

Medical History Report - Summary for Individual Specimen
CLEVELAND METROPARKS ZOO

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LOXODONTA AFRICANA (no subsp)           Sex: Female           Acc. #: 970616
African elephant                       Age: 23Y Est.        Birth: 6.Jun.1985
Name: MARTIKA
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- 16.Feb Blood sample: (EDTA) (12:40.0) Hematology/Chemistry/Serology results.
WBC:11.10 *10³/UL; HCT: 42.5%; BUN:5 MG/DL;
- 19.Feb Parasitology examination: (DIAGNOSTIC EXAMINATION) Fecal sample.
NO PARASITES SEEN
- 2.Mar Blood sample: (EDTA) (12:45.0) Hematology/Chemistry/Serology results.
WBC:12.10 *10³/UL; HCT: 37.0%; BUN:6 MG/DL;
- 16.Mar Blood sample: (EDTA) (9:40.0) Hematology/Chemistry/Serology results.
WBC:10.10 *10³/UL; HCT: 40.0%; BUN:7 MG/DL;
- 6.Apr Blood sample: (EDTA) (12:20.0) Hematology/Chemistry/Serology results.
WBC:11.20 *10³/UL; HCT: 43.0%; BUN:5 MG/DL;
- 4.May Blood sample: (EDTA) (13:00.0) Hematology/Chemistry/Serology results.
WBC:12.00 *10³/UL; HCT: 41.2%; BUN:6 MG/DL;
- 27.May Weight: 3779 Kg (8329 Lb)
- 8.Jun Blood sample: (EDTA) (10:00.0) Hematology/Chemistry/Serology results.
WBC:10.20 *10³/UL; HCT: 45.0%; BUN:11 MG/DL;
- 14.Jun PROBLEM: Vaccination - Tetanus Toxoid
Vaccination - West Nile Virus Vaccination
Clinical note recorded. (MFH)
- 18.Jun PROBLEM: Labwork - Microbiology (onset)
Clinical note recorded. (LED)
- 20.Jun PROBLEM: Labwork - Microbiology #2 (onset)
Clinical note recorded. (LED)
- 22.Jun PROBLEM: Labwork - Microbiology #3 (onset)
Clinical note recorded. (LED)
- 6.Jul Blood sample: (EDTA) (12:30.0) Hematology/Chemistry/Serology results.
WBC:11.50 *10³/UL; HCT: 44.5%; BUN:10 MG/DL;
- 9.Jul Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN
- 4.Aug Blood sample: (EDTA) (11:50.0) Hematology/Chemistry/Serology results.
WBC:14.00 *10³/UL; HCT: 43.0%; BUN:5 MG/DL;
- 23.Aug PROBLEM: Labwork - Microbiology (resolved)
Labwork - Microbiology #2 (resolved)
Labwork - Microbiology #3 (resolved)
- 1.Sep Blood sample: (EDTA) (11:50.0) Hematology/Chemistry/Serology results.
WBC:12.00 *10³/UL; HCT: 47.7%; BUN:6 MG/DL;
- 17.Sep Parasitology examination: (DIAGNOSTIC EXAMINATION) Fecal sample.
NO PARASITES SEEN

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.....2007....

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5.Oct Blood sample: (EDTA) ( 9:45.0) Hematology/Chemistry/Serology results.
      WBC:10.10 *10^3/UL; HCT: 35.5%; BUN:6 MG/DL;

14.Dec Blood sample: (EDTA) (13:15.0) Hematology/Chemistry/Serology results.
      WBC:10.30 *10^3/UL; HCT: 35.5%; BUN:7 MG/DL;

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5.Jan Blood sample: (EDTA) (13:00.0) Hematology/Chemistry/Serology results.
      WBC:11.10 *10^3/UL; HCT: 43.0%; BUN:5 MG/DL;

10.Jan Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
      NO PARASITES SEEN

9.Feb Blood sample: (EDTA) (12:00.0) Hematology/Chemistry/Serology results.
      WBC:11.00 *10^3/UL; HCT: 45.0%; BUN:7 MG/DL;

7.Mar Blood sample: (EDTA) (10:20.0) Hematology/Chemistry/Serology results.
      WBC:12.50 *10^3/UL; HCT: 41.0%; BUN:5 MG/DL;

12.Apr Blood sample: (EDTA) (13:00.0) Hematology/Chemistry/Serology results.
      WBC:12.60 *10^3/UL; HCT: 32.0%; BUN:6 MG/DL;

3.May Blood sample: (EDTA) (10:00.0) Hematology/Chemistry/Serology results.
      WBC:8.50 *10^3/UL; HCT: 43.0%; BUN:5 MG/DL;

11.May PROBLEM: Vaccination - Tetanus Toxoid
      Vaccination - West Nile Virus Vaccination
      Clinical note recorded. (KAR)

14.Jun Blood sample: (EDTA) ( 9:45.0) Hematology results.
      WBC:12.50 *10^3/UL; HCT: 41.0%;

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Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3733 Kg on 3.Feb.2007
Manual restraint used.

Date of Collection: 16.Feb.2007
Time of Collection: 12:40.0
Collected by: JM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 16.Feb.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	11.1		*10 ³ /UL
RED BLOOD CELL COUNT	3.53		*10 ⁶ /UL
HEMOGLOBIN	14.2		GM/DL
HEMATOCRIT	42.5		%
MCV	120		fL
MCH	< 40.2		uug
MCHC	33.4		gm/dL
SEGMENTED NEUTROPHILS	> 50	(5.550)	% (*10 ³ /UL)
LYMPHOCYTES	36	(3.996)	% (*10 ³ /UL)
MONOCYTES	11	(1.221)	% (*10 ³ /UL)
EOSINOPHILS	3	(0.333)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	ADEQ		
EOSINOPHIL ABSOLUTE	0.33		
LYMPHOCYTE ABSOLUTE	4		
MONOCYTE ABSOLUTE	1.22		
SEG. NEUTROPHIL ABSOLUTE	5.55		

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3733 Kg on 3.Feb.2007
Manual restraint used.

Date of Collection: 16.Feb.2007
Time of Collection: 12:40.0
Collected by: JM
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MAM
Date of Analysis: 16.Feb.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

	GLUCOSE	69	MG/DL
	BLOOD UREA NITROGEN	< 4.9	MG/DL
	CREATININE	1.3	MG/DL
	BUN/creatinine ratio	3.77	
	CALCIUM	10.6	MG/DL
	PHOSPHORUS	< 3.6	MG/DL
	calcium/phosphorus ratio	2.94	
	SODIUM	<< 113	MEQ/L
	POTASSIUM	< 3.9	MEQ/L
	sodium/potassium ratio	29.0	
	CHLORIDE	> 95	MEQ/L
	CHOLESTEROL	75	MG/DL
	TOTAL PROTEIN (COLORIMETRY)	< 6.8	GM/DL
	ALBUMIN (COLORIMETRY)	< 2.9	GM/DL
	GLOBULIN (COLORIMETRY)	3.9	GM/DL
	albumin/globulin ratio	0.744	
	ASPARTATE AMINOTRANSFERASE	17	IU/L
	ALANINE AMINOTRANSFERASE	3	IU/L
	TOTAL BILIRUBIN	> 0.4	MG/DL
	ALKALINE PHOSPHATASE	< 58	IU/L
	GAMMA GLUTAMYLTRANSFERASE	17	IU/L

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African elephant
Name: MARTIKA
=====

Sex: Female Acc. #: 970616
Age: 23Y Est. Birth: 6.Jun.1985
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Parasitology Examination:

Submission Data >>

Type: Fecal sample
Purpose: DIAGNOSTIC EXAMINATION

Sample id.: 2007-0354
Date collected: 19.Feb.2007
Collected by: MRZ

Collected from:

From an individual specimen.

