

- Pass 1 Results for 68 Labs - - Pass 2 Results for 67 Labs -

Method	AOAC Ref.	Method Code	No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups	No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups
Ammoniacal Nitrogen, Other		001.99	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Nitrate Nitrogen, Other		002.99	1	6.73	0.01	0.01	1	6.73	0.01	0.01
Total Nitrogen, Combustion		010.60	7	1.75	0.06	0.03	7	1.75	0.06	0.03
Total Phosphate, Automated	978.01	020.40	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Total Phosphate, ICP		020.50	3	0.23	0.20	0.02	3	0.23	0.20	0.02
Method Group 020.XX PCT			4	0.17	0.20	0.02	4	0.17	0.20	0.02
Dir Available Phosphate, ICP		041.50	2	0.02	0.02	0.01	2	0.02	0.02	0.01
Soluble Potash, STPB Oxalate	958.02	050.00	1	1.62	0.02	0.03	1	1.62	0.02	0.03
Soluble Potash, ICP (Oxalate)		050.50	1	1.46	0.04	0.06	1	1.46	0.04	0.06
Soluble Potash, ICP (Citrate)		050.51	4	1.51	0.05	0.02	4	1.51	0.05	0.02
Soluble Potash, Other		050.99	4	1.45	0.10	0.01	4	1.45	0.10	0.01
Method Group 050.XX PCT			10	1.49	0.09	0.02	9	1.50	0.09	0.01
Free Water, Vacuum Oven	965.08B	060.00	1	1.19	0.00	0.01	1	1.19	0.00	0.01
Acid Soluble Calcium, ICP		101.30	12	1.12	0.07	0.02	12	1.12	0.07	0.02
Acid Soluble Magnesium, ICP		121.30	11	0.69	0.04	0.02	11	0.69	0.04	0.02
Sulfur, Gravimetric	980.02a	144.01	19	11.60	0.32	0.12	18	11.62	0.31	0.10
Sulfur, Gravimetric	980.02b	144.02	2	11.39	0.40	0.07	2	11.39	0.40	0.07
Sulfur, Other		144.99	24	11.64	0.52	0.16	24	11.64	0.52	0.16
Method Group 144.XX PCT			45	11.61	0.44	0.14	43	11.63	0.43	0.12
Arsenic, Atomic Absorption		151.00	1	3.45	0.07	0.10	1	3.45	0.07	0.10
Arsenic, ICP		151.30	5	5.27	5.03	0.95	5	5.27	5.03	0.95
Arsenic, Other		151.99	1	3.18	0.21	0.30	1	3.18	0.21	0.30
Method Group 151.XX PPM			7	4.71	4.28	0.74	6	4.59	4.61	0.42
Acid Soluble Boron, Spectrometric	982.01	165.00	1	0.013	0.000	0.000	1	0.013	0.000	0.000
Acid Soluble Boron, Other		165.99	8	0.022	0.026	0.012	7	0.017	0.017	0.002
Method Group 165.XX PCT			9	0.021	0.024	0.011	8	0.017	0.016	0.001
Cadmium, Atomic Absorption		181.00	1	0.50	0.14	0.20	1	0.50	0.14	0.20
Cadmium, ICP		181.30	8	2.06	2.12	0.15	8	2.06	2.12	0.15
Cadmium, Other		181.99	1	1.65	0.17	0.24	1	1.65	0.17	0.24
Method Group 181.XX PPM			10	1.86	1.95	0.17	10	1.86	1.95	0.17
Water Soluble Chlorine, Titrimetric	928.02	190.00	2	0.94	0.74	0.02	2	0.94	0.74	0.02
Water Soluble Chlorine, Other		190.99	1	1.50	0.01	0.01	1	1.50	0.01	0.01
Method Group 190.XX PCT			3	1.12	0.64	0.01	3	1.12	0.64	0.01
Chromium, ICP		191.30	14	219.80	67.75	12.88	13	211.21	60.58	5.94
Chromium, Other		191.99	1	146.84	11.77	16.65	1	146.84	11.77	16.65
Method Group 191.XX PPM			15	214.94	67.98	13.13	14	206.61	60.73	6.71
Acid Soluble Cobalt, AA		202.00	1	84.00	1.41	2.00	1	84.00	1.41	2.00
Acid Soluble Cobalt, ICP	965.11	202.30	11	50.01	25.26	2.26	10	47.85	25.48	1.68
Acid Soluble Cobalt, Other		202.99	1	27.58	2.49	3.52	1	27.58	2.49	3.52

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Method	AOAC Ref.	Method Code	No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups	No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups
Method Group 202.XX PPM			13	50.90	25.85	2.34	12	49.17	26.16	1.86
Acid Soluble Copper, Atomic Absorption	975.01	221.00	15	12.393	0.6093	0.1835	14	12.413	0.6165	0.1389
Acid Soluble Copper, ICP		221.30	45	12.634	0.8033	0.1986	41	12.571	0.7650	0.1416
Acid Soluble Copper, Other		221.99	3	12.751	0.8396	1.0300	3	12.751	0.8396	1.0300
Method Group 221.XX PCT			63	12.582	0.7653	0.2346	59	12.560	0.7590	0.1734
