

HAIR ELEMENTS



PATIENT: Number 95
SEX: Female
AGE: 62
Location: Mississauga, Canada

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	2.4	< 7.0		
Antimony	< 0.01	< 0.050		
Arsenic	0.032	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.022	< 2.0		
Cadmium	0.060	< 0.10		
Lead	< 0.01	< 1.0		
Mercury	0.41	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.005	< 0.060		
Nickel	0.07	< 0.40		
Silver	0.07	< 0.15		
Tin	0.14	< 0.30		
Titanium	0.73	< 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	351	300- 1200					
Magnesium	49	35- 120					
Sodium	< 1	12- 90					
Potassium	< 3	8- 38					
Copper	12	12- 35					
Zinc	180	140- 220					
Manganese	0.09	0.15- 0.65					
Chromium	0.25	0.20- 0.40					
Vanadium	0.021	0.018- 0.065					
Molybdenum	0.019	0.028- 0.056					
Boron	0.50	0.30- 2.0					
Iodine	1.3	0.25- 1.3					
Lithium	< 0.004	0.007- 0.023					
Phosphorus	191	160- 250					
Selenium	1.1	0.95- 1.7					
Strontium	0.82	0.50- 7.6					
Sulfur	53700	44500- 52000					
Barium	0.40	0.26- 3.0					
Cobalt	0.004	0.013- 0.050					
Iron	16	5.4- 14					
Germanium	0.038	0.045- 0.065					
Rubidium	0.004	0.007- 0.096					
Zirconium	0.096	0.020- 0.42					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 6/13/2007	Sample Size: 0.143 g			Ca/Mg	7.16	4- 30
Date Received: 6/21/2007	Sample Type: Head			Ca/P	1.84	1- 12
Date Completed: 6/26/2007	Hair Color: Gray			Na/K	0.333	0.5- 10
	Treatment: Dye, Perm			Zn/Cu	15	4- 20
Methodology: ICP-MS	Shampoo: Redken			Zn/Cd	> 999	> 800