

HAIR ELEMENTS



PATIENT: Number 140
SEX: Female
AGE: 51 Location: Harare, Zimbabwe

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	5.3	< 7.0		
Antimony	0.023	< 0.050		
Arsenic	0.064	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.003	< 2.0		
Cadmium	0.040	< 0.10		
Lead	0.88	< 1.0		
Mercury	0.63	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	0.001	< 0.005		
Uranium	0.032	< 0.060		
Nickel	0.14	< 0.40		
Silver	0.56	< 0.15		
Tin	0.17	< 0.30		
Titanium	0.29	< 1.0		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS							
ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Calcium	152	300- 1200					
Magnesium	18	35- 120					
Sodium	14	12- 90					
Potassium	13	8- 38					
Copper	27	12- 35					
Zinc	150	140- 220					
Manganese	0.16	0.15- 0.65					
Chromium	0.34	0.20- 0.40					
Vanadium	0.058	0.018- 0.065					
Molybdenum	0.032	0.028- 0.056					
Boron	0.35	0.30- 2.0					
Iodine	0.39	0.25- 1.3					
Lithium	0.004	0.007- 0.023					
Phosphorus	144	160- 250					
Selenium	0.69	0.95- 1.7					
Strontium	0.28	0.50- 7.6					
Sulfur	48000	44500- 52000					
Barium	0.20	0.26- 3.0					
Cobalt	0.010	0.013- 0.050					
Iron	8.4	5.4- 14					
Germanium	0.027	0.045- 0.065					
Rubidium	0.012	0.007- 0.096					
Zirconium	0.076	0.020- 0.42					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 1/10/2008	Sample Size: 0.196 g			Ca/Mg	8.44	4- 30
Date Received: 1/16/2008	Sample Type: Head			Ca/P	1.06	1- 12
Date Completed: 1/18/2008	Hair Color: Brown			Na/K	1.08	0.5- 10
	Treatment:			Zn/Cu	5.56	4- 20
Methodology: ICP-MS	Shampoo: Body Shop			Zn/Cd	> 999	> 800

V06.99