

Medical History Report - Summary for Individual Specimen
DALLAS ZOO

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| | | |
|-------------------------------|---------------|--------------------|
| LOXODONTA AFRICANA (no subsp) | Sex: Female | Acc. #: 864858 |
| African elephant | Age: 31Y Est. | Birth: 16.Dec.1976 |
| Name: JENNY | | |

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.....2006...

2.Nov PROBLEM: BLOOD COLLECTION
Clinical note recorded. (DJC)
20.Nov Clinical note recorded. (JAR)
20.Dec PROBLEM: BLOOD COLLECTION
Clinical note recorded. (CLT)
21.Dec Clinical note recorded. (JAR)
28.Dec PROBLEM: hoof trim
Clinical note recorded. (JAR)

.....2007...

10.Feb Clinical note recorded. (JAR)
23.Mar Parasitology examination: (OTHER) Fecal sample.
FLAGELLATE/LARVAE/HOOKWORM OVA
8.Apr PROBLEM: hoof trim
Clinical note recorded. (JAR)
11.Apr Clinical note recorded. (JAR)
25.Apr PROBLEM: BLOOD COLLECTION
Clinical note recorded. (CJP)
26.Apr Blood sample: (4:34.0) Hematology/Chemistry/Serology results.
WBC:8.70 *10³/UL; HCT: 33.0%; BUN:14 MG/DL;
30.Apr PROBLEM: behavioral modification (onset)
Clinical note recorded. (TNS)
8.May PROBLEM: BLOOD COLLECTION
Clinical note recorded. (CJP)
Clinical note recorded. (JAR)
12.Jun Clinical note recorded. (JAR)
13.Jun PROBLEM: behavioral modification (resolved)
27.Jun PROBLEM: BLOOD COLLECTION
Clinical note recorded. (CLT)
10.Jul PROBLEM: BLOOD COLLECTION
Clinical note recorded. (CLT)
25.Jul Parasitology examination: (DIAGNOSTIC EXAMINATION) Fecal sample.
CILIIATED/NO PARASITES SEEN
2.Aug PROBLEM: BLOOD COLLECTION
Clinical note recorded. (CJP)
20.Aug Blood sample: (2:21.0) Chemistry results.

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Sex: Female

Acc. #: 864858

African elephant

Age: 31Y Est.

Birth: 16.Dec.1976

Name: JENNY

.....2007....

20.Aug BUN:11 MG/DL;

22.Aug PROBLEM: vaccination
Clinical note recorded. (TNS)

23.Aug PROBLEM: annual examination
TRUNK WASH
Clinical note recorded. (TNS)

24.Aug PROBLEM: TRUNK WASH
Clinical note recorded. (TNS)

25.Aug PROBLEM: TRUNK WASH
Clinical note recorded. (TNS)

28.Aug Clinical note recorded. (TPA)

13.Sep PROBLEM: BLOOD COLLECTION
Clinical note recorded. (CLT)
Clinical note recorded. (TPA)

19.Sep Clinical note recorded. (JAR)
Clinical note recorded. (TPA)

22.Sep Clinical note recorded. (JAR)

25.Sep Clinical note recorded. (TPA)

26.Sep PROBLEM: BLOOD COLLECTION
Clinical note recorded. (CLT)

1.Nov Clinical note recorded. (JAR)

7.Nov Clinical note recorded. (TPA)

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

1.Dec Blood sample: (6:36.0) Hematology/Chemistry/Serology results.
WBC:11.30 *10³/UL; HCT: 35.0%; BUN:8 MG/DL;

6.Dec PROBLEM: BLOOD COLLECTION
Clinical note recorded. (CAR)

.....2008....

5.Feb PROBLEM: BLOOD COLLECTION
colic (onset)
Clinical note recorded. (TNS)

6.Feb PROBLEM: colic (resolved)
Clinical note recorded. (TNS)

8.Feb Blood sample: (3:47.0) Hematology/Chemistry/Serology results.
WBC:9.00 *10³/UL; HCT: 36.0%; BUN:7 MG/DL;

13.Feb Clinical note recorded. (CRN)

15.Feb Clinical note recorded. (TPA)

26.Mar PROBLEM: BLOOD COLLECTION

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Name: JENNY

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.....2008....

