

HAIR ELEMENTS



PATIENT: Junito Baleson
SEX: Female
AGE: 41
Location: Cape Town, South Africa

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	13	< 12		
Antimony	0.028	< 0.060		
Arsenic	0.037	< 0.090		
Beryllium	< 0.01	< 0.020		
Bismuth	0.035	< 0.13		
Cadmium	0.041	< 0.10		
Lead	0.26	< 1.0		
Mercury	1.1	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.012	< 0.060		
Nickel	0.09	< 0.40		
Silver	0.13	< 0.10		
Tin	0.07	< 0.30		
Titanium	0.84	< 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	486	475- 1500					
Magnesium	17	45- 180					
Sodium	300	24- 180					
Potassium	180	20- 80					
Copper	16	9.0- 24					
Zinc	130	130- 200					
Manganese	0.29	0.20- 0.65					
Chromium	0.45	0.20- 0.45					
Vanadium	0.025	0.018- 0.065					
Molybdenum	0.062	0.040- 0.10					
Boron	0.60	0.70- 4.0					
Iodine	0.32	0.25- 1.3					
Lithium	0.010	0.008- 0.040					
Phosphorus	251	350- 600					
Selenium	0.56	0.95- 1.7					
Strontium	1.7	1.0- 8.0					
Sulfur	56800	43000- 50000					
Barium	0.38	0.50- 5.0					
Cobalt	0.011	0.013- 0.050					
Iron	8.8	5.8- 14					
Germanium	0.044	0.045- 0.065					
Rubidium	0.18	0.030- 0.25					
Zirconium	0.35	0.040- 1.0					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected:	8/11/2006	Sample Size:	0.132 g	Ca/Mg	28.6	4- 30
Date Received:	11/16/2006	Sample Type:	Pubic	Ca/P	1.94	1- 12
Date Completed:	11/21/2006	Hair Color:	Brown	Na/K	1.67	0.5- 10
		Treatment:	Dye	Zn/Cu	8.13	4- 20
Methodology:	ICP-MS	Shampoo:	Keratase	Zn/Cd	> 999	> 800

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