Acid Soluble Iron, Atomic Absorption	980.01	241.00	1	13.59	0.10	0.14	1	13.59	0.10	0.14
Acid Soluble Iron, ICP		241.30	14	12.72	1.36	0.22	14	12.72	1.36	0.22
Method Group 241.XX PCT			15	12.77	1.33	0.22	15	12.77	1.33	0.22
Lead, Atomic Absorption		251.00	1	134.50	3.54	5.00	1	134.50	3.54	5.00
Lead, ICP		251.30	10	98.17	47.68	6.88	10	98.17	47.68	6.88
Lead, Other		251.99	1	105.29	2.93	4.14	1	105.29	2.93	4.14
Method Group 251.XX PPM			12	101.79	44.55	6.50	12	101.79	44.55	6.50
Acid Soluble Manganese, AA	972.02a	261.00	1	0.865	0.002	0.003	1	0.865	0.002	0.003
Acid Soluble Manganese, ICP	972.02a	261.30	14	0.825	0.084	0.013	13	0.823	0.087	0.010
Method Group 261.XX PCT			15	0.828	0.082	0.012	14	0.826	0.084	0.009
Mercury, Atomic Absorption		281.00	1	0.04	0.00	0.00	1	0.04	0.00	0.00
Mercury, ICP		281.30	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Mercury, Other		281.99	2	0.07	0.03	0.00	2	0.07	0.03	0.00
Method Group 281.XX PPM			4	0.05	0.04	0.00	3	0.05	0.04	0.00
Molybdenum, ICP		289.30	13	28.89	6.36	1.66	12	28.20	5.95	0.98
Molybdenum, Other		289.99	1	21.71	0.64	0.91	1	21.71	0.64	0.91
Method Group 289.XX PPM			14	28.38	6.40	1.61	13	27.70	5.97	0.98
Nickel, Atomic Absorption		291.00	1	168.50	2.12	3.00	1	168.50	2.12	3.00
Nickel, ICP		291.30	12	151.24	27.68	16.67	11	147.58	24.01	12.45
Nickel, Other		291.99	1	108.82	1.11	1.57	1	108.82	1.11	1.57
Method Group 291.XX PPM			14	149.45	28.37	14.61	12	146.02	25.13	7.38
Selenium, ICP		301.30	5	6.30	7.64	0.55	5	6.30	7.64	0.55
Selenium, Other		301.99	1	8.71	1.71	2.42	1	8.71	1.71	2.42
Method Group 301.XX PPM			6	6.70	6.99	0.86	6	6.70	6.99	0.86
Sodium, Other		311.99	5	0.34	0.07	0.01	5	0.34	0.07	0.01
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	14	6.746	0.443	0.095	13	6.732	0.455	0.073
Acid Soluble Zinc, ICP		321.30	42	7.057	0.582	0.141	39	7.018	0.526	0.100
Acid Soluble Zinc, Other		321.99	2	7.295	0.717	0.200	2	7.295	0.717	0.200
Method Group 321.XX PCT			58	6.990	0.570	0.131	55	6.959	0.526	0.102
Water Soluble Zinc, Atomic Absorption		325.00	1	5.983	0.067	0.095	1	5.983	0.067	0.095
Water Soluble Zinc, ICP		325.30	1	5.705	0.488	0.690	1	5.705	0.488	0.690
Method Group 325.XX PCT			2	5.844	0.326	0.392	2	5.844	0.326	0.392

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index			
Meth: 001.99 PCT														
Ammoniacal Nitrogen														
Other			Meth: 020.XX PCT											
393	0.00 X	.00	Total Phosphate			Soluble Potash								
			453	0.04	-.66	009	1.62	1.32	Meth: 121.30 PCT					
			393	0.00 X	-.86	453	1.59	1.04	Acid Soluble Magnesi					
						307	1.53	.38	ICP					
			Meth: 041.50 PCT											
			Dir Available Phosph											
			ICP			009	1.52	.27	393	0.74	1.07			
			325	1.50	.05	325	1.50	.05	102	0.72	.83			
			Avg	1.50		Avg	1.50	.72	035	0.72	.72			
			393	0.04	.88	393	1.50 X	-.06	131	0.70	.42			
			Avg	0.02		131	1.48	-.22	009	0.70	.42			
			377	0.00	-.85	377	1.45	-.50	Avg	0.69				
						422	1.46 R	-.51	027	0.68	-.13			
						232	1.29	-2.27	307	0.69	-.49			
			Meth: 050.00 PCT											
			Total Nitrogen											
			Combustion			Soluble Potash								
043	1.85	1.76	STPB Oxalate			009	1.62	.71	433	0.63	-1.21			
377	1.78	.73	009	1.62	.71	Meth: 060.00 PCT								
422	1.78	.45	Free Water			Vacuum Oven								
Avg	1.75		416	1.19	-.71	Meth: 101.30 PCT								
325	1.75	-.11	Acid Soluble Calcium											
453	1.71	-.85	ICP			422	1.59	1.42	ICP					
307	1.70	-.93	009	1.52	.28	027	1.15	.39	043	12.08	1.49			
009	1.69	-1.03	Avg	1.51		009	1.15	.38	405	11.99	1.21			
			393	1.50 X	-.33	389	1.13	.34	262	11.96	1.19			
			377	1.45	-1.14	307	1.12	.15	324	11.80	.59			
