

Supplement Table 9. Bone Mineral Analysis at 12 months (µg/g)

Mineral / Diet Group	<u>Male</u>			
	AIN 76A	AIN 76A+ AQ	HFWD	HFWD+ AQ
Fluoride	7.58	4.92	7.19	6.72
Aluminum	1.38	2.84	3.89	1.72
Antimony	<0.5	<0.5	<0.5	<0.5
Arsenic	<0.5	<0.5	<0.5	<0.5
Barium	3.69	4.92	6.4	3.49
Beryllium	<0.5	<0.5	<0.5	<0.5
Bismuth	<0.5	<0.5	<0.5	<0.5
Boron	<0.5	<0.5	<0.5	<0.5
Calcium	230,300	233800	215800	243800
Cadmium	<0.5	<0.5	<0.5	<0.5
Chromium	<0.5	<0.5	0.69	<0.5
Cobalt	<0.5	<0.5	<0.5	<0.5
Copper	<0.5	<0.5	<0.5	<0.5
Iron	266	218	331	201
Lanthanum	0.66	0.55	0.79	<0.5
Lead	<0.5	<0.5	<0.5	<0.5
Lithium	0.64	0.65	0.66	0.52
Magnesium	3192	3724	3175	3537
Manganese	1.22	1.27	4.44	1.36
Mercury	<0.5	<0.5	<0.5	<0.5
Molybdenum	<0.5	<0.5	<0.5	<0.5
Nickel	0.56	<0.5	<0.5	<0.5
Niobium	<0.5	<0.5	<0.5	<0.5
Phosphorus	115,300	117800	112800	121900
Potassium	1273	1109	1172	1123
Selenium	<0.5	<0.5	<0.5	<0.5
Silicon	1.2	<0.5	2.4	<0.5
Silver	<0.5	<0.5	<0.5	<0.5
Sodium	12400	12740	11620	12990
Strontium	25	260	66	244
Sulfur	3423	3348	3133	3375
Tellurium	<0.5	<0.5	<0.5	<0.5
Thallium	<0.5	<0.5	<0.5	<0.5
Thorium	<0.5	<0.5	<0.5	<0.5
Tin	<0.5	<0.5	<0.5	<0.5
Titanium	<0.5	<0.5	<0.5	<0.5
Tungsten	<0.5	<0.5	<0.5	<0.5
Vanadium	<0.5	<0.5	1.23	<0.5
Yttrium	<0.5	<0.5	<0.5	<0.5
Zinc	134	150	232	164
Zirconium	<0.5	<0.5	<0.5	<0.5

The long bones (one femur and tibia from each animal in the group) were “pooled” and analyzed for levels of trace metals found in the multi-mineral-rich product to give a single value at each time point. Some of these elements were recorded below detectable levels when their concentration level found below 0.5 μ g/g. The levels of individual trace elements were determined by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) except Flouride which was done by AOAC 984.37 assay.