

| | | | |
|---------------------------|---------|-------|--|
| | ELECM20 | | |
| TOTAL BILIRUBIN | 0.1 | MG/DL | |
| AMYLASE | 1614 | U/L | |
| ALKALINE PHOSPHATASE | 67 | IU/L | |
| CREATINE PHOSPHOKINASE | 181 | IU/L | |
| ALBUMIN GLOBULIN RATIO | 0.5 | GM/DL | |
| GAMMA GLUTAMYLTRANSFERASE | 13 | IU/L | |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 287 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Clinical Note:

6.Mar.2006

ANTECH DIAGNOSTICS (abscess c/s results)
 9066 Lacey Drive
 Southaven, MS 38671
 Phone: 888-397-8378

Date Collected: 06-Mar-06
 Date Reported: 11-Mar-06
 Accession #: MP15785432

CULTURE & SENSITIVITIES

| | |
|---------------------|---------|
| Source | Abscess |
| Status | Final |
| Organism #1 | |
| Light growth | |
| Serratia marcescens | |

Organism #2
 Klebsiella pneumoniae
 Scant growth

Organism #3
 Heavy growth
 Beta hemolytic Streptococcus

Organism #4
 Staphylococcus aureus
 Scant growth

| | | |
|-----------------------|----|----|
| SENSITIVITIES | #1 | #2 |
| Amikacin | S | S |
| Ampicillin | R | R |
| Clavamox (amoxi-clav) | R | S |
| Chloramphenicol | S | S |

ELECM20

| | | |
|---------------------------|---|---|
| Geocillin (carbenicillin) | S | R |
| Cephalothin | R | S |
| Doxycycline | R | S |
| Baytril (enrofloxacin) | S | S |
| Gentamicin | S | S |
| Neomycin | S | S |
| Trimethoprim/Sulfa | S | S |
| Tetracycline | R | S |
| Marbofloxacin (Zenequin) | S | S |

SENSITIVITIES #3 #4

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 288 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

| | | |
|--------------------------|---|------------|
| Clinical Note: | | 6.Mar.2006 |
| Ampicillin | S | S |
| Clavamox (amoxi-clav) | S | S |
| Chloramphenicol | S | S |
| Clindamycin | S | S |
| Cephalothin | S | S |
| Methicillin | S | S |
| Erythromycin | S | S |
| Baytril (enrofloxacin) | S | S |
| Gentamicin | S | S |
| Neomycin | R | S |
| Trimethoprim/Sulfa | S | S |
| Tetracycline | S | S |
| Marbofloxacin (Zenequin) | S | S (ANT) |

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 289 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA Sex: Female Acc. #: CM20
 South African bush elephant Age: 38Y Est. Birth: 3.Sep.1971
 Name: CINDA/MZURI

Collection Information >>

Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3325 Kg on 10.Feb.2006
 Manual restraint used.

Date of Collection: 6.Mar.2006
 Time of Collection: :
 Collected by: MJF
 Sample Collection Site: EAR VEIN

Hematology >>

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

Laboratory: ANTECH DIAGNOST
 Date of Analysis: 7.Mar.2006
 Time of Analysis:
 Analysis by:
 Automated analysis.

Tests and Results >>

| | | | | |
|---|---|------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | < | 7.6 | | *10 ³ /UL |
| RED BLOOD CELL COUNT | | 3.31 | | *10 ⁶ /UL |
| HEMOGLOBIN | | 14.9 | | GM/DL |
| HEMATOCRIT | | 40.3 | | % |
| MCV | | 122 | | fL |
| MCH | | 45.0 | | uug |
| MCHC | > | 37.0 | | gm/dL |
| SEGMENTED NEUTROPHILS | | 49 | (3.724) | % (*10 ³ /UL) |
| NEUTROPHILIC BANDS | < | 0 | | % (*10 ³ /UL) |
| LYMPHOCYTES | < | 25 | (1.900) | % (*10 ³ /UL) |
| MONOCYTES | | 26 | (1.976) | % (*10 ³ /UL) |
| EOSINOPHILS | | 0 | | % (*10 ³ /UL) |
| BASOPHILS | | 0 | | % (*10 ³ /UL) |
| ESTIMATED PLATELET COUNT | | ADQ | | |
| PLATELET COUNT | | 215 | | *10 ³ /UL |
| MEAN CORPUSCULAR HEMOGLOBIN | | 45.0 | | PG |
| MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION | | 37.0 | | |
| MEAN CORPUSCULAR VOLUME | | 122 | | FL |

Comments >>

-Blood Parasites None Seen

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 290 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|---|------------------------------|-----------------------------------|
| LOXODONTA AFRICANA AFRICANA South African bush elephant Name: CINDA/MZURI | Sex: Female Age: 38Y Est. | Acc. #: CM20 Birth: 3.Sep.1971 |
|---|------------------------------|-----------------------------------|

Collection Information >>

Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3325 Kg on 10.Feb.2006
 Manual restraint used.

Date of Collection: 6.Mar.2006
 Time of Collection: :
 Collected by: MJF
 Sample Collection Site: EAR VEIN

Chemistry >>

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

Laboratory: ANTECH DIAGNOST
 Date of Analysis: 7.Mar.2006
 Time of Analysis:
 Analysis by:
 Automated analysis.

Tests and Results >>

| | | |
|---------------------------------------|-------|-------|
| GLUCOSE | 99 | MG/DL |
| BLOOD UREA NITROGEN << | 2 | MG/DL |
| CREATININE | 1.1 | MG/DL |
| BUN/creatinine ratio | 1.82 | |
| CALCIUM < | 10.1 | MG/DL |
| PHOSPHORUS | 4.5 | MG/DL |
| calcium/phosphorus ratio | 2.24 | |
| SODIUM > | 135 | MEQ/L |
| POTASSIUM | 5.0 | MEQ/L |
| sodium/potassium ratio | 27.0 | |
| CHLORIDE | 92 | MEQ/L |
| CHOLESTEROL | 64 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) > | 8.6 | GM/DL |
| ALBUMIN (COLORIMETRY) < | 3.0 | GM/DL |
| GLOBULIN (COLORIMETRY) >> | 5.6 | GM/DL |
| albumin/globulin ratio | 0.536 | |
| ASPARTATE AMINOTRANSFERASE | 16 | IU/L |
| ALANINE AMINOTRANSFERASE | 2 | IU/L |
| TOTAL BILIRUBIN | 0.1 | MG/DL |
| ALKALINE PHOSPHATASE < | 61 | IU/L |
| CREATINE PHOSPHOKINASE | 145 | IU/L |
| ALBUMIN (ELECTROPHORESIS) < | 4.0 | GM/DL |
| ALBUMIN GLOBULIN RATIO | 0.5 | GM/DL |
| ALPHA-1 GLOBULIN (ELECTROPHORESIS) >> | 770 | MG/DL |
| ALPHA-2 GLOBULIN (ELECTROPHORESIS) >> | 700 | MG/DL |
| BETA GLOBULIN (ELECTROPHORESIS) | 1,350 | MG/DL |
| BUN/CREATININE RATIO | 2 | MG/DL |
| GAMMA GLOBULIN (ELECTROPHORESIS) | 1.80 | GM/DL |
| LIPASE >> | 145 | U/L |
| TOTAL PROTEIN (ELECTROPHORESIS) | 8.6 | |

ELECM20

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 291 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3325 Kg on 10.Feb.2006
Manual restraint used.

Date of Collection: 6.Mar.2006
Time of Collection: :
Collected by: MJF
Sample Collection Site: EAR VEIN

Chemistry >>

Tests and Results >>

Comments >>

-PROTEIN ELECTROPHORESIS

Albumin/ Globulin Ratio 0.9

Interpretation: Normals do not apply for this species. Compare values to previous results on routine health check exams for this particular bird/ mammal or for this species.

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

ELECM20
Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Clinical Note:

8.Mar.2006

| | | |
|--------------------------|---|---------|
| Apicillin | S | S |
| Clavamox (amoxi-clav) | S | S |
| Chloramphenicol | S | S |
| Clindamycin | S | S |
| Cephalothin | S | S |
| Methicillin | S | S |
| Erythromycin | S | S |
| Baytril (enrofloxacin) | S | S |
| Gentamicin | R | S |
| Neomycin | R | S |
| Trimethiprim/Sulfa | R | S |
| Tetracycline | S | S |
| Marbofloxacin (Zenequin) | S | S (ANT) |

Submission Data >>
Type: Fecal sample
Purpose: ROUTINE EXAMINATION

Sample id.: 2006-0118
Date collected: 1.Apr.2006
Collected by: LAK

Collected from:
Group of specimens housed together.

Enclosure: VBD EX4

Examination Data >>
Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 4.Apr.2006
by: JS

Tests & Results >>
DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN
FLOATATION - NA NITRATE NO PARASITES SEEN

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 295 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

ELECM20

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3345 Kg on 23.Mar.2006
Manual restraint used.

Date of Collection: 3.Apr.2006
Time of Collection: 10:45.0
Collected by: MF
Sample Collection Site: EAR VEIN

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

Laboratory: CLINIC
Date of Analysis: 3.Apr.2006
Time of Analysis: 16:30
Analysis by: JS
Automated analysis.

Tests and Results >>

| | | | |
|--------------------------|-------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | 10.38 | | *10 ³ /UL |
| RED BLOOD CELL COUNT << | 1.94 | | *10 ⁶ /UL |
| HEMOGLOBIN | 14.7 | | GM/DL |
| HEMATOCRIT << | 25.2 | | % |
| MCV | 130 | | fL |
| MCH >> | 75.8 | | uug |
| MCHC >> | 58.3 | | gm/dL |
| SEGMENTED NEUTROPHILS >> | 79.2 | (8.221) | % (*10 ³ /UL) |
| LYMPHOCYTES < | 13.8 | (1.432) | % (*10 ³ /UL) |
| MONOCYTES | 7.0 | (0.727) | % (*10 ³ /UL) |

Comments >>

Ran on vetscan hmt dog program. eos, segs, and basos counted together as granulocytes.

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 296 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>
Health Status: Normal

Date of Collection: 3.Apr.2006
Time of Collection: 10:45.0

ELECM20

Fasting Time: < 8 hours
Activity: Calm
Weight: 3345 Kg on 23.Mar.2006
Manual restraint used.

Collected by: MF
Sample Collection Site: EAR VEIN

Chemistry >>

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

Laboratory: CLINIC
Date of Analysis: 3.Apr.2006
Time of Analysis: 16:30
Analysis by: SCW
Automated analysis.

Tests and Results >>

| | | | |
|-----------------------------|----|-------|-------|
| GLUCOSE | < | 59 | MG/DL |
| BLOOD UREA NITROGEN | | <2.0 | MG/DL |
| CREATININE | << | 0.4 | MG/DL |
| URIC ACID | | <1.0 | MG/DL |
| CALCIUM | | 11.1 | MG/DL |
| PHOSPHORUS | | 5.4 | MG/DL |
| calcium/phosphorus ratio | | 2.06 | |
| CHOLESTEROL | | <50 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | >> | 9.5 | GM/DL |
| ALBUMIN (COLORIMETRY) | | 3.4 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> | 6.1 | GM/DL |
| albumin/globulin ratio | | 0.557 | |
| ASPARTATE AMINOTRANSFERASE | | 16 | IU/L |
| ALANINE AMINOTRANSFERASE | < | 0 | IU/L |
| TOTAL BILIRUBIN | | 0.1 | MG/DL |
| AMYLASE | | 1574 | U/L |
| ALKALINE PHOSPHATASE | | 74 | IU/L |
| CREATINE PHOSPHOKINASE | | 194 | IU/L |
| ALBUMIN GLOBULIN RATIO | | 0.6 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | | 9 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 297 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3386 Kg on 25.Apr.2006
Manual restraint used.

Date of Collection: 1.May.2006
Time of Collection: 13:45.0
Collected by: MF
Sample Collection Site: EAR VEIN

ELECM20

Hematology >>

Analysis Information >>

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

Laboratory: CLINIC
Date of Analysis: 1.May.2006
Time of Analysis: 16:00
Analysis by: MES
Manual analysis.

Tests and Results >>

| | | | |
|--------------------------|-------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | 11.35 | | *10 ³ /UL |
| RED BLOOD CELL COUNT << | 1.87 | | *10 ⁶ /UL |
| HEMOGLOBIN | 14.1 | | GM/DL |
| HEMATOCRIT | 40 | | % |
| MCV >> | 214 | | fL |
| MCH >> | 75.4 | | uug |
| MCHC | 35.3 | | gm/dL |
| SEGMENTED NEUTROPHILS >> | 81.4 | (9.239) | % (*10 ³ /UL) |
| LYMPHOCYTES < | 12.0 | (1.362) | % (*10 ³ /UL) |
| MONOCYTES | 6.6 | (0.749) | % (*10 ³ /UL) |
| PLATELET COUNT < | 89 | | *10 ³ /UL |

Comments >>

Ran on vetscan hmt dog program. eos, baso, and segs counted together as granulocytes.

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 298 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3386 Kg on 25.Apr.2006
Manual restraint used.

Date of Collection: 1.May.2006
Time of Collection: 13:45.0
Collected by: MF
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>
Chemistry Sample: Serum

Laboratory: CLINIC
Date of Analysis: 1.May.2006

ELECM20

Storage: Fresh
Sample Quality: No quality problems.

Time of Analysis: 16:11
Analysis by: MES
Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|--------|-------|
| GLUCOSE | 81 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |
| CREATININE | < 0.5 | MG/DL |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | < 9.8 | MG/DL |
| PHOSPHORUS | 4.6 | MG/DL |
| calcium/phosphorus ratio | 2.13 | |
| CHOLESTEROL | <50 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | >> 9.4 | GM/DL |
| ALBUMIN (COLORIMETRY) | 3.2 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 6.2 | GM/DL |
| albumin/globulin ratio | 0.516 | |
| ASPARTATE AMINOTRANSFERASE | < 8 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | 0.1 | MG/DL |
| AMYLASE | < 1431 | U/L |
| ALKALINE PHOSPHATASE | 73 | IU/L |
| CREATINE PHOSPHOKINASE | 193 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.5 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | 8 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 299 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Clinical Note: 22.May.2006
National Veterinary Services Laboratories (TB test results, 3 samples)
1800 Dayton Road
Ames, Iowa 50010
Phone: (515) 663-7266
Fax: (515) 663-7397
Tuberculosis Laboratory Test Report
Sample collected over 3 day period.

Date Sent In: 15-June-06
Date Reported: 15-Aug-06
Accession #: 442258
Establishment No.: KSWILS

NVSL ID: 1489654

ELECM20

Case #: 0607718
Sample ID: 1
Animal ID: CM20-5/22/06
Specimen Submitted: Trunk wash
Mycobacteria Isolation Diagnosis: No Isolation Made

NVSL ID: 1489663
Case #: 0607719
Sample ID: 1
Animal ID: CM20-5/23/06
Specimen Submitted: Trunk wash
Mycobacteria Isolation Diagnosis: No Isolation Made

NVSL ID: 1489672
Case #: 0607720
Sample ID: 1
Animal ID: CM20-5/24/06
Specimen Submitted: Trunk wash
Mycobacteria Isolation Diagnosis: No Isolation Made

Approved By: Jeffrey T. Nelson
National Veterinary Services Laboratories (NVS)

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 300 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >> Date of Collection: 5.Jun.2006
Health Status: Normal Time of Collection: :
Fasting Time: < 8 hours Collected by: MJF
Activity: Calm Sample Collection Site: EAR VEIN
Weight: 3445 Kg on 31.May.2006
Manual restraint used.

Hematology >> Laboratory: ANTECH DIAGNOST
Analysis Information >> Date of Analysis: 6.Jun.2006
Anticoagulant: EDTA Time of Analysis:
Storage: Refrigerated (<48 hours) Analysis by:
Sample Quality: No quality problems. Automated analysis.

Tests and Results >>

| | | |
|------------------------|------|----------------------|
| WHITE BLOOD CELL COUNT | 8.4 | *10 ³ /UL |
| RED BLOOD CELL COUNT | 3.31 | *10 ⁶ /UL |
| HEMOGLOBIN | 14.5 | GM/DL |

| | | | |
|---|------|---------|--------------------------|
| ELECM20 | | | |
| HEMATOCRIT | 40.2 | | % |
| MCV | 121 | | fL |
| MCH | 43.8 | | uug |
| MCHC | 36.1 | | gm/dL |
| SEGMENTED NEUTROPHILS | 24 | (2.016) | % (*10 ³ /UL) |
| NEUTROPHILIC BANDS | < 0 | | % (*10 ³ /UL) |
| LYMPHOCYTES | 34 | (2.856) | % (*10 ³ /UL) |
| MONOCYTES | > 38 | (3.192) | % (*10 ³ /UL) |
| EOSINOPHILS | 4 | (0.336) | % (*10 ³ /UL) |
| BASOPHILS | 0 | | % (*10 ³ /UL) |
| ESTIMATED PLATELET COUNT | ADQ | | |
| PLATELET COUNT | 277 | | *10 ³ /UL |
| MEAN CORPUSCULAR HEMOGLOBIN | 43.8 | | PG |
| MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION | 36.1 | | |
| MEAN CORPUSCULAR VOLUME | 121 | | FL |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010 /ISIS/MedARKS/5.54.a

- page 301 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >> Date of Collection: 5.Jun.2006
 Health Status: Normal Time of Collection: :
 Fasting Time: < 8 hours Collected by: MJF
 Activity: Calm Sample Collection Site: EAR VEIN
 Weight: 3445 Kg on 31.May.2006
 Manual restraint used.