26.Mar Clinical note recorded. (CAR)

Weight: 5073 Kg (11181 Lb)

7.Apr

30.Apr PROBLEM: behavioral modification (onset)

Clinical note recorded. (TNS)

6.May Clinical note recorded. (TNS)

12.May Clinical note recorded. (TNS)

15.May Clinical note recorded. (TNS)

25.May PROBLEM: behavioral modification (resolved)

Clinical note recorded. (TNS)

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LOXODONTA AFRICANA (no subsp)
African elephant
Name: JENNY

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

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Clinical Note:

2.Nov.2006

Problem: BLOOD COLLECTION
Procedure:
Positive reinforcement for blood collection by keeper (DJC)

Clinical Note:

20.Nov.2006

Observation: NVSL MYCOBACTERIOLOGY REPORT.

15 Sept 06.
Mycobacterial Isolation:
No Isolation Made.
Specimen Submitted: Trunk Wash.

17 Sept 06.
Mycobacterial Isolation:
No Isolation Made.
Specimen Submitted: Trunk Wash.

18 Sept 06.
Mycobacterial Isolation:
No Isolation Made.
Specimen Submitted: Trunk Wash. (JAR)

Clinical Note:

20.Dec.2006

Problem: BLOOD COLLECTION
Procedure:
Positive reinforcement for blood draw by keepers
Serum banked in u/l for AZA and DZ. (CLT)

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LOXODONTA AFRICANA (no subsp)

Sex: Female

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African elephant

Age: 31Y Est.

Birth: 16.Dec.1976

Name: JENNY

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Clinical Note:

21.Dec.2006

Observation:

This is the first time I have seen Jenny's feet in approximately 3 weeks, there is some improvement around the perimeter of the pad but definite worsening along leading edge of sole. The medial nail that was problematic last year is worse again and the keepers are aggressively trimming. While there noted a pit starting in adjacent nail that had a necrotic center, when trimmed out there was healthy tissue underneath. There is necrotic appearing tissue but when trimmed it is a very thin layer, the pad itself is also very thin. Does not appear to have the growth rate that it usually does. What worsens the situation is when Jenny urinates there is a good deal of urine that splashes onto feet in exactly the areas that are worsening. May be a version of urine scald? Need to find another topical therapy other than CHX or Tea Tree. Don't feel like she is getting benefit from either one at this time. (JAR)

Clinical Note:

28.Dec.2006

Problem: hoof trim

Procedure:

Operant conditioning for pedal exam
Trimming of affected areas by Dr. A

Observation:

Discussed trimming regimen with Large Mammal crew, need to try and remove as much necrotic tissue as possible without compromising pad integrity. Start new disinfection soaking regimen to see if will dry out nail beds and sole.

Rx:

Virkon-S: Mix a solution at 45g/1 gallon H2O, soak all feet at least 15 minutes in the AM once daily

Epson Salts: Mix 4 c/gallon soak all feet at least 15 minutes in the PM once daily. (JAR)

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African elephant

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Birth: 16.Dec.1976

Name: JENNY

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Clinical Note:

10.Feb.2007

Observation:

Area supervisor continuously requests permission to use Koppertox on the soles of this animal's feet-concerned about toxicity both for the animal and environment. Offering as an alternative-triple dye solution that we use routinely on the hooves of the equids in the collection.

Rx:

Triple-dye solution: Apply small amount on affected areas of nail and foot once daily after Virkon-S soaks and after nail has been trimmed. (JAR)

Submission Data >>

Type: Fecal sample

Purpose: OTHER

Sample id.: 2007-0116

Date collected: **23.Mar.2007**

Time collected: 9:00

Collected by: AH

Collected from:

Group of specimens housed together.

Enclosure: ZNMLM7B

Examination Data >>

Storage: refrigerated

Consistency: formed

Gross appearance: Atypical

Date examined: 23.Mar.2007

at: 14:30

by: CLT

Tests & Results >>

DIRECT MICROSCOPIC EXAMINATION FLAGELLATE PROTOZOA

FLOATATION - NA NITRATE

LARVAE

HOOKWORM OVA

1 SEEN

FEW

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LOXODONTA AFRICANA (no subsp)

Sex: Female

Acc. #: 864858

African elephant

Age: 31Y Est.

Birth: 16.Dec.1976

Name: JENNY

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Clinical Note:

8.Apr.2007

Problem: hoof trim

Procedure:

Solar trimming

Observation:

There is a black, almost proliferative, tissue that is lining all the areas of abnormal wear on the sole of the foot. Took a piece of this tissue to submit to see if there are any fungal hyphae or other organisms/lesions present. (JAR)

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Sex: Female

Acc. #: 864858

African elephant

Age: 31Y Est.

