

Report Start Date
1/1/1900

Specimen Report for ASHEBORO / 1771

Report End Date
8/21/2008

Taxonomic name: *Loxodonta africana*

Family: Elephantidae

Common name: African elephant

Order: Proboscidea

Current information

Sex:	Female	Sire ID:	WILD at AFRICAN REGION
Birth type:	Wild Born	Dam ID:	WILD at AFRICAN REGION
Birth Location:	AFRICAN REGION	Rearing:	Unknown
Birthdate-Age:	~ 1978 - 30Y,7M,19D +/-1 Yr.	Hybrid:	Not a hybrid
Time since last Acq:	0Y,9M,24D as of report end date		

<u>Date in</u>	<u>Acquisition - Vendor/local Id</u>	<u>Holder</u>	<u>Disposition - Recipient/local Id</u>	<u>Date out</u>
28 Oct 2007	Purchase from RIDDLES / TONGA	ASHEBORO / 1771		

<u>Date</u>	<u>Identifier type</u>	<u>Identifier</u>	<u>Location</u>
28 Oct 2007	Regional Studbook #	165	AZA
28 Oct 2007	House Name	TONGA	

<u>Date</u>	<u>Type</u>	<u>Value</u>	<u>Units</u>	
23 Sep 2007	live animal weight	3913.6	kilogram	weighed at Riddle's Elephant and Wildlife Sanctuary
15 Jul 2008	live animal weight	3513.6	kilogram	

<u>Date</u>	<u>Note type</u>	
28 Oct 2007	Acquisition note	<p>Purchased from Riddles Elephant Sanctuary, P.O. Box 715, Greenbrier, AR 72058. Picked up from Riddles and driven by truck to zoo by Eddie Novak. Arrived safely.</p> <p>This comment was added to the following specimens: 1771, 1772.</p>
29 Oct 2007	Fecal check/worming	<p>Results of 1st quarantine group fecal sample submitted were negative.</p> <p>This comment was added to the following specimens: 1771, 1772.</p>
2 Nov 2007	Fecal check/worming	<p>Results of 2nd quarantine fecal sample submitted were negative.</p>
13 Nov 2007	Fecal check/worming	<p>Results of 3rd quarantine fecal sample submitted were negative.</p>
29 Nov 2007	Reproductive behavior	<p>Showing pink@ vulva area in pm.</p>
1 Dec 2007	INTRODUCTION	<p>Introductions: 1771/1772 locked in north paddock while 1768 brought over and given access from stall beside ERD site up to maternity stall and over into her night stall and paddock; also roll up garage door was opened to allow visual contact; 1768 was calm/relaxed, when first saw 1771 thru garage door she squatted/urinated, 1768 again seemed to want to stay and be where she can see other elephants. A few rumbles out of both 1768 and 1771. 1768 left over in five stall ~45 min, then brought back to her night stall and paddock and 1771/1772 brought inside.</p> <p>This comment was added to the following specimens: 1768, 1771, 1772.</p>
2 Dec 2007	INTRODUCTION	<p>Moved 1768 over to 1771/1772's stall while they were closed in their paddock for a visual howdy for 1 hr.. Good, calm responses.</p> <p>This comment was added to the following specimens: 1768, 1771, 1772.</p>
6 Dec 2007	INTRODUCTION	<p>Intros: 1768 given visual access with 1771/1772 for a couple hours this morning - 1768 squatted/urinated when she first saw 1771/1772, but all were calm otherwise throughout "howdy".</p>
10 Dec 2007	INTRODUCTION	<p>INTRODUCTION: 1771/1772 locked in paddock EBNPAD1 while 1768 brought over and into EBNPAD2 and given access to EBST3; 1771/1772 given access to EBST1; several interactions at mesh gate A1 also they had visuals in barn left like this for 2 1/2 hours.</p>
13 Dec 2007	INTRODUCTION	<p>Intros: 1771/1772 in EBNPAD1 and 1768 in EBNPAD2. Both had access into barn. Went well, did see trunk touches through mesh.</p>