Chemistry >> Laboratory: CLINIC
 Analysis Information >> Date of Analysis: 6.Jun.2006
 Chemistry Sample: Serum Time of Analysis: 10:13
 Storage: Refrigerated (<48 hours) Analysis by: SCW
 Sample Quality: No quality problems. Automated analysis.

Tests and Results >>

| | | |
|--------------------------|-------|-------|
| GLUCOSE | 74 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |
| CREATININE | < 0.6 | MG/DL |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | 10.4 | MG/DL |
| PHOSPHORUS | 4.4 | MG/DL |
| calcium/phosphorus ratio | 2.36 | |

| | | |
|--------------------------------|-------|-------|
| ELECM20 | | |
| CHOLESTEROL | <50 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) >> | 9.4 | GM/DL |
| ALBUMIN (COLORIMETRY) | 3.2 | GM/DL |
| GLOBULIN (COLORIMETRY) >> | 6.2 | GM/DL |
| albumin/globulin ratio | 0.516 | |
| ASPARTATE AMINOTRANSFERASE < | 7 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | 0.1 | MG/DL |
| AMYLASE < | 1389 | U/L |
| ALKALINE PHOSPHATASE < | 61 | IU/L |
| CREATINE PHOSPHOKINASE | 136 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.5 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | 9 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010 /ISIS/MedARKS/5.54.a

- page 302 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

| | |
|--------------------------------|----------------------------------|
| Collection Information >> | Date of Collection: 3.Jul.2006 |
| Health Status: Normal | Time of Collection: 13:45.0 |
| Fasting Time: < 8 hours | Collected by: MF |
| Activity: Calm | Sample Collection Site: EAR VEIN |
| Weight: 3488 Kg on 20.Jun.2006 | |
| Manual restraint used. | |

| | |
|--------------------------------------|------------------------------|
| Hematology >> | Laboratory: CLINIC |
| Analysis Information >> | Date of Analysis: 3.Jul.2006 |
| Anticoagulant: EDTA | Time of Analysis: 15:00 |
| Storage: Fresh | Analysis by: MES |
| Sample Quality: No quality problems. | Automated analysis. |

| | | |
|--------------------------|--------------|--------------------------|
| Tests and Results >> | | |
| WHITE BLOOD CELL COUNT | 10.32 | *10 ³ /UL |
| RED BLOOD CELL COUNT << | 2.02 | *10 ⁶ /UL |
| HEMOGLOBIN | 13.6 | GM/DL |
| HEMATOCRIT << | 26.8 | % |
| MCV | 133 | fL |
| MCH >> | 67.3 | ug |
| MCHC >> | 50.7 | gm/dL |
| SEGMENTED NEUTROPHILS >> | 82 (8.462) | % (*10 ³ /UL) |
| LYMPHOCYTES < | 11.4 (1.176) | % (*10 ³ /UL) |
| MONOCYTES | 6.6 (0.681) | % (*10 ³ /UL) |
| PLATELET COUNT < | 87 | *10 ³ /UL |

Comments >>
 Vet Scan "dog" Gran includes segs, esos and basos- entered as segs.

ISIS reference values are for LOXODONTA AFRICANA /ISIS/MedARKS/5.54.a
 Printed on: 8.Feb.2010

- page 303 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|---|------------------------------|-----------------------------------|
| LOXODONTA AFRICANA AFRICANA South African bush elephant Name: CINDA/MZURI | Sex: Female Age: 38Y Est. | Acc. #: CM20 Birth: 3.Sep.1971 |
|---|------------------------------|-----------------------------------|

Collection Information >>

Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3488 Kg on 20.Jun.2006
 Manual restraint used.

Date of Collection: 3.Jul.2006
 Time of Collection: 13:45.0
 Collected by: MF
 Sample Collection Site: EAR VEIN

Chemistry >>

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

Laboratory: CLINIC
 Date of Analysis: 3.Jul.2006
 Time of Analysis: 15:10
 Analysis by: MES
 Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|--------|-------|
| GLUCOSE | 81 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |
| CREATININE | << 0.4 | MG/DL |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | < 10.2 | MG/DL |
| PHOSPHORUS | 4.8 | MG/DL |
| calcium/phosphorus ratio | 2.13 | |
| CHOLESTEROL | 57 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | >> 9.7 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 3.1 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 6.6 | GM/DL |
| albumin/globulin ratio | 0.470 | |
| ASPARTATE AMINOTRANSFERASE | < 9 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | <0.1 | MG/DL |

| | | | |
|--|---------------------------|--------|-------|
| | ELECM20 | | |
| | AMYLASE | < 1469 | U/L |
| | ALKALINE PHOSPHATASE | < 60 | IU/L |
| | CREATINE PHOSPHOKINASE | 155 | IU/L |
| | ALBUMIN GLOBULIN RATIO | 0.5 | GM/DL |
| | GAMMA GLUTAMYLTRANSFERASE | 8 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 304 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Clinical Note: 23.Jul.2006
 Keepers report an observed change in ambulation, and reluctance to perform some routine movements involving the left front carpus. Palpation reveals no perceived swelling or increased skin temperature or tenderness. When she is walking, she does not flex the joint normally, but does not hesitate to walk and bear full weight on the leg. No unusual pad or toe problems lately. Suspect mild arthritis or minor injury. If condition persists tomorrow, consider a dose of Banamine paste. (SCW)

Clinical Note: 24.Jul.2006
 Rx: FLUNIXIN MEGLUMINE 3000 mg PO SID for 2 days. (SCW)

Purpose: crack - TOENAIL, LEFT FRONT
 pain in front left ankle

Prescription Data >> Starting date: 24.Jul.2006
 Drug: FLUNIXIN MEGLUMINE 3000 mg PO SID for 2 days
 Formulation: 50.00 mg/gm paste
 Prescribed by: SCW (24.Jul.2006) Filled by: SCW (24.Jul.2006)

Comments >>
 Tradename of drug used is BANAMINE PASTE.

Daily Treatment Notes >>

| Date | Time | Success | By | Comments |
|-------------|------|---------|-----|--------------|
| 24.Jul.2006 | : | 100% | VEL | Veldt keeper |
| 25.Jul.2006 | : | 100% | VEL | Veldt keeper |

Clinical Note:

ELECM20

Cinda has developed a line of dermatitis along the underside dorsal fold of her left ear. A row of circular pustule like lesions are lined up inside the backside of the ear where it folds to the back. Several superficial abrasions are present and may be a result of rubbing. There does not appear to be any pus associated with it. Dispensed Panalog ointment to apply SID until lesions are gone. WMB (WMB)

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 305 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3449 Kg on 24.Jul.2006
Manual restraint used.

Date of Collection: 8.Aug.2006
Time of Collection: 13:45.0
Collected by: MF
Sample Collection Site: EAR VEIN

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

Laboratory: CLINIC
Date of Analysis: 9.Aug.2006
Time of Analysis: 16:25
Analysis by: WMB
Automated analysis.

Tests and Results >>

| | | | |
|--|-----------------------------|--------|-------|
| | GLUCOSE | 75 | MG/DL |
| | BLOOD UREA NITROGEN | <2.0 | MG/DL |
| | CREATININE | < 0.5 | MG/DL |
| | URIC ACID | <1.0 | MG/DL |
| | CALCIUM | < 10.1 | MG/DL |
| | PHOSPHORUS | 4.8 | MG/DL |
| | calcium/phosphorus ratio | 2.10 | |
| | CHOLESTEROL | <50 | MG/DL |
| | TOTAL PROTEIN (COLORIMETRY) | >> 9.2 | GM/DL |
| | ALBUMIN (COLORIMETRY) | >> 3.2 | GM/DL |
| | GLOBULIN (COLORIMETRY) | >> 6.0 | GM/DL |
| | albumin/globulin ratio | 0.533 | |
| | ASPARTATE AMINOTRANSFERASE | < 7 | IU/L |
| | ALANINE AMINOTRANSFERASE | <0 | IU/L |
| | TOTAL BILIRUBIN | 0.1 | MG/DL |
| | AMYLASE | < 1447 | U/L |
| | ALKALINE PHOSPHATASE | < 60 | IU/L |
| | CREATINE PHOSPHOKINASE | 170 | IU/L |
| | ALBUMIN GLOBULIN RATIO | 0.5 | GM/DL |
| | GAMMA GLUTAMYLTRANSFERASE | 9 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 306 -

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Clinical Note:

Derma1 pustules appear to be healing - continue silver sulfadiazine
cream a few more days. (SCW)

6.Sep.2006

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 307 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

```

=====
LOXODONTA AFRICANA AFRICANA          Sex: Female          Acc. #: CM20
South African bush elephant         Age: 38Y Est.       Birth: 3.Sep.1971
Name: CINDA/MZURI
=====
    
```

```

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3438 Kg on 18.Aug.2006
Manual restraint used.

Date of Collection: 4.Oct.2006
Time of Collection: 10:30.0
Collected by: MF
Sample Collection Site: EAR VEIN
    
```

```

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

Laboratory: CLINIC
Date of Analysis: 5.Oct.2006
Time of Analysis: 13:00
Analysis by: JS
Automated analysis.
    
```

```

Tests and Results >>
WHITE BLOOD CELL COUNT      10.11      *10^3/UL
RED BLOOD CELL COUNT <<    1.73      *10^6/UL
HEMOGLOBIN                  13.4      GM/DL
HEMATOCRIT <<              22.9      %
MCV                          132       fL
MCH >>                      77.5      uug
MCHC >>                     58.5      gm/dL
SEGMENTED NEUTROPHILS >>  79.7      (8.058) % (*10^3/UL)
LYMPHOCYTES <              14.4      (1.456) % (*10^3/UL)
MONOCYTES                   5.9       (0.596) % (*10^3/UL)
PLATELET COUNT <           122          *10^3/UL
    
```

ELECM20

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 308 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3438 Kg on 18.Aug.2006
Manual restraint used.

Date of Collection: 4.Oct.2006
Time of Collection: 10:30.0
Collected by: MF
Sample Collection Site: EAR VEIN

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

Laboratory: CLINIC
Date of Analysis: 5.Oct.2006
Time of Analysis: 13:27
Analysis by: JS
Automated analysis.

Tests and Results >>

| | | |
|-------------------------------|--------|-------|
| GLUCOSE | 92 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |
| CREATININE | < 0.6 | MG/DL |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | < 9.9 | MG/DL |
| PHOSPHORUS | 5.6 | MG/DL |
| calcium/phosphorus ratio | 1.77 | |
| CHOLESTEROL | 74 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | > 8.9 | GM/DL |
| TOTAL PROTEIN (REFRACTOMETER) | 7.8 | GM/DL |
| ALBUMIN (COLORIMETRY) | 3.2 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 5.7 | GM/DL |
| albumin/globulin ratio | 0.561 | |
| ASPARTATE AMINOTRANSFERASE | < 12 | IU/L |
| TOTAL BILIRUBIN | <0.1 | MG/DL |
| AMYLASE | 1579 | U/L |
| ALKALINE PHOSPHATASE | 68 | IU/L |
| CREATINE PHOSPHOKINASE | 243 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.6 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | >500 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Parasitology Examination:

Submission Data >>

Type: Fecal sample

Purpose: ROUTINE EXAMINATION

Sample id.: 2006-0506
Date collected: 18.Oct.2006

Collected from:

Group of specimens housed together.

Enclosure: VBD EX4

Examination Data >>

Storage: refrigerated

Consistency: formed

Gross appearance: Typical

Date examined: 19.Oct.2006

by: JS

Tests & Results >>

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN
FLOATATION - NA NITRATE NO PARASITES SEEN

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

ELECM20
Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3275 Kg on 17.Oct.2006
Manual restraint used.

Date of Collection: 6.Nov.2006
Time of Collection: :
Collected by: MJF
Sample Collection Site: EAR VEIN

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

Laboratory: CLINIC
Date of Analysis: 6.Nov.2006
Time of Analysis: 16:15
Analysis by: MES
Automated analysis.

Tests and Results >>

| | | | |
|---|--------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | 12.00 | | *10 ³ /UL |
| RED BLOOD CELL COUNT << | 1.91 | | *10 ⁶ /UL |
| HEMOGLOBIN | 14.1 | | GM/DL |
| HEMATOCRIT << | 25.4 | | % |
| MCV | 133 | | fL |
| MCH >> | 73.8 | | uug |
| MCHC >> | 55.5 | | gm/dL |
| LYMPHOCYTES < | 12.7 | (1.524) | % (*10 ³ /UL) |
| MONOCYTES | 5.4 | (0.648) | % (*10 ³ /UL) |
| PLATELET COUNT < | 113 | | *10 ³ /UL |
| MEAN CORPUSCULAR HEMOGLOBIN | 73.8 | | PG |
| MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION | 55.5 | | |
| MEAN CORPUSCULAR VOLUME | 133.3 | | FL |
| TOTAL GRANULOCYTIC CELLS | 81.9 % | | |

Comments >>

-Hematology was run on VetScan machine, more results:
Bank: Dog

RDW: 9.4
MPV: 5.8
Pct: 0.07 %
PDW: 5.7

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 311 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

ELECM20

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3275 Kg on 17.Oct.2006
 Manual restraint used.

Date of Collection: 6.Nov.2006
 Time of Collection: :
 Collected by: MJF
 Sample Collection Site: EAR VEIN

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

Laboratory: CLINIC
 Date of Analysis: 7.Nov.2006
 Time of Analysis: 9:31
 Analysis by: MES
 Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|--------|-------|
| GLUCOSE | 91 | MG/DL |
| CREATININE | < 0.5 | MG/DL |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | 11.3 | MG/DL |
| PHOSPHORUS | 4.3 | MG/DL |
| calcium/phosphorus ratio | 2.63 | |
| CHOLESTEROL | > 88 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | >> 9.5 | GM/DL |
| ALBUMIN (COLORIMETRY) | 3.5 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 6.0 | GM/DL |
| albumin/globulin ratio | 0.583 | |
| ASPARTATE AMINOTRANSFERASE | 22 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | <0.1 | MG/DL |
| AMYLASE | < 1516 | U/L |
| ALKALINE PHOSPHATASE | 87 | IU/L |
| CREATINE PHOSPHOKINASE | 183 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.6 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | >500 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 312 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
 South African bush elephant
 Name: CINDA/MZURI

Sex: Female
 Age: 38Y Est.

Acc. #: CM20
 Birth: 3.Sep.1971

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours

Date of Collection: 5.Dec.2006
 Time of Collection: 13:45.0
 Collected by: MJF

ELECM20

Activity: Calm
Weight: 3300 Kg on 30.Nov.2006
Manual restraint used.

Sample Collection Site: EAR VEIN

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

Laboratory: CLINIC
Date of Analysis: 5.Dec.2006
Time of Analysis: 15:48
Analysis by: MES
Automated analysis.