Birth: 16.Dec.1976

Name: JENNY

Clinical Note:

11.Apr.2007

Observation: Northwest ZooPath
654 W. Main St.
Monroe, WA 98272
Phone (360) 794-0630
Fax (360) 794-4312
E-mail: zoopath@aol.com (mailto:zoopath@aol.com)
Case No: G07-1610
Tissues obtained: 04/05/07
Received: 04/09, reported 04/11/07
Dr. Storms
Patient ID: African Elephant #864858
Dallas Zoo
Account #: TX 131G

HISTORY:

This adult female African elephant has abnormal foot growth.

CLINICAL DIAGNOSIS:

Open.

GROSS:

Received are two containers of formalin. Container labeled "right nail cuticle" has one tissue to 3 cm. in greatest dimension that is inked black. Container labeled "left rear foot trimmings" has three tissues to 5 mm. in greatest dimension. All specimens are processed in one block.

MICROSCOPIC:

All specimens represent keratin that has varying degrees of degeneration associated with bacterial colonization. No viable epidermis or dermis is represented.

DIAGNOSIS:

Hyperkeratosis with bacterial colonization and keratin degeneration, foot, all specimens.

COMMENT:

Changes of this nature are common in regard to foot lesions in elephants. I suspect that the biopsy specimens are superficial. They have a prominent bacterial component, but this may be secondary. Because mycotic disease is sometimes associated with foot problems in elephants, a fungal stain is pending to check for fungal elements and yeasts, and an addendum will follow.

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African elephant

Age: 31Y Est.

Birth: 16.Dec.1976

Name: JENNY

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Clinical Note:

11.Apr.2007

Addendum, 04/13/07:

A fungal stain is negative for fungal elements but accentuates the presence of large numbers of invasive filamentous bacteria.

Michael M. Garner, DVM, Dipl. ACVP

MMG/hc

E-mail: [_Zoopath@aol.com_](mailto:Zoopath@aol.com) (mailto:Zoopath@aol.com)

NZP Code: M, 9a, 11; hyperkeratosis with bacterial colonization, foot.
(JAR)

Clinical Note:

25.Apr.2007

Problem: BLOOD COLLECTION

Manual restraint by operant conditioning for blood collection.

Serum banked for SSP hormonal testing. (CJP)

Clinical Pathology Records - Specimen Report
DALLAS ZOO

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LOXODONTA AFRICANA (no subsp)           Sex: Female           Acc. #: 864858
African elephant                         Age: 31Y Est.        Birth: 16.Dec.1976
Name: JENNY
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Collection Information >>

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

Date of Collection: 26.Apr.2007
Time of Collection: 4:34.0
Collected by:

Hematology >>

Analysis Information >>

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

Laboratory: ANTECH LG ANIMA
Date of Analysis: 26.Apr.2007
Time of Analysis: 4:34
Analysis by:
Automated analysis.

Tests and Results >>

| | | | |
|--------------------------|---------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | 8.7 | | *10 ³ /UL |
| RED BLOOD CELL COUNT | < 2.7 | | *10 ⁶ /UL |
| HEMOGLOBIN | < 11.3 | | GM/DL |
| HEMATOCRIT | < 33 | | % |
| MCV | 122 | | fL |
| MCH | 41.9 | | uug |
| MCHC | 34.2 | | gm/dL |
| SEGMENTED NEUTROPHILS | > 74.75 | (6.503) | % (*10 ³ /UL) |
| LYMPHOCYTES | < 20.20 | (1.757) | % (*10 ³ /UL) |
| MONOCYTES | 1.01 | (0.088) | % (*10 ³ /UL) |
| EOSINOPHILS | 1.01 | (0.088) | % (*10 ³ /UL) |
| BASOPHILS | >> 3.03 | (0.264) | % (*10 ³ /UL) |
| ESTIMATED PLATELET COUNT | INCRE | | |
| PLATELET COUNT | 604 | | *10 ³ /UL |
| FIBRINOGEN | 100 | | MG/DL |
| RBC MORPHOLOGY | NORMAL | | |

Clinical Pathology Records - Specimen Report
DALLAS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: JENNY

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

Collection Information >>

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

Date of Collection: 26.Apr.2007
Time of Collection: 4:34.0
Collected by:

Chemistry >>

Analysis Information >>

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

Laboratory: ANTECH LG ANIMA
Date of Analysis: 26.Apr.2007
Time of Analysis: 4:34
Analysis by:
Automated analysis.