Enclosure: PAEIS02

Examination Data >>

Storage: refrigerated
Consistency: soft
Gross appearance: Atypical

Date examined: 19.Feb.2007
by: KAR

Tests & Results >>

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN
FLOTATION-ZINC NO PARASITES SEEN
GROSS/MACROSCOPIC EXAMINATION NO PARASITES SEEN

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3710 Kg on 25.Feb.2007
Manual restraint used.

Date of Collection: 2.Mar.2007
Time of Collection: 12:45.0
Collected by: JM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 2.Mar.2007
Time of Analysis:
Analysis by:
Automated analysis

Tests and Results >>

WHITE BLOOD CELL COUNT	12.1		*10 ³ /UL
RED BLOOD CELL COUNT >>	4.33		*10 ⁶ /UL
HEMOGLOBIN	12.3		GM/DL
HEMATOCRIT	37		%
MCV <<	85.5		fL
MCH <<	28.4		uug
MCHC	33.2		gm/dL
SEGMENTED NEUTROPHILS	31	(3.751)	% (*10 ³ /UL)
LYMPHOCYTES	53	(6.413)	% (*10 ³ /UL)
MONOCYTES	16	(1.936)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT		ADEQ	
LYMPHOCYTE ABSOLUTE	6.41		
MONOCYTE ABSOLUTE	1.94		
SEG. NEUTROPHIL ABSOLUTE	3.75		

Comments >>

Platelet adequate and clumped

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Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3710 Kg on 25.Feb.2007
Manual restraint used.

Date of Collection: 2.Mar.2007
Time of Collection: 12:45.0
Collected by: JM
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MAM
Date of Analysis: 2.Mar.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

GLUCOSE	76	MG/DL
BLOOD UREA NITROGEN <	6	MG/DL
CREATININE	1.2	MG/DL
BUN/creatinine ratio	5.00	
CALCIUM <<	7.8	MG/DL
PHOSPHORUS	5.2	MG/DL
calcium/phosphorus ratio	1.50	
SODIUM <<	119	MEQ/L
POTASSIUM	4.4	MEQ/L
sodium/potassium ratio	27.0	
CHLORIDE <<	75	MEQ/L
CHOLESTEROL	68	MG/DL
TOTAL PROTEIN (COLORIMETRY) <<	6.1	GM/DL
ALBUMIN (COLORIMETRY) <	3.1	GM/DL
GLOBULIN (COLORIMETRY) <<	3	GM/DL
albumin/globulin ratio	1.03	
ASPARTATE AMINOTRANSFERASE	16	IU/L
ALANINE AMINOTRANSFERASE	2	IU/L
TOTAL BILIRUBIN >>	0.6	MG/DL
ALKALINE PHOSPHATASE	78	IU/L
GAMMA GLUTAMYLTRANSFERASE	16	IU/L

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Active
Weight: 3710 Kg on 25.Feb.2007
Manual restraint used.

Date of Collection: 16.Mar.2007
Time of Collection: 9:40.0
Collected by: MS
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: CLEVELAND ZOO
Date of Analysis: 16.Mar.2007
Time of Analysis:
Analysis by: SLK
Manual analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	10.1		*10 ³ /UL
HEMATOCRIT	40		%
SEGMENTED NEUTROPHILS	25	(2.525)	% (*10 ³ /UL)
LYMPHOCYTES	66	(6.666)	% (*10 ³ /UL)
MONOCYTES	6	(0.606)	% (*10 ³ /UL)
EOSINOPHILS	3	(0.303)	% (*10 ³ /UL)
PLATELET COUNT	ADEQ		*10 ³ /UL

Morphology Results >>

ANISOCYTOSIS MOD

Clinical Pathology Records - Specimen Report
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LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Active
Weight: 3710 Kg on 25.Feb.2007
Manual restraint used.

Date of Collection: 16.Mar.2007
Time of Collection: 9:40.0
Collected by: MS
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: CMZ-VET TEST
Date of Analysis: 16.Mar.2007
Time of Analysis:
Analysis by: SLK
Automated analysis.

Tests and Results >>

GLUCOSE	87	MG/DL
BLOOD UREA NITROGEN	7	MG/DL
CREATININE	1.4	MG/DL
BUN/creatinine ratio	5.00	
CALCIUM	10.8	MG/DL
PHOSPHORUS	4.5	MG/DL
calcium/phosphorus ratio	2.40	
SODIUM	> 135	MEQ/L
POTASSIUM	4.4	MEQ/L
sodium/potassium ratio	30.7	
CHLORIDE	92	MEQ/L
CHOLESTEROL	78	MG/DL
TOTAL PROTEIN (COLORIMETRY)	7.6	GM/DL
TOTAL PROTEIN (REFRACTOMETER)	< 7.2	GM/DL
ALBUMIN (COLORIMETRY)	3.3	GM/DL
GLOBULIN (COLORIMETRY)	4.3	GM/DL
albumin/globulin ratio	0.767	
ALANINE AMINOTRANSFERASE	>> 38	IU/L
TOTAL BILIRUBIN	0.2	MG/DL
AMYLASE	< 360	U/L
ALKALINE PHOSPHATASE	123	IU/L

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female Acc. #: 970616
Age: 23Y Est. Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3665 Kg on 1.Apr.2007
Manual restraint used.

Date of Collection: 6.Apr.2007
Time of Collection: 12:20.0
Collected by: MS
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Refrigerated (<48 hours)
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 7.Apr.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	11.2		*10 ³ /UL
RED BLOOD CELL COUNT	3.42		*10 ⁶ /UL
HEMOGLOBIN	14.3		GM/DL
HEMATOCRIT	43		%
MCV	126		fL
MCH	41.8		uug
MCHC	33.3		gm/dL
SEGMENTED NEUTROPHILS	32	(3.584)	% (*10 ³ /UL)
LYMPHOCYTES	60	(6.720)	% (*10 ³ /UL)
MONOCYTES	3	(0.336)	% (*10 ³ /UL)
EOSINOPHILS	> 5	(0.560)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	362		
EOSINOPHIL ABSOLUTE	0.56		
LYMPHOCYTE ABSOLUTE	6.72		
MONOCYTE ABSOLUTE	0.34		
SEG. NEUTROPHIL ABSOLUTE	3.58		

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3665 Kg on 1.Apr.2007
Manual restraint used.

