

HAIR ELEMENTS



PATIENT: Number 109
SEX: Male
AGE: 43
Location: Cape Town, RSA

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	7.9	< 7.0		
Antimony	0.063	< 0.066		
Arsenic	0.10	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	0.025	< 2.0		
Cadmium	0.018	< 0.15		
Lead	0.91	< 2.0		
Mercury	2.2	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.007	< 0.060		
Nickel	0.10	< 0.40		
Silver	0.22	< 0.12		
Tin	0.31	< 0.30		
Titanium	0.46	< 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	139	200- 750					
Magnesium	15	25- 75					
Sodium	25	12- 90					
Potassium	21	9- 40					
Copper	19	10- 28					
Zinc	140	130- 200					
Manganese	0.10	0.15- 0.65					
Chromium	0.59	0.20- 0.40					
Vanadium	0.080	0.018- 0.065					
Molybdenum	0.042	0.025- 0.064					
Boron	1.7	0.40- 3.0					
Iodine	1.5	0.25- 1.3					
Lithium	0.006	0.007- 0.023					
Phosphorus	181	160- 250					
Selenium	0.85	0.95- 1.7					
Strontium	0.20	0.30- 3.5					
Sulfur	46800	44500- 52000					
Barium	0.16	0.16- 1.6					
Cobalt	0.007	0.013- 0.035					
Iron	10	5.4- 13					
Germanium	0.028	0.045- 0.065					
Rubidium	0.022	0.011- 0.12					
Zirconium	0.16	0.020- 0.44					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 9/10/2007	Sample Size: 0.16 g			Ca/Mg	9.27	4- 30
Date Received: 9/13/2007	Sample Type: Head			Ca/P	0.768	0.8- 8
Date Completed: 9/18/2007	Hair Color: Brown			Na/K	1.19	0.5- 10
	Treatment:			Zn/Cu	7.37	4- 20
Methodology: ICP-MS	Shampoo:			Zn/Cd	> 999	> 800

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