17 Dec 2007	INTRODUCTION	<p>INTRODUCTION: as temperatures were low, 1771/1772 were brought to EBST3 and 1768 brought over to EBST1 for more visual and allow cleaning of EBST7; no noteworthy behaviors observed.</p> <p>This comment was added to the following specimens: 1768, 1771, 1772.</p>
10 Jan 2008	Reproductive behavior	<p>Had clear vaginal discharge in pm.</p>
14 Jan 2008	Reproductive behavior	<p>Observed in am with clear vaginal discharge again.</p>
28 Feb 2008	INTRODUCTION	<p>INTROS - 1771/1772 shifted to EBST3 before bringing 1771 back to EBST2 for howdy w/ 1768 in EBST1. No immediate response from either cow until they spotted each other. At that time 1768 turned, screamed and retreated back to EBST7. 1768 was reluctant to approach again but did not show any signs of distress like contortions or displacement towards keepers. 1771 remained calm for the most part and 1768 remained at a distance even after 1772 was added to the equation. 1771/1772 shifted back about 15min later to EBST3 w/ out incident while 1768 remained in EBST1 for remainder of day and continued to display calm demeanor.</p>
29 Feb 2008	INTRODUCTION	<p>Intros: 1768 given stall (EBST1) adjacent to 1771 (in EBST2). (1772 in EBST3). 1768 did better today, spent a little more time in stall before going back to EBST7. Backed up a few times, urinated and defecated, was very submissive. Still did not get close enough to touch/be touched by 1771.</p>
3 Apr 2008	INTRODUCTION	<p>INTROS: 1771/1772 put on exhibit in South before all others. 1611 and 1367 came out shortly after. 1611 was running and trumpeting along the the south exhibit side with 1367 following her. 1771 ran over with ears flared and also trumpeted. 1367 turned her back right away but 1611 stood tall with ears flared. Both stood with ears flared looking at each other. 1771 did turn and run back towards gate. 1611 and 1367 just stood with ears flared and then started to run back and forth again trumpeting. 1771 then came back over with ears flared and started grazing near North exhibit. 1771 went back to look for 1772 which was up by the gate. She then ran back over towards 1611 and 1367 they both turned backs to 1771. 1367 also did a head stand at one point and 1771 did a head stand and tusked the ground once. When 27 came out everything calmed down and 1771 did eat along the North exhibit. Overall good interactions observed.</p> <p>This comment was added to the following specimens: 1367, 1611, 1771, 1772.</p>
24 Apr 2008	INTRODUCTION	<p>INTRODUCTIONS: 1771/1772 held in ENBPAD1 while 1768 held in EBNPAD2 and doors A4, B4, B3, B2, A2 were opened; 1771/1772 allowed to go over into EBNPAD2, 1768 screamed and ran into barn; for ~30 min all elephants just kept circling in the run around. 1768 VERY subordinate to both 1771/1772, a couple times 1771/1772 got seperated and 1768 and 1772 found each other in stall inside the barn but 1768 very deferential to 1772. 1771 took a couple of jabs at 1768 once in the buttocks and once in the side as she caught 1768 against paddock bars but after about 45 minute mark all started calming down. 1772 was very interested in 1768, following her constantly; eventually 1768 allowed 1772 to approach and then 1771 approach and some very good interactions were noted at about the 1 hour mark. It was determined to close both doors from paddocks to stalls and some small browse was given. After browse was eaten by 1771/1772, 1771 really picked up aggression toward 1768, deliberately working 1768 into a corner then jabbing w/tusks in buttock in EBNPAD2, pinning 1768 against log in corner of EBNPAD2, getting 1768 cornered in EBNPAD1 and jabbing several times with tusks. (Fortunately, 1771's tusks were recently filed blunt and evened out.) After elephants were broken up they were seperated and session called off. 1768 retained some superficial scrapes but no other injury noted, elephants were seperated but all allowed access to the barn (until after lunch - 1771/1772 locked out to clean/setup) 1768 would come into barn as long as 1771 was not in barn, 1768 would exit barn when 1771 came into barn. 1768 given access to EBST2/3 plus EBNPAD2 for the night, 1771/1772 given access to EBST1 and EBNPAD1 for the night.</p>