Date of Collection: 6.Apr.2007
Time of Collection: 12:20.0
Collected by: MS
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MA
Date of Analysis: 6.Apr.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

	GLUCOSE	76	MG/DL
	BLOOD UREA NITROGEN	< 5	MG/DL
	CREATININE	1.3	MG/DL
	BUN/creatinine ratio	3.85	
	CALCIUM	< 9.9	MG/DL
	PHOSPHORUS	> 6.2	MG/DL
	calcium/phosphorus ratio	1.60	
	SODIUM	< 122	MEQ/L
	POTASSIUM	5.2	MEQ/L
	sodium/potassium ratio	23.5	
	CHLORIDE	<< 78	MEQ/L
	CHOLESTEROL	76	MG/DL
TOTAL PROTEIN (COLORIMETRY)		7.4	GM/DL
ALBUMIN (COLORIMETRY)		3.5	GM/DL
GLOBULIN (COLORIMETRY)		3.9	GM/DL
albumin/globulin ratio		0.897	
ASPARTATE AMINOTRANSFERASE		29	IU/L
ALANINE AMINOTRANSFERASE		2	IU/L
TOTAL BILIRUBIN	>	0.4	MG/DL
ALKALINE PHOSPHATASE		96	IU/L
GAMMA GLUTAMYLTRANSFERASE		16	IU/L

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3740 Kg on 29.Apr.2007
Manual restraint used.

Date of Collection: 4.May.2007
Time of Collection: 13:00.0
Collected by: MS
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 4.May.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	12.0		*10 ³ /UL
RED BLOOD CELL COUNT	3.45		*10 ⁶ /UL
HEMOGLOBIN	13.7		GM/DL
HEMATOCRIT	41.2		%
MCV	119		fL
MCH	< 39.7		uug
MCHC	33.3		gm/dL
SEGMENTED NEUTROPHILS	>> 60	(7.200)	% (*10 ³ /UL)
LYMPHOCYTES	34	(4.080)	% (*10 ³ /UL)
MONOCYTES	2	(0.240)	% (*10 ³ /UL)
EOSINOPHILS	4	(0.480)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	361		
EOSINOPHIL ABSOLUTE	0.48		
LYMPHOCYTE ABSOLUTE	4.08		
MONOCYTE ABSOLUTE	0.24		
SEG. NEUTROPHIL ABSOLUTE	7.2		

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African elephant
Name: MARTIKA
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Sex: Female Acc. #: 970616
Age: 23Y Est. Birth: 6.Jun.1985
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Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3740 Kg on 29.Apr.2007
Manual restraint used.

Date of Collection: 4.May.2007
Time of Collection: 13:00.0
Collected by: MS
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MAM
Date of Analysis: 4.May.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

GLUCOSE	93	MG/DL
BLOOD UREA NITROGEN	< 6.1	MG/DL
CREATININE	1.2	MG/DL
BUN/creatinine ratio	5.08	
CALCIUM	<< 9.2	MG/DL
PHOSPHORUS	5.1	MG/DL
calcium/phosphorus ratio	1.80	
SODIUM	128	MEQ/L
POTASSIUM	4.6	MEQ/L
sodium/potassium ratio	27.8	
CHLORIDE	< 81	MEQ/L
CHOLESTEROL	< 45	MG/DL
TOTAL PROTEIN (COLORIMETRY)	<< 6.4	GM/DL
ALBUMIN (COLORIMETRY)	<< 2.6	GM/DL
GLOBULIN (COLORIMETRY)	3.8	GM/DL
albumin/globulin ratio	0.684	
ASPARTATE AMINOTRANSFERASE	< 10	IU/L
ALANINE AMINOTRANSFERASE	3	IU/L
TOTAL BILIRUBIN	0.1	MG/DL
ALKALINE PHOSPHATASE	96	IU/L
GAMMA GLUTAMYLTRANSFERASE	15	IU/L

Clinical Pathology Records - Specimen Report
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LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3779 Kg on 27.May.2007
Manual restraint used.

Date of Collection: 8.Jun.2007
Time of Collection: 10:00.0
Collected by: MS
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MA
Date of Analysis: 8.Jun.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	10.2		*10 ³ /UL
RED BLOOD CELL COUNT	3.53		*10 ⁶ /UL
HEMOGLOBIN	15.0		GM/DL
HEMATOCRIT	> 45.0		%
MCV	127		fL
MCH	42.5		uug
MCHC	33.3		gm/dL
SEGMENTED NEUTROPHILS	36	(3.672)	% (*10 ³ /UL)
LYMPHOCYTES	51	(5.202)	% (*10 ³ /UL)
MONOCYTES	12	(1.224)	% (*10 ³ /UL)
EOSINOPHILS	1	(0.102)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	347		
EOSINOPHIL ABSOLUTE	0.10		
LYMPHOCYTE ABSOLUTE	5.20		
MONOCYTE ABSOLUTE	1.22		
SEG. NEUTROPHIL ABSOLUTE	3.67		

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Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3779 Kg on 27.May.2007
Manual restraint used.

Date of Collection: 8.Jun.2007
Time of Collection: 10:00.0
Collected by: MS
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MAM
Date of Analysis: 8.Jun.2007
Time of Analysis:
Analysis by:
Automated analysis:

Tests and Results >>

GLUCOSE	<	67	MG/DL
BLOOD UREA NITROGEN		11.2	MG/DL
CREATININE		1.1	MG/DL
BUN/creatinine ratio		10.2	
CALCIUM	<<	9.2	MG/DL
PHOSPHORUS	>	5.9	MG/DL
calcium/phosphorus ratio		1.56	
SODIUM		132	MEQ/L
POTASSIUM	>	5.4	MEQ/L
sodium/potassium ratio		24.4	
CHLORIDE		90	MEQ/L
CHOLESTEROL		52	MG/DL
TOTAL PROTEIN (COLORIMETRY)	<<	5.6	GM/DL
ALBUMIN (COLORIMETRY)	<	2.9	GM/DL
GLOBULIN (COLORIMETRY)	<<	2.7	GM/DL
albumin/globulin ratio		1.07	
ASPARTATE AMINOTRANSFERASE		19	IU/L
ALANINE AMINOTRANSFERASE		3	IU/L
TOTAL BILIRUBIN		0.1	MG/DL
ALKALINE PHOSPHATASE	<	43	IU/L
GAMMA GLUTAMYLTRANSFERASE	<	6	IU/L

=====

<i>LOXODONTA AFRICANA (no subsp)</i>	Sex: Female	Acc. #: 970616
African elephant	Age: 23Y Est.	Birth: 6.Jun.1985
Name: MARTIKA		

=====

Clinical Note: 14.Jun.2007
Problem: Vaccination - Tetanus Toxoid ; Vaccination - West Nile Virus
Vaccination
History: Annual Tetanus and West Nile vaccinations.

Vaccination: Tetanus Toxoid 1ml IM left brachium(Professional
Biological Ser#174B, Exp.30Mar08).

Vaccination: West Nile Virus 1.0 ml killed IM left brachium(Fort Dodge
1666148A Exp.15Oct08).

(MFH VME III) (MFH)

Clinical Note: 18.Jun.2007
Problem: Labwork - Microbiology
Culture: Trunk wash sent to National Veterinary Services Lab for
Mycobacteria TB testing, results received 23Aug2007 - Negative. (LED)

Clinical Note: 20.Jun.2007
Problem: Labwork - Microbiology ; Labwork - Microbiology #2
Culture: Trunk was sent to National Veterinary Services Lab for
Mycobacteria TB testing, results received 23Aug2007 - Negative (LED)

Clinical Note: 22.Jun.2007
Problem: Labwork - Microbiology ; Labwork - Microbiology #2 ; Labwork -
Microbiology #3
Culture: Trunk wash sent to National Veterinary Services Lab for
Mycobacteria TB testing, results received 23Aug2007 - Negative (LED)

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3769 Kg on 24.Jun.2007
Manual restraint used.

