

HAIR ELEMENTS



PATIENT: Number 53
 SEX: Female
 AGE: 9
 Location: Los Altos, CA, USA

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	14	< 8.0		
Antimony	0.028	< 0.066		
Arsenic	0.026	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.12	< 0.12		
Cadmium	0.086	< 0.10		
Lead	12	< 1.0		
Mercury	< 0.03	< 0.40		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.36	< 0.060		
Nickel	3.5	< 0.40		
Silver	0.20	< 0.16		
Tin	0.04	< 0.30		
Titanium	0.64	< 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	739	250- 800					
Magnesium	140	25- 90					
Sodium	76	12- 90					
Potassium	22	7- 40					
Copper	1500	12- 35					
Zinc	280	120- 220					
Manganese	1.9	0.18- 0.60					
Chromium	0.22	0.23- 0.45					
Vanadium	0.046	0.025- 0.10					
Molybdenum	0.070	0.037- 0.083					
Boron	0.46	0.30- 1.7					
Iodine	0.80	0.25- 1.3					
Lithium	0.010	0.007- 0.023					
Phosphorus	204	160- 250					
Selenium	1.4	0.95- 1.7					
Strontium	3.2	0.37- 3.6					
Sulfur	46100	45500- 53000					
Barium	1.4	0.21- 1.9					
Cobalt	0.026	0.013- 0.050					
Iron	7.4	6.0- 17					
Germanium	0.032	0.045- 0.065					
Rubidium	0.025	0.008- 0.080					
Zirconium	0.15	0.030- 0.40					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected:	11/27/2006	Sample Size:	0.197 g	Ca/Mg	5.28	4- 30
Date Received:	11/30/2006	Sample Type:	Head	Ca/P	3.62	1- 12
Date Completed:	12/6/2006	Hair Color:	Brown	Na/K	3.45	0.5- 10
		Treatment:		Zn/Cu	0.187	4- 20
Methodology:	ICP-MS	Shampoo:	California Baby	Zn/Cd	> 999	> 800
			V06.99			