
SEGS	*10 ³ /UL	4.822 ±	2.925	0.291	23.90	(1502)
BANDS	*10 ³ /UL	1.402 ±	2.124	0.000	11.40	(307)
LYMPHOCYTES	*10 ³ /UL	5.243 ±	3.223	0.196	20.60	(1513)
MONOCYTES	*10 ³ /UL	3.677 ±	2.909	0.000	9.983	(1273)
EOSINOPHILS	*10 ³ /UL	0.465 ±	0.551	0.000	4.520	(1093)
BASOPHILS	*10 ³ /UL	0.173 ±	0.105	0.000	0.508	(119)
NRBC	/100 WBC	1 ±	1	0	3	(85)
PLATE. CNT.	*10 ³ /UL	469 ±	215	121	1394	(428)
RETICS	%	0.8 ±	1.6	0.0	4.4	(10)
GLUCOSE	MG/DL	91 ±	21	33	223	(1257)
BUN	MG/DL	13 ±	4	4	30	(1260)
CREAT.	MG/DL	1.6 ±	0.4	0.7	3.3	(1230)
URIC ACID	MG/DL	0.2 ±	0.3	0.0	3.4	(286)
CA	MG/DL	10.6 ±	0.8	7.8	14.8	(1184)
PHOS	MG/DL	5.0 ±	1.2	1.9	11.1	(724)
NA	MEQ/L	130 ±	6	99	181	(859)
K	MEQ/L	4.6 ±	0.5	3.2	6.6	(861)
CL	MEQ/L	89 ±	4	77	103	(731)
IRON	MCG/DL	65 ±	23	29	158	(82)
MG	MG/DL	2.10 ±	0.53	0.00	2.90	(68)
HCO3	MMOL/L	26.3 ±	3.0	19.0	32.3	(55)
CHOL	MG/DL	48 ±	19	0	189	(599)
TRIG	MG/DL	61 ±	42	10	329	(745)
T.PROT. (C)	GM/DL	8.1 ±	0.8	5.8	11.3	(1227)
T.PROT. (R)	GM/DL	8.4 ±	0.4	7.8	9.2	(23)
ALBUMIN (C)	GM/DL	3.2 ±	0.5	1.9	4.7	(648)
GLOBULIN (C)	GM/DL	5.0 ±	1.0	2.7	8.6	(639)
AST (SGOT)	IU/L	22 ±	11	4	97	(1227)
ALT (SGPT)	IU/L	7 ±	8	0	72	(781)
T. BILI.	MG/DL	0.2 ±	0.2	0.0	1.2	(765)
D. BILI	MG/DL	0.1 ±	0.1	0.0	1.3	(233)
I. BILI.	MG/DL	0.1 ±	0.1	0.0	0.6	(224)
AMYLASE	U/L	3017 ±	2492	0	9866	(170)
ALK. PHOS.	IU/L	143 ±	66	28	641	(1157)
LDH	IU/L	655 ±	703	46	4769	(495)

Clinical Pathology Records Report - ISIS/In-House Reference Values
HONOLULU ZOO

Scientific name: **ELEPHAS MAXIMUS**
Common Name: **Asiatic elephant**

ISIS Values
Mean S.D. Min. Max. (N)

		Mean	S.D.	Min.	Max.	(N)
CPK	IU/L	225 ±	170	23	1260	(486)
OSMOLARITY	MOSMOL/L	264 ±	29	0	325	(98)
ALPHA GLOB.	MG/DL	250.4 ±	353.1	0.7	500.0	(2)
ALPHA-1 GLOB	MG/DL	0.8 ±	0.1	0.7	1.0	(6)
ALPHA-2 GLOB	MG/DL	0.9 ±	0.2	0.7	1.1	(6)
BETA GLOB.	MG/DL	1.0 ±	0.6	0.6	1.4	(2)
Body Temperature:		36.3 ±	0.5	36.0	37.0	(4)
CO2	MMOL/L	24.8 ±	4.0	15.8	37.0	(230)
CORTISOL	UG/DL	2.0 ±	1.0	0.5	5.4	(35)
ESR	MM/HR	98 ±	32	53	130	(7)
FIBRINOGEN	MG/DL	371 ±	181	0	810	(238)
GGT	IU/L	7 ±	5	0	33	(314)
LIPASE	U/L	19 ±	30	0	127	(53)
PROGESTERONE	NG/DL	18.82 ±	62.45	0.020	346.0	(379)
TESTOSTERONE	NG/ML	20.34 ±	27.95	0.570	40.10	(2)
A-TOCOPHEROL	UG/DL	19 ±	15	0	42	(8)
TOTAL T4	MCG/DL	10.0 ±	2.7	4.2	12.6	(10)
T3 UPTAKE	%	28 ±	2	26	29	(2)
ALBUMIN (E)	GM/DL	4.1 ±	0.6	3.5	4.9	(4)
GAMMA GLOB	GM/DL	2.9 ±	2.9	0.0	9.0	(11)