Date of Collection: 6.Jul.2007
Time of Collection: 12:30.0
Collected by: JM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MA
Date of Analysis: 6.Jul.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	11.5		*10 ³ /UL
RED BLOOD CELL COUNT	> 3.75		*10 ⁶ /UL
HEMOGLOBIN	14.8		GM/DL
HEMATOCRIT	> 44.5		%
MCV	119		fL
MCH	< 39.5		uug
MCHC	33.3		gm/dL
SEGMENTED NEUTROPHILS	37	(4.255)	% (*10 ³ /UL)
LYMPHOCYTES	50	(5.750)	% (*10 ³ /UL)
MONOCYTES	12	(1.380)	% (*10 ³ /UL)
EOSINOPHILS	1	(0.115)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	312		
EOSINOPHIL ABSOLUTE	0.12		
LYMPHOCYTE ABSOLUTE	5.75		
MONOCYTE ABSOLUTE	1.38		
SEG. NEUTROPHIL ABSOLUTE	4.26		

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

=====
LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA
=====

Sex: Female Acc. #: 970616
Age: 23Y Est. Birth: 6.Jun.1985
=====

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3769 Kg on 24.Jun.2007
Manual restraint used.

Date of Collection: 6.Jul.2007
Time of Collection: 12:30.0
Collected by: JM
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MAM
Date of Analysis: 6.Jul.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

	GLUCOSE	72	MG/DL
	BLOOD UREA NITROGEN	9.8	MG/DL
	CREATININE	1.3	MG/DL
	BUN/creatinine ratio	7.54	
	CALCIUM <<	8.6	MG/DL
	PHOSPHORUS	5.0	MG/DL
	calcium/phosphorus ratio	1.72	
	SODIUM	132	MEQ/L
	POTASSIUM	5.1	MEQ/L
	sodium/potassium ratio	25.9	
	CHLORIDE	90	MEQ/L
	CHOLESTEROL	52	MG/DL
	TOTAL PROTEIN (COLORIMETRY) <	6.8	GM/DL
	ALBUMIN (COLORIMETRY) <	2.8	GM/DL
	GLOBULIN (COLORIMETRY)	4.0	GM/DL
	albumin/globulin ratio	0.700	
	ASPARTATE AMINOTRANSFERASE	25	IU/L
	ALANINE AMINOTRANSFERASE	2	IU/L
	TOTAL BILIRUBIN	0.1	MG/DL
	ALKALINE PHOSPHATASE <	53	IU/L
	GAMMA GLUTAMYLTRANSFERASE	13	IU/L

=====
LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA
=====

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985
=====

Parasitology Examination:

Submission Data >>

Type: Fecal sample
Purpose: ROUTINE EXAMINATION

Sample id.: 2007-0891
Date collected: 9.Jul.2007
Collected by: MRZ

Collected from:

From an individual specimen.

Enclosure: PAEI/S01

Examination Data >>

Storage: refrigerated
Consistency: soft
Gross appearance: Atypical

Date examined: 11.Jul.2007
by: CDP

Tests & Results >>

FLOTATION-ZINC NO PARASITES SEEN
GROSS/MACROSCOPIC EXAMINATION NO PARASITES SEEN

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

=====
LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA
=====

Sex: Female Acc. #: 970616
Age: 23Y Est. Birth: 6.Jun.1985
=====

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3769 Kg on 24.Jun.2007
Manual restraint used.

Date of Collection: 4.Aug.2007
Time of Collection: 11:50.0
Collected by: JM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: CMZ-VET LYTE
Date of Analysis: 4.Aug.2007
Time of Analysis:
Analysis by: KAR
Manual analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	>	14.0		*10 ³ /UL
HEMATOCRIT		43		%
SEGMENTED NEUTROPHILS		25	(3.500)	% (*10 ³ /UL)
LYMPHOCYTES	>	65	(9.100)	% (*10 ³ /UL)
MONOCYTES		9	(1.260)	% (*10 ³ /UL)
EOSINOPHILS		1	(0.140)	% (*10 ³ /UL)
PLATELET COUNT		ADEQ		*10 ³ /UL

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3769 Kg on 24.Jun.2007
Manual restraint used.

Date of Collection: 4.Aug.2007
Time of Collection: 11:50.0
Collected by: JM
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: CLEVELAND ZOO
Date of Analysis: 4.Aug.2007
Time of Analysis:
Analysis by: KAR
Manual analysis.

Tests and Results >>

GLUCOSE	79	MG/DL
BLOOD UREA NITROGEN	< 5	MG/DL
CREATININE	1.4	MG/DL
BUN/creatinine ratio	3.57	
CALCIUM	11.5	MG/DL
PHOSPHORUS	4.2	MG/DL
calcium/phosphorus ratio	2.74	
SODIUM	> 134	MEQ/L
POTASSIUM	4.4	MEQ/L
sodium/potassium ratio	30.5	
TOTAL PROTEIN (COLORIMETRY)	8.0	GM/DL
ALBUMIN (COLORIMETRY)	< 3.1	GM/DL
GLOBULIN (COLORIMETRY)	> 4.9	GM/DL
albumin/globulin ratio	0.633	
ALANINE AMINOTRANSFERASE	7	IU/L
TOTAL BILIRUBIN	0.3	MG/DL
ALKALINE PHOSPHATASE	125	IU/L

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3713 Kg on 26.Aug.2007
Manual restraint used.

Date of Collection: 1.Sep.2007
Time of Collection: 11:50.0
Collected by: MRZ
Sample Collection Site: EAR VEINS

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Refrigerated (<48 hours)
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 2.Sep.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	12		*10 ³ /UL
RED BLOOD CELL COUNT	2.94		*10 ⁶ /UL
HEMOGLOBIN	15.1		GM/DL
HEMATOCRIT	> 47.7		%
MCV	>> 162		fL
MCH	>> 51.4		uug
MCHC	< 31.7		gm/dL
SEGMENTED NEUTROPHILS	> 47	(5.640)	% (*10 ³ /UL)
LYMPHOCYTES	42	(5.040)	% (*10 ³ /UL)
MONOCYTES	9	(1.080)	% (*10 ³ /UL)
EOSINOPHILS	2	(0.240)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	415		
EOSINOPHIL ABSOLUTE	0.24		
LYMPHOCYTE ABSOLUTE	5.04		
MONOCYTE ABSOLUTE	1.08		
SEG. NEUTROPHIL ABSOLUTE	5.64		

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3713 Kg on 26.Aug.2007
Manual restraint used.

