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Spectrographic Analysis of Normal Human Tissue from Dallas, Texas

I. H. Tipton*, M. J. Cook**, R. L. Steiner*, J. M. Foland*, K. K. McDaniel** and S. D. Fentress*

All tissues included in this report were received from Dallas, Texas and were collected, ashed and analyzed according to the methods described in O.R.N.L.-C.F.-57-2-2.

The average value of the concentration for each element in a tissue is the average of the concentrations in only those samples of the tissue which contained the element. For example, if, of 25 livers analyzed, only 10 contained lead, the average value for lead in liver is the average of those 10 values.

For those tissues in which an element does not appear in every sample, the lowest value is reported as less than the limit of sensitivity of the method for that element in that tissue.

For the elements, [redacted], lithium and rubidium, the ash was a composited ash sample for each particular tissue. As an example, in lieu of analyzing 20 individual aortas, only one composited aorta ash was analyzed.

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TABLE 1

Concentrations of Elements in Wet Tissue (Arranged by Elements)

Tissue Aorta (20 Samples Analysed)

1.5% Av. Ash — 35% Av. Dry W
4.5% Highest — 55% Highest
0.90% Lowest — 26% Lowest

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	20	1.3	6.3	0.14
Barium	19	0.13	0.32	<0.003
Bismuth				
Boron	1*	<0.11*	<0.11*	<0.09
Cadmium				
Calcium	20	780	2250	170
Cesium				
Chromium	14 4*	0.051	0.09	<0.001
Cobalt	1 1*	0.22	0.22	<0.04
Copper	20	1.5	2.7	0.7
Gallium				
Gold	11	0.09	1.5	<0.10
Iron	20	38	54	22
Lanthanum				
Lead	20	2.8	12	0.13
Magnesium	20	220	990	86
Manganese	20	0.10	0.19	<0.02
Molybdenum				
Nickel	7 2*	0.24	0.46	<0.10
Phosphorus	20	1200	5100	500
Potassium	20	1300	2000	590
Silver	10 4*	0.012	0.03	<0.001
Strontium	20	0.78	2.2	0.22
Tin	13 4*	0.94	6.1	<0.09
Titanium	12	0.37	0.72	<0.10
Vanadium				
Zinc	20	24	68	14

* Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in ev[illegible] sample but were not detected.

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TABLE 2

Concentrations of Elements in Wet Tissue (Arranged by Elements)

15.6% average ash
23 % highest value
8.2 % lowest value

Tissue BONE (22 Samples Analyzed)

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum				
Barium	22	0.58	3.6	0.9
Bismuth				
Boron				
Cadmium		NOT DETERMINED		
Calcium	22	23,000	39,000	9,000
Cesium				
Chromium				
Cobalt				
Copper	22	0.52	0.95	0.32
Gallium				
Gold				
Iron	22	117	290	33
Lanthanum				
Lead	22	7.6	45	0.78
Magnesium	22	800	1800	400
Manganese				
Molybdenum				
Nickel				
Phosphorus		NOTDETERMINED		
Potassium	22	890	2200	[illegible]
~~Silver~~ Sodium	22	1450	3700	[illegible]
Strontium	22	14	24	7.1
Tin	4	1.9	3.4	1.2
Titanium				
Vanadium				
Zinc	22	53	88	20

(*) Trace
Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in every sample but were not detected.

Lithium	22	0.0032	0.0086	0.0014

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TABLE 3

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.0 % AV. ASH — 25% Av. D
2.3 % Highest — 38% Highest
1.3 % Lowest — 18% Lowest

Tissue Brain (25 Samples Analyzed)

Elements	Number of Samples Containing Element		Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	25		0.23	0.44	0.10
Barium	4	2*	0.025	0.05	<0.006
Bismuth					
Boron	3	1*	0.30	0.40	<0.09
Cadmium					
Calcium	25		98	180	45
Cesium					
Chromium	10	3*	0.015	0.04	<0.002
Cobalt	1		0.09	0.09	<0.04
Copper	25		5.3	7.8	3.9
Gallium					
Gold					
Iron	25		50	60	21
Lanthanum					
Lead	8	7*	0.30	1.5	<0.10
Magnesium	25		140	230	72
Manganese	25		0.26	0.84	0.12
Molybdenum					
Nickel	1	1*	0.18	0.18	<0.06
Phosphorus	25		3100	3700	2100
Potassium	25		3100	4400	200
Silver	22	1*	0.016	0.17	<0.00
Strontium	24	1*	0.03	0.26	<0.00
Tin	4		0.80	1.7	<0.00
Titanium	1	3*	0.48	0.48	<0.13
Vanadium					
Zinc	25		12	19	10

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in the sample but were not detected.

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TABLE 4

Concentrations of Elements in Wet Tissue (Arranged by Elements)

0.38% AV. Ash — [illegible] % Av. Dry Wt.
0.80% Highest — 58.[illegible] % Highest
0.14% Lowest — 54 % Lowest

Tissue Breast (3 Samples Analysed)

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value ~~for Samples~~ Containing Element (µg/g)	Lowest Value ~~for Samples Containing~~ Element (µg/g)
Aluminum	3	0.59	1.7	0.07
Barium	2	0.034	0.067	0.0004
Bismuth				
Boron				
Cadmium				
Calcium	3	48	105	26
Cesium				
Chromium	3	0.019	0.01	0.006
Cobalt	1	0.02	0.02	<0.008
Copper	3	0.41	0.77	0.15
Gallium				
Gold	1	0.44	0.44	<0.04
Iron	3	2.3	8	1.8
Lanthanum				
Lead	2	0.06	0.11	<0.005
Magnesium	3	16	24	7.4
Manganese	3	0.02	0.03	0.01
Molybdenum				
Nickel				
Phosphorus	3	127	160	82
Potassium	3	340	550	160
Silver	1	0.001	0.001	<0.0001
Strontium	3	0.03	0.07	0.01
Tin	1	1.5	1.5	<0.005
Titanium	2	0.03	0.03	<0.02
Vanadium				
Zinc	3	1.8	3.2	1.1

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in every sample but were not detected.

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TABLE 5

Concentrations of Elements in Wet Tissue (Arranged by Elements)

0.94 % Av. Ash 24% Av. Dry L.T.
1.2 % Highest
0.6 % Lowest

Tissue Esophagus (14 Samples Analysed)

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	14	0.67	2.6	0.23
Barium	13 1*	0.05	0.37	<0.003*
Bismuth				
Boron				
Cadmium				
Calcium	14	110	220	72
Cesium				
Chromium	14	0.05	0.21	0.01
Cobalt	1*	<0.02*	<0.02*	<0.02
Copper	14	1.0	1.4	0.74
Gallium				
Gold	7	0.18	0.48	0.08
Iron	14	30	57	18
Lanthanum				
Lead	5 3*	0.11	0.16	<0.03
Magnesium	14	120	210	60
Manganese	14	0.09	0.18	0.04
Molybdenum				
Nickel	3	0.14	0.17	0.11
Phosphorus	14	870	1850	560
Potassium	14	1750	2400	1170
Silver	5 4*	0.002	0.005	<0.001
Strontium	14	0.08	0.19	0.03
Tin	8 2*	2.1	5.0	<0.03
Titanium	2	0.58	0.60	<0.06
Vanadium				
Zinc	14	22	40	13

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in every sample but were not detected.

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TABLE 6

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.8% Av. Value
25% Dry Weight

1.5 highest
.8 Lowest
36 highest
19 Lowest

Tissue Heart (27 Samples Analysed)

Elements	Number of Samples Containing Element		Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	27		0.19	0.55	0.05
Barium	6	2*	0.014	0.02	<0.002
Bismuth					
Boron	1	1*	0.17	0.17	<0.09
Cadmium					
Calcium	27		48	106	23
Cesium					
Chromium	20	1*	0.021	0.12	<0.001
Cobalt	7	1*	0.12	0.55	<0.04
Copper	27		3.0	3.8	2.3
Gallium					
Gold					
Iron	27		50	100	27
Lanthanum					
Lead	4	4*	0.12	0.13	<0.04
Magnesium	27		160	270	53
Manganese	27		0.19	0.45	0.08
Molybdenum					
Nickel	4		0.64	1.2	<0.09
Phosphorus	27		1500	1850	790
Potassium	27		2300	3500	1400
Silver	2	4*	0.012	0.02	<0.001
Strontium	27		0.022	0.06	0.005
Tin	8	1*	0.79	1.9	<0.04
Titanium	1		0.32	0.32	<0.09
Vanadium					
Zinc	27		24	35	15

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in eve sample but were not detected.

