

HAIR ELEMENTS



PATIENT: No 10
SEX: Male
AGE: 50
Location: Cape Town, South Africa

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	10	< 7.0		
Antimony	0.022	< 0.066		
Arsenic	0.036	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	0.019	< 0.060		
Cadmium	< 0.009	< 0.15		
Lead	1.4	< 2.0		
Mercury	0.52	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.012	< 0.060		
Nickel	0.23	< 0.40		
Silver	0.09	< 0.12		
Tin	0.11	< 0.30		
Titanium	0.53	< 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	881	200- 750					
Magnesium	87	25- 75					
Sodium	9	12- 90					
Potassium	< 3	9- 40					
Copper	13	10- 28					
Zinc	170	130- 200					
Manganese	0.31	0.15- 0.65					
Chromium	0.49	0.20- 0.40					
Vanadium	0.024	0.018- 0.065					
Molybdenum	0.020	0.025- 0.064					
Boron	0.38	0.40- 3.0					
Iodine	3.5	0.25- 1.3					
Lithium	0.021	0.007- 0.023					
Phosphorus	141	160- 250					
Selenium	0.93	0.95- 1.7					
Strontium	1.0	0.30- 3.5					
Sulfur	44100	44500- 52000					
Barium	0.90	0.16- 1.6					
Cobalt	0.59	0.013- 0.035					
Iron	7.4	5.4- 13					
Germanium	0.035	0.045- 0.065					
Rubidium	0.003	0.011- 0.12					
Zirconium	0.051	0.020- 0.44					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected:	8/8/2006	Sample Size:	0.201 g	Ca/Mg	10.1	4- 30
Date Received:	9/1/2006	Sample Type:	Head	Ca/P	6.25	0.8- 8
Date Completed:	9/7/2006	Hair Color:		Na/K	3	0.5- 10
Methodology:	ICP-MS	Treatment:		Zn/Cu	13.1	4- 20
		Shampoo:		Zn/Cd	> 999	> 800

V06.99