

HAIR ELEMENTS



PATIENT: Number 85
SEX: Female
AGE: 49

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	4.5	< 7.0		
Antimony	< 0.01	< 0.050		
Arsenic	0.026	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.027	< 2.0		
Cadmium	0.012	< 0.10		
Lead	0.13	< 1.0		
Mercury	0.26	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.003	< 0.060		
Nickel	0.30	< 0.40		
Silver	0.29	< 0.15		
Tin	0.05	< 0.30		
Titanium	0.94	< 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	878	300- 1200					
Magnesium	52	35- 120					
Sodium	11	12- 90					
Potassium	12	8- 38					
Copper	15	12- 35					
Zinc	230	140- 220					
Manganese	0.12	0.15- 0.65					
Chromium	0.43	0.20- 0.40					
Vanadium	0.047	0.018- 0.065					
Molybdenum	0.011	0.028- 0.056					
Boron	0.97	0.30- 2.0					
Iodine	0.25	0.25- 1.3					
Lithium	0.004	0.007- 0.023					
Phosphorus	198	160- 250					
Selenium	0.97	0.95- 1.7					
Strontium	1.7	0.50- 7.6					
Sulfur	47500	44500- 52000					
Barium	0.32	0.26- 3.0					
Cobalt	0.013	0.013- 0.050					
Iron	13	5.4- 14					
Germanium	0.037	0.045- 0.065					
Rubidium	0.014	0.007- 0.096					
Zirconium	0.19	0.020- 0.42					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 4/18/2007	Sample Size: 0.204 g			Ca/Mg	16.9	4- 30
Date Received: 5/17/2007	Sample Type: Head			Ca/P	4.43	1- 12
Date Completed: 5/22/2007	Hair Color: Gray			Na/K	0.917	0.5- 10
	Treatment: Dye			Zn/Cu	15.3	4- 20
Methodology: ICP-MS	Shampoo: Pantene			Zn/Cd	> 999	> 800

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