

- Pass 1 Results for 68 Labs - - Pass 2 Results for 66 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
Total Nitrogen, Combustion		010.60	4	2.92	5.32	0.02	3	0.05	0.02	0.00
Total Phosphate, Spectrometric	958.01	020.20	1	0.10	0.00	0.00	1	0.10	0.00	0.00
Total Phosphate, Automated	978.01	020.40	1	0.41	0.03	0.04	1	0.41	0.03	0.04
Total Phosphate, ICP		020.50	1	48.18	0.78	1.10	1	48.18	0.78	1.10
Method Group 020.XX PCT			3	16.23	24.75	0.38	3	16.23	24.75	0.38
Insoluble Phosphate, Automated	978.01	030.40	1	0.22	0.03	0.04	1	0.22	0.03	0.04
InDir Available Phosphate, Automated ..	960.02	040.40	1	0.19	0.06	0.08	1	0.19	0.06	0.08
Dir Available Phosphate, ICP		041.50	3	53.75	6.72	1.42	3	53.75	6.72	1.42
Dir Available Phosphate, EDTA Extract ..	993.01	041.60	1	0.43	0.01	0.02	1	0.43	0.01	0.02
Method Group 041.XX PCT			4	40.42	25.32	1.07	4	40.42	25.32	1.07
Water Soluble Phosphate, Spectrometric	970.01	048.20	1	0.06	0.02	0.03	1	0.06	0.02	0.03
Soluble Potash, STPB Oxalate	958.02	050.00	9	61.08	1.04	0.14	8	61.09	1.10	0.09
Soluble Potash, AA (Oxalate)		050.30	5	61.63	1.30	0.82	5	61.63	1.30	0.82
Soluble Potash, AA (Citrate)		050.31	1	58.47	0.02	0.03	1	58.47	0.02	0.03
Soluble Potash, ICP (Oxalate)		050.50	6	60.32	1.45	0.76	5	60.13	1.37	0.36
Soluble Potash, ICP (Citrate)		050.51	9	61.22	1.04	0.76	9	61.22	1.04	0.76
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	7	60.95	0.94	0.41	6	60.98	0.88	0.09
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	4	60.94	0.58	0.18	4	60.94	0.58	0.18
Soluble Potash, Other		050.99	18	60.71	1.00	0.67	18	60.71	1.00	0.67
Method Group 050.XX PCT			61	60.90	1.19	0.62	57	60.89	1.12	0.48
Free Water, Vacuum Oven	965.08B	060.00	1	0.21	0.01	0.01	1	0.21	0.01	0.01
Free Water, Other		060.99	7	0.07	0.06	0.01	6	0.08	0.06	0.00
Method Group 060.XX PCT			8	0.09	0.08	0.01	7	0.10	0.07	0.00
Acid Soluble Calcium, AA	945.04	101.00	1	2.63	0.08	0.11	1	2.63	0.08	0.11
Acid Soluble Calcium, ICP		101.30	6	2.68	0.16	0.08	6	2.68	0.16	0.08
Method Group 101.XX PCT			7	2.67	0.15	0.09	7	2.67	0.15	0.09
Acid Soluble Magnesium, AA	984.01	121.00	1	0.24	0.00	0.00	1	0.24	0.00	0.00
Acid Soluble Magnesium, ICP		121.30	6	0.27	0.02	0.02	6	0.27	0.02	0.02
Method Group 121.XX PCT			7	0.27	0.02	0.01	7	0.27	0.02	0.01
Sulfur, Gravimetric	980.02a	144.01	2	6.06	5.18	0.08	2	6.06	5.18	0.08
Sulfur, Gravimetric	980.02b	144.02	1	9.40	0.03	0.04	1	9.40	0.03	0.04
Sulfur, Spectrometric		144.70	1	6.51	0.49	0.70	1	6.51	0.49	0.70
Sulfur, Other		144.99	8	8.25	2.49	0.27	8	8.25	2.49	0.27
Method Group 144.XX PCT			12	7.83	2.93	0.25	12	7.83	2.93	0.25
Arsenic, Atomic Absorption		151.00	1	175.55	1.20	1.70	1	175.55	1.20	1.70
Arsenic, ICP		151.30	8	237.11	22.92	5.35	8	237.11	22.92	5.35
Arsenic, Other		151.99	2	64.08	58.85	67.65	2	64.08	58.85	67.65
Method Group 151.XX PPM			12	187.18	83.19	15.44	11	196.77	77.38	4.55

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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
