

HAIR ELEMENTS



PATIENT: No 14
SEX: Male
AGE: 58
Location: Oakanogan County, Eastern Washington, USA

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	3.1	< 7.0		
Antimony	0.017	< 0.066		
Arsenic	0.11	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	0.047	< 0.060		
Cadmium	0.21	< 0.15		
Lead	0.22	< 2.0		
Mercury	0.27	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.78	< 0.060		
Nickel	0.21	< 0.40		
Silver	0.09	< 0.12		
Tin	0.14	< 0.30		
Titanium	0.34	< 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	891	200- 750					
Magnesium	41	25- 75					
Sodium	46	12- 90					
Potassium	< 3	9- 40					
Copper	13	10- 28					
Zinc	190	130- 200					
Manganese	1.6	0.15- 0.65					
Chromium	0.34	0.20- 0.40					
Vanadium	0.053	0.018- 0.065					
Molybdenum	0.050	0.025- 0.064					
Boron	0.45	0.40- 3.0					
Iodine	0.60	0.25- 1.3					
Lithium	0.064	0.007- 0.023					
Phosphorus	125	160- 250					
Selenium	1.8	0.95- 1.7					
Strontium	3.9	0.30- 3.5					
Sulfur	50000	44500- 52000					
Barium	1.0	0.16- 1.6					
Cobalt	0.40	0.013- 0.035					
Iron	17	5.4- 13					
Germanium	0.035	0.045- 0.065					
Rubidium	0.007	0.011- 0.12					
Zirconium	0.009	0.020- 0.44					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 3/8/2002	Sample Size: 0.2 g			Ca/Mg	21.7	4- 30
Date Received: 3/13/2006	Sample Type: Head			Ca/P	7.13	0.8- 8
Date Completed: 3/15/2006	Hair Color: Brown			Na/K	15.3	0.5- 10
	Treatment:			Zn/Cu	14.6	4- 20
Methodology: ICP-MS	Shampoo: Baby Jj			Zn/Cd	905	> 800

V06.99