Tests and Results >>

| | | | |
|---|--------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | 10.32 | | *10 ³ /UL |
| RED BLOOD CELL COUNT << | 1.60 | | *10 ⁶ /UL |
| HEMOGLOBIN | 12.3 | | GM/DL |
| HEMATOCRIT << | 21.0 | | % |
| MCV | 131 | | fL |
| MCH >> | 76.9 | | uug |
| MCHC >> | 58.6 | | gm/dL |
| LYMPHOCYTES < | 13.0 | (1.342) | % (*10 ³ /UL) |
| MONOCYTES | 6.6 | (0.681) | % (*10 ³ /UL) |
| PLATELET COUNT < | 135 | | *10 ³ /UL |
| MEAN CORPUSCULAR HEMOGLOBIN | 76.8 | | PG |
| MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION | 58.5 | | |
| MEAN CORPUSCULAR VOLUME | 131.8 | | FL |
| TOTAL GRANULOCYTTIC CELLS | 80.4 % | | |

Comments >>
-Hematology was run on the VetScan machine.
Bank: Dog

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010 /ISIS/MedARKS/5.54.a

- page 313 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

| | |
|--------------------------------|----------------------------------|
| Collection Information >> | Date of Collection: 5.Dec.2006 |
| Health Status: Normal | Time of Collection: 13:45.0 |
| Fasting Time: < 8 hours | Collected by: MJF |
| Activity: Calm | Sample Collection Site: EAR VEIN |
| Weight: 3300 Kg on 30.Nov.2006 | |
| Manual restraint used. | |

ELECM20

Chemistry >>

Analysis Information >>

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

Laboratory: CLINIC
Date of Analysis: 5.Dec.2006
Time of Analysis: 15:55
Analysis by: MES
Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|--------|-------|
| GLUCOSE | 96 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |
| CREATININE | < 0.5 | MG/DL |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | << 9.2 | MG/DL |
| PHOSPHORUS | 5.0 | MG/DL |
| calcium/phosphorus ratio | 1.84 | |
| CHOLESTEROL | 62 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | > 8.5 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 3.0 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 5.4 | GM/DL |
| albumin/globulin ratio | 0.556 | |
| ASPARTATE AMINOTRANSFERASE | < 7 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | <0.1 | MG/DL |
| AMYLASE | < 1459 | U/L |
| ALKALINE PHOSPHATASE | 71 | IU/L |
| CREATINE PHOSPHOKINASE | 128 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.6 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | >500 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 314 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3284 Kg on 19.Dec.2006
Manual restraint used.

Date of Collection: 8.Jan.2007
Time of Collection: 13:45.0
Collected by: MJF
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>
Chemistry Sample: Serum
Storage: Fresh

Laboratory: CLINIC
Date of Analysis: 8.Jan.2007
Time of Analysis: 15:45

ELECM20

Sample Quality: No quality problems.

Analysis by: MES
Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|--------|-------|
| GLUCOSE | 95 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |
| CREATININE | < 0.6 | MG/DL |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | << 9.4 | MG/DL |
| PHOSPHORUS | 5.7 | MG/DL |
| calcium/phosphorus ratio | 1.65 | |
| CHOLESTEROL | 58 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | > 8.8 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 3.1 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 5.7 | GM/DL |
| albumin/globulin ratio | 0.544 | |
| ASPARTATE AMINOTRANSFERASE | < 8 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | <0.1 | MG/DL |
| AMYLASE | < 1440 | U/L |
| ALKALINE PHOSPHATASE | 94 | IU/L |
| CREATINE PHOSPHOKINASE | 162 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.5 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | >500 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 315 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3305 Kg on 19.Jan.2007
Manual restraint used.

Date of Collection: 5.Feb.2007
Time of Collection: 13:45.0
Collected by: MJF
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

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

Laboratory: CLINIC
Date of Analysis: 5.Feb.2007
Time of Analysis:
Analysis by: MES
Manual analysis.

Tests and Results >>

| | | | | |
|------------------------|---------|-------|---------|--------------------------|
| | ELECM20 | | | |
| WHITE BLOOD CELL COUNT | | 10.55 | | *10 ³ /UL |
| HEMATOCRIT | < | 34 | | % |
| SEGMENTED NEUTROPHILS | > | 56 | (5.908) | % (*10 ³ /UL) |
| NEUTROPHILIC BANDS | < | 0 | | % (*10 ³ /UL) |
| LYMPHOCYTES | | 38 | (4.009) | % (*10 ³ /UL) |
| MONOCYTES | | 6 | (0.633) | % (*10 ³ /UL) |
| EOSINOPHILS | | 0 | | % (*10 ³ /UL) |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010 /ISIS/MedARKS/5.54.a

- page 316 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

| | |
|--------------------------------|----------------------------------|
| Collection Information >> | Date of Collection: 5.Feb.2007 |
| Health Status: Normal | Time of Collection: 13:45.0 |
| Fasting Time: < 8 hours | Collected by: MJF |
| Activity: Calm | Sample Collection Site: EAR VEIN |
| Weight: 3305 Kg on 19.Jan.2007 | |
| Manual restraint used. | |

| | |
|--------------------------------------|------------------------------|
| Chemistry >> | Laboratory: CLINIC |
| Analysis Information >> | Date of Analysis: 5.Feb.2007 |
| Chemistry Sample: Serum | Time of Analysis: 15:45 |
| Storage: Fresh | Analysis by: MES |
| Sample Quality: No quality problems. | Automated analysis. |

Tests and Results >>

| | | |
|---------------------|-------|-------|
| GLUCOSE | 89 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |
| CREATININE | < 0.5 | MG/DL |
| URIC ACID | <1.0 | MG/DL |

| | | |
|-----------------------------|--------|-------|
| ELECM20 | | |
| CALCIUM | > 11.6 | MG/DL |
| PHOSPHORUS | < 4.0 | MG/DL |
| calcium/phosphorus ratio | 2.90 | |
| CHOLESTEROL | <50 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | 8.2 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 3.0 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 5.2 | GM/DL |
| albumin/globulin ratio | 0.577 | |
| ASPARTATE AMINOTRANSFERASE | 17 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | <0.1 | MG/DL |
| AMYLASE | < 1410 | U/L |
| ALKALINE PHOSPHATASE | 79 | IU/L |
| CREATINE PHOSPHOKINASE | 161 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.6 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | 7 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 317 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Parasitology Examination:

Submission Data >>

Type: Fecal sample
 Purpose: ROUTINE EXAMINATION

Sample id.: 2007-0203
 Date collected: 28.Mar.2007
 Collected by: RO

Collected from:

Group of specimens housed together.

Enclosure: VBD EX4

Examination Data >>

Storage: room temperature
 Consistency: soft
 Gross appearance: Typical

Date examined: 4.Apr.2007

by: MES

Tests & Results >>

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN
 FLOATATION - NA NITRATE NO PARASITES SEEN

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 318 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|---|------------------------------|-----------------------------------|
| LOXODONTA AFRICANA AFRICANA South African bush elephant Name: CINDA/MZURI | Sex: Female Age: 38Y Est. | Acc. #: CM20 Birth: 3.Sep.1971 |
|---|------------------------------|-----------------------------------|

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3345 Kg on 20.Mar.2007
 Manual restraint used.

Date of Collection: 2.Apr.2007
 Time of Collection: 13:45.0
 Collected by: MJF
 Sample Collection Site: EAR VEIN

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

Laboratory: CLINIC
 Date of Analysis: 3.Apr.2007
 Time of Analysis: 13:15
 Analysis by: MES
 Automated analysis.

Tests and Results >>

| | | | | |
|---|----|-------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | < | 7.16 | | *10 ³ /UL |
| RED BLOOD CELL COUNT | | 3.10 | | *10 ⁶ /UL |
| HEMOGLOBIN | >> | 17.6 | | GM/DL |
| HEMATOCRIT | | 39.87 | | % |
| MCV | | 129 | | fL |
| MCH | >> | 56.8 | | uug |
| MCHC | >> | 44.1 | | gm/dL |
| LYMPHOCYTES | < | 12.6 | (0.902) | % (*10 ³ /UL) |
| MONOCYTES | | 9.0 | (0.644) | % (*10 ³ /UL) |
| PLATELET COUNT | < | 19 | | *10 ³ /UL |
| MEAN CORPUSCULAR HEMOGLOBIN | | 56.6 | | PG |
| MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION | | 44.0 | | |

ELECM20
 MEAN CORPUSCULAR VOLUME 129 FL
 TOTAL GRANULOCYTIC CELLS 78.4 %

Comments >>
 -Hematology was run on the H2 machine:
 Mode: Dog

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010 /ISIS/MedARKS/5.54.a

- page 319 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >> Date of Collection: 2.Apr.2007
 Health Status: Normal Time of Collection: 13:45.0
 Fasting Time: < 8 hours Collected by: MJF
 Activity: Calm Sample Collection Site: EAR VEIN
 Weight: 3345 Kg on 20.Mar.2007
 Manual restraint used.

Chemistry >> Laboratory: CLINIC
 Analysis Information >> Date of Analysis: 3.Apr.2007
 Chemistry Sample: Serum Time of Analysis: 14:32
 Storage: Frozen at 0.0C (32.0F) Analysis by: MES
 Sample Quality: No quality problems. Automated analysis.

Tests and Results >>

| | | | |
|-----------------------------|----|-------|-------|
| GLUCOSE | > | 100 | MG/DL |
| BLOOD UREA NITROGEN | | <2.0 | MG/DL |
| CREATININE | < | 0.6 | MG/DL |
| URIC ACID | | <1.0 | MG/DL |
| CALCIUM | | 10.6 | MG/DL |
| PHOSPHORUS | > | 5.8 | MG/DL |
| calcium/phosphorus ratio | | 1.83 | |
| CHOLESTEROL | | <50 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | > | 8.9 | GM/DL |
| ALBUMIN (COLORIMETRY) | < | 3.1 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> | 5.8 | GM/DL |
| albumin/globulin ratio | | 0.534 | |
| ASPARTATE AMINOTRANSFERASE | | 24 | IU/L |
| ALANINE AMINOTRANSFERASE | | <0 | IU/L |
| TOTAL BILIRUBIN | | <0.1 | MG/DL |
| AMYLASE | < | 1376 | U/L |

| | | | |
|---------------------------|---------|-----|-------|
| | ELECM20 | | |
| ALKALINE PHOSPHATASE | | 78 | IU/L |
| CREATINE PHOSPHOKINASE | | 177 | IU/L |
| ALBUMIN GLOBULIN RATIO | | 0.5 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | | 9 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 320 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Clinical Note: 11.Jul.2007
 Rx: TETANUS TOXOID 1.0 ml IM for 1 dose. (SCW)

Purpose: crack - TOENAIL, LEFT FRONT
 annual booster

Prescription Data >> Starting date: 11.Jul.2007
 Drug: TETANUS TOXOID 1.0 ml IM
 Formulation: injectable
 Prescribed by: SCW (11.Jul.2007) Filled by: SCW (11.Jul.2007)

Daily Treatment Notes >>

| Date | Time | Success | By | Comments |
|-------------|-------|---------|-----|-------------|
| 11.Jul.2007 | 14:15 | 100% | MJF | in left ear |

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 321 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Clinical Note: 16.Jul.2007
 NATIONAL VETERINARY SERVICES LABS (NVSL):(TB test results, 3 samples)
 1800 Dayton Road, Ames, Iowa 50010
 Phone: (515) 663-7266 Fax: (515) 663-7397
 Tuberculosis Laboratory Test Report
 (Sample collected over a 3 day period.)

Accession : 508032
 Date Received: 8/01/2007
 Establishment No.: KSWILS

NVSL ID: 1724250
 Case #: 0710945
 Sample ID: 7/16/07
 Animal ID: CM 20/CINDA
 Mycobacteria Isolation Diagnosis: No Isolation Made
 Specimen Submitted: TRUNK WASH

NVSL ID: 1724251
 Case #: 0710946
 Sample ID: 7/17/07
 Animal ID: CM 20/CINDA
 Mycobacteria Isolation Diagnosis: No Isolation Made
 Specimen Submitted: TRUNK WASH

NVSL ID: 1724252
 Case #: 0710947
 Sample ID: 7/18/07
 Animal ID: CM 20/CINDA
 Mycobacteria Isolation Diagnosis: No Isolation Made
 Specimen Submitted: TRUNK WASH

Distribution:
 Submitter
 10/03/2007
 Approved by: Sulee Robbe-Austerma
 National Veterinary Services Laboratories
 (NVSL) (SCW)

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 322 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|---|------------------------------|-----------------------------------|
| LOXODONTA AFRICANA AFRICANA South African bush elephant Name: CINDA/MZURI | Sex: Female Age: 38Y Est. | Acc. #: CM20 Birth: 3.Sep.1971 |
|---|------------------------------|-----------------------------------|

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3407 Kg on 2.Jul.2007
 Manual restraint used.

Date of Collection: 6.Aug.2007
 Time of Collection: 13:45.0
 Collected by: MJF
 Sample Collection Site: EAR VEIN

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

Laboratory: CLINIC
 Date of Analysis: 7.Aug.2007
 Time of Analysis:
 Analysis by: MES
 Automated analysis.

Tests and Results >>

| | | | |
|---|----------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | 9.04 | | *10 ³ /UL |
| RED BLOOD CELL COUNT | < 2.52 | | *10 ⁶ /UL |
| HEMOGLOBIN | 13.1 | | GM/DL |
| HEMATOCRIT | << 30.07 | | % |
| MCV | 119 | | fL |
| MCH | >> 52.0 | | uug |
| MCHC | >> 43.6 | | gm/dL |
| LYMPHOCYTES | < 1.0 | (0.090) | % (*10 ³ /UL) |
| MONOCYTES | 5.9 | (0.533) | % (*10 ³ /UL) |
| PLATELET COUNT | < 23 | | *10 ³ /UL |
| MEAN CORPUSCULAR HEMOGLOBIN | 52.0 | | PG |
| MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION | 43.6 | | |
| MEAN CORPUSCULAR VOLUME | 119 | | FL |
| TOTAL GRANULOCYTIC CELLS | 93.1 % | | |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 323 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
 South African bush elephant
 Name: CINDA/MZURI

Sex: Female
 Age: 38Y Est.

Acc. #: CM20
 Birth: 3.Sep.1971

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 weight: 3407 Kg on 2.Jul.2007
 Manual restraint used.

Date of Collection: 6.Aug.2007
 Time of Collection: 13:45.0
 Collected by: MJF
 Sample Collection Site: EAR VEIN

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

Laboratory: CLINIC
 Date of Analysis: 7.Aug.2007
 Time of Analysis:
 Analysis by: MES
 Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|--------|-------|
| GLUCOSE | 91 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |
| CREATININE | < 0.8 | MG/DL |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | 11.0 | MG/DL |
| PHOSPHORUS | 4.5 | MG/DL |
| calcium/phosphorus ratio | 2.44 | |
| CHOLESTEROL | <50 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | > 8.9 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 3.0 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 5.9 | GM/DL |
| albumin/globulin ratio | 0.508 | |
| ASPARTATE AMINOTRANSFERASE | < 6 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | <0.1 | MG/DL |
| AMYLASE | < 1409 | U/L |
| ALKALINE PHOSPHATASE | < 64 | IU/L |
| CREATINE PHOSPHOKINASE | 242 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.5 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | 8 | IU/L |

ELECM20
ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 324 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Parasitology Examination:

Submission Data >>

Type: Fecal sample
Purpose: ROUTINE EXAMINATION

Sample id.: 2007-0576
Date collected: 23.Oct.2007
Collected by: AH

Collected from:

Group of specimens housed together.

Enclosure: VBD EX4

Examination Data >>

Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 5.Nov.2007

by: MES

Tests & Results >>

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN
FLOATATION - NA NITRATE NO PARASITES SEEN

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 325 -

ELECM20

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Clinical Note: 7.Jan.2008
Conducted annual physical exam. Animal appears healthy and is in good body condition. Current weight is 7523 lb., an increase from previous weight of 73546 lb. - she will continue on weight gain plus diet until she reaches her ideal weight range. Animal does not appear to be significantly underweight, however. Took photographs. Details are as follows:

*NSF= No significant findings

General body condition: Good

Skin: generally soft and supple, dorsal areas have patches of dry flakey skin; keepers regularly clean these areas to remove accumulations of dead skin.

Trunk, forehead, temporal glands and eyes: NSF

Tusks and associated soft tissues: NSF

Tongue, teeth, mucous membranes: NSF; color is pink, CRT=1.0 sec.

Ears: NSF

Forelimbs: Four large and one small nail on each foot. Left foot 4th nail has a small vertical crack and slight peeling, right foot 2nd nail has some peeling. Pads and cuticles of both feet are in good condition.

Hindlimbs: Three large and one small nail on each foot. Small vertical cracks in 2nd and 3rd nails of the right foot, pads and cuticles are in good condition.

Thoracic auscultation: attempted auscultation, but instrumentation is insufficient.

Mammary glands and ventral abdomen: NSF

External genitalia: NSF

Observed locomotion and exersizes: NSF

Respirations: normal rate, character and depth

Pulse: Not done

Body temperature: 97.8 (freshly voided fecal bolus)

Feces and urine: formed, light to medium brown and moist; keepers report no changes in volume. Urine is pale yellow and clear. Keepers report no changes in volume.

Lab samples: collected blood for CBC, chemistries, fibrinogen, EPH and serum vitamin E levels. Collected urine for routine urinalysis.

Overall assessment based on physical findings: Animal is in excellent health. (SCW)

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 326 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA

Sex: Female
Page 312

Acc. #: CM20

South African bush elephant
Name: CINDA/MZURI

ELECM20
Age: 38Y Est.

Birth: 3.Sep.1971

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3412 Kg on 7.Jan.2008
Manual restraint used.

