

HAIR ELEMENTS



PATIENT: Number 82
SEX: Female
AGE: 87

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	4.6	< 7.0		
Antimony	0.028	< 0.050		
Arsenic	0.12	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	< 0.002	< 2.0		
Cadmium	0.13	< 0.10		
Lead	0.49	< 1.0		
Mercury	0.50	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	< 0.001	< 0.060		
Nickel	0.08	< 0.40		
Silver	0.12	< 0.15		
Tin	0.06	< 0.30		
Titanium	0.39	< 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	232	300- 1200					
Magnesium	31	35- 120					
Sodium	300	12- 90					
Potassium	65	8- 38					
Copper	7.5	12- 35					
Zinc	140	140- 220					
Manganese	0.08	0.15- 0.65					
Chromium	0.34	0.20- 0.40					
Vanadium	0.038	0.018- 0.065					
Molybdenum	< 0.01	0.028- 0.056					
Boron	2.8	0.30- 2.0					
Iodine	0.37	0.25- 1.3					
Lithium	0.009	0.007- 0.023					
Phosphorus	148	160- 250					
Selenium	0.82	0.95- 1.7					
Strontium	0.30	0.50- 7.6					
Sulfur	51300	44500- 52000					
Barium	0.08	0.26- 3.0					
Cobalt	0.005	0.013- 0.050					
Iron	11	5.4- 14					
Germanium	0.034	0.045- 0.065					
Rubidium	0.10	0.007- 0.096					
Zirconium	0.019	0.020- 0.42					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 5/7/2007	Sample Size: 0.199 g			Ca/Mg	7.48	4- 30
Date Received: 5/11/2007	Sample Type: Head			Ca/P	1.57	1- 12
Date Completed: 5/16/2007	Hair Color: Gray			Na/K	4.62	0.5- 10
	Treatment:			Zn/Cu	18.7	4- 20
Methodology: ICP-MS	Shampoo: Medansa			Zn/Cd	> 999	> 800