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TABLE 7

Dallas

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.0 % AV. Age 24 % Av.
1.3 % Highest 32 % High
0.9 % Lowest 17% Low

Tissue Intestine-Jejunum (20 Samples Analysed)

Elements	Number of Samples Containing Element		Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	20		0.47	1.4	0.11
Barium	18	1*	0.035	0.10	<0.002
Bismuth	4		0.24	0.45	<0.03
Boron	1	1*	0.26	0.26	<0.06
Cadmium	2	7*	0.98	1.0	<0.5
Calcium	20		79	160	39
Cesium					
Chromium	18	2*	0.018	0.096	<0.001
Cobalt		1*	0.05*	<0.05*	0.03
Copper	20		2.1	4.4	0.9
Gallium					
Gold	6	3*	0.52	1.9	<0.06
Iron	20		29	63	11
Lanthanum					
Lead	15	3*	0.20	0.72	<0.03
Magnesium	20		130	270	70
Manganese	20		0.65	1.5	0.21
Molybdenum					
Nickel		1*	<0.04*	<0.04*	<0.04
Phosphorus	20		1500	3300	720
Potassium	20		1700	3000	900
Silver	9	1*	0.006	0.013	<0.001
Strontium	20		0.14	0.43	0.01
Tin	16	3*	0.7	3.3	<0.03
Titanium		1*	<0.11*	<0.11*	<0.06
Vanadium	1		0.02	0.02	<0.01
Zinc	20		22	25	14

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in the sample but were not detected.

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Dallas

TABLE 8

Concentrations of Elements in Wet Tissue (Arranged by Elements)

0.72 Av. Ash 29% Dr
1.4 Highest 74% Hi
0.2 Lowest 17% Lo

Tissue Intestine-Sigmoid Colon (27 Samples Analysed)

Elements	Number of Samples Containing Element		Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	27		1.4	8.4	0.16
Barium	27		0.15	1.5	0.01
Bismuth	2		0.69	1.4	<0.01
Boron	1	2*	0.11	0.11	<0.02
Cadmium	1	3*	0.6	0.6	<0.18
Calcium	27		140	590	23
Cesium	1		1.8	1.8	<0.2
Chromium	27		0.042	0.17	0.003
Cobalt	5		0.15	0.33	<0.01
Copper	27		1.5	4.5	0.44
Gallium					
Gold	9	1*	0.18	0.4	0.02
Iron	27		24	58	8
Lanthanum					
Lead	24	1*	0.25	1.5	<0.03
Magnesium	27		220	1400	60
Manganese	27		0.66	2.2	0.12
Molybdenum					
Nickel	22		0.22	1.0	<0.05
Phosphorus	27		800	1650	280
Potassium	27		1260	2300	340
Silver	17	6*	0.016	0.09	<0.001
Strontium	27		0.33	0.98	0.07
Tin	26		0.86	3.4	<0.03
Titanium	7	3*	0.48	1.5	<0.02
Vanadium	3	3*	0.07	0.14	<0.002
Zinc	27		16	34	6

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in eve sample but were not detected.

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Dallas

TABLE 9

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.2 % Av. Ash 22% Dry
1.7 % Highest 27% Hig
0.9 % Lowest 17% Low

Tissue Kidney (27 Samples Analysed)

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	27	0.38	2.1	0.07
Barium	17 2*	0.022	0.12	<0.003
Bismuth	9 2*	0.22	0.53	<0.04
Boron	1 1*	0.48	0.48	<0.09
Cadmium	27	34	77	12
Calcium	27	100	270	50
Cesium				
Chromium	22	0.022	0.13	<0.001
Cobalt	1*	<0.07*	<0.07*	<0.04
Copper	27	2.7	3.6	1.4
Gallium				
Gold	5 1*	0.46	1.1	<0.10
Iron	27	67	120	29
Lanthanum				
Lead	27	1.4	3.5	0.4
Magnesium	27	130	200	56
Manganese	27	0.89	1.2	0.60
Molybdenum	27	0.48	[illegible]	[illegible]
Nickel	1	1.0	1.0	<0.09
Phosphorus	27	1600	2100	1050
Potassium	27	2000	2700	980
Silver	7 12*	0.006	0.02	<0.001
Strontium	27	0.06	0.17	0.02
Tin	19 6*	0.44	2.7	<0.05
Titanium	2	<0.10*	<0.10*	<0.09
Vanadium				
Zinc	27	46	72	28

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in eve[illegible] sample but were not detected.

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Dallas

TABLE 10

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.4 % Av. Ash
2.6 % Highest
1.2 % Lowest

Tissue Liver (28 Samples Analyzed)

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	28	0.68	2.1	[illegible]
Barium	2 3*	0.03	0.04	<0.01
Bismuth	2 1*	0.19	0.20	<0.0[illegible]
Boron	3 4*	0.29	0.37	<0.13
Cadmium	23 3*	2.7	4.8	<0.17
Calcium	28	64	105	[illegible]
Cesium				
Chromium	18 6*	0.023	0.10	<0.001
Cobalt	10 1*	0.14	0.40	<0.05
Copper	28	6.3	13.0	[illegible]
Gallium				
Gold	1 1*	0.22	0.22	[illegible]
Iron	28	170	410	[illegible]
Lanthanum				
Lead	28	[illegible]	4.2	[illegible]
Magnesium	28	180	270	[illegible]
Manganese	28	[illegible]	2.4	[illegible]
Molybdenum	[illegible]	[illegible]	[illegible]	[illegible]
Nickel	[illegible]	[illegible]	0.21	[illegible]
Phosphorus	[illegible]	[illegible]	[illegible]	[illegible]
Potassium	28	[illegible]	4000	[illegible]
Silver	27 1*	0.0041	0.024	[illegible]
Strontium	27	0.026	0.19	0.007
Tin	23 3*	0.37	1.4	0.07
Titanium				
Vanadium	2	[illegible]	0.04	[illegible]
Zinc	28	44	83	[illegible]

(*) Trace [illegible]
Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in [illegible] sample but were not detected.

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TABLE II Dallas

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.1 % Av. Ash 22 % Dry Wt.
1.3 % Highest 29 % Highest
0.5 % Lowest 16 % Lowest

Tissue Lung (28 Samples Analysed)

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	28	19	43	4.6
Barium	28	0.16	0.56	0.07
Bismuth				
Boron	4 2*	0.20	0.24	<0.05
Cadmium	9 6*	1.0	1.5	<0.35
Calcium	28	130	260	46
Cesium	11 1*	5.4	11	<1.0
Chromium	28	0.11	0.6	0.008
Cobalt	2	0.12	0.19	<0.02
Copper	28	1.2	1.6	0.8
Gallium	2*	<0.01*	<0.01*	<0.01
Gold				
Iron	28	310	700	
Lanthanum				
Lead	28	0.67	1.8	0.07
Magnesium	28	95	150	22
Manganese	28	0.16	0.25	0.0
Molybdenum				
[illegible]	1*	0.24	0.52	
[illegible]	21	1100	1700	
Potassium	28	1900	2800	10
Silver	9 9*	0.006	0.012	<0.001
Strontium	28	0.09	0.27	0.03
Tin	26 1*	0.60	2.4	<0.05
Titanium	28	2.6	5.8	0.20
Vanadium	8 3*	0.05	0.12	<0.01
Zinc	28	14	24	7

(*) Trace [illegible]
Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in every sample but were not detected.

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TABLE 12.

Dallas

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.3 % Av. Ash 27% Dry We

2.8 % Highest 30% Highest

1.0 % Lowest 18% Lowest

Tissue Muscle*Pectoral (14 Samples Analyzed)

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	14	0.21	0.60	0.10
Barium	3 1*	0.037	0.07	<0.00
Bismuth				
Boron	1	0.3	0.3	<0.10
Cadmium				
Calcium	14	33	70	14
Cesium				
Chromium	12	0.007	0.019*	<0.00
Cobalt				
Copper	14	0.70	0.95	0
Gallium				
Gold	1*	<0.11*	<0.11*	<0.10
Iron	14	28	3	
Lanthanum				
Lead	5*	0.41	0.73	<
Magnesium	14	160	230	
Manganese	14	0.04	0.06	0.
Molybdenum				
Nickel		0.05	0.0	
Phosphorus		1000	1000	
Potassium		4000	4500	
Silver		0.004	0.004	<0.00
Strontium	12 2*	0.013	0.08	<0.002
Tin	2	1.7	1.8	<0.0
Titanium				
Vanadium				
Zinc	14	48	61	35

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in the sample but were not detected.