Date of Collection: 7.Jan.2008
Time of Collection: :
Collected by: MJF
Sample Collection Site: EAR VEIN

Hematology >>
Analysis Information >>
Anticoagulant: EDTA
Storage: Refrigerated (>48 hours)
Sample Quality: No quality problems.

Laboratory: ANTECH DIAGNOST
Date of Analysis: 9.Jan.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

| | | | |
|---|---------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | 8.6 | | *10 ³ /UL |
| RED BLOOD CELL COUNT | 3.16 | | *10 ⁶ /UL |
| HEMOGLOBIN | 14.4 | | GM/DL |
| HEMATOCRIT | < 33.9 | | % |
| MCV | << 107 | | fL |
| MCH | 45.6 | | uug |
| MCHC | >> 42.5 | | gm/dL |
| SEGMENTED NEUTROPHILS | 42 | (3.612) | % (*10 ³ /UL) |
| NEUTROPHILIC BANDS | < 0 | | % (*10 ³ /UL) |
| LYMPHOCYTES | 40 | (3.440) | % (*10 ³ /UL) |
| MONOCYTES | 17 | (1.462) | % (*10 ³ /UL) |
| EOSINOPHILS | 1 | (0.086) | % (*10 ³ /UL) |
| BASOPHILS | 0 | | % (*10 ³ /UL) |
| ESTIMATED PLATELET COUNT | INC | | |
| PLATELET COUNT | 481 | | *10 ³ /UL |
| MEAN CORPUSCULAR HEMOGLOBIN | 45.6 | | PG |
| MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION | 42.5 | | |
| MEAN CORPUSCULAR VOLUME | 107 | | FL |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 327 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

ELECM20

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3412 Kg on 7.Jan.2008
Manual restraint used.

Date of Collection: 7.Jan.2008
Time of Collection: :
Collected by: MJF
Sample Collection Site: EAR VEIN

Chemistry >>
Analysis Information >>
Chemistry Sample: Serum
Storage: Frozen at 0.0C (32.0F)
Sample Quality: No quality problems.

Laboratory: ANTECH DIAGNOST
Date of Analysis: 9.Jan.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

| | | |
|------------------------------------|--------|-------|
| GLUCOSE | 91 | MG/DL |
| BLOOD UREA NITROGEN | < 4 | MG/DL |
| CREATININE | 1.1 | MG/DL |
| BUN/creatinine ratio | 3.64 | |
| CALCIUM | 10.4 | MG/DL |
| PHOSPHORUS | < 3.5 | MG/DL |
| calcium/phosphorus ratio | 2.97 | |
| SODIUM | 127 | MEQ/L |
| POTASSIUM | 4.6 | MEQ/L |
| sodium/potassium ratio | 27.6 | |
| CHLORIDE | 88 | MEQ/L |
| CHOLESTEROL | < 46 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | 8.2 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 2.9 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 5.3 | GM/DL |
| albumin/globulin ratio | 0.547 | |
| ASPARTATE AMINOTRANSFERASE | < 13 | IU/L |
| TOTAL BILIRUBIN | 0.2 | MG/DL |
| ALKALINE PHOSPHATASE | < 59 | IU/L |
| LACTATE DEHYDROGENASE | < 253 | IU/L |
| CREATINE PHOSPHOKINASE | 158 | IU/L |
| ALBUMIN (ELECTROPHORESIS) | << 3.6 | GM/DL |
| ALBUMIN GLOBULIN RATIO | 0.8 | GM/DL |
| ALPHA-1 GLOBULIN (ELECTROPHORESIS) | >> 740 | MG/DL |
| ALPHA-2 GLOBULIN (ELECTROPHORESIS) | >> 700 | MG/DL |
| BETA GLOBULIN (ELECTROPHORESIS) | 1,250 | MG/DL |
| FIBRINOGEN | 228 | MG/DL |
| GAMMA GLOBULIN (ELECTROPHORESIS) | 1.89 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | 9 | IU/L |
| TOTAL PROTEIN (ELECTROPHORESIS) | 8.2 | |
| VITAMIN E, SERUM | 0.54 | UG/ML |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 328 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Active

Date of Collection: 7.Jan.2008
Time of Collection: :
Collected by: MJF
Sample Collection Site: EAR VEIN

ELECM20

Weight: 3412 Kg on 7.Jan.2008
Manual restraint used.

Chemistry >>

Tests and Results >>

Comments >>

PROTEIN ELECTROPHORESIS

Interpretation: Normals do not apply for this species.

Compare values to previous results on routine health check exams for this particular bird/mammal or for this species.

-Vitamin E testing done through Michigan State University, Diagnostic Center for Population and Animal Health.

Interpretation: 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.

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 329 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>
Health Status: Normal

Date of Collection: 7.Jan.2008
Time of Collection: 14:00.0
Collected by: MF

Sample Collection Site: Mid-stream catch

Weight: 3412 Kg on 7.Jan.2008

Analysis Information >>
Sample type: Urine

Laboratory: CLINIC
Date of Analysis: 7.Jan.2008

ELECM20

Storage: Fresh
Sample Quality: No quality problems.

Time of Analysis: 17:00
Analysis by: SCW
Manual analysis.

Tests and Results >>

| | |
|-----------------|-------|
| BILIRUBIN | NEG |
| BLOOD | NEG |
| GLUCOSE, URINE | NEG |
| KETONES | NEG |
| LEUKOCYTES | NEG |
| NITRITE | NEG |
| PH | 8.0 |
| PROTEIN | NEG |
| S.G. (DIPSTICK) | 1.010 |
| UROBILINOGEN | 0.2 |

Comments >>
routine test

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010 /ISIS/MedARKS/5.54.a

- page 330 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3451 Kg on 4.Feb.2008
Manual restraint used.

Date of Collection: 4.Feb.2008
Time of Collection: :
Collected by: MF
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Not recorded
Sample Quality: No quality problems.

Laboratory: MICH. ST. LAB
Date of Analysis: 4.Feb.2008
Time of Analysis:
Analysis by:

ELECM20

Automated analysis.

Tests and Results >>

VITAMIN E, SERUM 0.57 UG/ML

Comments >>

02/04/2008 11:38:00 Vit E, Serum Interpretation
An established reference range is not available for this species.

02/04/2008 11:38:00 AM Vitamin E, Serum:
Serum vitamin E concentration is a good indicator for vitamin E status. The animal requirement for vitamin E is not absolute, but varies on such things as the fatty acid profile of the diet and oxidative stress placed on the animal. Therefore, it is impossible to state what deficient, or adequate, vitamin E nutriture is for all situations.

(Michigan State University: Diagnostic Center for Population & An. Health)

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 331 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Clinical Note: 7.Feb.2008
Received serum vitamin E results - level is below the expected range.
Instructed keepers to increase the daily vitamin supplementation by 50%, and plan to recheck blood sample in 4-8 weeks. (SCW)

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 332 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Clinical Note: 3.Mar.2008
ANTECH DIAGNOSTICS (abscess cult./sens. & gram stain results)
2433 Globe Cove Rd.
Southaven, MS 38671
Phone: 888-397-8378

Date Collected: 03-Mar-08
Date Reported: 08-Mar-08
Accession #: MEAA01417210

CULTURE & SENSITIVITIES

| | |
|-----------------------|------------|
| Source | Abscess |
| Preliminary #1 | 03/07/2008 |
| Organism #1 | |
| Staphylococcus aureus | |
| Heavy growth | |

Final Report 03/08/2008

GRAM STAIN
Source Abscess

ELECM20

Gram Positive Cocci Moderate - Heavy

| | |
|--------------------------|---------|
| SENSITIVITIES | #1 |
| Ampicillin | S |
| Clavamox (amoxi-clav) | S |
| Chloramphenicol | S |
| Clindamycin | S |
| Cephalothin | S |
| Methicillin | S |
| Erythromycin | S |
| Baytril (enrofloxacin) | S |
| Gentamicin | S |
| Neomycin | S |
| Trimethoprim/Sulfa | S |
| Tetracycline | S |
| Marbofloxacin (Zenequin) | S (ANT) |

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 333 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3451 Kg on 4.Feb.2008
Manual restraint used.

Date of Collection: 3.Mar.2008
Time of Collection: 13:45.0
Collected by: MF
Sample Collection Site: EAR VEIN

Comments >>

Results from HM2 Machine:
(mode: dog)

WBC 9.33 10⁹/l
LYM 0.09 10⁹/l
MON 0.63 10⁹/l
GRA 8.61 10⁹/l
LY% 1.0 %
MO% 6.8 %
GR% 92.2 %

RBC 2.50 10¹²/l
HGB 13.7 g/dl
HCT 30.68 %
MCV 123 fl
MCH 54.8 pg

ELECM20

MCHC 44.6 g/dl
RDWC 15.3 %

PLT 61 10⁹/l
PCT 0.04 %
MPV 6.1 fl
PDWC 24.3 %
(Clinic)

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 334 -

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Parasitology Examination:

Submission Data >>
Type: Fecal sample
Purpose: ROUTINE EXAMINATION

Sample id.: 2008-0251
Date collected: 19.Mar.2008
Collected by: RO

Collected from:
Group of specimens housed together.

Enclosure: VBD EX4

Examination Data >>
Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 17.Apr.2008

by: MES

Tests & Results >>

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN
FLOATATION - NA NITRATE NO PARASITES SEEN

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 335 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3418 Kg on 5.May.2008
 Manual restraint used.

Date of Collection: 5.May.2008
 Time of Collection: 13:45.0
 Collected by: MF
 Sample Collection Site: EAR VEIN

Comments >>

Results from HM2 Machine:
(mode: dog)

WBC 9.33 10⁹/l
 LYM 0.27 10⁹/l
 MON 0.75 10⁹/l
 GRA 8.31 10⁹/l
 LY% 2.9 %
 MO% 8.1 %
 GR% 89.0 %

RBC 2.66 10¹²/l
 HGB 13.4 g/dl
 HCT 31.09 %
 MCV 117 fl
 MCH 50.3 pg
 MCHC 43.1 g/dl
 RDWC 16.2 %

PLT 54 10⁹/l
 PCT 0.03 %
 MPV 6.3 fl
 PDWc 25.1 %
 (Clinic)

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 336 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Clinical Note: 24.Jun.2008
National Veterinary Services Laboratory (TB test results, 3 samples)
1800 Dayton Road, Ames, Iowa 50010
Phone: (515) 663-7266
Fax: (515) 663-7397
Tuberculosis Laboratory Test Report
Sample collected over a 3 day period.

Accession : 560083
Date Received: 7/02/2008
Establishment No.: KSWILS

NVSL ID: 1906867
Case #: 086429
Sample ID: 6/24/2008
Animal ID: CM20
Mycobacteria Isolation Diagnosis: No Isolation Made
Specimen Submitted: TRUNK WASH

NVSL ID: 1906868
Case #: 086430
Sample ID: 6/25/2008
Animal ID: CM20
Mycobacteria Isolation Diagnosis: No Isolation Made
Specimen Submitted: TRUNK WASH

NVSL ID: 1906869
Case #: 086431
Sample ID: 6/26/2008
Animal ID: CM20
Mycobacteria Isolation Diagnosis: No Isolation Made
Specimen Submitted: TRUNK WASH

Approved by: Sulee Robbe-Austerma
National Veterinary Services Laboratories
9/03/2008
(NVSL) (SCW)

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 337 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3599 Kg on 17.Jun.2008
Manual restraint used.

Date of Collection: 24.Jun.2008
Time of Collection: :
Collected by: MF
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>
Chemistry Sample: Serum
Storage: Not recorded
Sample Quality: No quality problems.

Laboratory: MICH. ST. LAB
Date of Analysis: 24.Jun.2008
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

| | | |
|------------------|------|-------|
| VITAMIN E, SERUM | 0.21 | UG/ML |
|------------------|------|-------|

Comments >>

06/24/2008 11:29:00 Vit. E, Serum Interpretation
We've measured serum vitamin E in several hundred elephants of unknown 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.

T.H.Herd DVM MS
Diplomate, American College of Veterinary Nutrition

06/24/2008 11:29:00 AM Vitamin E, Serum:

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

(Michigan State University: Diagnostic Center for Population & An. Health)

ELECM20

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 338 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Clinical Note: 27.Jun.2008
Spoke with Dr. Ellen Dierenfeld, nutritional advisor to the Elephant TAG regarding this animal's consistently low serum vitamin E levels. Her experience with serum vitamin E levels show wide variation in levels in normal animals, and if the animal exhibits no signs of a deficiency, additional diagnostics are not warranted at this time. Since Cinda shows no evidence of a deficiency, we will continue to monitor levels with no further increases in supplementation. (SCW)

ELECM20

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 339 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3691 kg on 5.Jul.2008
Manual restraint used.

Date of Collection: 7.Jul.2008
Time of Collection: 13:30.0
Collected by: MF
Sample Collection Site: EAR VEIN

Comments >>

HM2 machine results:
mode: dog
WBC 8.30 10⁹/l
LYM 0.67 10⁹/l
MON 0.32 10⁹/l
GRA 7.31 10⁹/l
LY% 8.0 %
MO% 3.9 %
GR% 88.1 %
RBC 2.69 10¹²/l
HGB 13.1 g/dl
HCT 30.66 %
MCV 114 fl
MCH 48.8 pg
MCHC 42.9 g/dl
RDWC 16.8 %
PLT 49 10⁹/l
PCT 0.03 %
MPV 6.0 fl
PDWC 27.2 %
(Clinic)

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3691 Kg on 5.Jul.2008
Manual restraint used.

Date of Collection: 7.Jul.2008
Time of Collection: 13:30.0
Collected by: MF
Sample Collection Site: EAR VEIN

Chemistry >>

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

Laboratory: CLINIC
Date of Analysis: 7.Jul.2008
Time of Analysis: 15:00
Analysis by: JM
Automated analysis.

Tests and Results >>

| | | | |
|--|-----------------------------|--------|-------|
| | GLUCOSE | 80 | MG/DL |
| | BLOOD UREA NITROGEN | << 2.2 | MG/DL |
| | CREATININE | 1.2 | MG/DL |
| | BUN/creatinine ratio | 1.83 | |
| | URIC ACID | <1.0 | MG/DL |
| | CALCIUM | 11.0 | MG/DL |
| | PHOSPHORUS | 4.4 | MG/DL |
| | calcium/phosphorus ratio | 2.50 | |
| | CHOLESTEROL | 63 | MG/DL |
| | TOTAL PROTEIN (COLORIMETRY) | > 8.5 | GM/DL |
| | ALBUMIN (COLORIMETRY) | < 3.1 | GM/DL |
| | GLOBULIN (COLORIMETRY) | >> 5.4 | GM/DL |
| | albumin/globulin ratio | 0.574 | |
| | ASPARTATE AMINOTRANSFERASE | 14 | IU/L |
| | ALANINE AMINOTRANSFERASE | <0 | IU/L |
| | TOTAL BILIRUBIN | 0.1 | MG/DL |
| | AMYLASE | < 1320 | U/L |
| | ALKALINE PHOSPHATASE | 84 | IU/L |
| | CREATINE PHOSPHOKINASE | 221 | IU/L |
| | ALBUMIN GLOBULIN RATIO | 0.6 | GM/DL |
| | BUN/CREATININE RATIO | 1.8 | MG/DL |
| | GAMMA GLUTAMYLTRANSFERASE | < 5 | IU/L |

ELECM20
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3691 Kg on 5.Jul.2008
Manual restraint used.

Date of Collection: 4.Aug.2008
Time of Collection: 13:45.0
Collected by: MF
Sample Collection Site: EAR VEIN

Chemistry >>
Analysis Information >>
Chemistry Sample: Serum
Storage: Frozen at 0.0C (32.0F)
Sample Quality: No quality problems.

Laboratory: CLINIC
Date of Analysis: 5.Aug.2008
Time of Analysis: 14:00
Analysis by:
Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|--------|-------|
| GLUCOSE | 83 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |
| CREATININE | 1.3 | MG/DL |
| URIC ACID | <1.0 | MG/DL |
| PHOSPHORUS | 5.0 | MG/DL |
| CHOLESTEROL | 69 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | > 8.8 | GM/DL |
| ALBUMIN (COLORIMETRY) | 3.2 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 5.6 | GM/DL |
| albumin/globulin ratio | 0.571 | |
| ASPARTATE AMINOTRANSFERASE | 14 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | 0.1 | MG/DL |
| AMYLASE | < 1374 | U/L |
| ALKALINE PHOSPHATASE | 78 | IU/L |
| CREATINE PHOSPHOKINASE | 200 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.6 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | 7 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 342 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant

Sex: Female
Age: 38Y Est.
Page 327

Acc. #: CM20
Birth: 3.Sep.1971

ELECM20

Name: CINDA/MZURI

Collection Information >>

Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3691 Kg on 5.Jul.2008
 Manual restraint used.