25 Apr 2008	INTRODUCTION	Introductions - Continued from 4/24 - 1768 with 1771/1772 Initiated into same as 4/24 Did not introduce food or close off any area of "roundabout" 1772 again walked right up to 1768 and followed during most of intro period. 1768 had 3 - 4 interactions with 1771, all with good responses and no aggression observed. 1771 observed placing her trunk on 1768 rump at one point without any attached aggressive movements. Overall a much calmer intro, with no problems encountered. Intro was called after ~ 35 min. to end on a positive note - All returned to respective stalls/paddocks..
28 Apr 2008	INTRODUCTION	Introduction: 1771/1772 were introduced to 1768 today. They were together for 35 minutes. They were very excited to begin with lots of running and vocalizing. They quickly settled down. They spent some time near each other in the barn. 1768 showed submissive behavior. 1772 showed lots of interest in 1768. 1771 put her trunk and tusk on 1768, but did not hit hard or push much.
30 Apr 2008	INTRODUCTION	INTRODUCTIONS: 10:40-11:50 did same as yesterday for set up. Very little interaction between 1768 and 1771. 1768 and 1772 did spend time together in stall. 1771 was seen displacing aggression on pipeline ball and neither 1768 or 1772 were in sight. Very calm throughout entire intro. This comment was added to the following specimens: 1772, 1768, 1771.
19 Jun 2008	Medical note	Blood collection. Received 6 bananas and 3 potatoes per vets as potassium supplement UFN.
20 Jun 2008	Medical note	Rec'd 6 bananas and three potatoes for K+. This comment was added to the following specimens: 1367, 1611, 1768, 1771, 1772.
17 Jul 2008	Medical note	BLOOD COLLECTION
31 Jul 2008	Medical note	Routine blood draw.
8 Aug 2008	Fecal check/worming	Results of routine group fecal sample submitted were negative. This comment was added to the following specimens: 1771, 1772.

Date Enclosure

28 Oct 2007 EBST1 Into quarantine in new elephant barn.

Date Sex

28 Oct 2007 Female

Date Rearing

28 Oct 2007 Unknown

Date Parent(s) local Id Location

28 Oct 2007 Sire WILD AFRICAN

28 Oct 2007 Dam WILD AFRICAN

Medical History Report - Summary for Individual Specimen
NORTH CAROLINA ZOOLOGICAL PARK

Scientific Name: LOXODONTA AFRICANA (no subsp)	Accession #: 1771
Common Name: African elephant	Female
Name: TONGA	Birth: 1.Jan.1978 (Estimated)

.....2007....

23.Aug Blood sample: (EDTA) Hematology/Chemistry/Serology results.
WBC:5.80 *10³/UL; HCT: 36.0%; BUN:6 MG/DL;
Clinical note recorded. (U/A)

28.Oct Obtained from another institution.

29.Oct Parasitology examination: (QUARANTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN
Clinical note recorded. (RSD)

2.Nov Parasitology examination: (QUARANTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

3.Nov Clinical note recorded. (CUL)

12.Nov Clinical note recorded. (CUL)

13.Nov Parasitology examination: (QUARANTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

17.Nov Clinical note recorded. (CUL)

.....2008....

7.Feb Clinical note recorded. (RSD)

19.Jun Blood sample: (EDTA) (10:50.0) Hematology/Chemistry/Serology results.
WBC:8.52 *10³/UL; HCT: 37.9%; BUN:7 MG/DL;
Icterus

3.Jul Blood sample: (EDTA) (11:00.0) Hematology/Chemistry/Serology results.
WBC:8.60 *10³/UL; HCT: 36.0%; BUN:3 MG/DL;

8.Aug Blood sample: (EDTA) (10:00.0) Hematology/Chemistry/Serology results.
HCT: 40.0%; BUN:8 MG/DL;

9.Aug Clinical note recorded. (RSD)

13.Aug Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

E 1771.TXT

Printed on: 19.Aug.2008

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Scientific Name: LOXODONTA AFRICANA (no subsp)	Accession #: 1771
Common Name: African elephant	Female
Name: TONGA	Birth: 1.Jan.1978 (Estimated)

Clinical Note:

23.Aug.2007

<<< Urinalysis Report >>>

Laboratory:

Hanes Hospital
 NCSU-CVM
 Other

Collection Date: 8/23/07
Collection Time:
Submission Date:

Sample collection:

Sample Storage: REFRIGERATOR

Specific Gravity (Refractometer): 1.040

Urinalysis:

Multistix

Color: DARK YELLOW
Turbidity: CLOUDY
Glucose (mg/dl): NEG
Bilirubin: NEG
Ketone (mg/dl): NEG
Sp. Grav.: 1.025

Blood: NEG
pH: 8
Protein (mg/dl): NEG
Urobilinogen: 0.2
Nitrite: NEG
Leukocytes: NEG

Microscopic

Casts (10x): NONE
WBC (40x): NONE
RBC (40x): NONE
Epith. Cells (40x): NONE
Bacteria (40x): NONE
Crystals (40x): NONE
Other:

(U/A)

Printed on: 19.Aug.2008

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Clinical Pathology Records - Specimen Report
NORTH CAROLINA ZOOLOGICAL PARK

Scientific Name: LOXODONTA AFRICANA (no subsp)	Accession #: 1771
Common Name: African elephant	Female
Name: TONGA	Birth: 1.Jan.1978 (Estimated)
	Age: 30Y Est.

