

**Analytical Sciences Laboratory  
University of Idaho**

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**Certificate of Analysis**

**Prepared For:** Don Earl  
Pet Food Products Safety Alliance

**Case ID:** VJUN09-027  
**Report Date:** 15-Jun-09  
**Date Received:** 08-Jun-09  
**Client Reference:** 2009-6380  
**Owner:** Earl, Don  
**Species:** Cat

**Report Status:**  Final  Preliminary  Addendum  Corrected

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**Interpretation of Results:**

The laboratory has not established 'adequate/normal' reference ranges for feeds. Results should be compared to label ingredients and/or to the recommended requirements for that particular animal, taking into account other dietary components and water intake.

Patricia A. Talcott, MS, DVM, PhD., DABVT  
Veterinary Toxicologist

QC Review/Approval: tknopes / smcgeehan

# UI Analytical Sciences Laboratory

## Certificate of Analysis

Client Sample ID: 1. Nutro Natural Choice

Lot: 06 Oct 2009

Sample Type: Feed Pellets - Dry Weight

UIASL Sample ID: V0901489

Species: Cat

Preservation: None

**Macro Element Screen**

Method: ICP --

	Results (µg/g)	RL	Adult Approx. Ref. Range
Calcium	19000	2.0	—
Potassium	12000	40	—
Magnesium	920	0.20	—
Sodium	3300	80	—
Phosphorus	12000	20	—
Sulfur	5600	60	—

Comment:

**Micro Trace Element Screen**

Method: ICP --

	Results (µg/g)	RL	Adult Approx. Ref. Range
Arsenic	< 16	16	—
Barium	5.4	0.40	—
Cadmium	< 0.4	0.40	—
Cobalt	0.58	0.12	—
Chromium	< 2	2.0	—
Copper	23	0.40	—
Iron	330	4.0	—
Manganese	46	0.20	—
Molybdenum	2.0	2.0	—
Nickel	< 2	2.0	—
Lead	< 4	4.0	—
Vanadium	< 0.4	0.40	—
Zinc	270	0.80	—

Comment:

Client Sample ID: 2. Indoor Nutro Natural

Lot: 11 2010

Sample Type: Feed Pellets - Dry Weight

UIASL Sample ID: V0901490

Species: Cat

Preservation: None

**Macro Element Screen**

Method: ICP --

	Results (µg/g)	RL	Adult Approx. Ref. Range
Calcium	19000	2.0	—
Potassium	12000	40	—
Magnesium	1200	0.20	—
Sodium	5600	80	—
Phosphorus	14000	20	—
Sulfur	5700	60	—

Comment:

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## Certificate of Analysis

Client Sample ID: 2. Indoor Nutro Natural

Lot: 11 2010

Sample Type: Feed Pellets - Dry Weight

UIASL Sample ID: V0901490

Species: Cat

Preservation: None

## Micro Trace Element Screen

Method: ICP --

	Results (µg/g)	RL	Adult Approx. Ref. Range
Arsenic	< 16	16	—
Barium	4.4	0.40	—
Cadmium	< 0.4	0.40	—
Cobalt	0.36	0.12	—
Chromium	2.5	2.0	—
Copper	26	0.40	—
Iron	390	4.0	—
Manganese	62	0.20	—
Molybdenum	< 2	2.0	—
Nickel	< 2	2.0	—
Lead	< 4	4.0	—
Vanadium	1.4	0.40	—
Zinc	380	0.80	—

Comment:

Client Sample ID: 3. Wellness Indoor Health

Lot: 27 Feb 2010

Sample Type: Feed Pellets - Dry Weight

UIASL Sample ID: V0901491

Species: Cat

Preservation: None

## Macro Element Screen

Method: ICP --

	Results (µg/g)	RL	Adult Approx. Ref. Range
Calcium	7800	2.0	—
Potassium	7500	40	—
Magnesium	1100	0.20	—
Sodium	2000	80	—
Phosphorus	7700	20	—
Sulfur	4200	60	—

Comment:

