



PATIENT: Number 920
 SEX: Male
 AGE: 23

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	0.9	< 7.0	
Antimony (Sb)	< 0.01	< 0.066	
Arsenic (As)	0.057	< 0.080	
Barium (Ba)	0.24	< 1.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.003	< 2.0	
Cadmium (Cd)	< 0.009	< 0.065	
Lead (Pb)	0.18	< 0.80	
Mercury (Hg)	0.05	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.013	< 0.060	
Nickel (Ni)	0.07	< 0.20	
Silver (Ag)	0.04	< 0.08	
Tin (Sn)	< 0.02	< 0.30	
Titanium (Ti)	0.46	< 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)	594	200- 750			
Magnesium (Mg)	44	25- 75			
Sodium (Na)	17	20- 180			
Potassium (K)	9	9- 80			
Copper (Cu)	10	11- 30			
Zinc (Zn)	210	130- 200			
Manganese (Mn)	0.09	0.08- 0.50			
Chromium (Cr)	0.30	0.40- 0.70			
Vanadium (V)	0.020	0.018- 0.065			
Molybdenum (Mo)	0.035	0.025- 0.060			
Boron (B)	0.59	0.40- 3.0			
Iodine (I)	0.79	0.25- 1.8			
Lithium (Li)	0.005	0.007- 0.020			
Phosphorus (P)	232	150- 220			
Selenium (Se)	0.69	0.70- 1.2			
Strontium (Sr)	0.79	0.30- 3.5			
Sulfur (S)	49100	44000- 50000			
Cobalt (Co)	0.029	0.004- 0.020			
Iron (Fe)	7.6	7.0- 16			
Germanium (Ge)	0.028	0.030- 0.040			
Rubidium (Rb)	0.009	0.011- 0.12			
Zirconium (Zr)	0.074	0.020- 0.44			

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 01/03/2014	Sample Size: 0.199 g	Ca/Mg	13.5	4- 30
Date Received: 02/05/2014	Sample Type: Head	Ca/P	2.56	0.8- 8
Date Completed: 02/06/2014	Hair Color:	Na/K	1.89	0.5- 10
Methodology: ICP/MS	Treatment:	Zn/Cu	21	4- 20
	Shampoo: Desert Essence	Zn/Cd	> 999	> 800