Date of Collection: 1.Sep.2007
Time of Collection: 11:50.0
Collected by: MRZ
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Refrigerated (<48 hours)
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 2.Sep.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

GLUCOSE	<	55	MG/DL
BLOOD UREA NITROGEN	<	6.1	MG/DL
CREATININE		1.1	MG/DL
BUN/creatinine ratio		5.55	
CALCIUM	<	10	MG/DL
PHOSPHORUS	<	3.9	MG/DL
calcium/phosphorus ratio		2.56	
SODIUM		128	MEQ/L
POTASSIUM		4.6	MEQ/L
sodium/potassium ratio		27.8	
CHLORIDE		89	MEQ/L
CHOLESTEROL	<	50	MG/DL
TOTAL PROTEIN (COLORIMETRY)	<	6.6	GM/DL
ALBUMIN (COLORIMETRY)	<<	2.7	GM/DL
GLOBULIN (COLORIMETRY)		3.9	GM/DL
albumin/globulin ratio		0.692	
ASPARTATE AMINOTRANSFERASE	<	13	IU/L
ALANINE AMINOTRANSFERASE		3	IU/L
TOTAL BILIRUBIN		0.3	MG/DL
ALKALINE PHOSPHATASE	<	41	IU/L
ALBUMIN GLOBULIN RATIO	>	0.7	GM/DL
GAMMA GLUTAMYLTRANSFERASE		10	IU/L

=====
LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA
=====

Sex: Female Acc. #: 970616
Age: 23Y Est. Birth: 6.Jun.1985

Parasitology Examination:

Submission Data >>

Type: Fecal sample
Purpose: DIAGNOSTIC EXAMINATION

Sample id.: 2007-1195
Date collected: 17.Sep.2007
Collected by: MMS

Collected from:

From an individual specimen.

Enclosure: PAEI/S01

Examination Data >>

Storage: refrigerated
Consistency: soft
Gross appearance: Atypical

Date examined: 17.Sep.2007
by: CDP

Tests & Results >>

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN
FLOTATION-ZINC NO PARASITES SEEN
GROSS/MACROSCOPIC EXAMINATION NO PARASITES SEEN

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3742 Kg on 29.Sep.2007
Manual restraint used.

Date of Collection: 5.Oct.2007
Time of Collection: 9:45.0
Collected by: CW
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 5.Oct.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	10.1		*10 ³ /UL
RED BLOOD CELL COUNT	3.22		*10 ⁶ /UL
HEMOGLOBIN	< 11.8		GM/DL
HEMATOCRIT	35.5		%
MCV	< 110		fL
MCH	<< 36.6		uug
MCHC	33.2		gm/dL
SEGMENTED NEUTROPHILS	34	(3.434)	% (*10 ³ /UL)
LYMPHOCYTES	60	(6.060)	% (*10 ³ /UL)
MONOCYTES	2	(0.202)	% (*10 ³ /UL)
EOSINOPHILS	4	(0.404)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	424		
EOSINOPHIL ABSOLUTE	0.4		
LYMPHOCYTE ABSOLUTE	6.06		
MONOCYTE ABSOLUTE	0.2		
SEG. NEUTROPHIL ABSOLUTE	3.43		

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3742 Kg on 29.Sep.2007
Manual restraint used.

Date of Collection: 5.Oct.2007
Time of Collection: 9:45.0
Collected by: CW
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MAM
Date of Analysis: 5.Oct.2007
Time of Analysis:
Analysis by:
Automated analysis

Tests and Results >>

GLUCOSE	<	60	MG/DL
BLOOD UREA NITROGEN	<	5.6	MG/DL
CREATININE		1.3	MG/DL
BUN/creatinine ratio		4.31	
CALCIUM	<<	8.4	MG/DL
PHOSPHORUS	<<	2.7	MG/DL
calcium/phosphorus ratio		3.11	
SODIUM		128	MEQ/L
POTASSIUM		4.5	MEQ/L
sodium/potassium ratio		28.4	
CHLORIDE		86	MEQ/L
CHOLESTEROL		54	MG/DL
TOTAL PROTEIN (COLORIMETRY)	<	6.8	GM/DL
ALBUMIN (COLORIMETRY)	<<	2.4	GM/DL
GLOBULIN (COLORIMETRY)		4.4	GM/DL
albumin/globulin ratio		0.545	
ASPARTATE AMINOTRANSFERASE	<	12	IU/L
ALANINE AMINOTRANSFERASE		1	IU/L
TOTAL BILIRUBIN		0.1	MG/DL
ALKALINE PHOSPHATASE	<	48	IU/L
ALBUMIN GLOBULIN RATIO		0.5	GM/DL
GAMMA GLUTAMYLTRANSFERASE		12	IU/L

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3748 Kg on 25.Nov.2007
Manual restraint used.

Date of Collection: 14.Dec.2007
Time of Collection: 13:15.0
Collected by: JM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 14.Dec.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	10.3		*10 ³ /UL
RED BLOOD CELL COUNT	3.07		*10 ⁶ /UL
HEMOGLOBIN	< 11.8		GM/DL
HEMATOCRIT	35.5		%
MCV	< 116		fL
MCH	< 38.4		uug
MCHC	33.2		gm/dL
SEGMENTED NEUTROPHILS	26	(2.678)	% (*10 ³ /UL)
LYMPHOCYTES	70	(7.210)	% (*10 ³ /UL)
MONOCYTES	2	(0.206)	% (*10 ³ /UL)
EOSINOPHILS	2	(0.206)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	492		
EOSINOPHIL ABSOLUTE	0.21		
LYMPHOCYTE ABSOLUTE	7.21		
MONOCYTE ABSOLUTE	0.21		
SEG. NEUTROPHIL ABSOLUTE	2.68		

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3748 Kg on 25.Nov.2007
Manual restraint used.

Date of Collection: 14.Dec.2007
Time of Collection: 13:15.0
Collected by: JM
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MAM
Date of Analysis: 14.Dec.2007
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

GLUCOSE	83.2	MG/DL
BLOOD UREA NITROGEN	< 6.8	MG/DL
CREATININE	1.4	MG/DL
BUN/creatinine ratio	4.86	
CALCIUM	11.4	MG/DL
PHOSPHORUS	> 6.2	MG/DL
calcium/phosphorus ratio	1.84	
SODIUM	130	MEQ/L
POTASSIUM	4.8	MEQ/L
sodium/potassium ratio	27.1	
CHLORIDE	90	MEQ/L
CHOLESTEROL	61	MG/DL
TOTAL PROTEIN (COLORIMETRY)	< 7.0	GM/DL
ALBUMIN (COLORIMETRY)	< 2.8	GM/DL
GLOBULIN (COLORIMETRY)	4.2	GM/DL
albumin/globulin ratio	0.667	
ASPARTATE AMINOTRANSFERASE	< 12	IU/L
ALANINE AMINOTRANSFERASE	8	IU/L
TOTAL BILIRUBIN	> 0.4	MG/DL
ALKALINE PHOSPHATASE	67	IU/L
ALBUMIN GLOBULIN RATIO	> 0.7	GM/DL
GAMMA GLUTAMYLTRANSFERASE	>> 28	IU/L

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 30.Dec.2007
Manual restraint used.

Date of Collection: 5.Jan.2008
Time of Collection: 13:00.0
Collected by: JM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 5.Jan.2008
Time of Analysis:
Analysis by:
Automated analysis

Tests and Results >>

WHITE BLOOD CELL COUNT	11.1		*10 ³ /UL
RED BLOOD CELL COUNT	3.46		*10 ⁶ /UL
HEMOGLOBIN	14.3		GM/DL
HEMATOCRIT	43		%
MCV	124		fL
MCH	41.3		uug
MCHC	33.3		gm/dL
SEGMENTED NEUTROPHILS	35	(3.885)	% (*10 ³ /UL)
LYMPHOCYTES	55	(6.105)	% (*10 ³ /UL)
MONOCYTES	7	(0.777)	% (*10 ³ /UL)
EOSINOPHILS	3	(0.333)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	ADEQ		
EOSINOPHIL ABSOLUTE	0.33		
LYMPHOCYTE ABSOLUTE	6.11		
MONOCYTE ABSOLUTE	0.78		
SEG. NEUTROPHIL ABSOLUTE	3.89		

Comments >>

Morphology: Normal

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

=====
LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA
=====

Sex: Female Acc. #: 970616
Age: 23Y Est. Birth: 6.Jun.1985
=====

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 30.Dec.2007
Manual restraint used.