Acid Soluble Boron, Other		165.99	2	0.055	0.002	0.002	2	0.055	0.002	0.002
Cadmium, ICP		181.30	10	187.59	24.74	8.43	9	191.38	22.17	5.26
Cadmium, Other		181.99	2	139.48	6.80	2.75	2	139.48	6.80	2.75
Method Group 181.XX PPM			12	179.57	29.10	7.49	11	181.94	28.71	4.80
Water Soluble Chlorine, Titrimetric ...	928.02	190.00	6	47.19	0.89	0.15	6	47.19	0.89	0.15
Water Soluble Chlorine, Other		190.99	2	47.05	2.37	0.30	2	47.05	2.37	0.30
Method Group 190.XX PCT			8	47.15	1.31	0.19	8	47.15	1.31	0.19
Chromium, Atomic Absorption		191.00	1	98.00	7.07	10.00	1	98.00	7.07	10.00
Chromium, ICP		191.30	8	103.88	23.82	7.56	7	99.58	21.66	4.92
Chromium, Other		191.99	2	56.83	14.11	1.45	2	56.83	14.11	1.45
Method Group 191.XX PPM			11	94.79	27.83	6.67	10	90.87	25.70	4.74
Acid Soluble Cobalt, AA		202.00	1	180.00	0.00	0.00	1	180.00	0.00	0.00
Acid Soluble Cobalt, ICP	965.11	202.30	9	275.97	25.18	11.24	9	275.97	25.18	11.24
Acid Soluble Cobalt, Other		202.99	2	184.30	19.14	7.50	2	184.30	19.14	7.50
Method Group 202.XX PPM			12	252.70	47.05	9.68	12	252.70	47.05	9.68
Acid Soluble Copper, Atomic Absorption	975.01	221.00	2	1.3410	0.0012	0.0000	2	1.3410	0.0012	0.0000
Acid Soluble Copper, ICP		221.30	10	1.3223	0.0917	0.0425	9	1.3121	0.0873	0.0304
Acid Soluble Copper, Other		221.99	3	1.3020	0.1036	0.1140	3	1.3020	0.1036	0.1140
Method Group 221.XX PCT			15	1.3207	0.0865	0.0512	14	1.3283	0.0814	0.0427
Acid Soluble Iron, Atomic Absorption ..	980.01	241.00	1	5.30	0.11	0.16	1	5.30	0.11	0.16
Acid Soluble Iron, ICP		241.30	8	4.50	1.03	0.23	7	4.47	1.09	0.15
Acid Soluble Iron, Other		241.99	1	4.08	0.42	0.60	1	4.08	0.42	0.60
Method Group 241.XX PCT			10	4.54	0.96	0.26	10	4.54	0.96	0.26
Lead, Atomic Absorption		251.00	1	600.70	2.69	3.80	1	600.70	2.69	3.80
Lead, ICP		251.30	10	722.63	75.08	18.95	9	709.98	65.79	10.27
Lead, Other		251.99	1	605.00	0.00	0.00	1	605.00	0.00	0.00
Method Group 251.XX PPM			12	702.67	82.08	16.11	11	690.50	72.76	8.75
Acid Soluble Manganese, AA	972.02b	261.11	1	0.272	0.021	0.029	1	0.272	0.021	0.029
Acid Soluble Manganese, ICP	972.02a	261.30	6	0.265	0.021	0.013	6	0.265	0.021	0.013
Acid Soluble Manganese, Other		261.99	1	0.260	0.028	0.040	1	0.260	0.028	0.040
Method Group 261.XX PCT			8	0.265	0.020	0.018	8	0.265	0.020	0.018
Mercury, Atomic Absorption		281.00	1	0.70	0.00	0.00	1	0.70	0.00	0.00
Mercury, Other		281.99	1	0.33	0.01	0.01	1	0.33	0.01	0.01
Method Group 281.XX PPM			2	0.51	0.22	0.01	2	0.51	0.22	0.01
Molybdenum, Atomic Absorption		289.00	1	737.50	12.02	17.00	1	737.50	12.02	17.00
Molybdenum, ICP		289.30	9	646.84	47.20	26.08	9	646.84	47.20	26.08
Molybdenum, Other		289.99	2	504.13	112.08	21.45	2	504.13	112.08	21.45
Method Group 289.XX PPM			13	606.20	118.88	23.60	13	606.20	118.88	23.60
Nickel, Atomic Absorption		291.00	1	189.50	2.12	3.00	1	189.50	2.12	3.00

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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
Nickel, ICP		291.30	9	195.86	18.90	13.17	9	195.86	18.90	13.17