Date of Collection: 4.Aug.2008
 Time of Collection: 13:45.1
 Collected by: MF
 Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>
 Chemistry Sample: Serum
 Storage: Room temperature (>10 hours)
 Sample Quality: No quality problems.

Laboratory: ANTECH DIAGNOST
 Date of Analysis: 6.Aug.2008
 Time of Analysis:
 Analysis by: ANT
 Automated analysis.

Tests and Results >>

| | | | |
|--|-----------------------------|-------|-------|
| | GLUCOSE | 80 | MG/DL |
| | BLOOD UREA NITROGEN << | 2 | MG/DL |
| | CREATININE | 1.4 | MG/DL |
| | BUN/creatinine ratio | 1.43 | |
| | CALCIUM | 10.7 | MG/DL |
| | PHOSPHORUS | 4.1 | MG/DL |
| | calcium/phosphorus ratio | 2.61 | |
| | SODIUM << | 115 | MEQ/L |
| | POTASSIUM | 4.8 | MEQ/L |
| | sodium/potassium ratio | 24.0 | |
| | CHLORIDE < | 80 | MEQ/L |
| | CHOLESTEROL | 74 | MG/DL |
| | TOTAL PROTEIN (COLORIMETRY) | 8.1 | GM/DL |
| | ALBUMIN (COLORIMETRY) < | 2.9 | GM/DL |
| | GLOBULIN (COLORIMETRY) >> | 5.2 | GM/DL |
| | albumin/globulin ratio | 0.558 | |
| | ASPARTATE AMINOTRANSFERASE | 19 | IU/L |
| | TOTAL BILIRUBIN | 0.2 | MG/DL |
| | ALKALINE PHOSPHATASE < | 37 | IU/L |
| | LACTATE DEHYDROGENASE < | 310 | IU/L |
| | CREATINE PHOSPHOKINASE | 187 | IU/L |
| | GAMMA GLUTAMYLTRANSFERASE | 8 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 343 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
 South African bush elephant
 Name: CINDA/MZURI

Sex: Female
 Age: 38Y Est.

Acc. #: CM20
 Birth: 3.Sep.1971

Collection Information >>

Date of Collection: 2.Sep.2008

ELECM20

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3663 Kg on 1.Sep.2008
Manual restraint used.

Time of Collection: 13:45.0
Collected by: KB
Sample Collection Site: EAR VEIN

Comments >>

Results from HM2 Machine:

Mode: dog
WBC 8.79 10⁹/l
LYM 0.36 10⁹/l
MON 0.47 10⁹/l
GRA 7.95 10⁹/l
LY% 4.1 %
MO% 5.4 %
GR% 90.5 %
RBC 2.65 10¹²/l
HGB 13.9 g/dl
HCT 31.06 %
MCV 117 fl
MCH 52.4 pg
MCHC 44.7 g/dl
RDWC 17.1 %
PLT 49 10⁹/l
PCT 0.03 %
MPV 5.8 fl
PDWC 25.1 %
(Clinic)

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 344 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3663 Kg on 1.Sep.2008

Date of Collection: 2.Sep.2008
Time of Collection: 13:45.0
Collected by: KB
Sample Collection Site: EAR VEIN

ELECM20

Consistency: soft
Gross appearance: Typical

by: MES

Tests & Results >>

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN
FLOATATION - NA NITRATE NO PARASITES SEEN

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 346 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3588 Kg on 6.Oct.2008
Manual restraint used.

Date of Collection: 26.Oct.2008
Time of Collection: 13:45.0
Collected by: JS
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

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

Laboratory: CLINIC
Date of Analysis: 26.Oct.2008
Time of Analysis: 15:30
Analysis by: MES
Automated analysis.

ELECM20

Tests and Results >>

| | | |
|------------------------|-------|----------------------|
| WHITE BLOOD CELL COUNT | 11.88 | *10 ³ /UL |
| HEMATOCRIT | 40 | % |

Comments >>

Tests run after elephants chewed up parts of rakes. Some wood found in feces Sunday 10/26. Rakes chewed 10/25 pm.

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 347 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3588 Kg on 6.Oct.2008
Manual restraint used.

Date of Collection: 26.Oct.2008
Time of Collection: 13:45.0
Collected by: JS
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: CLINIC
Date of Analysis: 26.Oct.2008
Time of Analysis: 15:30
Analysis by: MES
Automated analysis.

Tests and Results >>

| | | |
|---------------------|------|-------|
| GLUCOSE | 92 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |

Page 332

| | | |
|-------------------------------|--------|-------|
| ELECM20 | | |
| CREATININE | < 0.8 | MG/DL |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | 11.3 | MG/DL |
| PHOSPHORUS | 5.7 | MG/DL |
| calcium/phosphorus ratio | 1.98 | |
| CHOLESTEROL | 52 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | > 8.9 | GM/DL |
| TOTAL PROTEIN (REFRACTOMETER) | 7.6 | GM/DL |
| ALBUMIN (COLORIMETRY) | 3.2 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 5.7 | GM/DL |
| albumin/globulin ratio | 0.561 | |
| ASPARTATE AMINOTRANSFERASE | 16 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | <.01 | MG/DL |
| AMYLASE | < 1514 | U/L |
| ALKALINE PHOSPHATASE | 88 | IU/L |
| CREATINE PHOSPHOKINASE | 181 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.6 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | < 6 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 348 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3338 Kg on 3.Nov.2008
 Manual restraint used.

Date of Collection: 3.Nov.2008
 Time of Collection: 13:45.0
 Collected by: MF
 Sample Collection Site: EAR VEIN

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

Laboratory: CLINIC
 Date of Analysis: 3.Nov.2008
 Time of Analysis: 14:53
 Analysis by: MES
 Manual analysis.

Tests and Results >>

| | | |
|------------------------|------|----------------------|
| WHITE BLOOD CELL COUNT | 8.91 | *10 ³ /UL |
| HEMATOCRIT | 38 | % |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010 /ISIS/MedARKS/5.54.a

- page 349 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|---|------------------------------|-----------------------------------|
| LOXODONTA AFRICANA AFRICANA South African bush elephant Name: CINDA/MZURI | Sex: Female Age: 38Y Est. | Acc. #: CM20 Birth: 3.Sep.1971 |
|---|------------------------------|-----------------------------------|

| | |
|-------------------------------|----------------------------------|
| Collection Information >> | Date of Collection: 3.Nov.2008 |
| Health Status: Normal | Time of Collection: 13:45.0 |
| Fasting Time: < 8 hours | Collected by: MF |
| Activity: Calm | Sample Collection Site: EAR VEIN |
| Weight: 3338 Kg on 3.Nov.2008 | |
| Manual restraint used. | |

| | |
|--------------------------------------|------------------------------|
| Chemistry >> | Laboratory: CLINIC |
| Analysis Information >> | Date of Analysis: 3.Nov.2008 |
| Chemistry Sample: Serum | Time of Analysis: 14:53 |
| Storage: Fresh | Analysis by: MES |
| Sample Quality: No quality problems. | Automated analysis. |

| | | | |
|----------------------|-------------------------------|--------|-------|
| Tests and Results >> | | | |
| | GLUCOSE | 88 | MG/DL |
| | BLOOD UREA NITROGEN | <2.0 | MG/DL |
| | CREATININE | < 0.9 | MG/DL |
| | URIC ACID | <1.0 | MG/DL |
| | CALCIUM | > 11.7 | MG/DL |
| | PHOSPHORUS | > 6.1 | MG/DL |
| | calcium/phosphorus ratio | 1.92 | |
| | CHOLESTEROL | 53 | MG/DL |
| | TOTAL PROTEIN (COLORIMETRY) | << 6.2 | GM/DL |
| | TOTAL PROTEIN (REFRACTOMETER) | < 7.2 | GM/DL |

| | | |
|-----------------------------|------|-------|
| ELECM20 | | |
| ALBUMIN (COLORIMETRY) | 3.3 | GM/DL |
| GLOBULIN (COLORIMETRY) << | 2.9 | GM/DL |
| albumin/globulin ratio | 1.14 | |
| ASPARTATE AMINOTRANSFERASE | 24 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | 0.1 | MG/DL |
| AMYLASE < | 1511 | U/L |
| ALKALINE PHOSPHATASE | 87 | IU/L |
| CREATINE PHOSPHOKINASE | 147 | IU/L |
| ALBUMIN GLOBULIN RATIO | 1.1 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE < | 4 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA /ISIS/MedARKS/5.54.a
 Printed on: 8.Feb.2010

- page 350 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>

Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3451 Kg on 1.Dec.2008
 Manual restraint used.

Date of Collection: 1.Dec.2008
 Time of Collection: 14:00.0
 Collected by: MF
 Sample Collection Site: EAR VEIN

Comments >>

HM2 Machine results:
 Mode: dog
 Doctor: Bryant

| | | |
|------|-------|---------------------|
| WBC | 8.53 | 10 ⁹ /l |
| LYM | 0.09 | 10 ⁹ /l |
| MON | 0.57 | 10 ⁹ /l |
| GRA | 7.87 | 10 ⁹ /l |
| LY% | 1.0 | % |
| MO% | 6.7 | % |
| GR% | 92.3 | % |
| RBC | 2.18 | 10 ¹² /l |
| HGB | 13.4 | g/dl |
| HCT | 28.13 | % |
| MCV | 129 | f1 |
| MCH | 61.5 | pg |
| MCHC | 47.7 | g/dl |
| RDWC | 16.4 | % |
| PLT | 44 | 10 ⁹ /l |
| PCT | 0.02 | % |
| MPV | 5.3 | f1 |

ELECM20

PDWc 26.5 %
(SCZclinic)

ISIS reference values are for LOXODONTA AFRICANA /ISIS/MedARKS/5.54.a
Printed on: 8.Feb.2010

- page 351 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|---|------------------------------|-----------------------------------|
| LOXODONTA AFRICANA AFRICANA South African bush elephant Name: CINDA/MZURI | Sex: Female Age: 38Y Est. | Acc. #: CM20 Birth: 3.Sep.1971 |
|---|------------------------------|-----------------------------------|

Collection Information >> Date of Collection: 1.Dec.2008
 Health Status: Normal Time of Collection: 14:00.0
 Fasting Time: < 8 hours Collected by: MF
 Activity: Calm Sample Collection Site: EAR VEIN
 Weight: 3451 Kg on 1.Dec.2008
 Manual restraint used.

Chemistry >> Laboratory: CLINIC
 Analysis Information >> Date of Analysis: 10.Dec.2008
 Chemistry Sample: Serum Time of Analysis: 13:40
 Storage: Frozen at 0.0C (32.0F) Analysis by: MES
 Sample Quality: hemolysis Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|--------|-------|
| GLUCOSE | 88 | MG/DL |
| BLOOD UREA NITROGEN | << 3.4 | MG/DL |
| CREATININE | < 0.9 | MG/DL |
| BUN/creatinine ratio | 3.78 | |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | 11.5 | MG/DL |
| PHOSPHORUS | 5.1 | MG/DL |
| calcium/phosphorus ratio | 2.25 | |
| CHOLESTEROL | <50 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | 7.5 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 2.9 | GM/DL |
| GLOBULIN (COLORIMETRY) | 4.6 | GM/DL |
| albumin/globulin ratio | 0.630 | |
| ASPARTATE AMINOTRANSFERASE | 15 | IU/L |
| ALANINE AMINOTRANSFERASE | < 0 | IU/L |
| TOTAL BILIRUBIN | 0.1 | MG/DL |
| AMYLASE | < 1311 | U/L |
| ALKALINE PHOSPHATASE | 79 | IU/L |

| | | |
|---------------------------|-----|-------|
| ELECM20 | | |
| CREATINE PHOSPHOKINASE | 161 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.6 | GM/DL |
| BUN/CREATININE RATIO | 3.8 | MG/DL |
| GAMMA GLUTAMYLTRANSFERASE | < 6 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010 /ISIS/MedARKS/5.54.a

- page 352 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3437 Kg on 5.Jan.2009
 Manual restraint used.

Date of Collection: 5.Jan.2009
 Time of Collection: 13:45.0
 Collected by: MF
 Sample Collection Site: EAR VEIN

Comments >>

HM2 Machine results:
 Mode: dog
 WBC 9.02 10⁹/l
 LYM 0.09 10⁹/l
 MON 0.56 10⁹/l
 GRA 8.37 10⁹/l
 LY% 1.0 %
 MO% 6.2 %
 GR% 92.8 %
 RBC 2.24 10¹²/l
 HGB 13.7 g/dl
 HCT 28.95 %
 MCV 130 fl
 MCH 61.5 pg
 MCHC 47.5 g/dl
 RDWC 15.1 %
 PLT 42 10⁹/l
 PCT 0.02 %
 MPV 5.2 fl
 PDWC 25.1 %
 (SCZ-clinic)

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 353 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|---|------------------------------|-----------------------------------|
| LOXODONTA AFRICANA AFRICANA South African bush elephant Name: CINDA/MZURI | Sex: Female Age: 38Y Est. | Acc. #: CM20 Birth: 3.Sep.1971 |
|---|------------------------------|-----------------------------------|

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3437 Kg on 5.Jan.2009
 Manual restraint used.

Date of Collection: 5.Jan.2009
 Time of Collection: 13:45.0
 Collected by: MF
 Sample Collection Site: EAR VEIN

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

Laboratory: SCZ-CLINIC
 Date of Analysis: 5.Jan.2009
 Time of Analysis: 13:50
 Analysis by: MES
 Automated analysis.

Tests and Results >>

| | | | |
|--|-------------------------------|-------|-------|
| | GLUCOSE | 82 | MG/DL |
| | BLOOD UREA NITROGEN << | 2.3 | MG/DL |
| | CREATININE | 1.0 | MG/DL |
| | BUN/creatinine ratio | 2.30 | |
| | URIC ACID | <1.0 | MG/DL |
| | CALCIUM >> | 12.5 | MG/DL |
| | PHOSPHORUS > | 6.4 | MG/DL |
| | calcium/phosphorus ratio | 1.95 | |
| | CHOLESTEROL | <50 | 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 | 17 | IU/L |
| | ALANINE AMINOTRANSFERASE | 1 | IU/L |
| | TOTAL BILIRUBIN | 0.1 | MG/DL |
| | AMYLASE < | 1398 | U/L |
| | ALKALINE PHOSPHATASE | 99 | IU/L |
| | CREATINE PHOSPHOKINASE | 220 | IU/L |
| | ALBUMIN GLOBULIN RATIO | 0.6 | GM/DL |
| | BUN/CREATININE RATIO | 2.3 | MG/DL |
| | GAMMA GLUTAMYLTRANSFERASE | 7 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 354 -

LOXODONTA AFRICANA AFRICANA
 South African bush elephant
 Name: CINDA/MZURI

Sex: Female
 Age: 38Y Est.

Acc. #: CM20
 Birth: 3.Sep.1971

Clinical Note:

19.Jan.2009

Conducted annual physical exam. Animal appears healthy and is in good body condition. Current weight is 7577 lb., which is within her ideal weight range. Took photographs. Details are as follows:

*NSF= No significant findings

Skin: Generally good condition. Skin on forehead and over dorsum is dry and thickened but improved over last year. Keepers are regularly cleaning and scrubbing these areas with Oxydex product.

Head, trunk, temporal glands, ears and eyes: NSF

Tusks, tongue, teeth, and mucous membranes: NSF

Pulse: unable to palpate.

Temperature: 97.6 from freshly voided bolus of feces.

Respirations and auscultation: NSF

Fore limbs: long bones and joints are NSF. Minor recurrent lesions of the feet, including F4 (left front) small hole in pad, F7 (right front) deeper hole with slight warmth. Rear limbs and rear feet are NSF. Keepers are regularly trimming and flushing the small holes in the pads. General condition of the feet and pads is good.

Mammary glands, ventral abdomen and genitalia: NSF

Observed animal in locomotion, and during exercise. All limbs appear to have good range of motion with no lameness or abnormal gait.

Feces: normal color, consistency and volume reported by keepers.

Urine: pale yellow in color, normal volume reported by keepers

Collected urine sample for routine UA. Blood collected in February will be submitted for full panel of tests.

Overall impression: animal is in excellent general health. (SCW)

ELECM20

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 355 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>
Health Status: Normal

Date of Collection: 19.Jan.2009
Time of Collection: :
Collected by: MF

Sample Collection Site: Mid-stream catch

Weight: 3437 Kg on 5.Jan.2009

Analysis Information >>

Sample type: Urine
Storage: Room temperature (>10 hours)
Sample Quality: No quality problems.

Laboratory: SCZ-CLINIC
Date of Analysis: 19.Jan.2009
Time of Analysis:
Analysis by:
Manual analysis.

