

HAIR ELEMENTS



Patient: Number 149
SEX: Male
AGE: 21 Location: Melbourne, Australia

POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	5.7	< 7.0		
Antimony	0.012	< 0.066		
Arsenic	0.049	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	0.005	< 2.0		
Cadmium	0.083	< 0.15		
Lead	0.32	< 2.0		
Mercury	1.7	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.014	< 0.060		
Nickel	0.10	< 0.40		
Silver	0.11	< 0.12		
Tin	0.05	< 0.30		
Titanium	0.51	< 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	177	200- 750					
Magnesium	14	25- 75					
Sodium	1	12- 90					
Potassium	5	9- 40					
Copper	120	10- 28					
Zinc	360	130- 200					
Manganese	0.30	0.15- 0.65					
Chromium	0.27	0.20- 0.40					
Vanadium	0.024	0.018- 0.065					
Molybdenum	0.027	0.025- 0.064					
Boron	< 0.07	0.40- 3.0					
Iodine	0.17	0.25- 1.3					
Lithium	< 0.004	0.007- 0.023					
Phosphorus	204	160- 250					
Selenium	0.57	0.95- 1.7					
Strontium	0.21	0.30- 3.5					
Sulfur	44600	44500- 52000					
Barium	0.06	0.16- 1.6					
Cobalt	0.009	0.013- 0.035					
Iron	14	5.4- 13					
Germanium	0.031	0.045- 0.065					
Rubidium	0.006	0.011- 0.12					
Zirconium	0.086	0.020- 0.44					

SPECIMEN DATA

COMMENTS:
 Date Collected: 12/5/2007 Sample Size: 0.197 g
 Date Received: 12/10/2007 Sample Type: Head
 Date Completed: 12/15/2007 Hair Color:
 Treatment:
 Methodology: ICP-MS Shampoo: Melrose

V06.99

RATIOS

ELEMENTS	RATIOS	EXPECTED RANGE
Ca/Mg	12.6	4- 30
Ca/P	0.868	0.8- 8
Na/K	0.2	0.5- 10
Zn/Cu	3	4- 20
Zn/Cd	> 999	> 800