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Manual restraint used.

Date of Collection: 23.Aug.2007
 Time of Collection:
 Collected by:

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

Laboratory: NC ZOO
 Date of Analysis: 24.Aug.2007
 Time of Analysis: 15:00
 Analysis by: HSS
 Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	<	5.8		*10 ³ /UL
HEMATOCRIT	<	36		%
SEGMENTED NEUTROPHILS		38	(2.204)	% (*10 ³ /UL)
NEUTROPHILIC BANDS	<	0		% (*10 ³ /UL)
LYMPHOCYTES	<	28	(1.624)	% (*10 ³ /UL)
MONOCYTES		34	(1.972)	% (*10 ³ /UL)
EOSINOPHILS		0		% (*10 ³ /UL)
BASOPHILS		0		% (*10 ³ /UL)
PLATELET COUNT		ADEQ		*10 ³ /UL

Morphology Results >>

ANISOCYTOSIS MILD, FIBRINOGEN 1.0

Comments >>

slightly increased central pallor in some cells
anisocytosis - mild

Hemavet:

WBC 6.10, Ne 0.95, Ly 39.99, Mo 34.34, Eo 24.56, Ba 0.15.
RBC 3.02, HB 10.6, HCT 35.8, PLT 180, MCV 118.6, MCH 35.1, MCHC 29.6,
RDW 18.4, MPV 4.3, PDW 19.0.

E 1771.TXT

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 19.Aug.2008

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Clinical Pathology Records - Specimen Report
NORTH CAROLINA ZOOLOGICAL PARK

Scientific Name: LOXODONTA AFRICANA (no subsp)	Accession #: 1771
Common Name: African elephant	Female
Name: TONGA	Birth: 1.Jan.1978 (Estimated)
	Age: 30Y Est.

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Manual restraint used.

Date of Collection: 23.Aug.2007
Time of Collection:
Collected by:

Chemistry >>

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

Laboratory: NC ZOO
Date of Analysis: 24.Aug.2007
Time of Analysis: 14:17
Analysis by: HSS
Automated analysis.

Tests and Results >>

GLUCOSE	81	MG/DL
BLOOD UREA NITROGEN	< 6	MG/DL
CREATININE	1.7	MG/DL
BUN/creatinine ratio	3.53	
CALCIUM	11.2	MG/DL
SODIUM	> 135	MEQ/L
POTASSIUM	> 5.3	MEQ/L
sodium/potassium ratio	25.5	
CHLORIDE	>> 97	MEQ/L
TOTAL PROTEIN (COLORIMETRY)	7.3	GM/DL
TOTAL PROTEIN (REFRACTOMETER)	7.8	GM/DL
ALBUMIN (COLORIMETRY)	3.4	GM/DL
GLOBULIN (COLORIMETRY)	3.8	GM/DL
albumin/globulin ratio	0.895	
ASPARTATE AMINOTRANSFERASE	< 10	IU/L
TOTAL BILIRUBIN	<0.1	MG/DL
ALKALINE PHOSPHATASE	87	IU/L
LACTATE DEHYDROGENASE	1079	IU/L
CREATINE PHOSPHOKINASE	179	IU/L
GAMMA GLUTAMYLTRANSFERASE	< 6	IU/L

E 1771.TXT

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 19.Aug.2008

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Scientific Name: LOXODONTA AFRICANA (no subsp)	Accession #: 1771
Common Name: African elephant	Female
Name: TONGA	Birth: 1.Jan.1978 (Estimated)
	Age: 30Y Est.

Clinical Note: 29.Oct.2007

Observation:

This cow elephant was received from Riddle's elephant facility yesterday. She appears to be in good condition and suffering no ill effect from transport. She is eating, drinking, defecating and urinating normally since her arrival. We will continue to observe and evaluate her during her quarantine period. A more thorough examination and blood collection will be performed when her training reaches the point where she will allow it. (RSD)

Submission Data >>

Type: Fecal sample
Purpose: QUARANTINE EXAMINATION

Sample id.: 2007-0565
Date collected: 29.Oct.2007
Time collected: 9:00
Collected by: JWS

Collected from:

Group of specimens housed together.