Tests and Results >>

| | |
|---|--------|
| BILIRUBIN | NEG |
| BLOOD | NEG |
| COLOR | PALEYE |
| FOAM | NORMAL |
| GLUCOSE, URINE | NEG |
| KETONES | NEG |
| LEUKOCYTES | NEG |
| NITRITE | NEG |
| ODOR | NORMAL |
| PH | 8.5 |
| PROTEIN | NEG |
| S.G. (DIPSTICK) | 1.010 |
| SPECIFIC GRAVITY, URINE (REFRACTOMETER) | 1.004 |
| TURBIDITY | CLEAR |
| UROBILINOGEN | 0.2 |

Comments >>

History/Reason for Collection: routine
(SCZ-Clinic)

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|---|------------------------------|-----------------------------------|
| LOXODONTA AFRICANA AFRICANA South African bush elephant Name: CINDA/MZURI | Sex: Female Age: 38Y Est. | Acc. #: CM20 Birth: 3.Sep.1971 |
|---|------------------------------|-----------------------------------|

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3437 Kg on 5.Jan.2009
 Manual restraint used.

Date of Collection: 2.Feb.2009
 Time of Collection: :
 Collected by: KM
 Sample Collection Site: EAR VEIN

Hematology >>
 Analysis Information >>
 Anticoagulant: EDTA
 Storage: Refrigerated (>48 hours)
 Sample Quality: No quality problems.

Laboratory: ANTECH DIAGNOST
 Date of Analysis: 5.Feb.2009
 Time of Analysis:
 Analysis by: ANT
 Automated analysis.

Tests and Results >>

| | | | | |
|---|---|------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | < | 5.9 | | *10 ³ /UL |
| RED BLOOD CELL COUNT | < | 2.72 | | *10 ⁶ /UL |
| HEMOGLOBIN | | 12.1 | | GM/DL |
| HEMATOCRIT | < | 32.8 | | % |
| MCV | | 121 | | fL |
| MCH | | 44.5 | | uug |
| MCHC | > | 36.9 | | gm/dL |
| SEGMENTED NEUTROPHILS | | 55 | (3.245) | % (*10 ³ /UL) |
| NEUTROPHILIC BANDS | < | 0 | | % (*10 ³ /UL) |
| LYMPHOCYTES | < | 31 | (1.829) | % (*10 ³ /UL) |
| MONOCYTES | | 12 | (0.708) | % (*10 ³ /UL) |
| EOSINOPHILS | | 2 | (0.118) | % (*10 ³ /UL) |
| BASOPHILS | | 0 | | % (*10 ³ /UL) |
| ESTIMATED PLATELET COUNT | | 185 | | |
| FIBRINOGEN | | <100 | | MG/DL |
| MEAN CORPUSCULAR HEMOGLOBIN | | 44.5 | | PG |
| MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION | | 36.9 | | |
| MEAN CORPUSCULAR VOLUME | | 121 | | FL |
| TOTAL PROTEIN (ELECTROPHORESIS) | | 8.1 | | |

Comments >>

Antech Diagnostics 2433 Globe Cove Rd Southaven MS 38671
 Phone: 888-397-8378
 Accession No. MEAA02996055
 Received: 02/05/2009
 Reported: 02/05/2009
 Species: Mammal

Complete Blood Count:
 Platelet Estimate: Adequate
 Fibrinogen: >100*****RESULT RECHECKED*****

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

ELECM20

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Hematology >>
Comments >>
(Antech)

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 358 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

ELECM20

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3437 Kg on 5.Jan.2009
Manual restraint used.

Date of Collection: 2.Feb.2009
Time of Collection: :
Collected by: KM
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>
Chemistry Sample: Serum
Storage: Not recorded
Sample Quality: No quality problems.

Laboratory: ANTECH DIAGNOST
Date of Analysis: 5.Feb.2009
Time of Analysis:
Analysis by: ANT
Automated analysis.

Tests and Results >>

| | | |
|------------------------------------|--------|-------|
| GLUCOSE | 91 | MG/DL |
| BLOOD UREA NITROGEN | < 6 | MG/DL |
| CREATININE | 1.1 | MG/DL |
| BUN/creatinine ratio | 5.45 | |
| CALCIUM | 10.7 | MG/DL |
| PHOSPHORUS | 4.2 | MG/DL |
| calcium/phosphorus ratio | 2.55 | |
| SODIUM | 128 | MEQ/L |
| POTASSIUM | 4.3 | MEQ/L |
| sodium/potassium ratio | 29.8 | |
| CHLORIDE | 88 | MEQ/L |
| CHOLESTEROL | < 48 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | 8.2 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 3.0 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 5.2 | GM/DL |
| albumin/globulin ratio | 0.577 | |
| ASPARTATE AMINOTRANSFERASE | 22 | IU/L |
| TOTAL BILIRUBIN | 0.2 | MG/DL |
| ALKALINE PHOSPHATASE | < 43 | IU/L |
| LACTATE DEHYDROGENASE | < 267 | IU/L |
| CREATINE PHOSPHOKINASE | 226 | IU/L |
| ALBUMIN (ELECTROPHORESIS) | << 3.4 | GM/DL |
| ALPHA-1 GLOBULIN (ELECTROPHORESIS) | 0.84 | MG/DL |
| ALPHA-2 GLOBULIN (ELECTROPHORESIS) | 0.81 | MG/DL |
| BETA GLOBULIN (ELECTROPHORESIS) | 1.25 | MG/DL |
| GAMMA GLOBULIN (ELECTROPHORESIS) | 1.83 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | 7 | IU/L |

Comments >>

Note: Protein Electrophoresis sample completed by Antech:02/03/2009

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 359 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Chemistry >>
Comments >>

ELECM20

Protein Electrophoresis:

Albumin/Globulin Ratio: 0.7

Interpretation:

Normals do not apply for this species.

Compare values to previous results on routine health check exams
for this particular bird/mammal or for this species.
(Antech)

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 360 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3437 Kg on 5.Jan.2009
Manual restraint used.

Date of Collection: 2.Mar.2009
Time of Collection: :
Collected by: MF
Sample Collection Site: EAR VEIN

ELECM20

Hematology >>

Analysis Information >>

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

Laboratory: ANTECH DIAGNOST
Date of Analysis: 3.Mar.2009
Time of Analysis:
Analysis by: ANT
Automated analysis.

Tests and Results >>

| | | | | |
|---|---|------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | < | 6.6 | | *10 ³ /UL |
| RED BLOOD CELL COUNT | > | 3.58 | | *10 ⁶ /UL |
| HEMOGLOBIN | > | 16.0 | | GM/DL |
| HEMATOCRIT | | 42.7 | | % |
| MCV | | 119 | | fL |
| MCH | | 44.7 | | uug |
| MCHC | > | 37.5 | | gm/dL |
| SEGMENTED NEUTROPHILS | | 53 | (3.498) | % (*10 ³ /UL) |
| NEUTROPHILIC BANDS | < | 0 | | % (*10 ³ /UL) |
| LYMPHOCYTES | < | 26 | (1.716) | % (*10 ³ /UL) |
| MONOCYTES | | 20 | (1.320) | % (*10 ³ /UL) |
| EOSINOPHILS | | 1 | (0.066) | % (*10 ³ /UL) |
| BASOPHILS | | 0 | | % (*10 ³ /UL) |
| ESTIMATED PLATELET COUNT | | 150 | | |
| FIBRINOGEN | | 186 | | MG/DL |
| MEAN CORPUSCULAR HEMOGLOBIN | | 44.7 | | PG |
| MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION | | 37.5 | | |
| MEAN CORPUSCULAR VOLUME | | 119 | | FL |

Comments >>

Antech Diagnostics 2433 Globe Cove Rd Southaven MS 38671
Phone: 888-397-8378
Accession No. MECT01702151
Received: 03/03/09
Reported: 03/03/09
Species: Mammal

Complete Blood Count:
Platelet Estimate: Adequate
(Antech)

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 361 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Parasitology Examination:

Submission Data >>
Type: Fecal sample
Purpose: ROUTINE EXAMINATION

Sample id.: 2009-0255
Date collected: 19.Mar.2009
Collected by: KLM

Collected from:
Group of specimens housed together.

Enclosure: VBD H4

Examination Data >>

Storage: refrigerated
Consistency: formed

Date examined: 26.Apr.2009

ELECM20

Gross appearance: Typical

by: MES

Tests & Results >>

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN
FLOATATION - NA NITRATE NO PARASITES SEEN

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 362 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3437 Kg on 5.Jan.2009
Manual restraint used.

Date of Collection: 4.May.2009
Time of Collection: 13:45.0
Collected by: MF
Sample Collection Site: EAR VEIN

Comments >>

HM2 Machine Results:
Mode: Dog
WBC 10.60 10'9/1
LYM 0.11 10'9/1
MON 0.07 10'9/1
GRA 10.42 10'9/1

ELECM20

LY% 1.0 %
 MO% 0.6 %
 GR% 98.4 %
 RBC 2.71 10¹²/l
 HGB 15.4 g/dl
 HCT 34.11 %
 MCV 126 fl
 MCH 56.9 pg
 MCHC 45.2 g/dl
 RDWC 16.5 %
 PLT 75 10⁹/l
 PCT 0.04 %
 MPV 5.6 fl
 PDWC 25.8 %
 (SCZ-Clinic)

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 363 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
 South African bush elephant
 Name: CINDA/MZURI

Sex: Female
 Age: 38Y Est.

Acc. #: CM20
 Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3437 Kg on 5.Jan.2009
 Manual restraint used.

Date of Collection: 4.May.2009
 Time of Collection: 13:45.0
 Collected by: MF
 Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: SCZ-CLINIC
 Date of Analysis: 4.May.2009
 Time of Analysis: 15:19
 Analysis by: MES
 Automated analysis.

Tests and Results >>

| | | | |
|------------|------------|-------|-------|
| | GLUCOSE | 86 | MG/DL |
| BLOOD UREA | NITROGEN | <2.0 | MG/DL |
| | CREATININE | < 0.7 | MG/DL |

| | | |
|-----------------------------|--------|-------|
| ELECM20 | | |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | < 10.2 | MG/DL |
| PHOSPHORUS | 4.7 | MG/DL |
| calcium/phosphorus ratio | 2.17 | |
| CHOLESTEROL | <50 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | > 8.4 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 2.9 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 5.5 | GM/DL |
| albumin/globulin ratio | 0.527 | |
| ASPARTATE AMINOTRANSFERASE | < 6 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | <0.1 | MG/DL |
| AMYLASE | < 1393 | U/L |
| ALKALINE PHOSPHATASE | 83 | IU/L |
| CREATINE PHOSPHOKINASE | 266 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.5 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | 7 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 364 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
 South African bush elephant
 Name: CINDA/MZURI

Sex: Female
 Age: 38Y Est.

Acc. #: CM20
 Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3437 Kg on 5.Jan.2009
 Manual restraint used.

Date of Collection: 8.Jun.2009
 Time of Collection: :
 Collected by:
 Sample Collection Site: EAR VEIN

Comments >>

SCZ-Clinic HM2 Machine Results:

Mode: Dog

| Test | Result | |
|------|--------|---------------------|
| WBC | 8.20 | 10 ⁹ /l |
| LYM | 0.08 | 10 ⁹ /l |
| MON | 0.55 | 10 ⁹ /l |
| GRA | 7.57 | 10 ⁹ /l |
| LY% | 1.0 | % |
| MO% | 6.7 | % |
| GR% | 92.3 | % |
| RBC | 2.60 | 10 ¹² /l |
| HGB | 14.9 | g/dl |
| HCT | 32.94 | % |
| MCV | 127 | f1 |

ELECM20

MCH 57.6 pg
MCHC 45.4 g/dl
RDWC 17.1 %
PLT 55 10⁹/l
PCT 0.03 %
MPV 5.5 fl
PDWC 24.3 %
(SCZ-Clinic)

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010 /ISIS/MedARKS/5.54.a

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

- page 365 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3437 Kg on 5.Jan.2009
Manual restraint used.

Date of Collection: 8.Jun.2009
Time of Collection: :
Collected by:
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>
Chemistry Sample: Serum
Storage: Room temperature (>10 hours)
Sample Quality: No quality problems.

Laboratory: SCZ-CLINIC
Date of Analysis: 9.Jun.2009
Time of Analysis: 15:47
Analysis by: JK
Automated analysis.

Tests and Results >>

| | | | |
|--|-----------------------------|--------|-------|
| | GLUCOSE | 72 | MG/DL |
| | BLOOD UREA NITROGEN | <2 | MG/DL |
| | CREATININE | < 0.9 | MG/DL |
| | URIC ACID | <1 | MG/DL |
| | CALCIUM | < 10.1 | MG/DL |
| | PHOSPHORUS | 5.2 | MG/DL |
| | calcium/phosphorus ratio | 1.94 | |
| | CHOLESTEROL | 59 | MG/DL |
| | TOTAL PROTEIN (COLORIMETRY) | > 8.4 | GM/DL |
| | ALBUMIN (COLORIMETRY) | < 3.0 | GM/DL |
| | GLOBULIN (COLORIMETRY) | >> 5.3 | GM/DL |

| | | | |
|----------------------------|------------------------|-------|-------|
| | ELECM20 | | |
| | albumin/globulin ratio | 0.566 | |
| ASPARTATE AMINOTRANSFERASE | < 11 | | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | | IU/L |
| TOTAL BILIRUBIN | <0.1 | | MG/DL |
| AMYLASE | < 1374 | | U/L |
| ALKALINE PHOSPHATASE | 81 | | IU/L |
| CREATINE PHOSPHOKINASE | 305 | | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.6 | | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | 7 | | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010 /ISIS/MedARKS/5.54.a

- page 366 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

| | |
|--------------------------------|----------------------------------|
| Collection Information >> | Date of Collection: 6.Jul.2009 |
| Health Status: Normal | Time of Collection: 13:50.0 |
| Fasting Time: < 8 hours | Collected by: MF |
| Activity: Calm | Sample Collection Site: EAR VEIN |
| Weight: 3654 Kg on 30.Jun.2009 | |
| Manual restraint used. | |

Comments >>
 HM2 Machine Results:
 Mode: Dog

| | | |
|------|-------|---------------------|
| WBC | 8.71 | 10 ⁹ /l |
| LYM | 0.09 | 10 ⁹ /l |
| MON | 0.49 | 10 ⁹ /l |
| GRA | 8.13 | 10 ⁹ /l |
| LY% | 1.0 | % |
| MO% | 5.7 | % |
| GR% | 93.3 | % |
| RBC | 2.41 | 10 ¹² /l |
| HGB | 12.9 | g/dl |
| HCT | 30.07 | % |
| MCV | 125 | fl |
| MCH | 53.7 | pg |
| MCHC | 43.0 | g/dl |
| RDWC | 17.0 | % |
| PLT | 47 | 10 ⁹ /l |
| PCT | 0.03 | % |
| MPV | 5.5 | fl |
| PDWC | 24.3 | % |

(SCZ-Clinic)

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010 /ISIS/MedARKS/5.54.a

- page 367 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|---|------------------------------|-----------------------------------|
| LOXODONTA AFRICANA AFRICANA South African bush elephant Name: CINDA/MZURI | Sex: Female Age: 38Y Est. | Acc. #: CM20 Birth: 3.Sep.1971 |
|---|------------------------------|-----------------------------------|

Collection Information >> Date of Collection: 6.Jul.2009
 Health Status: Normal Time of Collection: 13:50.0
 Fasting Time: < 8 hours Collected by: MF
 Activity: Calm Sample Collection Site: EAR VEIN
 Weight: 3654 Kg on 30.Jun.2009
 Manual restraint used.

Chemistry >> Laboratory: SCZ-CLINIC
 Analysis Information >> Date of Analysis: 6.Jul.2009
 Chemistry Sample: Serum Time of Analysis: 15:59
 Storage: Fresh Analysis by: MES
 Sample Quality: No quality problems. Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|--------|-------|
| GLUCOSE | 75 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |
| CREATININE | < 0.7 | MG/DL |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | << 9.2 | MG/DL |
| PHOSPHORUS | > 6.2 | MG/DL |
| calcium/phosphorus ratio | 1.48 | |
| CHOLESTEROL | 56 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | 8.3 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 2.9 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 5.4 | GM/DL |
| albumin/globulin ratio | 0.537 | |
| ASPARTATE AMINOTRANSFERASE | < 12 | IU/L |
| ALANINE AMINOTRANSFERASE | <0 | IU/L |
| TOTAL BILIRUBIN | 0.1 | MG/DL |
| AMYLASE | < 1399 | U/L |
| ALKALINE PHOSPHATASE | 68 | IU/L |
| CREATINE PHOSPHOKINASE | 208 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.5 | GM/DL |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 368 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3654 Kg on 30.Jun.2009
Manual restraint used.