						102	1.16	.50	029	11.74	.40			
			Meth: 050.51 PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	028	12.18	1.83			
			009	1.52	.28	Meth: 144.01 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	043	12.08	1.49			
						422	1.65 s	7.03	405	11.99	1.21			
			Meth: 020.40 PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	262	11.96	1.19			
			009	1.52	.28	Meth: 144.02 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	157	11.97	.64			
						422	1.65 s	3.67	389	11.95	.61			
			Meth: 020.50 PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	291	12.64	1.93			
			009	1.52	.28	Meth: 144.99 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Other								
			377	1.45	-1.14	028	12.18	1.83	450	12.64	1.92			
						422	1.65 s	3.67	255	12.03	.80			
			Meth: 020.99 PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	177	11.67	.06			
			009	1.52	.28	Meth: 144.01 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	330	11.60	-.07			
						422	1.65 s	3.67	368	11.52	-.27			
			Meth: 050.99 PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	027	11.49	-.28			
			009	1.52	.28	Meth: 144.02 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	073	11.73	.86			
						422	1.65 s	3.67	Avg	11.39				
			Meth: 020.XX PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	292	11.05	-.87			
			009	1.52	.28	Meth: 144.01 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	073	11.73	.86			
						422	1.65 s	3.67	Avg	11.39				
			Meth: 020.XX PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	230	11.10	-1.03			
			009	1.52	.28	Meth: 144.02 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	073	11.73	.86			
						422	1.65 s	3.67	Avg	11.39				
			Meth: 020.XX PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	230	11.10	-1.03			
			009	1.52	.28	Meth: 144.02 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	073	11.73	.86			
						422	1.65 s	3.67	Avg	11.39				
			Meth: 020.XX PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	230	11.10	-1.03			
			009	1.52	.28	Meth: 144.02 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	073	11.73	.86			
						422	1.65 s	3.67	Avg	11.39				
			Meth: 020.XX PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	230	11.10	-1.03			
			009	1.52	.28	Meth: 144.02 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	073	11.73	.86			
						422	1.65 s	3.67	Avg	11.39				
			Meth: 020.XX PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	230	11.10	-1.03			
			009	1.52	.28	Meth: 144.02 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	073	11.73	.86			
						422	1.65 s	3.67	Avg	11.39				
			Meth: 020.XX PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	230	11.10	-1.03			
			009	1.52	.28	Meth: 144.02 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	073	11.73	.86			
						422	1.65 s	3.67	Avg	11.39				
			Meth: 020.XX PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	230	11.10	-1.03			
			009	1.52	.28	Meth: 144.02 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	073	11.73	.86			
						422	1.65 s	3.67	Avg	11.39				
			Meth: 020.XX PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	230	11.10	-1.03			
			009	1.52	.28	Meth: 144.02 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	073	11.73	.86			
						422	1.65 s	3.67	Avg	11.39				
			Meth: 020.XX PCT											
			Total Phosphate											
			Automated			Soluble Potash								
393	0.00 X	.00	453	1.59	1.42	422	1.46	.71	230	11.10	-1.03			
			009	1.52	.28	Meth: 144.02 PCT								
			Avg	1.51		Sulfur								
			393	1.50 X	-.33	Gravimetric								
