

HAIR ELEMENTS



PATIENT: No 6
SEX: Female
AGE: 10
 Location, Cape Town, South Africa

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	7.1	< 8.0		
Antimony	< 0.01	< 0.066		
Arsenic	0.042	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	< 0.002	< 0.12		
Cadmium	0.023	< 0.10		
Lead	0.09	< 1.0		
Mercury	0.32	< 0.40		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.015	< 0.060		
Nickel	0.04	< 0.40		
Silver	0.03	< 0.16		
Tin	0.04	< 0.30		
Titanium	0.40	< 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	212	250- 800					
Magnesium	13	25- 90					
Sodium	45	12- 90					
Potassium	15	7- 40					
Copper	12	12- 35					
Zinc	190	120- 220					
Manganese	0.05	0.18- 0.60					
Chromium	0.43	0.23- 0.45					
Vanadium	0.036	0.025- 0.10					
Molybdenum	0.029	0.037- 0.083					
Boron	0.40	0.30- 1.7					
Iodine	0.25	0.25- 1.3					
Lithium	0.005	0.007- 0.023					
Phosphorus	154	160- 250					
Selenium	0.99	0.95- 1.7					
Strontium	0.31	0.37- 3.6					
Sulfur	47100	45500- 53000					
Barium	0.04	0.21- 1.9					
Cobalt	0.008	0.013- 0.050					
Iron	5.2	6.0- 17					
Germanium	0.030	0.045- 0.065					
Rubidium	0.013	0.008- 0.080					
Zirconium	0.051	0.030- 0.40					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 8/19/2006	Sample Size: 0.19 g			Ca/Mg	16.3	4- 30
Date Received: 9/7/2006	Sample Type: Head			Ca/P	1.38	1- 12
Date Completed: 9/13/2006	Hair Color: Brown			Na/K	3	0.5- 10
	Treatment:			Zn/Cu	15.8	4- 20
Methodology: ICP-MS	Shampoo:			Zn/Cd	> 999	> 800

V06.99