Date of Collection: 3.Aug.2009
Time of Collection: 13:45.0
Collected by: MF
Sample Collection Site: EAR VEIN

Comments >>

HM2 Machine Results:
Mode: Dog

| | | |
|------|-------|---------------------|
| WBC | 7.46 | 10 ⁹ /l |
| LYM | 0.46 | 10 ⁹ /l |
| MON | 0.46 | 10 ⁹ /l |
| GRA | 6.54 | 10 ⁹ /l |
| LY% | 6.1 | % |
| MO% | 6.2 | % |
| GR% | 87.7 | % |
| RBC | 2.37 | 10 ¹² /l |
| HGB | 13.0 | g/dl |
| HCT | 30.23 | % |
| MCV | 128 | f1 |
| MCH | 54.8 | pg |
| MCHC | 43.0 | g/dl |
| RDWc | 17.1 | % |
| PLT | 38 | 10 ⁹ /l |
| PCT | 0.02 | % |
| MPV | 5.8 | f1 |
| PDWc | 25.8 | % |

(SCZ-Clinic)

ELECM20

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 369 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3654 Kg on 30.Jun.2009
Manual restraint used.

Date of Collection: 3.Aug.2009
Time of Collection: 13:45.0
Collected by: MF
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Frozen at 0.0C (32.0F)
Sample Quality: No quality problems.

Laboratory: SCZ-CLINIC
Date of Analysis: 5.Aug.2009
Time of Analysis: 13:45
Analysis by: MES
Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|--------|-------|
| GLUCOSE | 82 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |
| CREATININE | 1.0 | MG/DL |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | << 9.6 | MG/DL |
| PHOSPHORUS | > 6.4 | MG/DL |
| calcium/phosphorus ratio | 1.50 | |
| CHOLESTEROL | 60 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | > 8.8 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 2.8 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 6.0 | GM/DL |
| albumin/globulin ratio | 0.467 | |
| ASPARTATE AMINOTRANSFERASE | 29 | IU/L |
| ALANINE AMINOTRANSFERASE | 5 | IU/L |
| TOTAL BILIRUBIN | 0.1 | MG/DL |
| AMYLASE | < 1368 | U/L |
| ALKALINE PHOSPHATASE | < 54 | IU/L |
| CREATINE PHOSPHOKINASE | 198 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.5 | GM/DL |
| GAMMA GLUTAMYLTRANSFERASE | 9 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 370 -

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Clinical Note: 24.Aug.2009

NATIONAL VETERINARY SERVICES LABS (NVSL):(TB test results, 3 samples)
PO Box 844, Ames, Iowa 50010
Phone: 515-337-7514 Fax: 515-337-7938
Laboratory Test Report
(Sample collected over a 3 day period.)

Accession : 09-018968
NFC Control Number: 19809020920
Date Collected: 08/24/2009
Date Received: 09/09/2009
Date Completed: 11/05/2009
Collected By: MF
Purpose: surveillance
NOTE: Condition of the sample(s) was adequate unless otherwise noted.

Animal ID: CM 20
Case #: TB09-09088
Sample: 1-8/24/09
Specimen Type: Trunk Washings
Species: Elephant, African
Mycobacterial Culture Result: No Isolation Made

Animal ID: CM 20
Case #: TB09-09089
Sample: 2-8/25/09
Specimen Type: Trunk Washings
Species: Elephant, African
Mycobacterial Culture Result: No Isolation Made

Animal ID: CM 20
Case #: TB09-09090
Sample: 3-8/26/09
Specimen Type: Trunk Washings
Species: Elephant, African
Mycobacterial Culture Result: No Isolation Made

Results authorized by:
Dr. Beth Harris, Head, Mycobacteria and Brucella Section
NVSL MB General Phone: 515-663-7388
(NVSL) (SCW)

ELECM20

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 371 -

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Clinical Note:

26.Aug.2009

RX: TETANUS TOXOID 1.0 ml IM for 1 dose. (1630108A) (SCW)

Purpose: annual booster

Prescription Data >>

Starting date: 26.Aug.2009

Drug: TETANUS TOXOID 1.0 ml IM
Formulation: injectable
Prescribed by: SCW (26.Aug.2009)

Bottle/Lot #: 1630108A
Filled by: SCW (26.Aug.2009)
Treatment weight: 3604 kg

Daily Treatment Notes >>

| Date | Time | Success | By | Comments |
|-------------|------|---------|----|----------|
| 26.Aug.2009 | : | 100% | MF | |

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

| | | |
|---|------------------------------|-----------------------------------|
| LOXODONTA AFRICANA AFRICANA South African bush elephant Name: CINDA/MZURI | Sex: Female Age: 38Y Est. | Acc. #: CM20 Birth: 3.Sep.1971 |
|---|------------------------------|-----------------------------------|

Collection Information >>

Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3604 Kg on 7.Aug.2009
 Manual restraint used.

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

Comments >>

SCZoo-Clinic
 HM2 Machine Results:
 Mode: Dog

| | | |
|------|-------|---------------------|
| WBC | 7.06 | 10 ⁹ /l |
| LYM | 0.15 | 10 ⁹ /l |
| MON | 0.05 | 10 ⁹ /l |
| GRA | 7.66 | 10 ⁹ /l |
| LY% | 1.9 | % |
| MO% | 0.7 | % |
| GR% | 97.5 | % |
| RBC | 2.32 | 10 ¹² /l |
| HGB | 12.4 | g/dl |
| HCT | 29.44 | % |
| MCV | 127 | fl |
| MCH | 53.3 | pg |
| MCHC | 42.1 | g/dl |
| RDWc | 16.9 | % |
| PLT | 41 | 10 ⁹ /l |
| PCT | 0.02 | % |
| MPV | 6.0 | fl |
| PDWc | 27.2 | % |

(SCZ-Clinic)

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

ELECM20
Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3528 kg on 8.Sep.2009
Manual restraint used.

Date of Collection: 2.Nov.2009
Time of Collection: :
Collected by: MF
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>
Anticoagulant: EDTA
Storage: Refrigerated (>48 hours)
Sample Quality: No quality problems.

Laboratory: HM-2
Date of Analysis: 5.Nov.2009
Time of Analysis: 9:00
Analysis by: MES
Automated analysis.

Tests and Results >>

| | | |
|----------|-------|-------------|
| HM2-GR% | 98.3 | % (%) |
| HM2-GRA | 13.04 | % (*10^9/L) |
| HM2-LY% | 1.0 | % (%) |
| HM2-LYM | 0.13 | % (*10^9/L) |
| HM2-MO% | 0.7 | % (%) |
| HM2-MON | 0.09 | % (*10^9/L) |
| HM2-HCT | 37.57 | % |
| HM2-HGB | 16.7 | G/DL |
| HM2-MCH | 53.9 | PG |
| HM2-MCHC | 44.5 | G/DL |
| HM2-MCV | 121 | FL |
| HM2-MPV | 5.9 | FL |
| HM2-PCT | 0.09 | % |
| HM2-PDWC | 27.9 | % |
| HM2-PLT | 151 | *10^9/L |
| HM2-RBC | 3.10 | *10^12/L |
| HM2-RDWC | 17.6 | % |
| HM2-WBC | 13.27 | *10^9/L |

Comments >>

HM2 Machine:
Mode: Dog
(SCZ-clinic)

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 374 -

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

ELECM20

Parasitology Examination:

Submission Data >>

Type: Fecal sample
Purpose: ROUTINE EXAMINATION

Sample id.: 2009-0763
Date collected: 4.Nov.2009
Collected by: AH

Collected from:
Group of specimens housed together.

Enclosure: VBD EX4

Examination Data >>

Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 5.Nov.2009
by: MES

Tests & Results >>

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN
FLOATATION - NA NITRATE NO PARASITES SEEN

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 375 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

| | | |
|-----------------------------|---------------|-------------------|
| LOXODONTA AFRICANA AFRICANA | Sex: Female | Acc. #: CM20 |
| South African bush elephant | Age: 38Y Est. | Birth: 3.Sep.1971 |
| Name: CINDA/MZURI | | |

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours

Date of Collection: 7.Dec.2009
Time of Collection: 13:45.0
Collected by: MF

ELECM20

Activity: Calm
Weight: 3393 Kg on 6.Nov.2009
Manual restraint used.

Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

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

Laboratory: HM-2
Date of Analysis: 7.Dec.2009
Time of Analysis:
Analysis by: MES
Automated analysis.

Tests and Results >>

| | | |
|----------|-------|-------------|
| HM2-GR% | 93.0 | % (%) |
| HM2-GRA | 10.36 | % (*10^9/L) |
| HM2-LY% | 0.3 | % (%) |
| HM2-LYM | 0.03 | % (*10^9/L) |
| HM2-MO% | 6.7 | % (%) |
| HM2-MON | 0.74 | % (*10^9/L) |
| HM2-HCT | 31.47 | % |
| HM2-HGB | 14.2 | G/DL |
| HM2-MCH | 57.6 | PG |
| HM2-MCHC | 45.0 | G/DL |
| HM2-MCV | 128 | FL |
| HM2-MPV | 5.5 | FL |
| HM2-PCT | 0.03 | % |
| HM2-PDWC | 25.8 | % |
| HM2-PLT | 59 | *10^9/L |
| HM2-RBC | 2.46 | *10^12/L |
| HM2-RDWC | 16.4 | % |
| HM2-WBC | 11.13 | *10^9/L |

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 376 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3393 Kg on 6.Nov.2009
Manual restraint used.

Date of Collection: 7.Dec.2009
Time of Collection: 13:45.0
Collected by: MF
Sample Collection Site: EAR VEIN

ELECM20

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum

Storage: Fresh

Sample Quality: No quality problems.

Laboratory: SCZ-CLINIC
 Date of Analysis: 7.Dec.2009
 Time of Analysis: 15:30
 Analysis by: MES
 Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|--------|-------|
| GLUCOSE | 80 | MG/DL |
| BLOOD UREA NITROGEN | << 2.2 | MG/DL |
| CREATININE | < 0.9 | MG/DL |
| BUN/creatinine ratio | 2.44 | |
| URIC ACID | <1.0 | MG/DL |
| CALCIUM | 10.9 | MG/DL |
| PHOSPHORUS | 4.9 | MG/DL |
| calcium/phosphorus ratio | 2.22 | |
| CHOLESTEROL | 54 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | > 8.9 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 3.0 | GM/DL |
| GLOBULIN (COLORIMETRY) | >> 5.8 | GM/DL |
| albumin/globulin ratio | 0.517 | |
| ASPARTATE AMINOTRANSFERASE | 28 | IU/L |
| ALANINE AMINOTRANSFERASE | 2 | IU/L |
| TOTAL BILIRUBIN | 0.1 | MG/DL |
| AMYLASE | < 1352 | U/L |
| ALKALINE PHOSPHATASE | < 62 | IU/L |
| CREATINE PHOSPHOKINASE | 207 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.5 | GM/DL |
| BUN/CREATININE RATIO | 2.4 | MG/DL |
| GAMMA GLUTAMYLTRANSFERASE | 8 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 377 -

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
 South African bush elephant
 Name: CINDA/MZURI

Sex: Female
 Age: 38Y Est.

Acc. #: CM20
 Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3393 Kg on 6.Nov.2009
 Manual restraint used.

Date of Collection: 4.Jan.2010
 Time of Collection: 13:15.0
 Collected by: MF
 Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
 Storage: Fresh

Laboratory: HM-2
 Date of Analysis: 4.Jan.2010
 Time of Analysis: 15:00

ELECM20

Sample quality: No quality problems.

Analysis by: MES
Automated analysis.

Tests and Results >>

| | | |
|----------|-------|-------------|
| HM2-GR% | 91.7 | % (%) |
| HM2-GRA | 7.57 | % (*10^9/L) |
| HM2-LY% | 1.0 | % (%) |
| HM2-LYM | 0.08 | % (*10^9/L) |
| HM2-MO% | 7.3 | % (%) |
| HM2-MON | 0.61 | % (*10^9/L) |
| HM2-HCT | 28.71 | % |
| HM2-HGB | 12.5 | G/DL |
| HM2-MCH | 56.1 | PG |
| HM2-MCHC | 43.5 | G/DL |
| HM2-MCV | 129 | FL |
| HM2-MPV | 5.9 | FL |
| HM2-PCT | 0.03 | % |
| HM2-PDWC | 27.9 | % |
| HM2-PLT | 49 | *10^9/L |
| HM2-RBC | 2.22 | *10^12/L |
| HM2-RDWC | 16.4 | % |
| HM2-WBC | 8.26 | *10^9/L |

Comments >>

HM2 Machine
Mode: Dog

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 378 -

Clinical Pathology Records - Specimen Report
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: CINDA/MZURI

Sex: Female
Age: 38Y Est.

Acc. #: CM20
Birth: 3.Sep.1971

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3393 Kg on 6.Nov.2009
Manual restraint used.

Date of Collection: 1.Feb.2010
Time of Collection: 13:45.0
Collected by: MF
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

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

Laboratory: HM-2
Date of Analysis: 1.Feb.2010
Time of Analysis: 14:30
Analysis by: MES
Automated analysis.

Tests and Results >>

| | | |
|----------|-------|-------------|
| ELECM20 | | |
| HM2-GR% | 98.4 | % (%) |
| HM2-GRA | 9.38 | % (*10^9/L) |
| HM2-LY% | 1.0 | % (%) |
| HM2-LYM | 0.10 | % (*10^9/L) |
| HM2-MO% | 0.6 | % (%) |
| HM2-MON | 0.06 | % (*10^9/L) |
| HM2-HCT | 29.29 | % |
| HM2-HGB | 14.7 | G/DL |
| HM2-MCH | 64.2 | PG |
| HM2-MCHC | 50.2 | G/DL |
| HM2-MCV | 128 | FL |
| HM2-MPV | 5.6 | FL |
| HM2-PCT | 0.04 | % |
| HM2-PDWC | 25.8 | % |
| HM2-PLT | 71 | *10^9/L |
| HM2-RBC | 2.29 | *10^12/L |
| HM2-RDWC | 15.9 | % |
| HM2-WBC | 9.54 | *10^9/L |

Comments >>
 HM2 Machine
 Mode: Dog

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010 /ISIS/MedARKS/5.54.a

Clinical Pathology Records - Specimen Report
 SEDGWICK COUNTY ZOO

- page 379 -

| | | |
|---|------------------------------|-----------------------------------|
| LOXODONTA AFRICANA AFRICANA South African bush elephant Name: CINDA/MZURI | Sex: Female Age: 38Y Est. | Acc. #: CM20 Birth: 3.Sep.1971 |
|---|------------------------------|-----------------------------------|

| | |
|--|---|
| Collection Information >> Health Status: Normal Fasting Time: < 8 hours Activity: Calm weight: 3393 Kg on 6.Nov.2009 Manual restraint used. | Date of Collection: 1.Feb.2010 Time of Collection: 13:45.0 Collected by: MF Sample Collection Site: EAR VEIN |
|--|---|

| | |
|---|--|
| Chemistry >> Analysis Information >> Chemistry Sample: Serum Storage: Refrigerated (<48 hours) Sample Quality: No quality problems. | Laboratory: SCZ-CLINIC Date of Analysis: 2.Feb.2010 Time of Analysis: 11:05 Analysis by: MES Automated analysis. |
|---|--|

Tests and Results >>

| | | |
|---------------------|-------|-------|
| GLUCOSE | 75 | MG/DL |
| BLOOD UREA NITROGEN | <2.0 | MG/DL |
| CREATININE | < 0.8 | MG/DL |
| URIC ACID | <1.0 | MG/DL |

| | | | | |
|--|-----------------------------|----|-------|-------|
| | ELECM20 | | | |
| | CALCIUM | < | 10.0 | MG/DL |
| | PHOSPHORUS | | 4.9 | MG/DL |
| | calcium/phosphorus ratio | | 2.04 | |
| | CHOLESTEROL | < | 50 | MG/DL |
| | TOTAL PROTEIN (COLORIMETRY) | > | 8.6 | GM/DL |
| | ALBUMIN (COLORIMETRY) | < | 2.9 | GM/DL |
| | GLOBULIN (COLORIMETRY) | >> | 5.7 | GM/DL |
| | albumin/globulin ratio | | 0.509 | |
| | ASPARTATE AMINOTRANSFERASE | | 30 | IU/L |
| | ALANINE AMINOTRANSFERASE | | 4 | IU/L |
| | TOTAL BILIRUBIN | < | 0.1 | MG/DL |
| | AMYLASE | < | 1169 | U/L |
| | ALKALINE PHOSPHATASE | | 72 | IU/L |
| | CREATINE PHOSPHOKINASE | | 194 | IU/L |
| | ALBUMIN GLOBULIN RATIO | | 0.5 | GM/DL |
| | GAMMA GLUTAMYLTRANSFERASE | | 7 | IU/L |