HONOLULU ZOO
151 KAPAHULU AVE.
HONOLULU, HI 96815

1-808-971-7180

Account: 1823

Owner: ELEPHANT
Patient: 92002
Species:
Breed:
Age: 25
Gender: F



Requisition #: 2301636
Accession #: L3874361
Order recv'd: 09/03/2009
Ordered by: OIMOTO, B.
Reported: 09/10/2009

1-888-433-9987
Online results at
www.velconnect.com

VITAMIN E				
Test	Result	Reference Range	Flag	Bar Graph
VITAMIN E	0.18	ug/mL		
<p>We've measured serum vitamin E in several hundred elephants of unknown nutritional background. The median concentration is about 1 ug/ml with a range from the 25th to 75th percentile of 0.75 to 1.3 ug/ml.</p> <p>Serum vitamin E concentration is a good indicator of vitamin E status. The animal requirement for vitamin E is not absolute, but varies based on such things as the fatty acid profile of the diet and the oxidative stress placed on the animal. Therefore, it is impossible to state what deficient, or adequate, vitamin E nutrition is for all situations.</p> <p>Referral test performed at Michigan State University.</p>				

1-888-433-9987

1-809-971-7180

Online results at

Account: 1923

www.vetconnect.com

Requisition #: 2352975
Accession #: L2400057
Order rec'd: 05/07/2009
Ordered by: OKIMOTO,B
Reported: 05/13/2009

VITAMIN E				
Test	Result	Reference Range	Flag	Bar Graph
VITAMIN E	0.22	- ug/ml		
<p>We've measured serum vitamin E in several hundred elephants of unknown nutritional background. The median concentration is about 1 ug/ml with a range from the 25th to 75th percentile of 0.75 to 1.3 ug/ml.</p> <p>Serum vitamin E concentration is a good indicator of vitamin E status. The animal requirement for vitamin E is not absolute, but varies based on such things as the fatty acid profile of the diet and the oxidative stress placed on the animal. Therefore, it is impossible to state what deficient, or adequate, vitamin E nutrition is for all situations.</p>				
Referral test performed at Michigan State University.				

1-888-433-9987
 Online results at
 www.vetconnect.com

VITAMINE				
Test	Result	Reference Range	Flag	Bar Graph
VITAMINE	0.10	- ug/mL		
<p>We've measured serum vitamin E in several hundred elephants of unknown nutritional background. The median concentration is about 1 ug/mL with a range from the 25th to 75th percentile of 0.75 to 1.3 ug/mL.</p> <p>Serum vitamin E concentration is a good indicator of vitamin E status. The animal requirement for vitamin E is not absolute, but varies based on such things as the fatty acid profile of the diet and the oxidative stress placed on the animal. Therefore, it is impossible to state what deficient, or adequate, vitamin E nutriture is for all situations.</p>				
Referral test performed at Michigan State University.				



HONOLULU ZOO
 151 KAPAHULU AVE.
 HONOLULU, HI 96815

1-808-971-7180

Account: 1823

Owner: ELEPHANT
 Patient: 920002
 Species:
 Breed:
 Age:
 Gender: F
 Requisition #: 2301462
 Accession #: L1039402
 Order rec'd: 01/16/2009
 Ordered by: OKIMOTO
 Reported: 01/23/2009



1-888-433-9987
 Online results at
 www.vetconnect.com

VITAMIN E				
Test	Result	Reference Range	Flag	Bar Graph
VITAMIN E	0.39	- ug/mL		
<p>We've measured serum vitamin E in several hundred elephants of unknown nutritional background. The median concentration is about 1 ug/ml with a range from the 25th to 75th percentile of 0.75 to 1.3 ug/ml.</p> <p>Serum vitamin E concentration is a good indicator of vitamin E status. The animal requirement for vitamin E is not absolute, but varies based on such things as the fatty acid profile of the diet and the oxidative stress placed on the animal. Therefore, it is impossible to state what deficient, or adequate, vitamin E nutriture is for all situations.</p>				
Referral test performed at Michigan State University.				

National Veterinary Services Laboratories
1800 Dayton Road Ames, Iowa 50010
Phone (515) 663-7266 Fax (515) 663-7397
Tuberculosis Laboratory Test Report Page 1 of 2
FEDERAL RELAY SERVICE (Voice/TTY/ASCII/Spanish)
1-800-877-8339

***** This is a confidential report for official use only. *****
Accession: 575578 Date Received: 10/22/2008

Establishment No.: HOKIMI
OKIMOTO, DR. BEN F.
151 KAPAHULU AVE.