			377	1.45	-1.14	028	12.18	1.83	073	11.73	.86			
						422	1.65 s	3.67	Avg	11.39				
			Meth: 020.XX PCT											

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 144.99 PCT											
Sulfur											
Other	11.40	-0.55									
377	10.85	-1.59									
232	9.82 s	-3.49									
360	6.77 s	-13.43									
Meth: 144.99 PCT											
Sulfur											
393	13.55 s	4.46									
300	12.65	2.38									
291	12.64	2.35									
450	12.64	2.34									
028	12.18	1.28									
043	12.08	1.04									
255	12.03	.98									
405	11.99	.84									
262	11.96	.83									
157	11.97	.79									
389	11.95	.75									
009	11.80	.61									
361	11.83	.47									
137	11.81	.42									
324	11.80	.40									
029	11.74	.26									
073	11.73	.22									
351	11.72	.21									
136	11.70	.17									
102	11.68	.11									
177	11.67	.09									
233	11.64	.02									
Avg	11.63										
372	11.61	-.07									
330	11.60	-.07									
105	11.57	-.19									
057	11.51	-.28									
055	11.54	-.28									
397	11.53	-.29									
368	11.52	-.32									
027	11.49	-.33									
Meth: 144.99 PCT											
Sulfur											
416	11.40	-0.55									
231	11.40	-0.59									
049	11.47 R	-0.69									
453	11.40	-0.71									
114	11.35	-0.76									
422	11.23	-0.94									
037	11.22	-0.97									
200	11.16	-1.10									
095	11.19	-1.15									
354	11.10	-1.24									
230	11.10	-1.26									
444	11.07	-1.35									
292	11.05	-1.37									
023	10.96	-1.57									
131	10.97	-1.59									
377	10.85 R	-1.91									
232	9.82 s	-4.22									
254	9.80 s	-4.29									
360	6.77 s	-16.26									
Meth: 151.00 PPM											
Arsenic											
136	3.45	-.71									
Atomic Absorption											
307	0.054 R	3.26									
453	0.045	1.63									
300	0.040	1.31									
Avg	0.017										
422	0.013	-.27									
433	0.011	-.34									
232	0.009	-.45									
009	0.002	-.87									
114	0.000	-.99									
Meth: 165.99 PCT											
Acid Soluble Boron											
Other	0.235 s	12.54									
307	0.054 R	3.26									
453	0.045	1.63									
300	0.040	1.31									
Avg	0.017										
422	0.013	-.27									
433	0.011	-.34									
232	0.009	-.45									
009	0.002	-.87									
114	0.000	-.99									
Meth: 151.99 PPM											
Arsenic											
Other	3.18	-.31									
247	2.90	-.37									
393	0.00 X	-.99									
Meth: 151.99 PPM											
Acid Soluble Boron											
Spectrometric	0.013	.71									
393	0.013	.71									
Meth: 165.00 PCT											
Acid Soluble Boron											
Other	11.93 S	4.65									
368	7.15	2.40									
247	2.80	.35									
Avg	2.06										
255	1.70	-.17									
102	1.40	-.31									
393	1.25	-.38									
009	1.10	-.46									
232	1.10	-.46									
372	0.00	-.97									
Meth: 181.30 PPM											
Cadmium											
ICP	0.50	.71									
065	11.93 S	4.65									
368	7.15	2.40									
247	2.80	.35									
Avg	2.06										
255	1.70	-.17									
102	1.40	-.31									
393	1.25	-.38									
009	1.10	-.46									
232	1.10	-.46									
372	0.00	-.97									
Meth: 181.99 PPM											
Cadmium											
Other	1.65	.71									
231	1.65	.71									
Meth: 181.30 PPM											
Acid Soluble Boron											
444	0.235 s	13.45									
307	0.054 R	3.51									

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 191.30 PPM											
Chromium											
ICP											
450	243.00	.53									
393	233.00	.36									
037	230.06	.32									
Avg	211.21										
065	209.90	-.06									
232	192.50	-.32									
