

HAIR ELEMENTS



PATIENT: Number 211
SEX: Male
AGE: 68
LOCATION: Cape Town, RSA

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	1.5	< 7.0		
Antimony	0.017	< 0.066		
Arsenic	0.070	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	0.020	< 2.0		
Cadmium	0.010	< 0.15		
Lead	0.34	< 2.0		
Mercury	0.43	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.009	< 0.060		
Nickel	0.06	< 0.40		
Silver	0.01	< 0.12		
Tin	0.11	< 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	155	200- 750					
Magnesium	23	25- 75					
Sodium	47	12- 90					
Potassium	19	9- 40					
Copper	9.1	10- 28					
Zinc	180	130- 200					
Manganese	0.05	0.15- 0.65					
Chromium	0.63	0.20- 0.40					
Vanadium	0.075	0.018- 0.065					
Molybdenum	0.024	0.025- 0.064					
Boron	2.1	0.40- 3.0					
Iodine	0.56	0.25- 1.3					
Lithium	0.007	0.007- 0.023					
Phosphorus	171	160- 250					
Selenium	1.2	0.95- 1.7					
Strontium	< 0.01	0.30- 3.5					
Sulfur	44500	44500- 52000					
Barium	0.05	0.16- 1.6					
Cobalt	0.002	0.013- 0.035					
Iron	9.9	5.4- 13					
Germanium	0.037	0.045- 0.065					
Rubidium	0.014	0.011- 0.12					
Zirconium	0.071	0.020- 0.44					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 9/5/2008	Sample Size: 0.2 g			Ca/Mg	6.74	4- 30
Date Received: 9/17/2008	Sample Type: Head			Ca/P	0.906	0.8- 8
Date Completed: 9/19/2008	Hair Color: Brown			Na/K	2.47	0.5- 10
	Treatment:			Zn/Cu	19.8	4- 20
Methodology: ICP-MS	Shampoo: Redken			Zn/Cd	> 999	> 800

V06.99