Referral Number:
Owner: HONOLULU ZOO
City: HONOLULU
State: HI

HONOLULU, HI 96815
Fax: 8089713950

Preservation:

Retain Tag:

Species: Elephant

NVSL ID	Case #	Sample ID	Animal ID
1970898	090621	8-12-08	2A/920002
			Mycobacteria Isolation
			Diagnosis: No Isolation Made
			Specimen Submitted
			TRUNK WASH
1970899	090622	8-13-08	2B/920002
			Mycobacteria Isolation
			Diagnosis: Acid Fast Organism Isolated
			Specimen Submitted
			TRUNK WASH

The Mycobacterium species isolated from the diagnostic specimen submitted was not part of the Mycobacterium tuberculosis complex.

1970900	090623	8-14-08	2C/920002
			Mycobacteria Isolation
			Diagnosis: Acid Fast Organism Isolated

DISTRIBUTION:

Submitter
12/11/2008

Approved By: Sulee Robbe-Austerma
National Veterinary Services Laboratories

National Veterinary Services Laboratories
1800 Dayton Road Ames, Iowa 50010
Phone (515) 663-7266 Fax (515) 663-7397
Tuberculosis Laboratory Test Report Page 2 of 2
FEDERAL RELAY SERVICE (Voice/TTY/ASCII/Spanish)
1-800-877-8339

***** This is a confidential report for official use only. *****
Accession: 575578 Date Received: 10/22/2008

Establishment No.: H10K1M1
OKIMOTO, DR. BEN F.
151 KAPAHULU AVE.

Referral Number:
Owner: HONOLULU ZOO
City: HONOLULU
State: HI

HONOLULU, HI 96815
Fax: 8089713950

Preservation:

Retain Tag:

Species: Elephant

NVSL ID	Case	#	Sample ID	Animal ID
---------	------	---	-----------	-----------

Specimen Submitted
TRUNK WASH

The Mycobacterium species isolated from the diagnostic specimen submitted was not part of the Mycobacterium tuberculosis complex.

DISTRIBUTION:

Submitter
12/17/2008

Approved By: Sulee Robbe-Austerma
National Veterinary Services Laboratories



National Veterinary Services Laboratories
PO Box 844
Ames, Iowa 50010
Phone: 515-337-7514 Fax: 515-337-7938
FEDERAL RELAY SERVICE (Voice/TTY/ASCII/Spanish) 1-800-877-8339
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FINAL REPORT

Laboratory Test Report

***** This is a confidential report intended for official use only. *****

Owner Honolulu Zoo Honolulu, HI	Accession Number:	09-018676
Submitter Ben F. Okimoto Honolulu Zoo 151 Kapahulu Ave. Honolulu, HI 96815 FAX# 808-971-3950	NFC Control Number: Date Collected: Date Received: Date Completed: Collected By: Purpose: Referral/Retain Tag Number:	19809020629 09/08/2009 11/06/2009 Maurice Bolosan General Diagnostic

This is a billable case.

NOTE: Condition of the sample(s) was adequate unless otherwise noted.

Animal ID: 821294/MARI Case #: TB09-09050 Sample: 1A-8/31/09 Specimen Type: Trunk
Washings Species: Elephant, Asian

Mycobacterial Culture Result No Isolation Made

Animal ID: 821294/MARI Case #: TB09-09051 Sample: 1B-9/1/09 Specimen Type: Trunk
Washings Species: Elephant, Asian

Mycobacterial Culture Result Acid fast bacteria recovered
Isolate Mycobacterium species- not M. tuberculosis complex

Animal ID: 821294/MARI Case #: TB09-09052 Sample: 1C-9/2/09 Specimen Type: Trunk
Washings Species: Elephant, Asian

Mycobacterial Culture Result No Isolation Made

Animal ID: 920002/VALGAI Case #: TB09-09053 Sample: 2A-8/31/09 Specimen Type: Trunk
Washings Species: Elephant, Asian

Mycobacterial Culture Result Acid fast bacteria recovered
Isolate Mycobacterium species- not M. tuberculosis complex

Animal ID: 920002/VALGAI **Case #:** TB09-09054 **Sample:** 2B-9/1/09 **Specimen Type:** Trunk
Washings Species: Elephant, Asian

Mycobacterial Culture Result

No Isolation Made

Animal ID: 920002/VALGAI **Case #:** TB09-09055 **Sample:** 2C-9/2/09 **Specimen Type:** Trunk
Washings Species: Elephant, Asian

Mycobacterial Culture Result

No Isolation Made

Results authorized by:

Dr. Beth Harris, Head, Mycobacteria and Brucella Section
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