255	155.36	-.92									
230	149.00	-1.03									
372	129.55	-1.35									
027	112.78	-1.62									
Meth: 191.99 PPM											
Chromium											
Other											
231	146.84	.71									
Meth: 191.XX PPM											
Chromium											
368	331.50 R	2.22									
035	332.50	2.07									
009	267.00	.99									
102	246.05	.65									
247	245.00	.64									
450	243.00	.61									
393	233.00	.43									
037	230.06	.39									
065	209.90	.08									
Avg	206.61										
232	192.50	-.24									
255	155.36	-.84									
230	149.00	-.95									
231	146.84	-.99									
372	129.55	-1.27									
027	112.78	-1.55									
Meth: 202.00 PPM											
Acid Soluble Cobalt											
AA											
136	84.00	.71									
Meth: 202.30 PPM											
Acid Soluble Cobalt											
ICP											
368	73.00	.99									
450	72.10	.95									
057	71.58 R	.94									
035	71.25	.92									
009	68.50	.81									
037	66.14	.73									
Avg	47.85										
247	40.50	-.29									
393	36.78	-.43									
065	33.05	-.58									
372	17.18	-1.20									
232	0.00	-1.88									
Meth: 202.99 PPM											
Acid Soluble Cobalt											
Other											
231	27.58	.71									
Meth: 202.XX PPM											
Acid Soluble Cobalt											
136	84.00	1.33									
368	73.00	.91									
450	72.10	.88									
057	71.58 R	.87									
035	71.25	.84									
009	68.50	.74									
037	66.14	.66									
Avg	49.17										
247	40.50	-.33									
393	36.78	-.47									
065	33.05	-.62									
231	27.58	-.83									
Meth: 202.XX PPM											
Acid Soluble Copper											
ICP											
102	14.414 R	2.45									
117	14.290	2.28									
090	14.135	2.05									
035	14.050	1.93									
009	13.995	1.87									
361	13.815	1.63									
300	13.375 R	1.25									
330	13.150 R	.88									
377	13.200	.83									
433	13.060	.64									
131	13.010	.61									
307	12.995	.57									
055	12.870	.45									
231	12.600	.40									
442	12.850	.39									
389	12.850	.39									
371	12.840	.39									
157	12.830	.38									
420	12.805	.32									
023	12.794	.32									
368	12.776	.28									
037	12.750	.25									
095	12.738	.22									
360	12.655	.16									
324	12.600	.04									
Avg	12.571										
291	12.530	-.06									
450	12.465	-.14									
247	12.470	-.15									
057	12.465	-.19									
453	12.550	-.20									
027	12.298	-.36									
402	12.295	-.38									
432	12.290	-.38									
073	12.260	-.42									
422	12.260	-.43									
426	12.250	-.50									
354	12.182	-.52									
230	12.150 R	-.72									
405	12.000	-.75									
444	11.905	-.87									
233	11.890	-.89									
041	11.805	-1.00									
292	11.715	-1.12									
255	11.655	-1.20									
232	11.375	-1.56									
393	11.291	-1.67									
372	10.700	-2.45									
065	6.9715 s	-7.32									
Meth: 221.30 PCT											
Acid Soluble Copper											
ICP											
231	12.600	.39									
442	12.850	.37									
389	12.850	.37									
157	12.830	.36									
420	12.805	.30									
023	12.794	.30									
368	12.776	.27									
037	12.750	.24									
095	12.738	.22									
360	12.655	.16									
324	12.600	.04									
Avg	12.571										
291	12.530	-.06									
450	12.465	-.14									
247	12.470	-.15									
057	12.465	-.19									
453	12.550	-.20									
027	12.298	-.36									
402	12.295	-.38									
432	12.290	-.38									
073	12.260	-.42									
422	12.260	-.43									
426	12.250	-.50									
354	12.182	-.52									
230	12.150 R	-.72									
405	12.000	-.75									
