

HAIR EL



PATIENT: Number 128
SEX: Male
AGE: 8

POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	7.3	< 8.0		
Antimony	0.094	< 0.066		
Arsenic	0.065	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	0.028	< 2.0		
Cadmium	0.11	< 0.15		
Lead	1.9	< 1.0		
Mercury	0.34	< 0.40		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	0.001	< 0.005		
Uranium	0.011	< 0.060		
Nickel	0.30	< 0.40		
Silver	0.33	< 0.13		
Tin	0.45	< 0.30		
Titanium	0.65	< 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	742	160- 500					
Magnesium	89	12- 50					
Sodium	16	12- 90					
Potassium	10	10- 40					
Copper	200	9.0- 30					
Zinc	99	110- 190					
Manganese	0.97	0.18- 0.60					
Chromium	0.65	0.23- 0.50					
Vanadium	0.057	0.025- 0.10					
Molybdenum	0.090	0.040- 0.089					
Boron	2.3	0.50- 3.5					
Iodine	1.0	0.25- 1.3					
Lithium	0.007	0.007- 0.023					
Phosphorus	164	160- 250					
Selenium	0.81	0.95- 1.7					
Strontium	6.7	0.21- 2.1					
Sulfur	51100	45500- 53000					
Barium	2.5	0.19- 1.6					
Cobalt	0.011	0.013- 0.035					
Iron	31	6.0- 17					
Germanium	0.037	0.045- 0.065					
Rubidium	0.013	0.008- 0.080					
Zirconium	0.32	0.060- 0.70					

SPECIMEN DATA

COMMENTS:

Date Collected: 10/7/2007
Date Received: 10/10/2007
Date Completed: 10/15/2007

Sample Size: 0.197 g
Sample Type: Head
Hair Color: Brown
Treatment:
Shampoo:

Methodology: ICP-MS

V06.99

RATIOS

ELEMENTS	RATIOS	EXPECTED RANGE
Ca/Mg	8.34	4- 30
Ca/P	4.52	0.8- 8
Na/K	1.6	0.5- 10
Zn/Cu	0.495	4- 20
Zn/Cd	900	> 800