

Toxic & Essential Elements; Hair

TOXIC METALS				
		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)		2.7	< 7.0	
Antimony (Sb)		< 0.01	< 0.066	
Arsenic (As)		0.028	< 0.080	
Barium (Ba)		1.2	< 1.0	
Beryllium (Be)		< 0.01	< 0.020	
Bismuth (Bi)		0.017	< 2.0	
Cadmium (Cd)		0.033	< 0.065	
Lead (Pb)		0.18	< 0.80	
Mercury (Hg)		0.29	< 0.80	
Platinum (Pt)		< 0.003	< 0.005	
Thallium (Tl)		0.001	< 0.002	
Thorium (Th)		0.001	< 0.002	
Uranium (U)		0.020	< 0.060	
Nickel (Ni)		0.20	< 0.20	
Silver (Ag)		0.05	< 0.08	
Tin (Sn)		0.12	< 0.30	
Titanium (Ti)		0.45	< 0.60	
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS				
		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 2.5 th 16 th 50 th 84 th 97.5 th
Calcium (Ca)		671	200 - 750	
Magnesium (Mg)		49	25 - 75	
Sodium (Na)		74	20 - 180	
Potassium (K)		18	9 - 80	
Copper (Cu)		15	11 - 30	
Zinc (Zn)		230	130 - 200	
Manganese (Mn)		4.5	0.08 - 0.50	
Chromium (Cr)		0.31	0.40 - 0.70	
Vanadium (V)		0.041	0.018 - 0.065	
Molybdenum (Mo)		0.041	0.025 - 0.060	
Boron (B)		0.40	0.40 - 3.0	
Iodine (I)		0.49	0.25 - 1.8	
Lithium (Li)		0.005	0.007 - 0.020	
Phosphorus (P)		218	150 - 220	
Selenium (Se)		0.52	0.70 - 1.2	
Strontium (Sr)		3.0	0.30 - 3.5	
Sulfur (S)		49700	44000 - 50000	
Cobalt (Co)		0.010	0.004 - 0.020	
Iron (Fe)		6.1	7.0 - 16	
Germanium (Ge)		0.035	0.030 - 0.040	
Rubidium (Rb)		0.015	0.011 - 0.12	
Zirconium (Zr)		0.070	0.020 - 0.44	

COMMENTS:	SPECIMEN DATA		RATIOS	
	ELEMENTS	RATIOS	RANGE	
Date Collected: 9/29/2011	Sample Size: 0.2 g	Ca/Mg	13.7	4 - 30
Date Received: 10/3/2011	Sample Type: Head	Ca/P	3.08	0.8 - 8
Date Completed: 10/4/2011	Hair Color:	Na/K	4.11	0.5 - 10
Methodology: ICP/MS	Treatment:	Zn/Cu	15.3	4 - 20
	Shampoo:	Zn/Cd	> 999	> 800