Date of Collection: 5.Jan.2008
Time of Collection: 13:00.0
Collected by: JM
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MAM
Date of Analysis: 5.Jan.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

GLUCOSE	92.5	MG/DL
BLOOD UREA NITROGEN	< 5	MG/DL
CREATININE	1.5	MG/DL
BUN/creatinine ratio	3.33	
CALCIUM	< 10.2	MG/DL
PHOSPHORUS	5.6	MG/DL
calcium/phosphorus ratio	1.82	
SODIUM	129	MEQ/L
POTASSIUM	5.2	MEQ/L
sodium/potassium ratio	24.8	
CHLORIDE	88	MEQ/L
CHOLESTEROL	65.0	MG/DL
TOTAL PROTEIN (COLORIMETRY)	7.1	GM/DL
ALBUMIN (COLORIMETRY)	< 2.9	GM/DL
GLOBULIN (COLORIMETRY)	4.2	GM/DL
albumin/globulin ratio	0.690	
ASPARTATE AMINOTRANSFERASE	< 12	IU/L
ALANINE AMINOTRANSFERASE	2	IU/L
TOTAL BILIRUBIN	0.1	MG/DL
ALKALINE PHOSPHATASE	< 51	IU/L
ALBUMIN GLOBULIN RATIO	> 0.7	GM/DL
GAMMA GLUTAMYLTRANSFERASE	12	IU/L

=====
LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA
=====

Sex: Female Acc. #: 970616
Age: 23Y Est. Birth: 6.Jun.1985
=====

Parasitology Examination:

Submission Data >>

Type: Fecal sample
Purpose: ROUTINE EXAMINATION

Sample id.: 2008-0030
Date collected: 10.Jan.2008
Collected by: JM

Collected from:

From an individual specimen.

Enclosure: PAEI/S01

Examination Data >>

Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 11.Jan.2008

by: KAR

Tests & Results >>

FLOTATION-ZINC NO PARASITES SEEN
GROSS/MACROSCOPIC EXAMINATION NO PARASITES SEEN

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3819 Kg on 27.Jan.2008
Manual restraint used.

Date of Collection: 9.Feb.2008
Time of Collection: 12:00.0
Collected by: MZ
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 9.Feb.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	11.0		*10 ³ /UL
RED BLOOD CELL COUNT	3.33		*10 ⁶ /UL
HEMOGLOBIN	14.9		GM/DL
HEMATOCRIT	> 45		%
MCV	> 135		fL
MCH	44.7		uug
MCHC	33.1		gm/dL
SEGMENTED NEUTROPHILS	22	(2.420)	% (*10 ³ /UL)
LYMPHOCYTES	> 76	(8.360)	% (*10 ³ /UL)
MONOCYTES	1	(0.110)	% (*10 ³ /UL)
EOSINOPHILS	1	(0.110)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	471		
EOSINOPHIL ABSOLUTE	0.11		
LYMPHOCYTE ABSOLUTE	8.36		
MONOCYTE ABSOLUTE	0.11		
SEG. NEUTROPHIL ABSOLUTE	2.42		

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3819 Kg on 27.Jan.2008
Manual restraint used.

Date of Collection: 9.Feb.2008
Time of Collection: 12:00.0
Collected by: MZ
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MAM
Date of Analysis: 9.Feb.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

GLUCOSE	95	MG/DL
BLOOD UREA NITROGEN <	6.9	MG/DL
CREATININE	1.4	MG/DL
BUN/creatinine ratio	4.93	
CALCIUM <<	9.3	MG/DL
PHOSPHORUS >>	9.9	MG/DL
calcium/phosphorus ratio	0.939	
SODIUM	125	MEQ/L
POTASSIUM >>	13.1	MEQ/L
sodium/potassium ratio	9.54	
CHLORIDE	89	MEQ/L
CHOLESTEROL <	47	MG/DL
TOTAL PROTEIN (COLORIMETRY) >	8.9	GM/DL
ALBUMIN (COLORIMETRY)	3.6	GM/DL
GLOBULIN (COLORIMETRY) >>	5.3	GM/DL
albumin/globulin ratio	0.679	
ASPARTATE AMINOTRANSFERASE	24	IU/L
ALANINE AMINOTRANSFERASE	8	IU/L
TOTAL BILIRUBIN	0.1	MG/DL
ALKALINE PHOSPHATASE	74	IU/L
ALBUMIN GLOBULIN RATIO >	0.7	GM/DL
GAMMA GLUTAMYLTRANSFERASE <	2	IU/L

Comments >>

Potassium repeated for verification.

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3819 Kg on 27.Jan.2008
Manual restraint used.

Date of Collection: 7.Mar.2008
Time of Collection: 10:20.0
Collected by: JM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 7.Mar.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	12.5		*10 ³ /UL
RED BLOOD CELL COUNT	3.23		*10 ⁶ /UL
HEMOGLOBIN	13.7		GM/DL
HEMATOCRIT	41		%
MCV	127		fL
MCH	42.4		uug
MCHC	33.4		gm/dL
SEGMENTED NEUTROPHILS	23	(2.875)	% (*10 ³ /UL)
LYMPHOCYTES	> 67	(8.375)	% (*10 ³ /UL)
MONOCYTES	2	(0.250)	% (*10 ³ /UL)
EOSINOPHILS	>> 8	(1.000)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	481		
EOSINOPHIL ABSOLUTE	1		
LYMPHOCYTE ABSOLUTE	8.38		
MONOCYTE ABSOLUTE	0.25		
SEG. NEUTROPHIL ABSOLUTE	2.88		

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3819 Kg on 27.Jan.2008
Manual restraint used.

Date of Collection: 7.Mar.2008
Time of Collection: 10:20.0
Collected by: JM
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MAM
Date of Analysis: 7.Mar.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

	GLUCOSE	89.9	MG/DL
	BLOOD UREA NITROGEN	< 5.2	MG/DL
	CREATININE	1.3	MG/DL
	BUN/creatinine ratio	4.00	
	CALCIUM	<< 7.6	MG/DL
	PHOSPHORUS	5.2	MG/DL
	calcium/phosphorus ratio	1.46	
	SODIUM	> 134	MEQ/L
	POTASSIUM	4.7	MEQ/L
	sodium/potassium ratio	28.5	
	CHLORIDE	90	MEQ/L
	CHOLESTEROL	63	MG/DL
	TOTAL PROTEIN (COLORIMETRY)	7.4	GM/DL
	ALBUMIN (COLORIMETRY)	< 2.9	GM/DL
	GLOBULIN (COLORIMETRY)	4.5	GM/DL
	albumin/globulin ratio	0.644	
	ASPARTATE AMINOTRANSFERASE	< 10	IU/L
	ALANINE AMINOTRANSFERASE	1	IU/L
	TOTAL BILIRUBIN	0.3	MG/DL
	ALKALINE PHOSPHATASE	79	IU/L
	ALBUMIN GLOBULIN RATIO	> 0.6	GM/DL
	GAMMA GLUTAMYLTRANSFERASE	8	IU/L

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3819 Kg on 27.Jan.2008
Manual restraint used.

