



XXXX
Breed: XXXXX
Species: Canine
Sex: Male
Age: 14.2 years
Weight: 30 kg



Global Health Score
Profile to monitor:
mercury exposure, low calcium and borderline iodine.
Veterinary priority

Minerals

98/100

Good

Key factors: Calcium (Ca) > Iodine (I)

Toxics

0/100

Priority

Key factors: Mercury (Hg) > Lead (Pb)

Electrolytes

100/100

Good

Key factors: Sodium (Na) > Potassium (K)

Skin/Coat

100/100

Good

Key factors: Iodine (I) > Zinc (Zn)

Detox

0/100

Priority

Key factors: Mercury (Hg) > Sulfur (S)

☆ **Top 5 Priorities**

1 Mercury (Hg)
High
Severity: High
Mercury (Hg): High
Follow-up: Mercury (Hg): High

2 Calcium (Ca)
Borderline
Severity: Moderate
Review calcium, phosphorus and vitamin D.
Follow-up: Review calcium, phosphorus and vitamin D.

3 Iodine (I)
Borderline
Severity: Moderate
Iodine (I): Borderline
Follow-up: Iodine (I): Borderline

MAIN ABNORMALITIES

MAIN ABNORMALITIES - Clinical range

● High ● Borderline ● Within range

Element	Value	Reference Range	Clinical range
Calcium (Ca)	620.526 µg/g	700 - 3000 µg/g	●
Mercury (Hg)	1.395 µg/g	0 - 0.4 µg/g	●
Iodine (I)	0.2 µg/g	0.2 - 2 µg/g	●

elements outside range: 3. COMPLETE BIOMARKER PROFILE shown in the section below.

SUMMARY

3 marker(s) and 0 ratio(s) require review. Interpret ratios with individual values and clinical context.

PRIORITY FOLLOW-UP

- Consider thyroid testing when clinical signs support it.
- Consider serum electrolytes or biochemistry when symptoms are present.

COMPLETE BIOMARKER PROFILE

Element

Essential Minerals

Toxic Burden

Trace Elements

Electrolytes

40
Biomarkers analyzed

40 biomarkers measured by ICP-MS.

Element	Value	Reference Range	Status
Calcium (Ca)	620.526 µg/g	700 - 3000 µg/g	Borderline
Copper (Cu)	17.414 µg/g	8 - 30 µg/g	Within range
Magnesium (Mg)	118.866 µg/g	100 - 450 µg/g	Within range
Manganese (Mn)	1.49 µg/g	1 - 15 µg/g	Within range
Phosphorus (P)	372.886 µg/g	220 - 500 µg/g	Within range
Selenium (Se)	0.912 µg/g	0.4 - 2.5 µg/g	Within range

FUNCTIONAL RATIOS

Ratio	Value	Reference Range	Status	Short interpretation
Ca/P	1.664	1.36 - 13.64	Within range	Ca/P is within range; read it alongside the individual calcium and phosphorus values.
Na/K	3.167	0.269 - 90	Within range	Na/K is within range; interpret with sodium, potassium and clinical context.
Ca/K	1.517	0.262 - 29	Within range	Ca/K is within range; review the individual calcium and potassium values.
Zn/Cu	9.483	3.333 - 38.71	Within range	Zn/Cu is within range; confirm against the individual zinc and copper values.
Na/Mg	10.897	1.458 - 90	Within range	Na/Mg is within range; interpret with hydration, sodium and magnesium.
Ca/Mg	5.22	1.417 - 29	Within range	Ca/Mg is near the functional range; review calcium and magnesium individually.
Fe/Cu	3.906	0.833 - 49.032	Within range	Fe/Cu is within range; still check iron and copper individually rather than the ratio alone.

Ratio summary
Ratios are functional orientation markers and must be interpreted with individual elements and clinical findings.

TOXIC BURDEN

Element	Value	Reference Range	Status
Aluminum (Al)	54.769 µg/g	0 - 250 µg/g	Within range
Arsenic (As)	0.074 µg/g	0 - 3 µg/g	Within range
Cadmium (Cd)	0.006 µg/g	0 - 1 µg/g	Within range
Mercury (Hg)	1.395 µg/g	0 - 0.4 µg/g	High
Nickel (Ni)	0.247 µg/g	0 - 5 µg/g	Within range

Toxic Burden

0/100

Priority

Review possible environmental exposure to elevated toxic elements.