Examination Data >>

Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 29.Oct.2007
at: 14:45
by: JFC

Tests & Results >>

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

Printed on: 19.Aug.2008

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Scientific Name: LOXODONTA AFRICANA (no subsp)	Accession #: 1771
Common Name: African elephant	Female
Name: TONGA	Birth: 1.Jan.1978 (Estimated)

Parasitology Examination:

Submission Data >>

Type: Fecal sample
Purpose: QUARANTINE EXAMINATION

Sample id.: 2007-0573
Date collected: 2.Nov.2007
Time collected: 12:00
Collected by: DC

Collected from:

From an individual specimen.

Examination Data >>

Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 2.Nov.2007
at: 14:36
by: CAP

Tests & Results >>

FLOATATION - NA NITRATE NO PARASITES SEEN

Clinical Note:

3.Nov.2007

Fecal culture, received 10/31, reported 11/3/07 (Antech):
No Campylobacter, Yersinia, Salmonella, or Shigella isolated.
Heavy growth Coliforms. (CUL)

Clinical Note:

12.Nov.2007

Fecal culture, received 11/7, reported 11/12 (Antech):
Campylobacter & Yersinia negative.
Light growth Enterococcus Sp (non-pathogenic)
No Salmonella or Shigella isolated. (CUL)

Printed on: 19.Aug.2008

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Scientific Name: LOXODONTA AFRICANA (no subsp)	Accession #: 1771
Common Name: African elephant	Female
Name: TONGA	Birth: 1.Jan.1978 (Estimated)

Parasitology Examination:

Submission Data >>

Type: Fecal sample

Purpose: QUARANTINE EXAMINATION

Sample id.: 2007-0605
Date collected: 13.Nov.2007
Collected by: DC

Collected from:

From an individual specimen.

Examination Data >>

Storage: refrigerated

Consistency: formed

Gross appearance: Not specified

Date examined: 13.Nov.2007
at: 15:15
by: GAW

Tests & Results >>

FLOATATION - NA NITRATE

NO PARASITES SEEN

Clinical Note:

17.Nov.2007

Fecal culture, received 11/14, reported 11/17/07 (Antech):
No Campylobacter species isolated.
No Yersinia species isolated.
Coliforms isolated (normal enteric flora), heavy growth.
No Salmonella or Shigella isolated. (CUL)

Clinical Note:

7.Feb.2008

Observation:

Visual examination of Tonga during training reveals a elephant that appears very healthy, in good body condition and behaviorally appropriate. No external lesions are noted.

The keepers are continuing to work with Tonga in an effort to get her to the point that she will allow more close examination and blood collection. (RSD)

Printed on: 19.Aug.2008

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Clinical Pathology Records - Specimen Report
NORTH CAROLINA ZOOLOGICAL PARK

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Scientific Name: LOXODONTA AFRICANA (no subsp)      Accession #: 1771
Common Name: African elephant                      Female
Name: TONGA                                         Birth: 1.Jan.1978 (Estimated)
                                                    Age: 30Y Est.
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Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Active
 Weight: 3914 Kg on 23.Sep.2007
 Manual restraint used.

Date of Collection: 19.Jun.2008
 Time of Collection: 10:50.0
 Collected by: JMS
 Sample Collection Site: EAR VEIN

Hematology >>
 Analysis Information >>
 Anticoagulant: EDTA
 Storage: Fresh
 Sample Quality: icterus

Laboratory: NC ZOO
 Date of Analysis: 19.Jun.2008
 Time of Analysis: 11:15
 Analysis by: CAP
 Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	8.52		*10 ³ /UL
RED BLOOD CELL COUNT	3.07		*10 ⁶ /UL
HEMOGLOBIN	< 12.1		GM/DL
HEMATOCRIT	37.9		%
MCV	123		fL
MCH	< 39.4		ug
MCHC	< 31.9		gm/dL
SEGMENTED NEUTROPHILS	38	(3.238)	% (*10 ³ /UL)
NEUTROPHILIC BANDS	< 0		% (*10 ³ /UL)
LYMPHOCYTES	30	(2.556)	% (*10 ³ /UL)
MONOCYTES	31	(2.641)	% (*10 ³ /UL)
EOSINOPHILS	0		% (*10 ³ /UL)
BASOPHILS	1	(0.085)	% (*10 ³ /UL)
PLATELET COUNT	< 210		*10 ³ /UL
FIBRINOGEN	>> 600		MG/DL

Comments >>

RBC's okay

Hemavet:

WBC 8.53, Ne 0.66, Ly 49.82, Mo 43.71, Eo 5.77, Ba 0.04.
 RBC 3.07, HB 12.1, HCT 37.9, PLT 210, MCV 123.4, MCH 39.4, MCHC 31.9,
 RDW 18.5, MPV 5.0, PDW 17.5.