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Dallas

TABLE 13

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.4 % AV. Ash 28
2.3 % Highest 42
0.8% Lowest 24

Tissue Muscle - Psoas (24 Samples Analysed)

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	24	0.24	1.0	[illegible]
Barium	5 4*	0.032	0.07	<0.0[illegible]
Bismuth				[illegible]
Boron	1	0.31	0.31	<0.0[illegible]
Cadmium				[illegible]
Calcium	24	39	69	[illegible]
Cesium				[illegible]
Chromium	18 2*	0.041	0.187	<0.0[illegible]
Cobalt				[illegible]
Copper	24	0.86	1.5	[illegible]
Gallium				[illegible]
Gold	1 1*	0.11	0.11	<0.[illegible]
Iron	24	38	77	[illegible]
Lanthanum				[illegible]
Lead	1[illegible] 9*	0.62	0.62	<0.[illegible]
Magnesium	24	190	280	[illegible]
Manganese	23	0.05	0.10	[illegible]
Molybdenum	[illegible]	[illegible]	[illegible]	[illegible]
Nickel	[illegible]	[illegible]	0.26	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Silver	1 5*	0.005	0.005	<0.0[illegible]
Strontium	22 2*	0.023	0.09	<0.0[illegible]
Tin	2 1*	1.8	1.8	<0.0[illegible]
Titanium	1	0.12	0.12	<0.0[illegible]
Vanadium	[illegible]	[illegible]	[illegible]	[illegible]
Zinc	24	80	84	[illegible]

(*) Trace [illegible]
Antimony, Arsenic, Beryllium, Bismuth, Ruthenium, Thallium and Zirconium were [illegible] sample but were not detected.

1169410

TABLE 14 Dallas

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.0 % Av. Ash 19
1.1 % Highest 21
0.9 % Lowest 17

Tissue Ovary (3 Samples Analysed)

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	3	1.0	2.2	0.1
Barium	2	0.025	0.03	<0.00
Bismuth				
Boron				
Cadmium				
Calcium	3	87	105	
Cesium				
Chromium	3	0.012	0.02	0.0
Cobalt				
Copper	3	1.2	1.3	1.
Gallium				
Gold	1 1*	0.33	0.33	<0.0
Iron	3	35	46	
Lanthanum				
Lead	1	0.05	0.05	<0.0
Magnesium	3	90	110	7
Manganese	3	0.11	0.13	0.1
Molybdenum				
Nickel				
Phosphorus		1100	1300	
Potassium		1600	1800	
Silver				
Strontium	3	0.16	0.20	0.17
Tin	1 1*	4.6	4.6	<0.05
Titanium	1 1*	0.14	0.14	<0.09
Vanadium				
Zinc	3	10	14	

(*) Traces of [illegible] Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in sample but were not detected.

1169411

TABLE 15

Dallas

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.3 % Av. Ash 31% D
2.0 % Highest 70 % H
0.7 Lowest 22 % L

Tissue Pancreas (26 Samples Analysed)

Elements	Number of Samples Containing Element		Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	26		0.51	6.2	0.07
Barium	15	4*	0.04	0.32	0.0
Bismuth	1		0.05	0.05	<0.0
Boron	2	4*	0.43	0.43	<0.07
Cadmium	15	8*	1.5	3.0	<0.1
Calcium	26		110	250	8
Cesium					
Chromium	26		0.022	0.140	0.002
Cobalt	1		0.13	0.13	<0.03
Copper	26		1.7	3.6	0.7
Gallium					
Gold	1	5*	0.39	0.39	<0.0
Iron	26		44	200	
Lanthanum					
Lead	26		0.75	2.2	0.0
Magnesium	26		170	390	
Manganese	26		1.3	2.0	0
Molybdenum	1		0.005	0.05	0
Nickel	2		0.10	0.13	0
Phosphorus	26		2400	3400	
Potassium	26		2600	3800	
Silver	4	9*	0.004	0.005	<0.001
Strontium	26		0.05	0.14	0.01
Tin	5	5*	1.6	3.4	<0.04
Titanium	2		0.75	0.87	<0.07
Vanadium					
Zinc	26		25	35	13

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were s
sample but were not detected.

1169412

TABLE 16

Dallas

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.2 % Highest Ash 44 % Highest Dry Wt
0.7 % Lowest 19 % Lowest

Tissue Prostate (15 Samples Analysed)

Elements	Number of Samples Containing Element		Average Value for Samples Containing Element (µg/g)	Highest Value ~~for Samples Containing Element~~ (µg/g)	Lowest Value ~~for Samples Containing Element~~ (µg/g)
Aluminum	15		0.61	3.3	0.08
Barium	12	1*	0.053	0.27	<0.003
Bismuth					
Boron	1	1*	0.72	0.72	<0.07
Cadmium		4*	<0.8*	<1.1*	<0.4
Calcium	15		300	990	135
Cesium					
Chromium	13	1*	0.019	0.09	<0.002
Cobalt	1		0.79	0.79	<0.03
Copper	15		1.2	2.7	0.8
Gallium					
Gold	3	2*	0.64	0.77	<0.07
Iron	15		33	90	15
Lanthanum					
Lead	11	2*	0.35	0.96	<0.05
Magnesium	15		160	250	80
Manganese	15		0.13	0.20	0.06
Molybdenum					
Nickel	2*		0.10	0.10	<0.07
Phosphorus	14		1000	2200	600
Potassium	15		2000	3600	1500
Silver	10	1*	0.018	0.14	<0.001
Strontium	15		0.28	1.5	0.03
Tin	10	2*	0.41	2.1	<0.04
Titanium	2	1*	0.35	0.40	<0.07
Vanadium					
Zinc	15*		65	192	25

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in ev sample but were not detected.

1169413

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.4 % Av. Ash 27 %

1.8 % Highest 56 %

0.9 % Lowest 71 %

Tissue: Spleen (26 Samples Analyzed)

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	26	1.2	[illegible]	[illegible]
Barium	7	0.064	[illegible]	<0.[illegible]
Bismuth	[illegible]	<0.06	[illegible]	[illegible]
Boron	7	0.29	[illegible]	[illegible]
Cadmium	[illegible]	<1.0	[illegible]	[illegible]
Calcium	[illegible]	77	[illegible]	[illegible]
Cesium	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	[illegible]	0.01	[illegible]	[illegible]
Cobalt	[illegible]	0.18	[illegible]	[illegible]
Copper	26	1.5	[illegible]	[illegible]
Gallium	[illegible]	[illegible]	[illegible]	[illegible]
Gold	[illegible]	<0.14	[illegible]	[illegible]
Iron	[illegible]	390	[illegible]	[illegible]
Lanthanum	[illegible]	[illegible]	[illegible]	[illegible]
Lead	[illegible]	0.67	[illegible]	[illegible]
Magnesium	[illegible]	140	[illegible]	[illegible]
Manganese	[illegible]	0.10	[illegible]	[illegible]
Molybdenum	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	110	[illegible]	[illegible]
[illegible]	[illegible]	3200	[illegible]	[illegible]
[illegible]	[illegible]	0.003	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	17	0.41	[illegible]	<0.06
Titanium	2	0.67	0.78	<0.09
Vanadium	[illegible]	<0.01	<0.01	<0.01
Zinc	[illegible]	[illegible]	[illegible]	[illegible]

(*[illegible]

Antimony, Arsenic, Beryllium, [illegible] samples but were not detected.

1169414

TABLE 18

Dallas

Concentrations of Elements in Wet Tissue (Arranged by Elements)

0.87 % Av. Ash 25 % Dry Wt.
1.5 % Highest 34 % Highest
0.5 % Lowest 20 % Lowest

Tissue Stomach (19 Samples Analyzed)

Elements	Number of Samples Containing Element		Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	19		0.47	2.2	0.11
Barium	16	2*	0.047	0.26	<0.002
Bismuth					
Boron	4	2*	0.39	0.91	<0.05
Cadmium	2	2*	0.42	0.48	<0.35
Calcium	19		110	600	33
Cesium					
Chromium	16	2*	0.013	0.036	<0.001
Cobalt		1*	<0.04*	<0.04*	<0.02
Copper	19		1.6	2.0	1.0
Gallium					
Gold	3	2*	0.23	0.36	<0.05
Iron	19		36	240	14
Lanthanum					
Lead	13	5*	0.15	0.6	<0.04
Magnesium	19		100	190	37
Manganese	19		0.29	0.54	0.05
Molybdenum					
Nickel					
Phosphorus	19		1200	2000	7[illegible]
Potassium	19		1700	3000	1000
Silver	2	9*	0.003	<0.004	<0.001
Strontium	19		0.12	0.47	0.03
Tin	13	2*	0.35	1.2	<0.03
Titanium	2	2*	0.24	0.36	<0.05
Vanadium	1	1*	0.27	0.27	<0.005
Zinc	19		17	27	9

(*) Trace

Antimony, Arsenic, Beryllium, ~~Niobium, Ruthenium~~ Lanthanum, Thallium and Zirconium were sought in ev[illegible] sample but were not detected.

1169415.