444	11.905	-.87									
233	11.890	-.89									
041	11.805	-1.00									
292	11.715	-1.12									
255	11.655	-1.20									
232	11.375	-1.56									
393	11.291	-1.67									
372	10.700	-2.45									
065	6.9715 s	-7.32									
Meth: 221.XX PCT											
Acid Soluble Copper											
ICP</											

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 221.XX PCT											
<u>Acid Soluble Copper</u>											
Avg	12.560		022	13.59	.71	Meth: 241.00 PCT					
136	12.530	- .04	<u>Acid Soluble Iron</u>			453	11.00	-1.34	Meth: 251.XX PPM		
291	12.530	- .05	Atomic Absorption			393	9.45	-2.51	Lead		
450	12.465	- .13	Meth: 241.30 PCT			Meth: 251.00 PPM					
029	12.490	- .13	Acid Soluble Iron			Lead					
247	12.470	- .14	ICP			Atomic Absorption					
057	12.465	- .18	009	14.01	.95	136	134.50	.71	Meth: 261.00 PCT		
453	12.550	- .20	131	13.99	.95	Meth: 251.30 PPM					
043	12.320	- .32	057	13.98	.94	Lead					
027	12.298	- .35	102	13.75	.78	ICP					
402	12.295	- .36	027	13.70	.73	372	301.75	S 4.27	Acid Soluble Manganese		
432	12.290	- .36	307	13.52	.60	255	297.96	S 4.21	AA		
073	12.260	- .41	433	13.36	.48	102	175.42	1.62	022 0.865 - .71		
422	12.260	- .42	389	13.00	.21	009	162.50	1.35	Meth: 261.30 PCT		
426	12.250	- .49	422	12.91	.14	450	122.50	.54	Acid Soluble Manganese		
354	12.182	- .51	Avg	12.72		368	109.00	.24	ICP		
042	12.100	- .66	232	12.10	- .46	230	108.00	.22	131 0.909 1.00		
230	12.150	- .71	444	11.83	- .66	Meth: 281.00 PPM					
351	12.009	- .73	065	11.45	- .97	Mercury					
405	12.000	- .74	453	11.00	- 1.27	Atomic Absorption					
254	11.990	- .75	393	9.45	- 2.41	230 0.04 .71					
428	12.102	R - .80	Meth: 241.XX PCT								
397	11.920	- .84	<u>Acid Soluble Iron</u>			Meth: 281.30 PPM					
444	11.905	- .86	009	14.01	.93	Mercury					
233	11.890	- .88	131	13.99	.93	ICP					
262	11.870	- .91	057	13.98	.92	372 0.00 .00					
041	11.805	- 1.00	102	13.75	.76	393 1.80 S .00					
292	11.715	- 1.11	027	13.70	.70	Avg 0.00					
234	11.710	- 1.13	027	13.70	.70	Meth: 281.99 PPM					
255	11.655	- 1.19	022	13.59	.62	Mercury					
200	11.580	- 1.29	307	13.52	.56	ICP					
232	11.375	- 1.56	433	13.36	.44	372 0.00 .00					
393	11.291	- 1.67	389	13.00	.17	393 1.80 S .00					
372	10.700	- 2.45	422	12.91	.10	Avg 0.00					
065	6.9715	S - 7.36	Avg	12.77		Meth: 281.99 PPM					
			232	12.10	- .51	Mercury					
			444	11.83	- .72	Other					
			065	11.45	- 1.03	405 0.10 .87					
						Avg 0.07					
						009 0.04 - .87					

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	
Meth: 281.XX PPM												
<u>Mercury</u>												
393	1.80 s	39.30										
405	0.10	1.19										
Avg	0.05											
230	0.04 R	-0.06										
009	0.04	-0.16										
372	0.00	-1.03										
Meth: 289.30 PPM												
<u>Molybdenum</u>												
057	60.12 s	5.97										
368	37.20 R	1.72										
247	35.50	1.23										
065	33.94	.99										
450	34.00	.98										
035	31.85	.64										
433	31.37	.53										
009	28.35	.15										
102	28.73	.13										
Avg	28.20											
232	26.55	-.28										
307	26.58	-.29										
393	25.29	-.49										
037	22.61	-.95										
372	13.61	-2.45										
Meth: 289.99 PPM												
<u>Molybdenum</u>												
057	60.12 s	6.02										
368	37.20 R	1.79										
247	35.50	1.31										
065	33.94	1.06										
450	34.00	1.06										
Meth: 289.XX PPM												
<u>Molybdenum</u>												
057	60.12 s	6.02										
368	37.20 R	1.79										
247	35.50	1.31										
065	33.94	1.06										
450	34.00	1.06										
Meth: 289.XX PPM												