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## Certificate of Analysis

**Client Sample ID: 3. Wellness Indoor Health**

Lot: 27 Feb 2010

Sample Type: Feed Pellets - Dry Weight

UIASL Sample ID: V0901491

Species: Cat

Preservation: None

**Micro Trace Element Screen**

Method: ICP --

	Results (µg/g)	RL	Adult Approx. Ref. Range
Arsenic	< 16	16	—
Barium	2.5	0.40	—
Cadmium	< 0.4	0.40	—
Cobalt	0.21	0.12	—
Chromium	< 2	2.0	—
Copper	20	0.40	—
Iron	270	4.0	—
Manganese	28	0.20	—
Molybdenum	< 2	2.0	—
Nickel	< 2	2.0	—
Lead	< 4	4.0	—
Vanadium	< 0.4	0.40	—
Zinc	190	0.80	—

Comment:

**Client Sample ID: 4. Nutro Max Cat Adult**

Lot: 28 Feb 2010

Sample Type: Feed Pellets - Dry Weight

UIASL Sample ID: V0901492

Species: Cat

Preservation: None

**Macro Element Screen**

Method: ICP --

	Results (µg/g)	RL	Adult Approx. Ref. Range
Calcium	14000	2.0	—
Potassium	9800	40	—
Magnesium	950	0.20	—
Sodium	4500	80	—
Phosphorus	10000	20	—
Sulfur	5100	60	—

Comment:

# UI Analytical Sciences Laboratory

## Certificate of Analysis

Client Sample ID: 4. Nutro Max Cat Adult

Lot: 28 Feb 2010

Sample Type: Feed Pellets - Dry Weight

UIASL Sample ID: V0901492

Species: Cat

Preservation: None

## Micro Trace Element Screen

Method: ICP --

	Results (µg/g)	RL	Adult Approx. Ref. Range
Arsenic	< 16	16	—
Barium	2.6	0.40	—
Cadmium	< 0.4	0.40	—
Cobalt	0.22	0.12	—
Chromium	< 2	2.0	—
Copper	22	0.40	—
Iron	240	4.0	—
Manganese	48	0.20	—
Molybdenum	< 2	2.0	—
Nickel	< 2	2.0	—
Lead	< 4	4.0	—
Vanadium	< 0.4	0.40	—
Zinc	230	0.80	—

Comment:

Client Sample ID: 5. Purina Cat Chow Complete

Lot: Jul 2010

Sample Type: Feed Pellets - Dry Weight

UIASL Sample ID: V0901493

Species: Cat

Preservation: None

## Macro Element Screen

Method: ICP --

	Results (µg/g)	RL	Adult Approx. Ref. Range
Calcium	15000	2.0	—
Potassium	7200	40	—
Magnesium	1300	0.20	—
Sodium	5800	80	—
Phosphorus	13000	20	—
Sulfur	4800	60	—

Comment:

# UI Analytical Sciences Laboratory

## Certificate of Analysis

**Client Sample ID: 5. Purina Cat Chow Complete**

Lot: Jul 2010

Sample Type: Feed Pellets - Dry Weight

UIASL Sample ID: V0901493

Species: Cat

Preservation: None

**Micro Trace Element Screen**

Method: ICP --

	Results (µg/g)	RL	Adult Approx. Ref. Range
Arsenic	< 16	16	—
Barium	3.8	0.40	—
Cadmium	< 0.4	0.40	—
Cobalt	0.29	0.12	—
Chromium	< 2	2.0	—
Copper	22	0.40	—
Iron	250	4.0	—
Manganese	73	0.20	—
Molybdenum	< 2	2.0	—
Nickel	< 2	2.0	—
Lead	< 4	4.0	—
Vanadium	< 0.4	0.40	—
Zinc	190	0.80	—

Comment:

Note: Any included reference ranges are only guidelines and the analytical results need to be interpreted in conjunction with management and dietary factors, as well as with clinical and/or postmortem observations. Reference ranges can vary significantly between individuals or groups of animals from different ranges and habitats or on different diets.

Note: Serum concentrations of some elements (e.g., zinc, iron, phosphorus, magnesium) may be artificially elevated due to hemolysis or leaching from the red blood cells. Zinc can leach from some rubber blood collection tube stoppers. The sample should be spun and the serum separated from the clot prior to shipping. We recommend collecting blood in plastic vials or royal blue top vacutainer tubes without heparin (for trace element analysis) for submission of samples to be analyzed for zinc.

Samples will be discarded one month after date of final report unless otherwise requested.