

HAIR ELEMENTS



PATIENT: Number 77
SEX: Female
AGE: 44
Location: Cape Town, South Africa

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	3.9	< 7.0		
Antimony	0.013	< 0.050		
Arsenic	0.041	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.067	< 2.0		
Cadmium	0.016	< 0.10		
Lead	0.16	< 1.0		
Mercury	0.71	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.002	< 0.060		
Nickel	0.19	< 0.40		
Silver	0.32	< 0.15		
Tin	0.10	< 0.30		
Titanium	1.1	< 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	443	300- 1200					
Magnesium	21	35- 120					
Sodium	18	12- 90					
Potassium	34	8- 38					
Copper	18	12- 35					
Zinc	190	140- 220					
Manganese	0.12	0.15- 0.65					
Chromium	0.37	0.20- 0.40					
Vanadium	0.026	0.018- 0.065					
Molybdenum	0.027	0.028- 0.056					
Boron	0.53	0.30- 2.0					
Iodine	1.6	0.25- 1.3					
Lithium	0.011	0.007- 0.023					
Phosphorus	150	160- 250					
Selenium	0.61	0.95- 1.7					
Strontium	0.92	0.50- 7.6					
Sulfur	46500	44500- 52000					
Barium	0.60	0.26- 3.0					
Cobalt	0.023	0.013- 0.050					
Iron	13	5.4- 14					
Germanium	0.040	0.045- 0.065					
Rubidium	0.040	0.007- 0.096					
Zirconium	0.11	0.020- 0.42					

SPECIMEN DATA			RATIOS		
COMMENTS:			ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected:	Sample Size:	0.198 g	Ca/Mg	21.1	4- 30
Date Received: 5/9/2007	Sample Type:	Head	Ca/P	2.95	1- 12
Date Completed: 5/12/2007	Hair Color:		Na/K	0.529	0.5- 10
	Treatment:		Zn/Cu	10.6	4- 20
Methodology: ICP-MS	Shampoo:		Zn/Cd	> 999	> 800

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