ISIS reference values are for LOXODONTA AFRICANA
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Clinical Pathology Records - Specimen Report
 NORTH CAROLINA ZOOLOGICAL PARK

Scientific Name: LOXODONTA AFRICANA (no subsp)	Accession #: 1771
Common Name: African elephant	Female
Name: TONGA	Birth: 1.Jan.1978 (Estimated)
	Age: 30Y Est.

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Active
 Weight: 3914 Kg on 23.Sep.2007
 Manual restraint used.

Date of Collection: 19.Jun.2008
 Time of Collection: 10:50.0
 Collected by: JMS
 Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>
 Chemistry Sample: Serum
 Storage: Fresh
 Sample Quality: icterus

Laboratory: NC ZOO
 Date of Analysis: 19.Jun.2008
 Time of Analysis: 11:32
 Analysis by: CAP
 Automated analysis.

Tests and Results >>

GLUCOSE	>	103	MG/DL
BLOOD UREA NITROGEN	<	7	MG/DL
CREATININE		1.4	MG/DL
BUN/creatinine ratio		5.00	
CALCIUM		10.7	MG/DL
SODIUM		132	MEQ/L
POTASSIUM		4.6	MEQ/L
sodium/potassium ratio		28.7	
TOTAL PROTEIN (COLORIMETRY)		7.9	GM/DL
TOTAL PROTEIN (REFRACTOMETER)	<	7.3	GM/DL
ALBUMIN (COLORIMETRY)	<	3.1	GM/DL
GLOBULIN (COLORIMETRY)	>	4.8	GM/DL
albumin/globulin ratio		0.646	
ASPARTATE AMINOTRANSFERASE		25	IU/L
TOTAL BILIRUBIN		0.3	MG/DL
CREATINE PHOSPHOKINASE		211	IU/L
GAMMA GLUTAMYLTRANSFERASE		11	IU/L
TOTAL CONTENT CO2		27	MEQ/L

ISIS reference values are for LOXODONTA AFRICANA
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Clinical Pathology Records - Specimen Report
 NORTH CAROLINA ZOOLOGICAL PARK

Scientific Name: LOXODONTA AFRICANA (no subsp)	Accession #: 1771
Common Name: African elephant	Female
Name: TONGA	Birth: 1.Jan.1978 (Estimated)
	Age: 31Y Est.

Collection Information >>
 Health Status: Normal
 Fasting Time: < 8 hours
 Activity: Calm
 Weight: 3914 kg on 23.Sep.2007
 Manual restraint used.

Date of Collection: 3.Jul.2008
 Time of Collection: 11:00.0
 Collected by: DC
 Sample Collection Site: EAR VEIN

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

Laboratory: NC ZOO
 Date of Analysis: 3.Jul.2008
 Time of Analysis: 11:33
 Analysis by: GAW
 Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	8.60		*10 ³ /UL
RED BLOOD CELL COUNT	2.94		*10 ⁶ /UL
HEMOGLOBIN	< 12.4		GM/DL
HEMATOCRIT	< 36		%
MCV	122		fL
MCH	42.2		uug
MCHC	34.4		gm/dL
SEGMENTED NEUTROPHILS	37	(3.182)	% (*10 ³ /UL)
NEUTROPHILIC BANDS	< 0		% (*10 ³ /UL)
LYMPHOCYTES	< 22	(1.892)	% (*10 ³ /UL)
MONOCYTES	> 39	(3.354)	% (*10 ³ /UL)
EOSINOPHILS	2	(0.172)	% (*10 ³ /UL)
BASOPHILS	0		% (*10 ³ /UL)
PLATELET COUNT	< 211		*10 ³ /UL

Morphology Results >>
 ANISOCYTOSIS +2

Comments >>
 anisocytosis +2

Hemavet:

E 1771.TXT

WBC 8.60, Ne 4.81, Ly 40.58, Mo 27.01, Eo 27.53, Ba 0.06.
RBC 2.94, HB 12.4, HCT 37.4, PLT 211, MCV 127.2, MCH 42.2, MCHC 33.2,
RDW 18.2, MPV 4.8, PDW 17.4.

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 19.Aug.2008

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Clinical Pathology Records - Specimen Report
NORTH CAROLINA ZOOLOGICAL PARK

Scientific Name: LOXODONTA AFRICANA (no subsp)	Accession #: 1771
Common Name: African elephant	Female
Name: TONGA	Birth: 1.Jan.1978 (Estimated)
	Age: 31Y Est.