Tests and Results >>

| | | | |
|-----------------------------|---|-------|-------|
| GLUCOSE | > | 108 | MG/DL |
| BLOOD UREA NITROGEN | > | 14 | MG/DL |
| CREATININE | | 1.4 | MG/DL |
| BUN/creatinine ratio | | 10.0 | |
| CALCIUM | | 10.7 | MG/DL |
| PHOSPHORUS | | 5.0 | MG/DL |
| calcium/phosphorus ratio | | 2.14 | |
| SODIUM | | 125 | MEQ/L |
| POTASSIUM | | 4.9 | MEQ/L |
| sodium/potassium ratio | | 25.5 | |
| CHLORIDE | | 91 | MEQ/L |
| CHOLESTEROL | | 62 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | | 7.7 | GM/DL |
| ALBUMIN (COLORIMETRY) | < | 2.9 | GM/DL |
| GLOBULIN (COLORIMETRY) | > | 4.8 | GM/DL |
| albumin/globulin ratio | | 0.604 | |
| ASPARTATE AMINOTRANSFERASE | < | 12 | IU/L |
| TOTAL BILIRUBIN | | 0.1 | MG/DL |
| ALKALINE PHOSPHATASE | | 85 | IU/L |
| CREATINE PHOSPHOKINASE | | 259 | IU/L |
| ALBUMIN GLOBULIN RATIO | | 0.6 | |
| BUN/CREATININE RATIO | | 10 | |
| GAMMA GLUTAMYLTRANSFERASE | | 11 | IU/L |
| SODIUM/POTASSIUM RATIO | | 26 | |

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Sex: Female

Acc. #: 864858

African elephant

Age: 31Y Est.

Birth: 16.Dec.1976

Name: JENNY

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Clinical Note:

30.Apr.2007

Problem: behavioral modification

Comment:

Prescribing acepromazine for tranquilization during barn construction.

Rx:

Acepromazine: specified amt. by mouth daily

4/30: 50 mg

5/1: 100 mg

5/2: 150 mg

5/3: 100 mg

5/4: 50 mg (TNS)

Clinical Note:

8.May.2007

Problem: behavioral modification ; BLOOD COLLECTION

Manual restraint by operant conditioning for blood collection.

Serum banked for SSP hormonal testing. (CJP)

Clinical Note:

8.May.2007

Problem: behavioral modification ; BLOOD COLLECTION

Comment:

Construction extended longer than anticipated-continue Acepromazine.

Rx:

Acepromazine: Day 1-100 mg, Day 2-200 mg, Day 3-300 mg (stay on this until construction ends and then begin to wean off. (JAR)

Clinical Note:

12.Jun.2007

Problem: behavioral modification

Observation:

Jenny is weaned off Ace-doing well. Discontinue. (JAR)

Clinical Note:

27.Jun.2007

Problem: BLOOD COLLECTION

Manual restraint by operant conditioning for blood collection.

Serum banked for SSP hormonal testing. (CLT)

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LOXODONTA AFRICANA (no subsp)
African elephant
Name: JENNY

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

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Clinical Note:

10.Jul.2007

Problem: BLOOD COLLECTION
Procedure:
Positive reinforcement for blood draw by keepers
Serum banked in u/l for AZA and DZ. (CLT)

Submission Data >>

Type: Fecal sample
Purpose: DIAGNOSTIC EXAMINATION

Sample id.: 2007-0431
Date collected: **25.Jul.2007**
Time collected: 4:00
Collected by: BK

Collected from:

From an individual specimen.

Enclosure: ZNMLM7B

Examination Data >>

Storage: refrigerated
Consistency: formed
Gross appearance: Atypical

Date examined: 26.Jul.2007
at: 16:00
by: CJP

Tests & Results >>

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

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Clinical Note:

2.Aug.2007

Problem: BLOOD COLLECTION
Manual restraint by operant conditioning for blood collection.
Serum banked for SSP hormonal testing. (CJP)

Clinical Pathology Records - Specimen Report
DALLAS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: JENNY

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

Collection Information >>

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

Date of Collection: 20.Aug.2007
Time of Collection: 2:21.0
Collected by:

Chemistry >>

Analysis Information >>

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

Laboratory: ANTECH LG ANIMA
Date of Analysis: 20.Aug.2007
Time of Analysis: 2:21
Analysis by:
Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|-------|-------|
| GLUCOSE >> | 135 | MG/DL |
| BLOOD UREA NITROGEN | 11 | MG/DL |
| CREATININE | 1.3 | MG/DL |
| BUN/creatinine ratio | 8.46 | |
| CALCIUM | 10.7 | MG/DL |
| PHOSPHORUS | 5.0 | MG/DL |
| calcium/phosphorus ratio | 2.14 | |
| SODIUM >> | 5720 | MEQ/L |
| POTASSIUM << | 1.8 | MEQ/L |
| sodium/potassium ratio | 3178 | |
| CHLORIDE < | 83 | MEQ/L |
| MAGNESIUM | 2.3 | MG/DL |
| CHOLESTEROL | 60 | 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 | 14 | IU/L |
| ALANINE AMINOTRANSFERASE | 5 | IU/L |
| TOTAL BILIRUBIN | 0.1 | MG/DL |
| ALKALINE PHOSPHATASE | 82 | IU/L |
| CREATINE PHOSPHOKINASE | 273 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.6 | |
| BUN/CREATININE RATIO | 8 | |
| GAMMA GLUTAMYLTRANSFERASE < | 6 | IU/L |
| SODIUM/POTASSIUM RATIO | 26 | |