Nickel, Other		291.99	2	139.63	10.00	6.35	2	139.63	10.00	6.35
Method Group 291.XX PPM			12	185.96	26.99	11.19	12	185.96	26.99	11.19
Selenium, ICP		301.30	2	1.75	0.96	1.44	2	1.75	0.96	1.44
Selenium, Other		301.99	1	0.87	0.02	0.03	1	0.87	0.02	0.03
Method Group 301.XX PPM			3	1.45	0.87	0.97	3	1.45	0.87	0.97
Sodium, Other		311.99	4	0.14	0.04	0.03	4	0.14	0.04	0.03
Acid Soluble Zinc, Atomic Absorption ..	975.02	321.00	13	36.189	0.963	0.553	12	36.277	0.865	0.377
Acid Soluble Zinc, ICP		321.30	34	37.284	2.242	0.586	32	37.184	2.210	0.465
Acid Soluble Zinc, Other		321.99	5	36.680	2.275	0.708	5	36.680	2.275	0.708
Method Group 321.XX PCT			52	36.952	2.043	0.590	48	36.906	2.010	0.433
Water Soluble Zinc, Atomic Absorption .		325.00	2	10.041	6.179	0.238	2	10.041	6.179	0.238
Water Soluble Zinc, ICP		325.30	2	5.065	0.123	0.190	2	5.065	0.123	0.190
Water Soluble Zinc, Other		325.99	1	3.250	0.071	0.100	1	3.250	0.071	0.100
Method Group 325.XX PCT			5	6.692	4.639	0.191	5	6.692	4.639	0.191

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
<u>Meth: 001.99 PCT</u>			<u>Meth: 040.40 PCT</u>			<u>Meth: 050.00 PCT</u>			<u>Meth: 050.51 PCT</u>			<u>Meth: 050.99 PCT</u>		
Ammoniacal Nitrogen			InDir Available Phos			Soluble Potash			Soluble Potash			Soluble Potash		
<u>Other</u>			<u>Automated</u>			<u>STPB Oxalate</u>			<u>ICP (Citrate)</u>			<u>Other</u>		
096	0.00	.00	096	0.19	.71	231	60.61	-.45	377	62.55	1.43	043	62.53	1.82
<u>Meth: 010.60 PCT</u>			<u>Meth: 041.50 PCT</u>			090 60.45 -.59			291 62.10 .85			307 62.16 1.67		
Total Nitrogen			Dir Available Phosph			102 60.01 -.98			354 61.96 .71			402 61.60 1.34		
<u>Combustion</u>			<u>ICP</u>			258 59.77 -1.20			389 61.55 .62			029 61.96 1.34		
025	11.55 R	566.00	325	60.70	1.06	470 56.82 s -5.96			007 61.50 .47			481 61.00 .67		
354	0.07	1.15	025	54.60	.13	230 49.05 s -11.04			Avg 61.22			450 61.00 .43		
Avg	0.05		Avg	53.75		<u>Meth: 050.30 PCT</u>			485 60.20 -.99			486 61.04 .33		
325	0.05	-.05	368	45.95	-1.16	Soluble Potash			043 60.17 -1.05			371 60.80 .31		
483	0.03	-1.08	<u>Meth: 041.60 PCT</u>			<u>AA (Oxalate)</u>			483 59.99 -1.51			Avg 60.71		
<u>Meth: 020.20 PCT</u>			Dir Available Phosph			185 63.31 1.32			<u>Meth: 050.60 PCT</u>			322 60.67 -.04		
Total Phosphate			<u>EDTA Extract</u>			498 62.10 .47			Soluble Potash			493 60.25 -.47		
<u>Spectrometric</u>			354 0.43 .71			157 62.05 .47			<u>Flame (Oxalate)</u>			368 60.21 -.60		
292	0.10	.00	<u>Meth: 041.XX PCT</u>			Avg 61.63			309 62.25 1.44			500 60.06 -.65		
<u>Meth: 020.40 PCT</u>			Dir Available Phosph			136 60.41 -.94			470 61.80 .92			027 60.01 -.78		
Total Phosphate			325 60.70 .80			040 60.30 -1.19			105 61.25 .30			506 59.95 -.84		
<u>Automated</u>			025 54.60 .56			<u>Meth: 050.31 PCT</u>			Avg 60.98			482 59.85 -.88		
096	0.41	-.71	368	45.95	.22	Soluble Potash			169 60.44 -.61			360 59.64 -1.08		
<u>Meth: 020.50 PCT</u>			Avg 40.42			<u>AA (Citrate)</u>			510 60.14 -.96			042 59.39 -1.66		