TABLE 19 Dallas

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.1 % Av. Ash 17 % Dry Wt.
1.3 % Highest 24 % Highest
0.9 % Lowest 13 % Lowest

Tissue Testis (18 Samples Analysed)

Elements	Number of Samples Containing Element		Average Value for Samples Containing Element (µg/g)	Highest Value ~~for Samples~~ Containing Element (µg/g)	Lowest Value ~~for Samples~~ Containing Element (µg/g)
Aluminum	18		0.32	0.61	0.15
Barium	10	3*	0.010	0.015	0.002
Bismuth	2	2*	0.15	0.20	0.04
Boron					
Cadmium		1*	<0.63*	<0.63*	<0.63
Calcium	18		90	122	58
Cesium					
Chromium	16	1*	0.013	0.024	<0.001
Cobalt	1		0.11	0.11	<0.04
Copper	18		1.3	10	0.58
Gallium					
Gold	4	2*	0.31	0.39	<0.10
Iron	18		33	160	13
Lanthanum					
Lead	14	3*	0.18	0.59	<0.05
Magnesium	18		106	154	65
Manganese	18		0.13	0.24	0.08
Molybdenum					
Nickel	1	1*	0.20	0.20	<0.05
Phosphorus	18		1200	1800	630
Potassium	18		2000	2800	1250
Silver	4	7*	0.004	0.007	<0.001
Strontium	18		0.06	0.08	0.02
Tin	8	4*	0.46	2.1	<0.05
Titanium	1	2*	0.28	0.28	<0.09
Vanadium					
Zinc	18		14	26	6

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in ev sample but were not detected.

1169416

TABLE 20

Dallas

Concentrations of Elements in Wet Tissue (Arranged by Elements)

1.7 % Av. Ash 33 % Dry Wt.
2.3% Highest 61 % Highest
0.9 % Lowest 26 % Lowest

Tissue Trachea (16 Samples Analyzed)

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	16	1.6	8.1	0.26
Barium	15 1*	0.044	0.13	<0.005*
Bismuth				
Boron	1	0.19	0.19	<0.09*
Cadmium	1*	<0.72*	<0.72*	<0.6
Calcium	16	810	[illegible]	230
Cesium				
Chromium	16	0.063	0.27	0.01
Cobalt				
Copper	16	1.4	7.2	0.62
Gallium				
Gold	7 1*	1.6	8.1	<0.11
Iron	16	43	80	24
Lanthanum				
Lead	14 2*	0.36	0.75	<0.09*
Magnesium	16	150	210	78
Manganese	16	0.18	0.27	0.10
Molybdenum				
Nickel	2 3*	0.54	0.94	<0.09
Phosphorus	16	700	850	470
Potassium	16	2400	3400	810
Silver	8 5*	0.045	0.024	<0.001
Strontium	16	0.29	0.50	0.12
Tin	10 1*	1.0	5.7	0.08
Titanium	4	0.47	0.90	<0.11
Vanadium				
Zinc	16	10	18	4

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in every sample but were not detected.

1169417

Dallas

TABLE 21

Concentrations of Elements in Wet Tissue (Arranged by Elements)

0.92 % Av. Ash 32% Dry Wt
1.8 % Highest 75% Highes
0.6 % Lowest 21 % Lowes

Tissue Urinary Bladder (19 Samples Analysed)

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	19	0.60	5.3	0.10
Barium	15 1*	0.032	0.16	<0.003
Bismuth				
Boron	1	2	2	<0.06
Cadmium	1*	<0.5*	<0.5*	<0.5
Calcium	19	114	175	48
Cesium				
Chromium	16 1 high 2*	0.17 0.025	2.5 0.09	<0.001
Cobalt				
Copper	19	1.0	2.9	0.56
Gallium				
Gold	5 1*	0.63	2.1	<0.07
Iron	19	25	70	10
Lanthanum				
Lead	9 5*	0.14	0.23	<0.03
Magnesium	19	110	170	54
Manganese	18 1 high	0.10	(1.2) 0.12	0.04
Molybdenum				
Nickel	3	0.08	0.10	<0.07
Phosphorus	19	800	1800	420
Potassium	19	1500	2200	1100
Silver	7 6*	0.004	0.006	<0.001
Strontium	19 0.11	0.11	0.19	0.04
Tin	9 6*	0.5	2.6	<0.03
Titanium	4	0.25	0.35	<0.06
Vanadium				
Zinc	19	21	28	14

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in every sample but were not detected.

1169418

TABLE 22 Dallas

Concentrations of Elements in Wet Tissue (Arranged by Elements)

Tissue Uterus (7 Samples analyzed)

1.0 % Av. Ash 22 % Dry Wt.
1.2 % Highest 30 % Highest
0.9 % Lowest 20 % Lowest

Elements	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Aluminum	7	0.47	0.85	0.34
Barium	6	0.024	0.066	<0.003
Bismuth	1	0.08	0.08	<0.04
Boron	1*	<0.09*	<0.09*	<0.09
Cadmium				
Calcium	7	130	380	70
Cesium				
Chromium	6	0.014	0.03	<0.001
Cobalt				
Copper	7	0.93	1.3	0.70
Gallium				
Gold				
Iron	7	27	56	15
Lanthanum				
Lead	3 1*	0.06	0.06	<0.05
Magnesium	7	100	140	80
Manganese	6 1*	0.09	0.10	<0.02*
Molybdenum				
Nickel				
Phosphorus	7	1100	1380	780
Potassium	7	1900	2700	1300
Silver	1 1*	0.001	0.001	<0.001
Strontium	7	0.10	0.28	0.03
Tin	6	0.11	0.18	<0.05
Titanium				
Vanadium				
Zinc	7	20	28	13

(*) Trace

Antimony, Arsenic, Beryllium, Niobium, Ruthenium, Thallium and Zirconium were sought in eve sample but were not detected.

1169419

Dallas

TABLE 43

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Aluminum

Tissues	Number of Samples Containing Element		Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal	---	----	----	----	----
Aorta	20	(20)	1.3	6.3	0.14
Bone	----	(22)	----	----	----
Brain	25	(25)	0.23	0.44	0.10
Breast	3	(3)	0.59	1.7	0.07
Esophagus	14	(14)	0.67	2.6	0.23
Heart	27	(27)	0.19	0.55	0.05
Intestine	----	----	----	----	----
Jejunum	20	(20)	0.47	1.4	0.11
Sigmoid colon	27	(27)	1.4	8.4	0.16
Kidney	27	(27)	0.38	2.1	0.07
Liver	28	(28)	0.68	2.1	0.01
Lung	28	(28)	19	43	4.6
Muscle	----	----	----	----	----
Pectoral	14	(14)	0.21	0.60	0.08
Psoas	24	(24)	0.24	1.0	0.05
Ovary	3	(3)	1.0	2.2	0.58
Pancreas	26	(26)	0.51	6.2	0.07
Prostate	15	(15)	0.61	3.3	0.08
Spleen	26	(26)	1.2	7.2	0.08
Stomach	19	(19)	0.47	2.2	0.11
~~Thyroid~~ Testis	18	(18)	0.32	0.61	0.15
Trachea	16	(16)	1.6	8.1	0.26
Urinary Bladder	19	(19)	0.60	5.3	0.10
Uterus	7	(7)	0.47	0.85	0.34

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyz

1169420

Dallas

TABLE 24

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Barium

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal				
Aorta	19 (20)	0.13	0.32	<0.003
Bone	22 (22)	0.58	3.6	0.9
Brain	4 2* (25)	0.025	0.05	<0.006
Breast	2 (3)	0.034	0.067	0.0004
Esophagus	13 1* (14)	0.05	0.37	<0.003*
Heart	6 2* (27)	0.014	0.02	<0.002
Intestine				
Jejunum	18 1* (20)	0.035	0.[illegible]	<0.002
Sigmoid colon	27 (27)	0.15	1.5	0.01
Kidney	17 2* (27)	0.022	0.12	<0.003
Liver	2 3* (28)	0.03	0.04	<0.004
Lung	28 (28)	0.16	0.56	0.02
Muscle				
Pectoral	3 1* (14)	0.037	0.07	<0.003
Psoas	5 4* (24)	0.032	0.07	<0.002
Ovary	2 (3)	0.025	0.03	<0.00[illegible]
Pancreas	18 4* (26)	0.04	0.13	<0.00[illegible]
Prostate	12 3* (15)	0.052	0.27	<0.00[illegible]
Spleen	7 2* (26)	0.064	0.26	<0.003
Stomach	16 2* (19)	0.047	0.26	<0.002
Testis	10 3* (18)	0.01	0.015	<0.002
Trachea	15 1* (16)	0.044	0.13	<0.005*
Urinary Bladder	15 1* (19)	0.032	0.16	<0.003
Uterus	6 (7)	0.024	0.066	<0.003

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyzed

1169421

Dallas

TABLE 25

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Bismuth

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal				
Aorta	(20)			
Bone	(22)			
Brain	(25)			
Breast	(3)			
Esophagus	1* (14)	<0.02*	<0.02*	<0.02
Heart	(27)			
Intestine				
Jejunum	4 (20)	0.24	0.45	<0.03
Sigmoid colon	2 (27)	0.69	1.4	<0.01
Kidney	9 2* (27)	0.22	0.53	<0.04
Liver	2 1* (28)	0.19	0.20	<0.05
Lung	(28)			
Muscle				
Pectoral	(14)			
Psoas	(24)			
Ovary	(3)			
Pancreas	1 (26)	0.05	0.05	0.03
Prostate	(15)			
Spleen	1* (26)	<0.06*	<0.06*	<0.04
Stomach	(19)			
~~Thyroid~~ Testis	2 2* (18)	0.15	0.22	<0.04
Trachea	(16)			
Urinary Bladder	(19)			
Uterus	1 (7)	0.08	0.08	<0.04