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LOXODONTA AFRICANA (no subsp)
African elephant
Name: JENNY

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

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Clinical Note:

22.Aug.2007

Problem: vaccination
Procedure:
Operant conditioning
Annual vaccination (by keeper)

Rx:
VEWT + WNV vaccine: 2.0 ml IM L triceps (TNS)

Clinical Note:

23.Aug.2007

Problem: annual examination ; TRUNK WASH
Procedure:
Operant conditioning
Annual Physical exam
Trunk wash #1

Observation:
Exam of eyes, ears, and oral cavity--all WNL. Obtained trunk wash #1
for Mycobacterial culture. (TNS)

Clinical Note:

24.Aug.2007

Problem: TRUNK WASH
Procedure:
Operant conditioning
Trunk Wash #2 (TNS)

Clinical Note:

25.Aug.2007

Problem: TRUNK WASH
Procedure:
Operant conditioning
Trunk Wash #3 (TNS)

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Sex: Female

Acc. #: 864858

African elephant

Age: 31Y Est.

Birth: 16.Dec.1976

Name: JENNY

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Clinical Note:

28.Aug.2007

Observation: CORNELL WNV RESULTS.

Cornell Diagnostic Laboratory.
WEST NILE VIRUS SN:

40 - Positive. (TPA)

Clinical Note:

13.Sep.2007

Problem: BLOOD COLLECTION

Procedure:

Positive reinforcement for blood draw by keepers
Serum banked in u/l for AZA and DZ. (CLT)

Clinical Note:

13.Sep.2007

Problem: BLOOD COLLECTION

Observation: TVMDL EMC RESULTS.

ENCEPHALOMYOCARDITIS (SN):

Aug 07 - POS. > 1256. (TPA)

Clinical Note:

19.Sep.2007

Observation:

An enrichment tire was left in the elephant enclosure longer than usual and Jenny was able to chew a good portion (approximately 18 inches) of the tread off. She had rubber rub marks on her tusks and there were none on Keke which led us to presume that only Jenny consumed the rubber. Keepers are to shift through both elephants feces and collect any and all rubber pieces that they find. (JAR)

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Age: 31Y Est.

Birth: 16.Dec.1976

Name: JENNY

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Clinical Note:

19.Sep.2007

Observation: CORNELL WNV RESULTS.

Cornell Diagnostic Laboratory.
WEST NILE VIRUS SN:

WNV (SN): 40.

SLE (SN): <10. (TPA)

Clinical Note:

22.Sep.2007

Observation:

Starting to pass small (less than 1 cm) sized rubber pebbles. No signs of abdominal discomfort or decrease in appetite/activity. (JAR)

Clinical Note:

25.Sep.2007

Observation: TVMDL EMC RESULTS.

ENCEPHALOMYOCARDITIS (SN):

Aug 07 - POS. > 1256.

Endpoint Titer= 32,768. (TPA)

Clinical Note:

26.Sep.2007

Problem: BLOOD COLLECTION

Procedure:

Positive reinforcement for blood draw by keepers

Serum banked in u/l for AZA and DZ. (CLT)

Clinical Note:

1.Nov.2007

Observation:

No more rubber pieces have been found in over 10 days-discontinue fecal screening. (JAR)

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Sex: Female

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African elephant

Age: 31Y Est.

Birth: 16.Dec.1976

Name: JENNY

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Clinical Note:

7.Nov.2007

Observation: NVSL MYCOBACTERIOLOGY REPORT.

23 Aug 07 Mycobacterial Isolation
Diagnosis: No Isolation Made.

Specimen Submitted
Trunk Wash.

24 Aug 07 Mycobacterial Isolation
Diagnosis: No Isolation Made.

Specimen Submitted
Trunk Wash.

25 Aug 07 Mycobacterial Isolation
Diagnosis: No Isolation Made.

Specimen Submitted
Trunk Wash. (TPA)

Submission Data >>

Type: Fecal sample

Purpose: SEMI ANNUAL EXAMINATION

Sample id.: 2007-0943

Date collected: 13.Nov.2007

Time collected: 7:45

Collected by: AH

Collected from:

Group of specimens housed together.

