

HAIR ELEMENTS



PATIENT: Number 123
SEX: Male
AGE: 32
Location: Cape Town, RSA

POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	8.6	< 7.0		
Antimony	0.016	< 0.066		
Arsenic	0.16	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	0.029	< 2.0		
Cadmium	0.009	< 0.15		
Lead	0.09	< 2.0		
Mercury	2.7	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	< 0.001	< 0.060		
Nickel	0.06	< 0.40		
Silver	0.04	< 0.12		
Tin	0.07	< 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	501	200- 750					
Magnesium	31	25- 75					
Sodium	45	12- 90					
Potassium	19	9- 40					
Copper	9.8	10- 28					
Zinc	190	130- 200					
Manganese	0.11	0.15- 0.65					
Chromium	0.36	0.20- 0.40					
Vanadium	0.032	0.018- 0.065					
Molybdenum	0.047	0.025- 0.064					
Boron	0.46	0.40- 3.0					
Iodine	0.97	0.25- 1.3					
Lithium	0.004	0.007- 0.023					
Phosphorus	253	160- 250					
Selenium	0.70	0.95- 1.7					
Strontium	0.90	0.30- 3.5					
Sulfur	48100	44500- 52000					
Barium	0.07	0.16- 1.6					
Cobalt	0.004	0.013- 0.035					
Iron	3.7	5.4- 13					
Germanium	0.035	0.045- 0.065					
Rubidium	0.015	0.011- 0.12					
Zirconium	0.077	0.020- 0.44					

SPECIMEN DATA

COMMENTS:

Date Collected: 10/8/2007 Sample Size: 0.162 g
 Date Received: 10/12/2007 Sample Type: Head
 Date Completed: 10/16/2007 Hair Color: Brown
 Treatment:
 Methodology: ICP-MS Shampoo: Nioxin

V06.99

RATIOS

ELEMENTS	RATIOS	EXPECTED RANGE
Ca/Mg	16.2	4- 30
Ca/P	1.98	0.8- 8
Na/K	2.37	0.5- 10
Zn/Cu	19.4	4- 20
Zn/Cd	> 999	> 800