LONGITUDINAL FOLLOW-UP

No historical data available for this sample.

Trend charts will be displayed only when several dated analyses for the same animal are available.

RECOMMENDED PLAN

RECOMMENDED PLAN

Nutrition

- Review mineral intake and Ca/P balance.
- Check iodine sources if thyroid-related signs are present.

Veterinary Follow-up

- Consider thyroid testing when clinical signs support it.
- Consider serum electrolytes or biochemistry when symptoms are present.

Environment

- Review possible environmental exposure to elevated toxic elements.


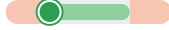
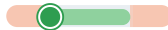


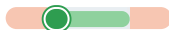

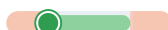



















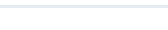
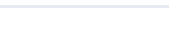
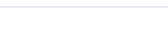
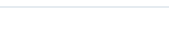



Next Steps

- Repeat hair analysis in 3-6 months when follow-up is clinically useful.
- Interpret changes with clinical examination and relevant laboratory tests.

TOXIC BURDEN HISTORY

Unavailable: only one dated analysis is available.

 Within range  Value

Aluminum (Al)	54.769 µg/g 0 - 250 µg/g		Within range	Tin (Sn)	0.162 µg/g 0 - 5 µg/g		Within range
Arsenic (As)	0.074 µg/g 0 - 3 µg/g		Within range	Strontium (Sr)	2.277 µg/g 0 - 6 µg/g		Within range
Boron (B)	1.177 µg/g 0 - 5 µg/g		Within range	Vanadium (V)	0.138 µg/g 0 - 1.2 µg/g		Within range
Calcium (Ca)	620.526 µg/g 700 - 3000 µg/g		Borderline	Zinc (Zn)	165.136 µg/g 100 - 300 µg/g		Within range
Cadmium (Cd)	0.006 µg/g 0 - 1 µg/g		Within range	Beryllium (Be)	0.001 µg/g 0 - 1 µg/g		Within range
Cobalt (Co)	0.048 µg/g 0.02 - 1 µg/g		Within range	Molybdenum (Mo)	0.047 µg/g 0 - 3 µg/g		Within range
Chromium (Cr)	0.55 µg/g 0.1 - 5 µg/g		Within range	Silver (Ag)	0.283 µg/g 0 - 2 µg/g		Within range
Copper (Cu)	17.414 µg/g 8 - 30 µg/g		Within range	Barium (Ba)	3.308 µg/g 0 - 5 µg/g		Within range
Iron (Fe)	68.024 µg/g 25 - 400 µg/g		Within range	Gold (Au)	0.036 µg/g 0 - 2 µg/g		Within range
Mercury (Hg)	1.395 µg/g 0 - 0.4 µg/g		High	Sulfur (S)	47813.755 µg/g 30000 - 50000 µg/g		Within range
Potassium (K)	408.989 µg/g 100 - 2500 µg/g		Within range	Antimony (Sb)	0.143 µg/g 0 - 0.2 µg/g		Within range
Lithium (Li)	0.159 µg/g 0 - 1 µg/g		Within range	Uranium (U)	0.004 µg/g 0 - 0.25 µg/g		Within range
Magnesium (Mg)	118.866 µg/g 100 - 450 µg/g		Within range	Germanium (Ge)	0.008 µg/g 0 - 0.5 µg/g		Within range
Manganese (Mn)	1.49 µg/g 1 - 15 µg/g		Within range	Gallium (Ga)	0.019 µg/g 0 - 0.5 µg/g		Within range
Sodium (Na)	1295.265 µg/g 700 - 10000 µg/g		Within range	Lanthanum (La)	0.044 µg/g 0 - 2 µg/g		Within range
Nickel (Ni)	0.247 µg/g 0 - 5 µg/g		Within range	Cerium (Ce)	0.08 µg/g 0 - 2 µg/g		Within range
Phosphorus (P)	372.886 µg/g 220 - 500 µg/g		Within range	Bismuth (Bi)	0.021 µg/g 0 - 0.2 µg/g		Within range
Lead (Pb)	0.574 µg/g 0 - 10 µg/g		Within range	Thallium (Tl)	0.001 µg/g 0 - 0.05 µg/g		Within range
Selenium (Se)	0.912 µg/g 0.4 - 2.5 µg/g		Within range	Platinum (Pt)	0 µg/g 0 - 2 µg/g		Within range
Silicon (Si)	108.384 µg/g 20 - 600 µg/g		Within range	Iodine (I)	0.2 µg/g 0.2 - 2 µg/g		Borderline