Total Phosphate			354 0.43 -1.58			472 58.47 -.71			351 60.02 -1.10			275 47.70 s -13.06		
<u>ICP</u>			<u>Meth: 048.20 PCT</u>			<u>Meth: 050.50 PCT</u>			041 60.73 R -1.38			<u>Meth: 050.XX PCT</u>		
368	48.18	.71	Water Soluble Phosph			Soluble Potash			<u>Meth: 050.61 PCT</u>			Soluble Potash		
<u>Meth: 020.XX PCT</u>			<u>Spectrometric</u>			157 61.30 R 1.34			Soluble Potash			117 68.92 s 7.18		
Total Phosphate			096 0.06 -.71			390 61.61 1.09			Flame (Citrate)			494 63.28 R 2.49		
368	48.18	1.29	<u>Meth: 050.00 PCT</u>			292 61.11 .72			494 63.28 s 4.69			185 63.31 2.19		
Avg	16.23		Soluble Potash			055 60.65 .41			456 61.53 1.00			055 63.24 2.10		
096	0.41	-.64	<u>STPB Oxalate</u>			Avg 60.13			034 61.29 .59			377 62.55 1.60		
292	0.10	-.65	055 63.24 1.95			324 59.00 -.87			Avg 60.94			043 62.53 1.47		
<u>Meth: 030.40 PCT</u>			114 61.78 .63			452 58.27 -1.36			035 60.82 -.53			307 62.16 1.35		
Insoluble Phosphate			211 61.71 .57			<u>Meth: 050.51 PCT</u>			037 60.15 -1.37			157 61.30 R 1.30		
<u>Automated</u>			405 61.16 .07			Soluble Potash			095 59.39 s -3.46			309 62.25 1.22		
096	0.22	.71	Avg 61.09			<u>ICP (Citrate)</u>						498 62.10 1.14		
<u>Meth: 049.02 PCT</u>			049 61.02 R -.24			117 68.92 s 7.44						175 62.05 1.12		
												402 61.60 1.10		
												291 62.10 1.08		
												029 61.96 1.05		

* 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	Lab	Average*	Index
<u>Meth: 050.XX PCT Soluble Potash</u>			<u>Meth: 050.XX PCT Soluble Potash</u>			<u>Meth: 060.XX PCT Free Water</u>			<u>Meth: 121.30 PCT Acid Soluble Magnesi ICP</u>			<u>Meth: 144.99 PCT Sulfur Other</u>		
354	61.96	.96	506	59.95	-.89	405	0.07	-.36	472	0.30	1.34	102	10.59	.94
470	61.80	.81	482	59.85	-.94	368	0.05	-.61	102	0.28	.58	494	10.36	.86
114	61.78	.80	258	59.77	-1.00	027	0.03	-.95	354	0.28	.53	035	10.07	.74
389	61.55	.77	041	60.73 R	-1.07	481	0.02	-1.00	Avg	0.27		389	9.81	.63
211	61.71	.74	360	59.64	-1.11	512	0.02 R	-1.10	041	0.27 X	-.34	472	9.36	.45
390	61.61	.67	483	59.99	-1.17	<u>Meth: 101.00 PCT Acid Soluble Calcium AA</u>			096	0.26	-.64	Avg	8.25	
007	61.50	.65	042	59.39	-1.60	105	2.63	.71	035	0.24	-1.60	506	6.51	-.71
456	61.53	.57	324	59.00	-1.72	<u>Meth: 101.30 PCT Acid Soluble Calcium ICP</u>			<u>Meth: 121.XX PCT Acid Soluble Magnesi</u>			<u>Meth: 144.XX PCT Sulfur</u>		
481	61.00	.55	095	59.39 R	-1.77	041	2.84 X	.97	472	0.30	1.43	102	10.59	.94
025	61.00	.46	472	58.47	-2.16	096	2.80	.73	102	0.28	.74	102	10.54	.93
034	61.29	.36	452	58.27	-2.34	472	2.73	.30	354	0.28	.66	494	10.36	.87
105	61.25	.33	470	56.82 s	-5.75	102	2.70	.27	Avg	0.27		035	10.07	.77
450	61.00	.31	230	49.05 s	-10.68	Avg	2.68		096	0.27 X	-.20	389	9.81	.68
049	61.02	.26	275	47.70 s	-11.80	354	2.64	-.34	105	0.24	-1.24	292	9.40	.54
405	61.16	.25	<u>Meth: 060.00 PCT Free Water Vacuum Oven</u>			035	2.39	-1.94	035	0.24	-1.29	472	9.36	.52