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyz

1169422

DALLAS

TABLE 16

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Boron

Tissues	Number of Samples Containing Element			Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal	---	-	---	-----	-----	------
Aorta		1*	(20)	<0.11*	<0.11*	<0.09
Bone	---	--	(22)	-----	-----	-----
Brain	3	1*	(25)	0.30	0.40	<0.09
Breast	---	-	(3) ----	----	----	----
Esophagus	----	-	(4) ----	-----	-----	-----
Heart	1	1*	(27)	0.17	0.17	<0.09
Intestine	---	-	----	-----	-----	-----
Jejunum	1	1*	(20)	0.26	0.26	<0.06
Sigmoid colon	1	2*	(27)	0.11	0.11	<0.02
Kidney	1	1*	(27)	0.48	0.48	<0.09
Liver	3	4*	(28)	0.29	0.37	<0.13
Lung	4	2*	(28)	0.20	0.26	<0.05
Muscle	---	-	----	-----	-----	-----
Pectoral	1		(14)	0.3	0.3	<0.10
Psoas	1		(24)	0.31	0.31	<0.08
Ovary	----	-	(3)	-----	----	-----
Pancreas	2	4*	(26)	0.43	0.43	<0.07
Prostate	1	1*	(18)	0.72	0.72	<0.07
Spleen	2	1*	(26)	0.29	0.31	<0.09
Stomach	4	2*	(19)	0.39	0.91	<0.05
~~Thyroid~~ Testis	---	-	(18)	-----	-----	-----
Trachea	1		(16)	0.19	0.19	<0.09*
Urinary Bladder	1		(19)	2.0	2.0	<0.06
Uterus		1*	(7)	<0.09*	<0.09*	<0.09

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyz

1169423

TABLE 32

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Cadmium

Tissues	Number of Samples Containing Element			Average Value for Samples Containing Element (μg/g)	Highest Value for Samples Containing Element (μg/g)	Lowest Value for Samples Containing Element (μg/g)
Adrenal	-----		--	-----	-----	----
Aorta	-----		(20)	-----	-----	----
Bone	-----		(22)	...NOT DETERMINED....		----
Brain	-----		(25)	-----	-----	-----
Breast	-----		(3)	-----	-----	-----
Esophagus	-----		(14)	-----	-----	-----
Heart	-----		(27)	-----	-----	-----
Intestine	-----		--	-----	-----	-----
Jejunum	2	7*	(20)	0.98	1.0	< 0.5
Sigmoid colon	1	3*	(27)	0.6	0.6	<0.18
Kidney	27		(27)	34	77	12
Liver	[illegible]	3*	(28)	[illegible] 2.7	[illegible] 4.8	[illegible] <0.
Lung	[illegible]	6*	(28)	[illegible] 1.0	[illegible] 1.5	[illegible] <0.
Muscle	----	-	----	----	----	-----
Pectoral	----	-	(14)	----	----	-----
Psoas	----	-	(24)	----	----	-----
Ovary	----	-	(3)	----	----	-----
Pancreas	15	8*	(26)	1.5	3.0	<0.42
Prostate		4*	(15)	<0.8*	<1.1*	<0.4
Spleen		1*	(26)	<1.0*	<1.0*	<0.5
Stomach	2	2*	(19)	0.42	0.48	<0.35
Thyroid Testis	----	1*	(18)	<0.63*	<0.63*	<0.63
Trachea		1*	(16)	<0.72*	<0.72*	<0.6
Urinary Bladder		1*	(19)	<0.5*	<0.5*	<0.5
Uterus	-----		(7)	-----	-----	---

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analy

1169424

TABLE 15

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Calcium

Tissues	Number of Samples Containing Element		Average Value for Samples Containing Element (μg/g)	Highest Value ~~for Samples Containing~~ Element(μg/g)	Lowest Value ~~for Samples Containing~~ Element(μg/g)
Adrenal	----	---	----	----	----
Aorta	20	(20)	780	2250	170
Bone	22	(22)	23,000	39,000	9,000
Brain	25	(25)	98	180	45
Breast	3	(3)	48	105	26
Esophagus	14	(14)	110	220	72
Heart	27	(27)	48	106	23
Intestine	---	----	---	----	----
Jejunum	20	(20)	79	160	39
Sigmoid colon	27	(27)	140	590	23
Kidney	27	(27)	100	270	50
Liver	28	(28)	64	105	24
Lung	28	(28)	130	260	46
Muscle	----	----	---	----	----
Pectoral	14	(14)	33	70	14
Psoas	24	(24)	39	69	21
Ovary	3	(3)	87	105	65
Pancreas	26	(26)	110	280	63
Prostate	15	(15)	300	990	135
Spleen	26	(26)	77	144	35
Stomach	19	(19)	110	600	33
Thyroid Testis	18	(18)	90	122	58
Trachea	16	(16)	510	----	----
Urinary Bladder	19	(19)	114	175	48
Uterus	7	(7)	130	380	70

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analy

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Cesium

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (μg/g)	Highest Value for Samples Containing Element(μg/g)	Lowest Value for Samples Containing Element(μg/g)
Adrenal	—			
Aorta	(20)			
Bone	(22)			
Brain	(25)			
Breast	(3)			
Esophagus	(14)			
Heart	(27)			
Intestine				
Jejunum	(20)			
Sigmoid colon	1 (27)	1.8	1.8	<0.2
Kidney	(27)			
Liver	(28)			
Lung	11 1* (28)	5.4	11	<1.0
Muscle				
Pectoral	(14)			
Psoas	(24)			
Ovary	(3)			
Pancreas	(26)			
Prostate	(15)			
Spleen	(26)			
Stomach	(19)			
Thyroid	(18)			
Trachea	(16)			
Urinary Bladder	(19)			
Uterus	(7)			

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyzed

1169426

Dallas

TABLE 30

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Chromium

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g) OK	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal	--- - ----	-----	1 -----	------
Aorta	14 4* (20)	0.051	0.09	<0.001
Bone	--- - (22)	------	------	--------
Brain	10 3* (25)	0.015	0.04	<0.002
Breast	3 . (3)	0.019	0.01	0.006
Esophagus	14 (14)	0.05	0.21	0.01
Heart	20 1* (27)	0.021	0.12	<0.001
Intestine	--- - ---	----	------	------
Jejunum	18 2* (20)	0.018	0.096	<0.001
Sigmoid colon	27 (27)	0.042	0.17	0.003
Kidney	22 (27)	0.022	0.13	<0.001
Liver	15 6* (28)	0.023	0.10	<0.001
Lung	28 (28)	0.11	0.6	0.005
Muscle	---- - ----	-----	--------	-----
Pectoral	12 (14)	0.007	0.019	<0.001
Psoas	18 2* (24)	0.041	0.187	<0.001
Ovary	3 (3)	0.012	0.02	0.006
Pancreas	26 (26)	0.022	0.140	0.002
Prostate	13 1* (15)	0.019	0.09	<0.002
Spleen	16 2* (26)	0.01	0.024	<0.001
Stomach	16 2* (19)	0.013	0.036	<0.001
Thyroid Testis	16 1* (18)	0.013	0.024	< 0.001
Trachea	16 (16)	0.063	0.27	0.01
Urinary Bladder	16 2* (19)	0.17 0.25	28 0.09	<0.001
Uterus	6 (7)	0.014	0.03	<0.001

I high

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyze

1169427

Dallas

TABLE 31

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Cobalt

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal	--- - ----	-----	-----	-----
Aorta	1 1* (20)	0.22	0.22	<0.04
Bone	--- - (22)	-----	-----	----
Brain	1 (25)	0.09	0.09	<0.04
Breast	1 (3)	0.02	0.02	<0.008
Esophagus	--- - (14)	-----	-----	-----
Heart	7 1* (27)	0.12	0.55	<0.04
Intestine	--- - ----	----	-----	-----
Jejunum	1* (20)	0.05*	<0.05*	<0.03
Sigmoid colon	5 (27)	0.15	0.33	<0.01
Kidney	1* (27)	<0.07*	<0.07*	<0.04
Liver	10 1* (28)	0.14	0.40	<0.05
Lung	2 (28)	0.12	0.19	<0.02
Muscle	--- - ---	-----	-----	-----
Pectoral	---- - (14)	------	------	------
Psoas	----- (24)	-------	------	------
Ovary	----- (3)	-------	------	------
Pancreas	1 (26)	0.13	0.13	<0.03
Prostate	1 (15)	0.79	0.79	[illegible]
Spleen	1 (26)	0.18	0.18	<0.03
Stomach	1* (19)	<0.04*	<0.04*	<0.02
~~Thyroid~~ Testis	1 (18)	0.11	0.11	< 0.04
Trachea	---- - (16)	-----	-----	-----
Urinary Bladder	---- - (19)	------	------	------
Uterus	----- - (7)	------	-----	-----