ISIS reference values are for LOXODONTA AFRICANA
 Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 380 -

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

Scientific name: LOXODONTA AFRICANA
 Common Name: African elephant

| | | ISIS Values | | | | |
|-------------|----------------------|-------------|---------|-------|-------|--------|
| | | Mean | S.D. | Min. | Max. | (N) |
| WBC | *10 ³ /UL | 10.50 | + 2.648 | 4.500 | 22.10 | (1544) |
| RBC | *10 ⁶ /UL | 3.15 | + 0.40 | 2.05 | 4.80 | (1480) |
| HGB | MG/DL | 13.7 | + 1.6 | 7.0 | 26.1 | (1522) |
| HCT | % | 39.5 | + 4.6 | 27.0 | 56.0 | (1984) |
| MCH | MG/DL | 43.6 | + 3.0 | 34.8 | 66.8 | (1454) |
| MCHC | ug | 34.7 | + 2.0 | 18.4 | 57.9 | (1501) |
| MCV | fL | 125.8 | + 8.1 | 91.1 | 190.0 | (1466) |
| SEGS | *10 ³ /UL | 3.146 | + 1.695 | 0.000 | 11.80 | (1224) |
| BANDS | *10 ³ /UL | 0.843 | + 0.799 | 0.000 | 6.530 | (605) |
| LYMPHOCYTES | *10 ³ /UL | 4.913 | + 2.532 | 0.022 | 17.40 | (1236) |
| MONOCYTES | *10 ³ /UL | 1.513 | + 1.651 | 0.000 | 9.480 | (1175) |
| EOSINOPHILS | *10 ³ /UL | 0.225 | + 0.273 | 0.000 | 2.898 | (885) |
| BASOPHILS | *10 ³ /UL | 0.049 | + 0.081 | 0.000 | 0.525 | (464) |
| NRBC | /100 WBC | 0 | + 1 | 0 | 3 | (92) |
| PLATE. CNT. | *10 ³ /UL | 417 | + 245 | 74 | 1380 | (215) |
| RETICS | % | 0.0 | + 0.0 | 0.0 | 0.0 | (7) |
| GLUCOSE | MG/DL | 84 | + 15 | 38 | 174 | (1437) |
| BUN | MG/DL | 10 | + 3 | 0 | 22 | (1458) |
| CREAT. | MG/DL | 1.5 | + 0.5 | 0.0 | 11.0 | (1405) |

| | | ELECM20 | | | | |
|--------------|--------|---------|------|------|------|--------|
| URIC ACID | MG/DL | 0.2 + | 0.4 | 0.0 | 5.1 | (466) |
| CA | MG/DL | 10.9 + | 0.6 | 8.1 | 15.3 | (1434) |
| PHOS | MG/DL | 4.9 + | 0.8 | 2.8 | 8.2 | (1291) |
| NA | MEQ/L | 129 + | 4 | 107 | 182 | (1353) |
| K | MEQ/L | 4.8 + | 0.5 | 3.3 | 7.6 | (1368) |
| CL | MEQ/L | 88 + | 4 | 67 | 129 | (1323) |
| IRON | MCG/DL | 79 + | 42 | 8 | 174 | (54) |
| MG | MG/DL | 1.97 + | 0.75 | 0.65 | 4.20 | (98) |
| HCO3 | MMOL/L | 25.1 + | 3.6 | 13.0 | 31.0 | (44) |
| CHOL | MG/DL | 68 + | 17 | 0 | 234 | (1290) |
| TRIG | MG/DL | 64 + | 31 | 0 | 179 | (1124) |
| T.PROT. (C) | GM/DL | 7.7 + | 0.6 | 5.8 | 10.5 | (1261) |
| T.PROT. (R) | GM/DL | 8.0 + | 0.4 | 7.4 | 8.6 | (8) |
| ALBUMIN (C) | GM/DL | 3.6 + | 0.4 | 2.4 | 5.2 | (1145) |
| GLOBULIN (C) | GM/DL | 4.1 + | 0.5 | 2.6 | 6.4 | (1135) |
| AST (SGOT) | IU/L | 24 + | 10 | 6 | 93 | (1398) |
| ALT (SGPT) | IU/L | 7 + | 6 | 0 | 40 | (547) |
| T. BILI. | MG/DL | 0.2 + | 0.1 | 0.0 | 1.0 | (1187) |
| D. BILI | MG/DL | 0.1 + | 0.1 | 0.0 | 0.3 | (154) |
| I. BILI. | MG/DL | 0.1 + | 0.1 | 0.0 | 0.9 | (152) |
| AMYLASE | U/L | 3075 + | 1552 | 0 | 7918 | (241) |
| ALK.PHOS. | IU/L | 128 + | 61 | 32 | 441 | (1404) |
| LDH | IU/L | 988 + | 568 | 157 | 4306 | (1099) |

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

- page 381 -

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

Scientific name: LOXODONTA AFRICANA
Common Name: African elephant

| | | ISIS Values | | | | |
|-------------------|----------|-------------|-------|-------|-------|-------|
| | | Mean | S.D. | Min. | Max. | (N) |
| CPK | IU/L | 256 + | 196 | 18 | 1884 | (247) |
| OSMOLARITY | MOSMOL/L | 259 + | 4 | 246 | 272 | (689) |
| ALPHA GLOB. | MG/DL | 0.7 + | 0.0 | 0.7 | 0.7 | (1) |
| ALPHA-1 GLOB | MG/DL | 0.7 + | 0.2 | 0.2 | 0.8 | (8) |
| ALPHA-2 GLOB | MG/DL | 1.0 + | 0.3 | 0.8 | 1.6 | (8) |
| BETA GLOB. | MG/DL | 1.2 + | 0.8 | 0.6 | 1.7 | (2) |
| Body Temperature: | | 39.0 + | 0.0 | 39.0 | 39.0 | (1) |
| CO2 | MMOL/L | 27.0 + | 3.1 | 12.0 | 61.4 | (840) |
| ESR | MM/HR | 27 + | 0 | 27 | 27 | (1) |
| FIBRINOGEN | MG/DL | 238 + | 139 | 0 | 600 | (70) |
| GGT | IU/L | 12 + | 5 | 0 | 37 | (389) |
| LIPASE | U/L | 7 + | 7 | 0 | 45 | (66) |
| PROGESTERONE | NG/DL | 144.8 + | 216.4 | 0.060 | 1005 | (266) |
| TESTOSTERONE | NG/ML | 1.010 + | 1.117 | 0.220 | 1.800 | (2) |
| TOTAL T4 | MCG/DL | 8.2 + | 1.3 | 6.9 | 9.5 | (3) |
| T3 (RIA) | NG/ML | 209.0 + | 0.0 | 209.0 | 209.0 | (1) |
| ALBUMIN (E) | GM/DL | 4.4 + | 0.3 | 4.1 | 4.9 | (7) |
| GAMMA GLOB | GM/DL | 1.6 + | 0.4 | 0.7 | 1.9 | (7) |

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

Weight Records Report - Individual Specimen
 SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA
 South African bush elephant
 Name: CINDA/MZURI

Sex: Female

Acc. #: CM20

Birth: 3.Sep.1971

| Date | Weight | Age | Change | Overall |
|---------------|-------------------|-------------|------------|---------|
| 1. Jan. 1983 | 2223 Kg (4901 Lb) | 11.3 Y Est. | | |
| 1. Jan. 1984 | 2218 Kg (4890 Lb) | 12.3 Y Est. | Down: 0.2% | (0.2%) |
| 1. Jul. 1985 | 2880 Kg (6349 Lb) | 13.8 Y Est. | Up: 29.8% | +29.6% |
| 1. Jun. 1987 | 3243 Kg (7150 Lb) | 15.7 Y Est. | Up: 12.6% | +45.9% |
| 1. Jul. 1988 | 3493 Kg (7701 Lb) | 16.8 Y Est. | Up: 7.7% | +57.1% |
| 1. Oct. 1989 | 3675 Kg (8102 Lb) | 18.1 Y Est. | Up: 5.2% | +65.3% |
| 1. Sep. 1990 | 3833 Kg (8450 Lb) | 19.0 Y Est. | Up: 4.3% | +72.4% |
| 7. Sep. 1991 | 3810 Kg (8400 Lb) | 20.0 Y Est. | Down: 0.6% | +71.4% |
| 20. Sep. 1992 | 3810 Kg (8400 Lb) | 21.0 Y Est. | unchanged | +71.4% |
| 17. Oct. 1995 | 3856 Kg (8501 Lb) | 24.1 Y Est. | Up: 1.2% | +73.5% |
| 31. Mar. 1997 | 4055 Kg (8940 Lb) | 25.6 Y Est. | Up: 5.2% | +82.4% |
| 31. Jul. 1998 | 4173 Kg (9200 Lb) | 26.9 Y Est. | Up: 2.9% | +87.7% |
| 30. Jul. 1999 | 4120 Kg (9083 Lb) | 27.9 Y Est. | Down: 1.3% | +85.3% |
| 31. Jul. 1999 | 4121 Kg (9085 Lb) | 27.9 Y Est. | Up: 0.0% | +85.4% |
| 28. Jul. 2000 | 3789 Kg (8353 Lb) | 28.9 Y Est. | Down: 8.1% | +70.4% |
| 27. Jul. 2001 | 3615 Kg (7970 Lb) | 29.9 Y Est. | Down: 4.6% | +62.6% |
| 5. Oct. 2001 | 3629 Kg (8000 Lb) | 30.1 Y Est. | Up: 0.4% | +63.2% |
| 6. Aug. 2002 | 3645 Kg (8036 Lb) | 30.9 Y Est. | Up: 0.4% | +64.0% |
| 9. Aug. 2002 | 3590 Kg (7915 Lb) | 30.9 Y Est. | Down: 1.5% | +61.5% |
| 6. Sep. 2002 | 3579 Kg (7890 Lb) | 31.0 Y Est. | Down: 0.3% | +61.0% |
| 16. May. 2003 | 3450 Kg (7606 Lb) | 31.7 Y Est. | Down: 3.6% | +55.2% |
| 8. Aug. 2003 | 3473 Kg (7657 Lb) | 31.9 Y Est. | Up: 0.7% | +56.2% |
| 10. Feb. 2004 | 3453 Kg (7612 Lb) | 32.4 Y Est. | Down: 0.6% | +55.3% |
| 10. Jul. 2004 | 3420 Kg (7540 Lb) | 32.9 Y Est. | Down: 1.0% | +53.8% |
| 25. Aug. 2004 | 3401 Kg (7498 Lb) | 33.0 Y Est. | Down: 0.6% | +53.0% |
| 23. Oct. 2004 | 3296 Kg (7266 Lb) | 33.1 Y Est. | Down: 3.1% | +48.3% |
| 4. Dec. 2004 | 3434 Kg (7571 Lb) | 33.3 Y Est. | Up: 4.2% | +54.5% |
| 31. May. 2005 | 3481 Kg (7674 Lb) | 33.7 Y Est. | Up: 1.4% | +56.6% |
| 1. Nov. 2005 | 3189 Kg (7030 Lb) | 34.2 Y Est. | Down: 8.4% | +43.5% |
| 23. Dec. 2005 | 3202 Kg (7059 Lb) | 34.3 Y Est. | Up: 0.4% | +44.0% |

ELECM20

| | | | | |
|---------------|-------------------|-------------|------------|--------|
| 6. Jan. 2006 | 3326 Kg (7333 Lb) | 34.3 Y Est. | Up: 3.9% | +49.6% |
| 10. Feb. 2006 | 3325 Kg (7330 Lb) | 34.4 Y Est. | Down: 0.0% | +49.6% |
| 23. Mar. 2006 | 3345 Kg (7374 Lb) | 34.6 Y Est. | Up: 0.6% | +50.5% |
| 25. Apr. 2006 | 3386 Kg (7465 Lb) | 34.6 Y Est. | Up: 1.2% | +52.3% |
| 31. May. 2006 | 3445 Kg (7595 Lb) | 34.7 Y Est. | Up: 1.7% | +55.0% |
| 20. Jun. 2006 | 3488 Kg (7690 Lb) | 34.8 Y Est. | Up: 1.2% | +56.9% |
| 24. Jul. 2006 | 3449 Kg (7604 Lb) | 34.9 Y Est. | Down: 1.1% | +55.2% |
| 18. Aug. 2006 | 3438 Kg (7579 Lb) | 35.0 Y Est. | Down: 0.3% | +54.7% |
| 17. Oct. 2006 | 3275 Kg (7220 Lb) | 35.1 Y Est. | Down: 4.7% | +47.3% |
| 30. Nov. 2006 | 3300 Kg (7275 Lb) | 35.2 Y Est. | Up: 0.8% | +48.4% |
| 19. Dec. 2006 | 3284 Kg (7240 Lb) | 35.3 Y Est. | Down: 0.5% | +47.7% |
| 19. Jan. 2007 | 3305 Kg (7286 Lb) | 35.4 Y Est. | Up: 0.6% | +48.7% |
| 20. Mar. 2007 | 3345 Kg (7374 Lb) | 35.5 Y Est. | Up: 1.2% | +50.5% |
| 30. Apr. 2007 | 3447 Kg (7599 Lb) | 35.7 Y Est. | Up: 3.0% | +55.1% |
| 2. Jul. 2007 | 3407 Kg (7511 Lb) | 35.8 Y Est. | Down: 1.2% | +53.3% |

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

Weight Records Report - Individual Specimen
SEDGWICK COUNTY ZOO

LOXODONTA AFRICANA AFRICANA Sex: Female Acc. #: CM20
South African bush elephant Birth: 3.Sep.1971
Name: CINDA/MZURI

| Date | Weight | Age | Change | Overall |
|---------------|-------------------|-------------|------------|---------|
| 10. Aug. 2007 | 3520 Kg (7760 Lb) | 35.9 Y Est. | Up: 3.3% | +58.3% |
| 24. Sep. 2007 | 3506 Kg (7729 Lb) | 36.1 Y Est. | Down: 0.4% | +57.7% |
| 5. Nov. 2007 | 3366 Kg (7421 Lb) | 36.2 Y Est. | Down: 4.0% | +51.4% |
| 3. Dec. 2007 | 3343 Kg (7370 Lb) | 36.3 Y Est. | Down: 0.7% | +50.4% |
| 7. Jan. 2008 | 3412 Kg (7522 Lb) | 36.3 Y Est. | Up: 2.1% | +53.5% |
| 4. Feb. 2008 | 3451 Kg (7608 Lb) | 36.4 Y Est. | Up: 1.1% | +55.2% |
| 4. Mar. 2008 | 3498 Kg (7712 Lb) | 36.5 Y Est. | Up: 1.4% | +57.4% |
| 7. Apr. 2008 | 3381 Kg (7454 Lb) | 36.6 Y Est. | Down: 3.3% | +52.1% |
| 5. May. 2008 | 3418 Kg (7535 Lb) | 36.7 Y Est. | Up: 1.1% | +53.8% |
| 17. Jun. 2008 | 3599 Kg (7934 Lb) | 36.8 Y Est. | Up: 5.3% | +61.9% |
| 5. Jul. 2008 | 3691 Kg (8137 Lb) | 36.8 Y Est. | Up: 2.6% | +66.0% |
| 8. Aug. 2008 | 3677 Kg (8106 Lb) | 36.9 Y Est. | Down: 0.4% | +65.4% |
| 1. Sep. 2008 | 3663 Kg (8075 Lb) | 37.0 Y Est. | Down: 0.4% | +64.8% |
| 6. Oct. 2008 | 3588 Kg (7910 Lb) | 37.1 Y Est. | Down: 2.0% | +61.4% |
| 3. Nov. 2008 | 3338 Kg (7359 Lb) | 37.2 Y Est. | Down: 7.0% | +50.2% |
| 1. Dec. 2008 | 3451 Kg (7608 Lb) | 37.2 Y Est. | Up: 3.4% | +55.2% |
| 5. Jan. 2009 | 3437 Kg (7577 Lb) | 37.3 Y Est. | Down: 0.4% | +54.6% |
| 30. Jun. 2009 | 3654 Kg (8056 Lb) | 37.8 Y Est. | Up: 6.3% | +64.4% |
| 7. Aug. 2009 | 3604 Kg (7945 Lb) | 37.9 Y Est. | Down: 1.4% | +62.1% |
| 8. Sep. 2009 | 3528 Kg (7778 Lb) | 38.0 Y Est. | Down: 2.1% | +58.7% |
| 6. Nov. 2009 | 3393 Kg (7480 Lb) | 38.2 Y Est. | Down: 3.8% | +52.6% |

Average: 3473 Kg (7657 Lb)

ELECM20

Printed on: 8.Feb.2010

/ISIS/MedARKS/5.54.a

00