Enclosure: LM STALL

Examination Data >>

Storage: refrigerated

Consistency: formed

Gross appearance: Not specified

Date examined: 13.Nov.2007

at: 14:00

by: RAW

Tests & Results >>

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN

FLOATATION - ZN SULFATE

NO PARASITES SEEN

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

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

Collection Information >>

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

Date of Collection: 1.Dec.2007

Time of Collection: 6:36.0

Collected by:

Hematology >>

Analysis Information >>

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

Laboratory: ANTECH LG ANIMA

Date of Analysis: 1.Dec.2007

Time of Analysis: 6:36

Analysis by:

Automated analysis.

Tests and Results >>

| | | | |
|--------------------------|--------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | 11.3 | | *10 ³ /UL |
| RED BLOOD CELL COUNT | 2.8 | | *10 ⁶ /UL |
| HEMOGLOBIN | 12.2 | | GM/DL |
| HEMATOCRIT | 35 | | % |
| MCV | 125 | | fL |
| MCH | 43.6 | | uug |
| MCHC | 34.9 | | gm/dL |
| SEGMENTED NEUTROPHILS | 35 | (3.955) | % (*10 ³ /UL) |
| LYMPHOCYTES | 58 | (6.554) | % (*10 ³ /UL) |
| MONOCYTES | 6 | (0.678) | % (*10 ³ /UL) |
| EOSINOPHILS | 1 | (0.113) | % (*10 ³ /UL) |
| ESTIMATED PLATELET COUNT | INCRE | | |
| PLATELET COUNT >> | 1158 | | *10 ³ /UL |
| FIBRINOGEN | 100 | | MG/DL |
| RBC MORPHOLOGY | NORMAL | | |

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

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

Collection Information >>

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

Date of Collection: 1.Dec.2007
Time of Collection: 6:36.0
Collected by:

Chemistry >>

Analysis Information >>

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

Laboratory: ANTECH LG ANIMA
Date of Analysis: 1.Dec.2007
Time of Analysis: 6:36
Analysis by:
Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|-------|-------|
| GLUCOSE | 94 | MG/DL |
| BLOOD UREA NITROGEN | 8 | MG/DL |
| CREATININE | 1.3 | MG/DL |
| BUN/creatinine ratio | 6.15 | |
| CALCIUM | 11.2 | MG/DL |
| PHOSPHORUS | 4.6 | MG/DL |
| calcium/phosphorus ratio | 2.43 | |
| SODIUM | 129 | MEQ/L |
| POTASSIUM | 4.6 | MEQ/L |
| sodium/potassium ratio | 28.0 | |
| CHLORIDE | 85 | MEQ/L |
| CHOLESTEROL | 75 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | 7.6 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 2.9 | GM/DL |
| GLOBULIN (COLORIMETRY) | > 4.7 | GM/DL |
| albumin/globulin ratio | 0.617 | |
| ASPARTATE AMINOTRANSFERASE | < 12 | IU/L |
| TOTAL BILIRUBIN | 0.1 | MG/DL |
| ALKALINE PHOSPHATASE | 87 | IU/L |
| CREATINE PHOSPHOKINASE | 171 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.6 | |
| BUN/CREATININE RATIO | 6 | |
| GAMMA GLUTAMYLTRANSFERASE | 13 | IU/L |
| SODIUM/POTASSIUM RATIO | 28 | |

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LOXODONTA AFRICANA (no subsp)
African elephant
Name: JENNY

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

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Clinical Note:

6.Dec.2007

Problem: BLOOD COLLECTION
Operant conditioning restraint for blood collection (CAR)

Clinical Note:

5.Feb.2008

Problem: BLOOD COLLECTION ; colic (Suspected)

Observation:

Developed diarrhea today and acutely progressed to severe behavioral colic signs. Was weak, laying down often, with difficulty rising and walking, profuse amounts of feces passively voiding from her while she lay on ground, kicking at side with rear feet while laying down. Poorly responsive to keepers, but managed to shift into indoor stall. Once inside, she leaned on wall for support and looked quite painful.

Darted with ketoprofen and butorphanol, and there was an immediate improvement in demeanor and condition, allowing the keepers to collect a blood sample. She continued to improve throughout the afternoon.