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyze

1169428

Dallas

TABLE 32

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Copper

Tissues	Number of Samples Containing Element		Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal	---	---	-----	-----	-----
Aorta	20	(20)	1.5	2.7	0.7
Bone	22	(22)	0.52	0.95	0.32
Brain	25	(25)	5.3	7.8	3.9
Breast	3	(3)	0.41	0.77	0.15
Esophagus	14	(14)	1.0	1.4	0.74
Heart	27	(27)	3.0	3.8	2.3
Intestine	---	---	---	-----	-----
Jejunum	20	(20)	2.1	4.4	0.9
Sigmoid colon	27	(27)	1.5	4.5	0.44
Kidney	27	(27)	2.7	3.6	1.4
Liver	28	(28)	6.3	13.0	3.5
Lung	28	(28)	1.2	1.6	0.8
Muscle	---	---	-----	-----	-----
Pectoral	14	(14)	0.70	0.95	0.43
Psoas	24	(24)	0.86	1.5	0.48
Ovary	3	(3)	1.2	1.3	1.1
Pancreas	26	(26)	1.7	3.6	0.7
Prostate	15	(15)	1.2	2.7	0.8
Spleen	26	(26)	1.2	1.6	0.8
Stomach	19	(19)	1.6	2.0	1.0
Thyroid Testis	18	(18)	1.3	10	0.58
Trachea	16	(16)	1.4	7.2	0.62
Urinary Bladder	19	(19)	1.0	2.9	0.56
Uterus	7	(7)	0.93	1.3	0.70

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analy

1169429

TABLE 33

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Thallium

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (μg/g)	Highest Value for Samples Containing Element(μg/g)	Lowest Value for Samples Containing Element(μg/g)
Adrenal				
Aorta	(20)			
Bone	(22)			
Brain	(25)			
Breast	(3)			
Esophagus	(14)			
Heart	(27)			
Intestine				
Jejunum	(20)			
Sigmoid colon	(27)			
Kidney	(27)			
Liver	(28)			
Lung	2* (28)	<0.01*	<0.01*	<0.01
Muscle				
Pectoral	(14)			
Psoas	(24)			
Ovary	(3)			
Pancreas	(26)			
Prostate	(15)			
Spleen	(26)			
Stomach	(19)			
Thyroid. Testis	(18)			
Trachea	(16)			
Urinary Bladder	(19)			
Uterus	(7)			

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyz

1169430

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Gold

Tissues	Number of Samples Containing Element			Average Value for Samples Containing Element (μg/g)	Highest Value for Samples Containing Element(μg/g)	Lowest Value for Samples Containing Element(μg/g)
Adrenal	---	-	----	-----	-----	-----
Aorta	11		(20)	0.80	1.5	<0.10
Bone	---	-	(22)	-----	-----	-----
Brain	---	-	(25)	-----	-----	-----
Breast	1		(3)	0.44	0.44	<0.04
Esophagus	7		(14)	0.18	0.48	0.08
Heart	---	-	----	-----	-----	-----
Intestine	---	-	----	-----	-----	-----
Jejunum	6	3*	(20)	0.52	1.9	<0.06
Sigmoid colon	9	1*	(27)	0.18	0.4	<0.02
Kidney	5	1*	(27)	0.46	1.1	<0.10
Liver	1	1*	(28)	0.23	0.23	<0.13
Lung	---	-	----	----	----	-----
Muscle	---	-	----	-----	-----	-----
Pectoral		1*	(14)	<0.11*	<11*	<0.10
Psoas	1	1*	(24)	0.11	0.11	<0.08
Ovary	1	1*	(3)	0.33	0.33	<0.09
Pancreas	1	5*	(26)	0.39	0.39	<0.07
Prostate	3	2*	(15)	0.64	0.77	<0.07
Spleen		1*	(26)	<0.14*	<0.14*	<0.09
Stomach	3	2*	(19)	0.23	0.36	<0.05
Thyroid Testis	4	2*	(18)	0.31	0.39	<0.10
Trachea	7	1*	(16)	1.6	5.1	<0.11
Urinary Bladder	5	1*	(19)	0.63	2.1	<0.07
Uterus	---	-	(7)	-----	----	----

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyze

1169431

Table [illegible]

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Iron

Tissues	Number of Samples Containing Element		Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal	---	----	-----	----	-----
Aorta	20	(20)	38	54	22
Bone	22	(22)	117	290	33
Brain	25	(25)	50	60	21
Breast	3	(3)	2.3	8.0	1.8
Esophagus	14	(14)	30	57	15
Heart	27	(27)	50	100	27
Intestine	---	--	----	----	----
Jejunum	20	(20)	29	63	11
Sigmoid colon	27	(27)	24	58	8
Kidney	27	(27)	67	120	29
Liver	28	(28)	170	410	36
Lung	28	(28)	310	700	60
Muscle	---	---	---	----	----
Pectoral	14	(14)	28	39	23
Psoas	24	(24)	38	77	21
Ovary	3	(3)	35	46	24
Pancreas	26	(26)	44	200	13
Prostate	15	(15)	33	90	15
Spleen	26	(26)	390	980	56
Stomach	19	(19)	36	240	14
Thyroid Testis	18	(18)	33	160	13
Trachea	16	(16)	43	80	24
Urinary Bladder	19	(19)	25	70	10
Uterus	7	(7)	27	56	15

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyze

1169432

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Lead

Tissue	Number of Samples Containing Element			Average Value for Samples Containing Element (μg/g)	Highest Value ~~for Samples~~ Containing Element (μg/g)	Lowest Value ~~for Samples~~ Containing Element (μg/g)
Adrenal	---	-	----	-----	-----	-----
Brain	20		(20)	2.8	12	0.13
Bone	--	-	(22)	7.6	45	0.76
Colon	8	7*	(25)	0.30	1.5	< 0.06
Breast	2		(3)	0.06	0.11	< 0.005
Esophagus	5	3*	(14)	0.11	0.16	< 0.03
Heart	4	4*	(27)	0.12	0.13	< 0.04
Intestine	---	-	----	-----	-----	----
Jejunum	15	3*	(20)	0.20	0.72	< 0.03
Sigmoid colon	24	1*	(27)	0.25	1.5	< 0.03
Kidney	27		(27)	1.4	3.5	0.4
Liver	28		(28)	2.0	4.2	0.45
Lung	28		(28)	0.67	1.8	0.07
Muscle	--	-	---	-----	-----	-----
Pectoral	3	5*	(14)	0.41	0.73	< 0.05
Psoas	1	9*	(24)	0.62	0.62	< 0.04
Ovary	1		(3)	0.05	0.05	< 0.05
Pancreas	26		(26)	0.75	2.2	0.13
Prostate	11	2*	(15)	0.35	0.96	< 0.05
Spleen	24	1*	(26)	0.67	3.6	< 0.06
Stomach	13	5*	(19)	0.45	0.6	0.04
Thyroid Testis	14	3*	(18)	0.18	0.59	< 0.05
Trachea	14	2*	(16)	0.36	0.75	0.09*
Urinary Bladder	9	5*	(19)	0.14	0.23	0.03
Uterus	3	1*	(7)	0.06	0.06	0.05

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyze

1169433

Dallas

TABLE 37

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Magnesium

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (μg/g)	Highest Value for Samples Containing Element (μg/g)	Lowest Value for Samples Containing Element (μg/g)
Adrenal	----	----	----	----
Aorta	20 (20)	220	990	86
Bone	22 (22)	800	1200	400
Brain	25 (25)	140	230	72
Breast	3 (3)	16	24	7.4
Esophagus	14 (14)	120	210	60
Heart	27 (27)	160	270	53
Intestine	----	----	----	----
Jejunum	20 (20)	130	270	70
Sigmoid colon	27 (27)	220	>1400	60
Kidney	27 (27)	130	200	56
Liver	28 (28)	150	270	74
Lung	28 (28)	95	150	42
Muscle	----	----	----	----
Pectoral	14 (14)	160	230	74
Psoas	24 (24)	190	280	110
Ovary	3 (3)	90	110	76
Pancreas	26 (26)	170	390	66
Prostate	15 (15)	160	250	[illegible]
Spleen	26 (26)	140	220	[illegible]
Stomach	19 (19)	100	150	[illegible]
~~Thyroid~~ Testis	18 (18)	106	154	65
Trachea	16 (16)	150	210	78
Urinary Bladder	19 (19)	110	170	54
Uterus	7 (7)	100	140	80