Date of Collection: 12.Apr.2008
Time of Collection: 13:00.0
Collected by: JM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 12.Apr.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	12.6		*10 ³ /UL
RED BLOOD CELL COUNT	2.86		*10 ⁶ /UL
HEMOGLOBIN	< 10.7		GM/DL
HEMATOCRIT	< 32		%
MCV	< 112		fL
MCH	<< 37.4		uug
MCHC	33.4		gm/dL
SEGMENTED NEUTROPHILS	36	(4.536)	% (*10 ³ /UL)
LYMPHOCYTES	53	(6.678)	% (*10 ³ /UL)
MONOCYTES	7	(0.882)	% (*10 ³ /UL)
EOSINOPHILS	> 4	(0.504)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	ADEQ		
EOSINOPHIL ABSOLUTE	0.50		
LYMPHOCYTE ABSOLUTE	6.68		
MONOCYTE ABSOLUTE	0.88		
SEG. NEUTROPHIL ABSOLUTE	4.54		

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3819 Kg on 27.Jan.2008
Manual restraint used.

Date of Collection: 12.Apr.2008
Time of Collection: 13:00.0
Collected by: JM
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MA
Date of Analysis: 12.Apr.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

GLUCOSE	>	103.5	MG/DL
BLOOD UREA NITROGEN	<	5.5	MG/DL
CREATININE		1.5	MG/DL
BUN/creatinine ratio		3.67	
CALCIUM		10.4	MG/DL
PHOSPHORUS	>>	7.3	MG/DL
calcium/phosphorus ratio		1.42	
SODIUM		127.0	MEQ/L
POTASSIUM		4.5	MEQ/L
sodium/potassium ratio		28.2	
CHLORIDE		87.0	MEQ/L
CHOLESTEROL		69.0	MG/DL
ALBUMIN (COLORIMETRY)	<	2.9	GM/DL
GLOBULIN (COLORIMETRY)		4.1	GM/DL
albumin/globulin ratio		0.707	
ASPARTATE AMINOTRANSFERASE		17.0	IU/L
ALANINE AMINOTRANSFERASE		5.0	IU/L
TOTAL BILIRUBIN		0.1	MG/DL
ALKALINE PHOSPHATASE		72.0	IU/L
GAMMA GLUTAMYLTRANSFERASE		12.0	IU/L

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3910 Kg on 27.Apr.2008
Manual restraint used.

Date of Collection: 3.May.2008
Time of Collection: 10:00.0
Collected by: JM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 3.May.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	8.5		*10 ³ /UL
RED BLOOD CELL COUNT	3.3		*10 ⁶ /UL
HEMOGLOBIN	14.4		GM/DL
HEMATOCRIT	43		%
MCV	130		fL
MCH	43.6		uug
MCHC	33.5		gm/dL
SEGMENTED NEUTROPHILS	22	(1.870)	% (*10 ³ /UL)
LYMPHOCYTES	73	(6.205)	% (*10 ³ /UL)
MONOCYTES	2	(0.170)	% (*10 ³ /UL)
EOSINOPHILS	3	(0.255)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	519		
EOSINOPHIL ABSOLUTE	0.26		
LYMPHOCYTE ABSOLUTE	6.21		
MONOCYTE ABSOLUTE	0.17		
SEG. NEUTROPHIL ABSOLUTE	1.87		

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3910 Kg on 27.Apr.2008
Manual restraint used.

Date of Collection: 3.May.2008
Time of Collection: 10:00.0
Collected by: JM
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: PETLABS-MAM
Date of Analysis: 3.May.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

	GLUCOSE	88	MG/DL
	BLOOD UREA NITROGEN	< 4.9	MG/DL
	CREATININE	1.3	MG/DL
	BUN/creatinine ratio	3.77	
	CALCIUM	10.9	MG/DL
	PHOSPHORUS	>> 8.6	MG/DL
	calcium/phosphorus ratio	1.27	
	SODIUM	126	MEQ/L
	POTASSIUM	4.7	MEQ/L
	sodium/potassium ratio	26.8	
	CHLORIDE	89	MEQ/L
	CHOLESTEROL	63	MG/DL
	TOTAL PROTEIN (COLORIMETRY)	< 6.9	GM/DL
	ALBUMIN (COLORIMETRY)	< 2.9	GM/DL
	GLOBULIN (COLORIMETRY)	4.0	GM/DL
	albumin/globulin ratio	0.725	
	ASPARTATE AMINOTRANSFERASE	15	IU/L
	ALANINE AMINOTRANSFERASE	1	IU/L
	TOTAL BILIRUBIN	>> 0.5	MG/DL
	ALKALINE PHOSPHATASE	< 53	IU/L
	GAMMA GLUTAMYLTRANSFERASE	9	IU/L

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LOXODONTA AFRICANA (no subsp)

Sex: Female

Acc. #: 970616

African elephant

Age: 23Y Est.

Birth: 6.Jun.1985

Name: MARTIKA

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Clinical Note:

11.May.2008

Problem: Vaccination - Tetanus Toxoid ; Vaccination - West Nile Virus

Vaccination

History: Annual vaccine boosters

Vaccination: Tetanus Toxoid 1.0ml IM right shoulder (Fort Dodge
#1630107A; Exp.21Apr2009)

Vaccination: West Nile Virus 1.0 ml killed IM right shoulder(Fort
Dodge 1666150A;Exp.27Jul2009). (KAR)

Clinical Pathology Records - Specimen Report
CLEVELAND METROPARKS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: MARTIKA

Sex: Female
Age: 23Y Est.

Acc. #: 970616
Birth: 6.Jun.1985

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3969 Kg on 25.May.2008
Manual restraint used.

Date of Collection: 14.Jun.2008
Time of Collection: 9:45.0
Collected by: JM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PETLABS-MAM
Date of Analysis: 14.Jun.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	12.5		*10 ³ /UL
RED BLOOD CELL COUNT	3.23		*10 ⁶ /UL
HEMOGLOBIN	13.7		GM/DL
HEMATOCRIT	41		%
MCV	127		fL
MCH	42.4		uug
MCHC	33.4		gm/dL
SEGMENTED NEUTROPHILS	23	(2.875)	% (*10 ³ /UL)
LYMPHOCYTES	> 67	(8.375)	% (*10 ³ /UL)
MONOCYTES	2	(0.250)	% (*10 ³ /UL)
EOSINOPHILS	>> 8	(1.000)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	481		
EOSINOPHIL ABSOLUTE	1.0		
LYMPHOCYTE ABSOLUTE	8.38		
MONOCYTE ABSOLUTE	0.25		
SEG. NEUTROPHIL ABSOLUTE	2.88		