Rx:

Ketoprofen: 1 g IM by dart
Butorphanol: 2 g IM by dart (TNS)

Clinical Note:

6.Feb.2008

Problem: colic (Suspected)

Observation:

Back to normal today--normal behavior, normal appetite. No feces noted however, and there was a plastic grocery bag found mixed in with yesterday's feces. Presume this was the transient cause of yesterday's colic. Will keep under observation for recurrence. (TNS)

Clinical Pathology Records - Specimen Report
DALLAS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: JENNY

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

Collection Information >>

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

Date of Collection: 8.Feb.2008
Time of Collection: 3:47.0
Collected by:

Hematology >>

Analysis Information >>

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

Laboratory: ANTECH LG ANIMA
Date of Analysis: 8.Feb.2008
Time of Analysis: 3:47
Analysis by:
Automated analysis.

Tests and Results >>

| | | | |
|--------------------------|--------|---------|--------------------------|
| WHITE BLOOD CELL COUNT | 9.0 | | *10 ³ /UL |
| RED BLOOD CELL COUNT | 3.0 | | *10 ⁶ /UL |
| HEMOGLOBIN | 13.0 | | GM/DL |
| HEMATOCRIT | 36 | | % |
| MCV | 120 | | fL |
| MCH | 43.3 | | uug |
| MCHC | 36.1 | | gm/dL |
| SEGMENTED NEUTROPHILS | 29 | (2.610) | % (*10 ³ /UL) |
| LYMPHOCYTES | 65 | (5.850) | % (*10 ³ /UL) |
| MONOCYTES | 4 | (0.360) | % (*10 ³ /UL) |
| EOSINOPHILS | 2 | (0.180) | % (*10 ³ /UL) |
| BASOPHILS | 0 | | % (*10 ³ /UL) |
| ESTIMATED PLATELET COUNT | INCRE | | |
| PLATELET COUNT >> | 936 | | *10 ³ /UL |
| FIBRINOGEN | 200 | | MG/DL |
| RBC MORPHOLOGY | NORMAL | | |

Clinical Pathology Records - Specimen Report
DALLAS ZOO

LOXODONTA AFRICANA (no subsp)
African elephant
Name: JENNY

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

Collection Information >>

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

Date of Collection: 8.Feb.2008

Time of Collection: 3:47.0

Collected by:

Chemistry >>

Analysis Information >>

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

Laboratory: ANTECH LG ANIMA

Date of Analysis: 8.Feb.2008

Time of Analysis: 3:47

Analysis by:

Automated analysis.

Tests and Results >>

| | | |
|-----------------------------|-------|-------|
| GLUCOSE | 85 | MG/DL |
| BLOOD UREA NITROGEN | 7 | MG/DL |
| CREATININE | 1.4 | MG/DL |
| BUN/creatinine ratio | 5.00 | |
| CALCIUM | 10.7 | MG/DL |
| PHOSPHORUS | 5.5 | MG/DL |
| calcium/phosphorus ratio | 1.95 | |
| SODIUM | 131 | MEQ/L |
| POTASSIUM | < 4.1 | MEQ/L |
| sodium/potassium ratio | 32.0 | |
| CHLORIDE | 87 | MEQ/L |
| CHOLESTEROL | 69 | MG/DL |
| TOTAL PROTEIN (COLORIMETRY) | 7.7 | GM/DL |
| ALBUMIN (COLORIMETRY) | < 2.8 | GM/DL |
| GLOBULIN (COLORIMETRY) | > 4.9 | GM/DL |
| albumin/globulin ratio | 0.571 | |
| ASPARTATE AMINOTRANSFERASE | 27 | IU/L |
| TOTAL BILIRUBIN | 0.1 | MG/DL |
| ALKALINE PHOSPHATASE | 73 | IU/L |
| CREATINE PHOSPHOKINASE | 392 | IU/L |
| ALBUMIN GLOBULIN RATIO | 0.6 | |
| BUN/CREATININE RATIO | 5 | |
| GAMMA GLUTAMYLTRANSFERASE | 10 | IU/L |
| SODIUM/POTASSIUM RATIO | 32 | |

LOXODONTA AFRICANA (no subsp)
African elephant
Name: JENNY

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

Clinical Note:

13.Feb.2008

<<< Microbiology >>>

Sample Accession #: 864858

Laboratory:

- Southwest Veterinary Lab
- T.V.M.D.L.
- Methodist Hospital
- Other: Antech

Collection Date: 02/06/2008
 Submission Date: 02/06/2008
 Reporting Date: 02/13/2008

Submission type:

- aerobic bacteriology
- anaerobic bacteriology
- mycology
- enteric pathogen screen
- mycobacterial

Sample source: fecal

Organism:

1. Escherichia coli
2. Flavimonas oryzihabitans
3. Enterococcus species

| Growth: | heavy | moderate | light |
|-----------------------------|-------|----------|-------|
| 1. Escherichia coli | [] | [] | [x] |
| 2. Flavimonas oryzihabitans | [] | [] | [x] |
| 3. Enterococcus species | [] | [] | [x] |