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3914 Kg on 23.Sep.2007
Manual restraint used.

Date of Collection: 3.Jul.2008
Time of Collection: 11:00.0
Collected by: DC
Sample Collection Site: EAR VEIN

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

Laboratory: NC ZOO
Date of Analysis: 3.Jul.2008
Time of Analysis: 11:54
Analysis by: GAW
Automated analysis.

Tests and Results >>

GLUCOSE	>	98	MG/DL
BLOOD UREA NITROGEN	<<	3	MG/DL
CREATININE		1.3	MG/DL
BUN/creatinine ratio		2.31	
CALCIUM	>	11.8	MG/DL
PHOSPHORUS	>	6.5	MG/DL
calcium/phosphorus ratio		1.82	
SODIUM	>>	140	MEQ/L
POTASSIUM		4.8	MEQ/L
sodium/potassium ratio		29.2	
TOTAL PROTEIN (COLORIMETRY)		8.1	GM/DL
TOTAL PROTEIN (REFRACTOMETER)	<	7.2	GM/DL
ALBUMIN (COLORIMETRY)		3.3	GM/DL
GLOBULIN (COLORIMETRY)	>	4.8	GM/DL
albumin/globulin ratio		0.688	
ALANINE AMINOTRANSFERASE		7	IU/L
TOTAL BILIRUBIN		0.3	MG/DL
AMYLASE	<<	0	U/L
ALKALINE PHOSPHATASE	<	65	IU/L

ISIS reference values are for LOXODONTA AFRICANA
Printed on: 19.Aug.2008

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Clinical Pathology Records - Specimen Report
NORTH CAROLINA ZOOLOGICAL PARK

Scientific Name: LOXODONTA AFRICANA (no subsp) Accession #: 1771
Common Name: African elephant Female
Name: TONGA Birth: 1.Jan.1978 (Estimated)
Age: 31Y Est.

Collection Information >>
Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3514 Kg on 15.Jul.2008
Manual restraint used.

Date of Collection: 8.Aug.2008
Time of Collection: 10:00.0
Collected by: A K
Sample Collection Site: EAR VEIN

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

Laboratory: NC ZOO
Date of Analysis: 8.Aug.2008
Time of Analysis: 11:37
Analysis by: CAP
Automated analysis.

Tests and Results >>

GLUCOSE	>	106	MG/DL
BLOOD UREA NITROGEN		8	MG/DL
CREATININE	>	1.9	MG/DL
BUN/creatinine ratio		4.21	
CALCIUM		11.5	MG/DL
SODIUM	>>	136	MEQ/L
POTASSIUM		4.7	MEQ/L
sodium/potassium ratio		28.9	
TOTAL PROTEIN (COLORIMETRY)	>	8.3	GM/DL
TOTAL PROTEIN (REFRACTOMETER)	<	7.5	GM/DL
ALBUMIN (COLORIMETRY)	<	3.2	GM/DL
GLOBULIN (COLORIMETRY)	>	5.1	GM/DL
albumin/globulin ratio		0.627	
ASPARTATE AMINOTRANSFERASE		27	IU/L
TOTAL BILIRUBIN		0.3	MG/DL
CREATINE PHOSPHOKINASE		210	IU/L
GAMMA GLUTAMYLTRANSFERASE		11	IU/L
TOTAL CONTENT CO2		29	MEQ/L

ISIS reference values are for LOXODONTA AFRICANA
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Scientific Name: LOXODONTA AFRICANA (no subsp)	Accession #: 1771
Common Name: African elephant	Female
Name: TONGA	Birth: 1.Jan.1978 (Estimated)
	Age: 31Y Est.

Clinical Note: 9.Aug.2008
Comment: Received blood for analysis today. No abnormalities detected
on CBC and chemistry panel. (RSD)

Submission Data >>	Sample id.: 2008-0432
Type: Fecal sample	Date collected: 13.Aug.2008
Purpose: ROUTINE EXAMINATION	Time collected: 7:30

Collected from:	Enclosure: EBST1
Group of specimens housed together.	