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyz

1169434

TABLE 38

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Manganese

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal	----	----	----	----
Aorta	20 (20)	0.10	0.19	<0.02
Bone	---- (28)	----	----	----
Brain	25 (25)	0.26	0.54	0.12
Breast	3 (3)	0.02	0.03	0.01
Esophagus	14 (14)	0.09	0.18	0.04
Heart	27 (27)	0.19	0.45	0.08
Intestine	----	----	----	----
Jejunum	20 (20)	0.65	1.5	0.21
Sigmoid colon	27 (27)	0.66	2.2	0.12
Kidney	27 (27)	0.89	1.2	0.60
Liver	28 (28)	1.4	2.4	0.62
Lung	28 (28)	0.16	0.25	0.08
Muscle	----	----	----	----
Pectoral	14 (14)	0.04	0.06	0.01
Psoas	23 (24)	0.05	0.10	<0.02
Ovary	3 (3)	0.11	0.13	0.10
Pancreas	26 (26)	1.3	2.0	0.55
Prostate	15 (15)	0.13	0.20	[illegible]
Spleen	26 (26)	0.10	0.17	0.02
Stomach	19 (19)	0.29	0.54	[illegible]
Testis	18 (18)	0.13	0.24	0.05
Trachea	16 (16)	0.18	0.27	0.10
Urinary Bladder	18 1 high (19)	0.10	1.2 0.12	0.04
Uterus	6 1* (7)	0.09	0.10	<0.02*

*) Trace

The number in parentheses indicate the number of samples of that particular tissue analy

1169435

DALLAS

TABLE 34

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Molybdenum

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (μg/g)	Highest Value for Samples Containing Element (μg/g)	Lowest Value for Samples Containing Element (μg/g)
Adrenal				
Aorta	(20)			
Bone	(22)			
Brain	(25)			
Breast	(3)			
Esophagus	(14)			
Heart	(27)			
Intestine				
Jejunum	(20)			
Sigmoid colon	(27)			
Kidney	(27)			
Liver	28 (28)	1.0	1.8	0.3
Lung	(28)			
Muscle				
Pectoral	(14)			
Psoas	(24)			
Ovary	(3)			
Pancreas	1 (26)	0.05	0.05	<0.05
Prostate	(15)			
Spleen	(26)			
Stomach	(19)			
Testis	(10)			
Thyroid				
Trachea	(16)			
Urinary Bladder	(19)			
Uterus	(7)			

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analy

1169430

TABLE 12

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Nickel

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (μg/g)	Highest Value for Samples Containing Element (μg/g)	Lowest Value for Samples Containing Element (μg/g)
Adrenal	--- - ---	-----	-----	-----
Aorta	7 2* (20)	0.24	0.46	<0.10
Bone	---- - (22)	-----	-----	-----
Brain	1 1* (25)	0.18	0.18	<0.06
Breast	---- - (3)	-----	-----	-----
Esophagus	3 (3)	0.14	0.17	0.11
Heart	4 (27)	0.64	1.2	<0.09
Intestine	--- - - ---	-----	----	----
Jejunum	1* (20)	<0.04*	<0.04*	<0.04
Sigmoid colon	22 (27)	0.22	1.0	<0.05
Kidney	1 (27)	1.0	1.0	<0.09
Liver	2 (28)	0.21	0.21	<0.13
Lung	4 1* (28)	0.24	0.52	<0.05
Muscle	---- - ---	-----	-----	-----
Pectoral	2 (14)	0.08	0.08	<0.08
Psoas	4 1* (24)	0.17	0.26	<0.08
Ovary	---- - (3)	-----	-----	-----
Pancreas	2 (26)	0.10	0.13	<0.07
Prostate	2 (15)	0.10	0.10	<0.07
Spleen	1 (26)	0.49	0.49	<0.09
Stomach	--- - (19)	-----	----	----
Thyroid	--- - (18)	-----	----	----
Trachea	2 3* (16)	0.54	0.94	<0.09
Urinary Bladder	3 (19)	0.08	0.10	<0.07
Uterus	--- -- (7)	----	----	-----

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analy

1169437

Dallas

TABLE 41

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Phosphorus

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element(µg/g)	Lowest Value for Samples Containing Element(µg/g)
Adrenal	---	---	---	---
Aorta	20 (20)	1200	5100	500
Bone	--- (22)	NOT DETERMINED	---	---
Brain	25 (25)	3100	3700	2100
Breast	3 (3)	127	160	82
Esophagus	14 (14)	870	1050	560
Heart	27 (27)	1500	1850	790
Intestine	---	---	---	---
Jejunum	20 (20)	1500	3300	720
Sigmoid colon	27 (27)	800	1650	280
Kidney	27 (27)	1600	2100	1050
Liver	28 (28)	2500	3400	1800
Lung	28 (28)	1100	1700	530
Muscle	---	---	---	---
Pectoral	14 (14)	1500	1900	1100
Psoas	24 (24)	1700	3200	1100
Ovary	3 (3)	1100	1300	800
Pancreas	26 (26)	2400	3400	1100
Prostate	14 (15)	1000	2200	600
Spleen	26 (26)	2100	2700	1600
Stomach	19 (19)	1200	2000	700
Thyroid Testis	18 (18)	1200	1800	630
Trachea	16 (16)	700	850	470
Urinary Bladder	19 (19)	800	1800	420
Uterus	7 (7)	1100	1350	780

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyzed

1169438

Dallas

TABLE 42

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Potassium

Tissues	Number of Samples Containing Element		Average Value for Samples Containing Element (μg/g)	Highest Value for Samples Containing Element(μg/g)	Lowest Value for Samples Containing Element(μg/g)
Adrenal	----	----	-----	-----	-----
Aorta	20	(20)	1300	2000	590
Bone	22	(22)	890	1100	400
Brain	25	(25)	3100	4400	2000
Breast	3	(3)	340	550	160
Esophagus	14	(14)	1750	2400	1170
Heart	27	(27)	2300	3800	1400
Intestine	----	----	-----	-----	-----
Jejunum	20	(20)	1700	3000	900
Sigmoid colon	27	(27)	1260	2300	340
Kidney	27	(27)	2000	2700	980
Liver	28	(28)	2700	4000	1800
Lung	28	(28)	1900	2500	930
Muscle	----	----	-----	-----	-----
Pectoral	14	(14)	2900	4500	2000
Psoas	24	(24)	3200	5700	1800
Ovary	3	(3)	1600	1800	1300
Pancreas	26	(26)	2600	3800	1700
Prostate	15	(15)	2000	3600	1500
Spleen	26	(26)	3200	4900	1800
Stomach	19	(19)	1700	3000	1000
Thyroid Testis	18	(18)	2000	2800	1250
Trachea	16	(16)	2400	3400	810
Urinary Bladder	19	(19)	1800	2200	1100
Uterus	7	(7)	1900	2700	1300

*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyz

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DALLAS

TABLE 43

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Silver

Tissues	Number of Samples Containing Element			Average Value for Samples Containing Element (μg/g)	Highest Value for Samples Containing Element (μg/g)	Lowest Value for Samples Containing Element (μg/g)
Adrenal	----	-	----	-----	-----	-----
Aorta	10	4*	(20)	0.012	0.03	<0.001
Bone			(22)	-----	-----	---
Brain	22	1*	(25)	0.016	0.17	<0.002
Breast	1		(3)	0.001	0.001	<0.0001
Esophagus	5	4*	(14)	0.002	0.005	<0.001
Heart	2	4*	(27)	0.012	0.02	<0.001
Intestine	---	-	---	-----	-----	-----
Jejunum	9	1*	(20)	0.006	0.013	<0.001
Sigmoid colon	17	6*	(27)	0.016	0.09	<0.001
Kidney	7	12*	(27)	0.006	0.02	<0.001
Liver	27	1*	(28)	0.041	----	------
Lung	9	9*	(28)	0.006	0.012	<0.001
Muscle						
Pectoral	1	2*	(14)	0.004	0.004	<0.001
Psoas	1	5*	(24)	0.005	0.005	<0.001
Ovary			(3)	-----	-----	------
Pancreas	4	9*	(26)	0.004	0.005	<0.001
Prostate	10	1*	(15)	0.018	0.14	<0.001
Spleen	5	8*	(26)	0.003	0.004	<0.001
Stomach	2	9*	(19)	0.003	<0.004	<0.001
Thyroid Testis	4	7*	(18)	0.004	0.007	<0.001
Testes	8	5*	(16)	0.045	0.024	<0.001
Urinary Bladder	7	6*	(19)	0.004	0.006	<0.001
Uterus	1	1*	(7)	0.001	0.001	<0.001

*) Trace

The number in parentheses indicate the number of samples of that particular tissue analy