<u>Nickel</u>												
368	191.50 R	2.20										
450	174.50	1.16										
232	148.50 R	1.06										
136	168.50	.90										
247	167.50	.86										
102	162.50	.66										
035	160.00	.58										
009	160.00	.56										
037	149.39	.16										
Avg	146.02											
065	135.50	-.43										
393	127.90	-.72										
230	141.00	-.86										
231	108.82	-1.48										
372	96.64	-1.96										
Meth: 291.00 PPM												
<u>Nickel</u>												
136	168.50	.71										
Meth: 291.30 PPM												
<u>Selenium</u>												
022	7.585	1.88										
371	7.540	1.78										
055	7.000	.59										
028	6.925 R	.59										
351	6.853	.29										
177	6.808	.17										
029	6.790	.15										
136	6.770	.09										
Avg	6.732											
200	6.620	-.33										
397	6.560	-.38										
262	6.435	-.66										
234	6.300	-.98										
043	6.260	-1.04										
254	6.000	-1.61										
Meth: 301.30 PPM												
<u>Selenium</u>												
368	18.60	1.71										
037	10.39	.53										
231	8.71	.34										
Avg	6.70											
450	2.50	-.60										
393	0.00 X	-.82										
035	0.00 X	-.82										
009	160.00	.54										
037	149.39	.11										
Avg	147.58											
065	135.50	-.51										
393	127.90	-.82										
230	141.00	-.92										
372	96.64	-2.12										
Meth: 291.99 PPM												
<u>Nickel</u>												
368	18.60	1.71										
037	10.39	.53										
231	8.71	.34										
Avg	6.70											
450	2.50	-.60										
393	0.00 X	-.82										
035	0.00 X	-.82										
009	160.00	.52										
037	149.39	.11										
Avg	147.58											
065	135.50	-.51										
393	127.90	-.82										
230	141.00	-.92										
372	96.64	-2.12										
Meth: 301.99 PPM												
<u>Selenium</u>												
368	18.60	1.71										
037	10.39	.53										
231	8.71	.34										
Avg	6.70											
450	2.50	-.60										
393	0.00 X	-.82										
035	0.00 X	-.82										
009	160.00	.52										
037	149.39	.11										
Avg	147.58											
065	135.50	-.51										
393	127.90	-.82										
230	141.00	-.92										
372	96.64	-2.12										
Meth: 301.30 PPM												
<u>Atomic Absorption</u>												
022	7.585	1.88										
371	7.540	1.78										
055	7.000	.59										
028	6.925 R	.59										
351	6.853	.29										
177	6.808	.17										
029	6.790	.15										
136	6.770	.09										
Avg	6.732											
200	6.620	-.33										
397	6.560	-.38										
262	6.435	-.66										
234	6.300	-.98										
043	6.260	-1.04										
254	6.000	-1.61										
Meth: 321.00 PCT												
<u>Acid Soluble Zinc</u>												
442	7.180	.31										
360	7.140	.30										
233	7.104	.17										
027	7.100	.16										
057	7.034	.12										
102	7.030	.10										
157	7.040	.09										
Avg	7.018											
324	6.955	-.13										
291	6.950	-.14										
095	6.918	-.21										
307	6.985	-.28										
230	6.910	-.29										
426	6.880	-.29										
450	6.855	-.32										
402	6.850	-.32										
432	6.810	-.50										
023	6.688	-.63										
361	6.670	-.66										
405	6.665	-.67										
444	6.595	-.82										
232	6.557	-.88										
422	6.475	-1.03										
389	6.450	-1.08										

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 321.30 PCT											
Acid Soluble Zinc											
ICP			360	7.140	.39	254	6.000	-1.82			
231	6.350 R	-1.35	307	6.985	.28	372	5.500	-2.77			
393	6.068	-1.81	233	7.104	.28	433	4.895 s	-3.92			
453	6.040	-1.86	027	7.100	.27	041	4.715 s	-4.27			