Sensitivity:

| | 1 | 2 | 3 |
|--------------------------|---|---|---|
| Amikacin: | s | s | |
| Amoxicillin: | s | r | s |
| Amoxicillin/Clavulanate: | | | |
| Ampicillin/Sulbactam: | | | |
| Ampicillin: | s | r | s |
| Azithromycin: | | | s |
| Cefazolin: | s | r | |
| Cefoxitin: | s | r | |
| Cefpodoxime: | s | r | |
| Ceftiofur: | i | i | |
| Cephadroxil: | s | r | |
| Cephalexin: | s | r | |
| Cephalothin: | | | |
| Ciprofloxacin: | | | |
| Chloramphenicol: | | | s |
| Clarithromycin: | | | s |
| Clavamox: | s | s | |
| Clindamycin: | | | |
| Difloxacin: | s | s | s |
| Doxycycline: | | | s |
| Enrofloxacin: | s | s | s |

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LOXODONTA AFRICANA (no subsp)
African elephant
Name: JENNY

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

=====

Clinical Note:

13.Feb.2008

| | | | | |
|--------------------------|---|---|---|--|
| Erythromycin: | | | s | |
| Gentamicin: | s | s | s | |
| Marbofloxacin: | s | s | s | |
| Naladixic Acid: | | | | |
| Nitrofurantoin: | | | | |
| Norfloxacin: | | | | |
| Oxacillin: | | | | |
| Penicillin: | | | | |
| Piperacillin: | | | | |
| Potentiated sulfonamide: | s | s | | |
| Streptomycin: | | | s | |
| Sulfamethoxazole: | | | | |
| Tetracycline: | | | | |
| Tobramycin: | | | | |
| Trimethoprim/Sulfa: | | | | |
| Vancomycin: | | | | |

Comments: Campylobacter, salmonella negative in 72hrs.

(CRN)

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LOXODONTA AFRICANA (no subsp)
African elephant
Name: JENNY

Sex: Female
Age: 31Y Est.

Acc. #: 864858
Birth: 16.Dec.1976

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Clinical Note:

15.Feb.2008

Observation: TVMDL FECAL PANEL.

TVMDL TEST RESULTS:
FECAL SAMPLE:

BACTERIOLOGY:

Streptococcus sp. (Alpha hemolytic).
Bacillus sp.
Negative Culture Salmonella.
Negative Culture Cl. perfringens.
Negative Culture Campylobacter.

MOLECULAR DIAGNOSTICS:

Salmonellosis (genus) PCR - Negative.

SEROLOGY:

Giardia (FA) - Negative.
Cryptosporidia (FA) - Negative.

VIROLOGY:

No viruses observed. (TPA)

Clinical Note:

26.Mar.2008

Problem: BLOOD COLLECTION

Procedure:

Positive reinforcement for blood draw by keepers
Serum banked in u/l for AZA and DZ. (CAR)

Clinical Note:

30.Apr.2008

Problem: behavioral modification

Observation:

Prescribing tranquilizer to calm during Keke's illness and treatments.
Keke is experiencing severe colic episode, necessitating confinement
in ERD, IV fluid therapy, etc. Jenny is dealing with this reasonably
well, but appears somewhat upset.

Rx:

Acepromazine: give 100 mg PO once, then 200 mg once, then 300 mg once
daily for 5 days, then 200 mg, then 100 mg. (TNS)

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LOXODONTA AFRICANA (no subsp)

Sex: Female

Acc. #: 864858

African elephant

Age: 31Y Est.

Birth: 16.Dec.1976

Name: JENNY

=====

Clinical Note:

6.May.2008

Problem: behavioral modification

Comment:

Extending acepromazine at 200 mg daily UFN (TNS)

Clinical Note:

12.May.2008

Problem: behavioral modification

Comment:

Increasing acepromazine to 250 mg daily for a few days. (TNS)

Clinical Note:

15.May.2008

Problem: behavioral modification

Comment:

Decreasing acepromazine dose:

Give 200 mg daily for 1 day, then 150 mg for 2 days, then 100 mg for 2 days, then 50 mg. (TNS)

Clinical Note:

25.May.2008

Problem: behavioral modification

Comment:

Discontinue acepromazine. (TNS)

Clinical Pathology Records Report - ISIS/In-House Reference Values
DALLAS 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 | GM/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 | uug | 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) |
| 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) |

Clinical Pathology Records Report - ISIS/In-House Reference Values
DALLAS 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) |