

HAIR ELEMENTS



PATIENT: Number 302
SEX: Female
AGE: 32
LOCATION: Cape Town, RSA

POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT µg/g	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	10	< 7.0		
Antimony	0.019	< 0.050		
Arsenic	0.053	< 0.060		
Barium	0.20	< 2.0		
Beryllium	< 0.01	< 0.020		
Bismuth	0.013	< 2.0		
Cadmium	0.023	< 0.050		
Lead	0.17	< 0.60		
Mercury	0.82	< 0.80		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.002		
Thorium	< 0.001	< 0.002		
Uranium	0.009	< 0.060		
Nickel	0.12	< 0.30		
Silver	0.05	< 0.15		
Tin	0.09	< 0.30		
Titanium	0.47	< 0.70		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS

ELEMENTS	RESULT µg/g	REFERENCE RANGE	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Calcium	380	300 - 1200					
Magnesium	16	35 - 120					
Sodium	150	20 - 250					
Potassium	68	8 - 75					
Copper	14	11 - 37					
Zinc	170	140 - 220					
Manganese	0.16	0.08 - 0.60					
Chromium	0.37	0.40 - 0.65					
Vanadium	0.036	0.018 - 0.065					
Molybdenum	0.033	0.020 - 0.050					
Boron	0.32	0.25 - 1.5					
Iodine	0.31	0.25 - 1.8					
Lithium	0.007	0.007 - 0.020					
Phosphorus	147	150 - 220					
Selenium	0.88	0.55 - 1.1					
Strontium	0.79	0.50 - 7.6					
Sulfur	48000	44000 - 50000					
Cobalt	0.012	0.005 - 0.040					
Iron	9.6	7.0 - 16					
Germanium	0.029	0.030 - 0.040					
Rubidium	0.071	0.007 - 0.096					
Zirconium	0.080	0.020 - 0.42					

SPECIMEN DATA

COMMENTS:

Date Collected: 7/15/2009
Date Received: 7/20/2009
Date Completed: 7/24/2009
Client Reference:
Methodology: ICP-MS

Sample Size: 0.202 g
Sample Type: Head
Hair Color: Blond
Treatment:
Shampoo: Pantene

V010.08

RATIOS

ELEMENTS	RATIOS	EXPECTED RANGE
Ca/Mg	23.8	4 - 30
Ca/P	2.59	1 - 12
Na/K	2.21	0.5 - 10
Zn/Cu	12.1	4 - 20
Zn/Cd	> 999	> 800