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

Scientific name: *LOXODONTA AFRICANA*
Common Name: African elephant

		ISIS Values			In-House Values				
		Mean	S.D.	(N)	Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	10.50 ±	2.648	(1544)	10.17 ±	2.56	3.200	17.00	(245)
RBC	*10 ⁶ /UL	3.15 ±	0.40	(1480)	3.053 ±	0.441	1.790	4.260	(159)
HGB	GM/DL	13.7 ±	1.6	(1522)	14.15 ±	1.71	10.20	20.20	(158)
HCT	%	39.5 ±	4.6	(1984)	38.58 ±	4.56	23.60	51.60	(247)
MCH	MG/DL	43.6 ±	3.0	(1454)	46.29 ±	2.73	35.20	54.51	(162)
mchc		34.7 ±	2.0	(1501)	35.53 ±	1.70	26.69	48.10	(162)
MCV	fL	125.8 ±	8.1	(1466)	130.5 ±	8.5	108.5	171.8	(162)
SEGS	*10 ³ /UL	3.146 ±	1.695	(1224)	3.649 ±	1.374	0.575	7.650	(247)
BANDS	*10 ³ /UL	0.843 ±	0.799	(605)	0.041 ±	0.101	0.000	0.636	(201)
LYMPHOCYTES	*10 ³ /UL	4.913 ±	2.532	(1236)	3.506 ±	1.712	0.510	8.300	(247)
MONOCYTES	*10 ³ /UL	1.513 ±	1.651	(1175)	2.860 ±	1.581	0.000	7.812	(245)
EOSINOPHILS	*10 ³ /UL	0.225 ±	0.273	(885)	0.089 ±	0.113	0.000	0.554	(239)
BASOPHILS	*10 ³ /UL	0.049 ±	0.081	(464)	0.000 ±	0.000	0.000	0.000	(218)
METAMYELOCYT	*10 ³ /UL				0.000 ±	0.000	0.000	0.000	(104)
META	*10 ³ /UL				0.000 ±	0.000	0.000	0.000	(8)
NRBC	/100 WBC	0 ±	1	(92)	0.000 ±	0.000	0.000	0.000	(95)
PLATE. EST.					0.000 ±	0.000	0.000	0.000	(1)
PLATE. CNT.	*10 ³ /UL	417 ±	245	(215)	411.0 ±	0.0	411.0	411.0	(1)
RETICS	%	0.0 ±	0.0	(7)					
GLUCOSE	MG/DL	84 ±	15	(1437)	82.80 ±	15.96	36.00	122.0	(231)
BUN	MG/DL	10 ±	3	(1458)	8.648 ±	1.840	4.000	14.00	(23)
CREAT.	MG/DL	1.5 ±	0.5	(1405)	1.477 ±	0.350	0.700	2.400	(23)
URIC ACID	MG/DL	0.2 ±	0.4	(466)	0.016 ±	0.037	0.000	0.100	(96)
CA	MG/DL	10.9 ±	0.6	(1434)	11.14 ±	0.59	9.900	12.90	(230)
PHOS	MG/DL	4.9 ±	0.8	(1291)	4.776 ±	0.747	3.100	7.000	(178)
NA	MEQ/L	129 ±	4	(1353)	128.0 ±	2.6	121.0	136.0	(178)
K	MEQ/L	4.8 ±	0.5	(1368)	4.702 ±	0.379	4.100	6.100	(175)
CL	MEQ/L	88 ±	4	(1323)	87.49 ±	2.10	82.00	93.00	(175)
IRON	MCG/DL	79 ±	42	(54)					
MG	MG/DL	1.97 ±	0.75	(98)	2.338 ±	0.518	1.600	3.200	(8)
HCO3	MMOL/L	25.1 ±	3.6	(44)	26.50 ±	2.68	22.00	31.00	(16)
CHOL	MG/DL	68 ±	17	(1290)	75.81 ±	13.84	48.00	114.0	(210)
TRIG	MG/DL	64 ±	31	(1124)	50.29 ±	15.37	5.600	91.00	(179)
T. PROT. (C)	GM/DL	7.7 ±	0.6	(1261)	5.253 ±	3.643	0.000	8.900	(224)
T. PROT. (R)	GM/DL	8.0 ±	0.4	(8)	7.694 ±	0.974	6.400	9.800	(95)
ALBUMIN (C)	GM/DL	3.6 ±	0.4	(1145)	1.991 ±	1.723	0.000	4.000	(171)
GLOBULIN (C)	GM/DL	4.1 ±	0.5	(1135)	2.730 ±	2.853	0.000	8.200	(146)
AST (SGOT)	IU/L	24 ±	10	(1398)	25.39 ±	9.07	5.000	50.00	(231)
ALT (SGPT)	IU/L	7 ±	6	(547)	6.910 ±	7.323	0.000	60.00	(166)
T. BILI.	MG/DL	0.2 ±	0.1	(1187)	0.190 ±	0.059	0.100	0.300	(169)
D. BILI	MG/DL	0.1 ±	0.1	(154)					
I. BILI.	MG/DL	0.1 ±	0.1	(152)					

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

Scientific name: *LOXODONTA AFRICANA*
Common Name: African elephant

		ISIS Values			In-House Values				
		Mean	S.D.	(N)	Mean	S.D.	Min.	Max.	(N)
AMYLASE	U/L	3075 ±	1552	(241)	3134 ±	1169	0.000	4950	(126)
ALK. PHOS.	IU/L	128 ±	61	(1404)	140.7 ±	61.9	7.400	324.0	(229)
LDH	IU/L	988 ±	568	(1099)	546.0 ±	116.1	330.0	819.0	(95)
CPK	IU/L	256 ±	196	(247)	323.3 ±	97.8	172.0	468.0	(21)
OSMOLARITY	MOSMOL/L	259 ±	4	(689)					
A/G RATIO	GM/DL				0.201 ±	0.318	0.000	0.850	(128)
ALPHA GLOB.	MG/DL	0.7 ±	0.0	(1)					
ALPHA-1 GLOB	MG/DL	0.7 ±	0.2	(8)					
ALPHA-2 GLOB	MG/DL	1.0 ±	0.3	(8)					
ANION					17.00 ±	2.97	12.00	22.00	(16)
BETA GLOB.	G/DL	1.2 ±	0.8	(2)					
BETA+GAMMA	MG/L				0.000 ±	0.000	0.000	0.000	(2)
BUN/CREAT	MG/DL				5.645 ±	1.649	1.000	9.500	(199)
Body Temperature:		39.0 ±	0.0	(1)					
CO2	MMOL/L	27.0 ±	3.1	(840)					
ESR	MM/HR	27 ±	0	(1)					
FIBRINOGEN	MG/DL	238 ±	139	(70)	100.0 ±	0.0	100.0	100.0	(1)
GGT	IU/L	12 ±	5	(389)	11.44 ±	3.93	0.000	21.00	(164)
LIPASE	U/L	7 ±	7	(66)					
PROGESTERONE	NG/DL	144.8 ±	216.4	(266)	0.405 ±	0.357	0.100	1.300	(97)
red cell dis	%				15.73 ±	0.77	14.60	16.90	(12)
TESTOSTERONE	NG/ML	1.010 ±	1.117	(2)					
TOTAL T4	MCG/DL	8.2 ±	1.3	(3)					
T3 (RIA)	NG/ML	209.0 ±	0.0	(1)					
VIT E TOCOPH	MG/L				0.350 ±	0.071	0.300	0.400	(2)
ALBUMIN (E)	GM/DL	4.4 ±	0.3	(7)					
GAMMA GLOB	GM/DL	1.6 ±	0.4	(7)					
POIKILOCYTES					1.000 ±	0.000	1.000	1.000	(1)