372	5.500	-2.88	057	7.034	.19	065	1.722 s	-9.96			
433	4.895 S	-4.03	157	7.040	.17						
041	4.715 s	-4.38	102	7.030	.16						
065	1.722 s	-10.06	055	7.000	.08						
			Avg	6.959							
Meth: 321.99 PCT											
Acid Soluble Zinc											
095	6.918	-0.12	095	6.918	-0.12						
042	7.900	.89	426	6.880	-0.20						
Avg	7.295		402	6.850	-0.21						
137	6.690	-.84	450	6.855	-0.21						
			351	6.853	-0.22						
			230	6.910	-0.23						
			177	6.808	-0.29						
			029	6.790	-0.33						
			028	6.925	-0.36						
			136	6.770	-0.36						
			432	6.810	-0.42						
			137	6.690	-0.51						
			023	6.688	-0.52						
			361	6.670	-0.55						
			405	6.665	-0.56						
			200	6.620	-0.67						
			444	6.595	-0.71						
			397	6.560	-0.76						
			232	6.557	-0.76						
			422	6.475	-0.92						
			389	6.450	-0.97						
			262	6.435	-1.00						
			231	6.350 R	-1.25						
			234	6.300	-1.27						
			043	6.260	-1.33						
			393	6.068	-1.69						
			453	6.040	-1.75						
Meth: 321.99 PCT											
Acid Soluble Zinc											
117	9.150 s	4.17	029	6.790	-0.33						
114	8.200 R	2.48	028	6.925	-0.36						
330	8.150 R	2.36	136	6.770	-0.36						
035	8.080	2.13	432	6.810	-0.42						
090	7.955	1.93	137	6.690	-0.51						
042	7.900	1.83	023	6.688	-0.52						
255	7.785	1.57	361	6.670	-0.55						
131	7.740	1.49	405	6.665	-0.56						
377	7.700	1.41	200	6.620	-0.67						
354	7.672	1.36	444	6.595	-0.71						
022	7.585	1.19	397	6.560	-0.76						
371	7.540	1.11	232	6.557	-0.76						
420	7.395	.86	422	6.475	-0.92						
292	7.410	.86	389	6.450	-0.97						
009	7.370	.84	262	6.435	-1.00						
037	7.385	.81	231	6.350 R	-1.25						
247	7.315	.68	234	6.300	-1.27						
368	7.255	.56	043	6.260	-1.33						
300	7.185	.44	393	6.068	-1.69						
442	7.180	.42	453	6.040	-1.75						

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Method Evaluation - Z Values Based on 1 Reports

Method Code	Number Of Labs	Avg Bias of Labs	Std Dev of Biases	Std Dev Within Labs	Method Code	Number Of Labs	Avg Bias of Labs	Std Dev of Biases	Std Dev Within Labs
010.60	7	0.00	0.98	0.31	281.30	2	0.00	0.00	0.00
010.XX	7	0.00	0.98	0.31	281.99	2	0.00	1.22	0.00
020.50	3	0.00	1.11	0.07	281.XX	5	7.85	17.60	0.10
020.XX	4	0.00	1.08	0.06	289.30	14	0.49	1.73	0.74
041.50	2	0.00	1.20	0.17	289.XX	15	0.47	1.71	0.71
041.XX	2	0.00	1.20	0.17	291.30	12	0.15	1.02	0.57
050.51	4	0.00	1.06	0.17	291.XX	14	0.14	1.03	0.50
050.99	4	0.00	1.08	0.04	301.30	5	0.00	1.06	0.06
050.XX	9	- 0.13	0.95	0.23	301.XX	6	0.00	1.04	0.09
101.30	13	0.54	2.17	0.16	311.99	5	0.00	1.06	0.05
101.XX	13	0.54	2.17	0.16	311.XX	5	0.00	1.06	0.05
121.30	12	0.49	1.96	0.22	321.00	14	0.030	0.982	0.148
121.XX	12	0.49	1.96	0.22	321.30	46	- 0.245	2.105	0.210
144.01	20	- 0.37	1.64	0.31	321.99	2	0.000	1.193	0.197
144.02	2	0.00	1.22	0.10	321.XX	62	- 0.170	1.872	0.197
144.99	27	- 0.34	2.26	1.86					
144.XX	49	- 0.36	2.15	1.68					
151.30	6	0.88	2.36	0.15					
151.XX	8	0.77	2.27	0.14					
165.99	9	1.626	4.245	0.843					
165.XX	10	1.572	4.328	0.855					
181.30	9	0.52	1.82	0.08					
181.XX	11	0.47	1.84	0.08					
190.00	2	0.00	1.22	0.02					
190.XX	3	0.00	1.12	0.02					
191.30	14	0.14	1.11	0.23					
191.XX	15	0.14	1.11	0.23					
202.30	11	0.08	1.01	0.07					
202.XX	13	0.07	1.01	0.06					
221.00	15	- 0.033	0.9790	0.2235					
221.30	46	- 0.079	1.4971	0.1983					
221.99	3	0.0000	0.6918	0.7171					
221.XX	64	- 0.086	1.3399	0.2568					
241.30	14	0.00	1.01	0.11					
241.XX	15	0.00	1.01	0.11					
251.30	12	0.70	1.89	0.15					
251.XX	14	0.64	1.87	0.15					
261.30	15	- 0.529	2.367	0.118					
261.XX	16	- 0.516	2.371	0.118					