1159440

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Strontium

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (μg/g)	Highest Value for Samples Containing Element (μg/g)	Lowest Value for Samples Containing Element (μg/g)
Adrenal	--- - ----	-----	-----	-----
Aorta	20 (20)	0.78	2.2	0.22
Bone	22 (22)	14	24	7.1
Brain	24 1* (25)	0.03	0.26	0.007*
Breast	3 (3)	0.03	0.07	0.01
Esophagus	14 (14)	0.08	0.19	0.03
Heart	27 (27)	0.022	0.06	0.005
Intestine	- - ----	-----	-----	-----
Jejunum	20 (20)	0.14	0.43	0.01
Sigmoid colon	27 (27)	0.33	0.98	0.07
Kidney	27 (27)	0.06	0.17	0.02
Liver	27 (28)	0.026	0.19	0.007
Lung	28 (28)	0.09	0.27	0.03
Muscle	--- - ----	-----	-----	-----
Pectoral	12 2* (14)	0.013	0.08	< 0.002*
Psoas	22 2* (24)	0.023	0.09	< 0.002*
Ovary	3 (3)	0.16	0.20	0.17
Pancreas	26 (26)	0.05	0.14	0.01
Prostate	15 (15)	0.28	1.5	0.03
Spleen	26 (26)	0.04	0.14	0.01
Stomach	19 (19)	0.12	0.47	0.03
Testis	18 (18)	0.06	0.08	0.02
Trachea	16 (16)	0.29	0.50	0.12
Urinary Bladder	19 (19)	0.11	0.19	0.04
Uterus	7 (7)	0.10	0.25	0.03

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyz

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Dallas

TABLE 45

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Tin

Tissues	Number of Samples Containing Element			Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal	---	-	---	-----	-----	--------
Aorta	13	4*	(20)	0.94	6.1	<0.09
Bone	4		(22)	1.9	3.4	1.2
Brain	4		(25)	0.80	1.7	<0.06
Breast	1		(3)	1.5	1.5	<0.005
Esophagus	8	2*	(14)	2.1	5.0	<0.03
Heart	8	1*	(27)	0.79	1.9	<0.04
Intestine	---	--	----	-----	-----	-----
Jejunum	16	3*	(20)	0.7	3.3	<0.03
Sigmoid colon	26		(27)	0.86	3.4	<0.03
Kidney	19	6*	(27)	0.40	2.7	<0.05
Liver	23	3*	(28)	0.37	1.4	<0.07
Lung	26	1*	(28)	0.60	2.4	<0.05
Muscle						
Pectoral	2		(14)	1.7	1.8	<0.05
Psoas	2	1*	(24)	1.8	1.8	<0.04
Ovary	1	1*	(3)	4.6	4.6	<0.05
Pancreas	5	5*	(26)	1.6	3.4	<0.04
Prostate	10	2*	(15)	0.41	2.1	<0.04
Spleen	17	5*	(26)	0.41	2.6	<0.06
Stomach	13	2*	(19)	0.35	1.2	<0.03
Thyroid Testis	8	4*	(18)	0.46	2.1	<0.05
Testes	10	1*	(16)	1.0	5.7	0.08
Urinary Bladder	9	6*	(19)	0.5	2.6	<0.03
Uterus	6		(7)	0.11	0.18	<0.05

(*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyz

1169442

Dallas

TABLE 46

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Titanium

Tissues	Number of Samples Containing Element			Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal						
Aorta	12		(20)	0.37	0.72	<0.10
Bone			(22)			
Brain	1	3*	(25)	0.48	0.48	<0.13
Breast	2		(3)	0.03	0.03	<0.02
Esophagus	2		(14)	0.58	0.60	<0.06
Heart	1		(27)	0.32	0.32	<0.09
Intestine						
Jejunum		1*	(20)	<0.11*	<0.11*	<0.06
Sigmoid colon	7	3*	(27)	0.48	1.5	0.02
Kidney	2		(27)	<0.10*	<0.10*	<0.09
Liver			(28)			
Lung	28		(28)	2.6	5.8	0.20
Muscle						
Pectoral			(14)			
Psoas	1		(24)	0.12	0.12	<0.08
Ovary	1	1*	(3)	0.14	0.14	<0.09
Pancreas	2		(26)	0.75	0.97	<0.07
Prostate	2	1*	(15)	0.35	0.40	<0.07
Spleen	2		(26)	0.67	0.78	<0.08
Stomach	2	2*	(19)	0.24	0.36	<0.05
Thyroid Testis	1	2*	(18)	0.28	0.28	<0.09
Trachea	4		(16)	0.47	0.90	<0.11
Urinary Bladder	4		(19)	0.25	0.35	<0.06
Uterus			(7)			

* Trace

The number in parentheses indicate the number of samples of that particular tissue analyzed

1169443

Dallas

TABLE 47

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Vanadium

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal	—			
Aorta	(20)			
Bone	(22)			
Brain	(25)			
Breast	(39)			
Esophagus	(14)			
Heart	(27)			
Intestine				
Jejunum	1 (20)	0.02	0.02	<0.01
Sigmoid colon	3 3* (27)	0.07	0.14	<0.002
Kidney	(27)			
Liver	2 (28)	0.04	0.04	<0.01
Lung	8 3* (28)	0.05	0.12	<0.01
Muscle				
Pectoral	(14)			
Psoas	(24)			
Ovary	(3)			
Pancreas	(26)			
Prostate	(15)			
Spleen	1 (26)	0.01	<0.01	<0.01
Stomach	1 1* (19)	0.27	0.27	<0.005
~~Thyroid~~ Testis	(18)			
Trachea	(16)			
Urinary Bladder	(19)			
Uterus	(7)			

*) Trace

The number in parentheses indicate the number of samples of that particular tissue analyzed

1169444

TABLE 48

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: Zinc

Tissues	Number of Samples Containing Element	Average Value for Samples Containing Element (µg/g)	Highest Value for Samples Containing Element (µg/g)	Lowest Value for Samples Containing Element (µg/g)
Adrenal	----	----	----	----
Aorta	20 (20)	24	68	14
Bone	22 (22)	53	88	20
Brain	25 (25)	12	19	10
Breast	3 (3)	1.8	3.2	1.1
Esophagus	14 (14)	22	40	13
Heart	27 (27)	24	35	15
Intestine	----	----	----	----
Jejunum	20 (20)	22	25	14
Sigmoid colon	27 (27)	16	34	6
Kidney	27 (27)	46	72	28
[illegible]	28 (28)	44	83	20
[illegible]	28 (28)	14	24	7.2
Muscle	----	----	----	----
Pectoral	14 (14)	48	61	35
Psoas	24 (24)	50	84	33
Ovary	3 (3)	10	14	7
Pancreas	26 (26)	25	35	13
Prostate	15 (15)	65	192	25
Spleen	26 (26)	18	24	12
Stomach	19 (19)	17	27	9
~~Thyroid~~ Testis	18 (18)	14	26	6
Trachea	16 (16)	10	18	4
Urinary Bladder	19 (19)	21	28	14
Uterus	7 (7)	20	28	13

[illegible] Trace

[illegible] number in parentheses indicate the number of samples of that particular tissue analyze

1169445

DALLAS

TABLE 48

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: LITHIUM

Tissues	Number of Samples Composited	~~Number of Samples Containing Element~~	~~[redacted]~~ Value ~~[redacted]~~ (µg/g)	~~Highest Value for Samples Containing Element (µg/g)~~	~~Lowest Value for Samples Containing Element (µg/g)~~
Aorta	20		0.027		
Bone	22		[illegible]		
Brain	25				
[redacted]					
[redacted]					
[redacted]					
Diaphragm			0.007		
Esophagus	14		0.010		
Heart	27		0.009		
Intestine			[illegible]		
Jejunum	20		0.012		
Sigmoid colon	27		0.014		
Kidney	27		0.011		
[redacted]	[redacted]				
Liver	28				
Lung	28		0.027		
Muscle	38				
[redacted]					
[redacted]					
[redacted]					
Ovary	[illegible]		0.005		
Pancreas	26		<0.007*		
Prostate	15		0.017		
Spleen	26				
Stomach	19		0.079		
Testes	18		0.009		
[redacted]			[illegible]		
[redacted]					
[redacted]			[redacted]		
[redacted]					
Trachea	16		0.032		
Urinary Bladder	19		0.018		
Uterus	7				
[redacted]					
[redacted]					

1169446

DALLAS

TABLE 49

Concentrations of Elements in Wet Tissue (Arranged by Tissues)

Element: RUBIDIUM

Tissues	Samples Composited	~~Number of Samples Containing Element~~	Composite Value (µg/g)	~~Highest Value for Samples Containing Element (µg/g)~~	~~Lowest Value for Samples Containing Element (µg/g)~~
Aorta	20		6.6		
Bone	22				
Brain	25		35		
[redacted]					
[redacted]					
[redacted]					
Diaphragm			11		
Esophagus	14		6.6		
Heart	27		19		
Intestine					
Jejunum	20		16		
Sigmoid colon	27		6.5		
Kidney	27		11		
[redacted]					
Liver	28		5.9		
Lung	28		6.6		
Muscle	38		32		
[redacted]					
[redacted]					
[redacted]	3		6.4		
Pancreas	26		65		
Prostate	15		8.4		
Spleen	[redacted]		42		
Stomach	[redacted]		[redacted]		
Testes	[redacted]		[redacted]		
[redacted]					
[redacted]					
[redacted]			N.D.		
[redacted]					
Trachea	16		24		
Urinary Bladder	19		7.4		
Uterus	7				
[redacted]					
[redacted]					
[redacted]					

(*) Trace

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