Examination Data >>	Date examined: 13.Aug.2008
Storage: refrigerated	at: 13:30
Consistency: formed	by: DGH
Gross appearance: Typical	

Tests & Results >>	
FLOATATION - NA NITRATE	NO PARASITES SEEN

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Clinical Pathology Records Report - ISIS/In-House Reference Values
NORTH CAROLINA ZOOLOGICAL PARK

Scientific name: LOXODONTA AFRICANA
Common Name: African elephant

		ISIS Values				
		Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	10.62 +	2.491	5.000	21.00	(1081)
RBC	*10 ⁶ /UL	3.21 +	0.37	2.10	4.80	(1047)
HGB	GM/DL	13.8 +	1.3	9.0	18.6	(1071)
HCT	%	40.0 +	3.8	29.5	54.0	(1107)
MCH	MG/DL	43.2 +	2.7	36.4	65.6	(1031)
MCHC	uug	34.5 +	1.8	28.3	46.4	(1057)
MCV	fL	125.4 +	7.8	91.1	190.0	(1029)
SEGS	*10 ³ /UL	2.897 +	1.690	0.000	11.40	(778)
BANDS	*10 ³ /UL	0.908 +	0.748	0.000	3.960	(520)
LYMPHOCYTES	*10 ³ /UL	5.326 +	3.263	0.022	64.40	(787)
MONOCYTES	*10 ³ /UL	1.164 +	1.536	0.000	8.639	(742)
EOSINOPHILS	*10 ³ /UL	0.240 +	0.301	0.000	2.898	(631)
BASOPHILS	*10 ³ /UL	0.041 +	0.077	0.000	0.525	(424)
NRBC	/100 WBC	1 +	1	0	3	(25)
PLATE. CNT.	*10 ³ /UL	498 +	278	177	1380	(124)
RETICS	%	0.0 +	0.0	0.0	0.0	(6)
GLUCOSE	MG/DL	83 +	13	47	141	(1001)
BUN	MG/DL	11 +	3	0	21	(1024)
CREAT.	MG/DL	1.5 +	0.3	0.5	4.4	(962)
URIC ACID	MG/DL	0.3 +	0.4	0.0	5.1	(356)
CA	MG/DL	11.0 +	0.5	8.7	13.9	(1010)
PHOS	MG/DL	4.9 +	0.8	3.0	8.2	(981)
NA	MEQ/L	129 +	3	111	146	(995)
K	MEQ/L	4.7 +	0.4	3.9	6.9	(1005)
CL	MEQ/L	88 +	3	71	108	(984)
IRON	MCG/DL	79 +	24	24	130	(29)
MG	MG/DL	2.33 +	0.54	1.40	4.20	(44)
CHOL	MG/DL	67 +	19	0	302	(947)
TRIG	MG/DL	68 +	31	14	179	(876)

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T. PROT. (C)	GM/DL	7.7 +	0.5	5.8	9.6	(906)
T. PROT. (R)	GM/DL	8.0 +	0.4	7.4	8.6	(8)
ALBUMIN (C)	GM/DL	3.6 +	0.3	2.2	4.5	(841)
GLOBULIN (C)	GM/DL	4.1 +	0.5	2.4	5.8	(832)
AST (SGOT)	IU/L	25 +	9	7	80	(982)
ALT (SGPT)	IU/L	6 +	6	0	30	(278)
T. BILI.	MG/DL	0.2 +	0.1	0.0	1.0	(829)
D. BILI	MG/DL	0.0 +	0.0	0.0	0.2	(90)
I. BILI.	MG/DL	0.1 +	0.1	0.0	0.5	(89)
AMYLASE	U/L	3389 +	1520	0	7918	(130)
ALK. PHOS.	IU/L	123 +	55	47	364	(978)
LDH	IU/L	1043 +	575	157	4306	(949)
CPK	IU/L	256 +	198	44	1263	(105)

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Clinical Pathology Records Report - ISIS/In-House Reference Values
NORTH CAROLINA ZOOLOGICAL PARK

Scientific name: LOXODONTA AFRICANA
Common Name: African elephant

		ISIS Values				
		Mean	S.D.	Min.	Max.	(N)
OSMOLARITY	MOSMOL/L	258 +	4	245	272	(652)
HCO3	MEQ/L	177.7 +	398.3	23.0	1081	(7)
Body Temperature:		39.0 +	0.0	39.0	39.0	(1)
CO2	MMOL/L	27.4 +	2.5	16.7	34.6	(731)
ESR	MM/HR	27 +	0	27	27	(1)
FIBRINOGEN	MG/DL	296 +	147	100	600	(14)
GGT	IU/L	12 +	4	0	27	(148)
LIPASE	U/L	7 +	6	0	20	(29)
PROGESTERONE	NG/DL	32.81 +	47.83	0.100	257.0	(44)
TESTOSTERONE	NG/ML	0.220 +	0.000	0.220	0.220	(1)
TOTAL T4	MCG/DL	14.5 +	7.1	9.5	19.5	(2)

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