Summary

Three individual markers require review: calcium below range, mercury high and iodine at the lower reference boundary. All listed ratios remain within their stated broad laboratory intervals.

MAIN ABNORMALITIES

<p>Calcium (Ca) Borderline</p> <p>Value 620.526 µg/g Reference range 700 - 3000 µg/g</p> <p>Below the stated reference interval. Review diet/mineral balance; confirm with serum biochemistry only if clinically indicated.</p>	<p>Mercury (Hg) High</p> <p>Value 1.395 µg/g Reference range 0 - 0.4 µg/g</p> <p>High fur mercury marker. Review diet, environment, topical exposure and possible external contamination; consider confirmation.</p>	<p>Iodine (I) Borderline</p> <p>Value 0.200 µg/g Reference range 0.2 - 2 µg/g</p> <p>At the lower reference boundary. Review dietary iodine sources; thyroid testing only if clinical signs support it.</p>
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FUNCTIONAL RATIOS

Ratio	Value	Status	Short interpretation
Ca/P	1.664	Within range	Ca/P is within range; read it alongside the individual calcium and phosphorus values.
Na/K	3.167	Within range	Na/K is within range; interpret with sodium, potassium and clinical context.
Ca/K	1.517	Within range	Ca/K is within range; review the individual calcium and potassium values.
Zn/Cu	9.483	Within range	Zn/Cu is within range; confirm against the individual zinc and copper values.
Na/Mg	10.897	Within range	Na/Mg is within range; interpret with hydration, sodium and magnesium.
Ca/Mg	5.220	Within range	Ca/Mg is within range; review calcium and magnesium individually.
Fe/Cu	3.906	Within range	Fe/Cu is within range; still check iron and copper individually rather than the ratio alone.

Summary - METABOLIC PROFILE

Three individual markers require review. Ratios are within the stated broad intervals and must be interpreted alongside individual values and clinical context.

Veterinary Follow-up

- Review current diet, supplements, treats and water source.
- Consider serum biochemistry if clinical signs are present.
- Consider thyroid testing only when clinical signs support it.

This page expands the summary by reviewing the most significant markers. Fur results are screening indicators to be considered with diet, clinical signs and, when appropriate, veterinary testing.

MARKER REVIEW

Mercury (Hg)

High

Value: 1.395 µg/g | Reference range: 0 - 0.4 µg/g

High fur mercury warrants review of environmental sources, water, topical products and possible sample contamination. Targeted confirmation may be appropriate.

Calcium (Ca)

Borderline

Value: 620.526 µg/g | Reference range: 700 - 3000 µg/g

Below the stated reference interval. Review diet/mineral balance and associated signs before making changes; confirm with serum biochemistry if clinically indicated.

Iodine (I)

Borderline

Value: 0.200 µg/g | Reference range: 0.2 - 2 µg/g

At the lower reference boundary. Review dietary iodine sources and consider thyroid testing only if clinical signs support it.

RATIO SUMMARY

All listed ratios are within their stated broad reference intervals. Interpret them alongside the individual elements, diet, hydration and clinical findings; no ratio should be used as a standalone diagnosis.

FOLLOW-UP POINTS

- Review diet, treats, supplements, water source and potential fish/seafood exposure.
- For mercury, consider external contamination control, repeat sampling or confirmatory testing depending on signs and exposure history.
- If clinical signs are present, consider serum biochemistry with calcium, phosphorus, magnesium, renal and liver markers.
- Thyroid testing should be guided by clinical signs; fur iodine alone does not diagnose thyroid disease.