292	61.11	.20	456	0.21	-.71	<u>Meth: 101.XX PCT Acid Soluble Calcium</u>			<u>Meth: 144.01 PCT Sulfur Gravimetric</u>			<u>Meth: 151.00 PPM Arsenic Atomic Absorption</u>		
486	61.04	.14	<u>Meth: 060.99 PCT Free Water Other</u>			041	2.84 X	1.08	102	10.54	.87	506	6.51	-.47
Avg	60.89		506	0.20	1.92	096	2.80	.82	Avg	6.06		506	6.51	-.47
177	60.73	-.15	009	0.10	.35	096	2.80	.82	043	1.57	-.87	354	4.67	-1.08
322	60.67	-.19	Avg	0.08		472	2.73	.36	Meth: 144.02 PCT Sulfur Gravimetric			096	4.60	-1.10
035	60.82	-.26	405	0.07	-.15	102	2.70	.31	292	9.40	.71	043	1.57	-2.14
231	60.61	-.27	368	0.05	-.43	Avg	2.67		<u>Meth: 144.70 PCT Sulfur Spectrometric</u>			<u>Meth: 151.30 PPM Arsenic ICP</u>		
371	60.80	-.28	027	0.03	-.83	354	2.64	-.33	506	6.51	.71	368	282.00	1.96
055	60.65	-.29	481	0.02	-.89	105	2.63	-.46	<u>Meth: 144.02 PCT Sulfur Spectrometric</u>			<u>Meth: 151.00 PPM Arsenic ICP</u>		
090	60.45	-.40	512	0.02 R	-1.01	035	2.39	-2.03	506	6.51	.71	041	258.00 X	.92
169	60.44	-.40	<u>Meth: 060.XX PCT Free Water</u>			<u>Meth: 121.00 PCT Acid Soluble Magnesi AA</u>			<u>Meth: 144.02 PCT Sulfur Spectrometric</u>			<u>Meth: 151.00 PPM Arsenic ICP</u>		
136	60.41	-.43	456	0.21	1.46	105	0.24	.71	506	6.51	.71	102	240.79	.18
493	60.25	-.57	506	0.20	1.40	<u>Meth: 121.00 PCT Acid Soluble Magnesi AA</u>			<u>Meth: 144.02 PCT Sulfur Spectrometric</u>			<u>Meth: 151.00 PPM Arsenic ICP</u>		
485	60.20	-.61	009	0.10	.06	105	0.24	.71	506	6.51	.71	368	282.00	1.96
037	60.15	-.66	Avg	0.10		<u>Meth: 121.00 PCT Acid Soluble Magnesi AA</u>			<u>Meth: 144.02 PCT Sulfur Spectrometric</u>			<u>Meth: 151.00 PPM Arsenic ICP</u>		
368	60.21	-.67	<u>Meth: 060.XX PCT Free Water</u>			<u>Meth: 121.00 PCT Acid Soluble Magnesi AA</u>			<u>Meth: 144.02 PCT Sulfur Spectrometric</u>			<u>Meth: 151.00 PPM Arsenic ICP</u>		
510	60.14	-.67	456	0.21	1.46	105	0.24	.71	506	6.51	.71	041	258.00 X	.92
043	60.17	-.68	506	0.20	1.40	<u>Meth: 121.00 PCT Acid Soluble Magnesi AA</u>			<u>Meth: 144.02 PCT Sulfur Spectrometric</u>			<u>Meth: 151.00 PPM Arsenic ICP</u>		
500	60.06	-.74	009	0.10	.06	105	0.24	.71	506	6.51	.71	102	240.79	.18
102	60.01	-.78	Avg	0.10		<u>Meth: 121.00 PCT Acid Soluble Magnesi AA</u>			<u>Meth: 144.02 PCT Sulfur Spectrometric</u>			<u>Meth: 151.00 PPM Arsenic ICP</u>		
351	60.02	-.78	<u>Meth: 060.XX PCT Free Water</u>			<u>Meth: 121.00 PCT Acid Soluble Magnesi AA</u>			<u>Meth: 144.02 PCT Sulfur Spectrometric</u>			<u>Meth: 151.00 PPM Arsenic ICP</u>		
027	60.01	-.84	456	0.21	1.46	105	0.24	.71	506	6.51	.71	368	282.00	1.96
040	60.30	-.89	506	0.20	1.40	105	0.24	.71	506	6.51	.71	041	258.00 X	.92

* 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	Lab	Average*	Index
Meth: 151.30 PPM			Meth: 181.00 PPM			Meth: 181.XX PPM			Meth: 191.00 PPM			Meth: 202.00 PPM		
Arsenic			Cadmium			Cadmium			Chromium			Acid Soluble Cobalt		
<u>ICP</u>			<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			<u>AA</u>		
Avg	237.11		498	0.92 S	.00	506	145.05	-1.28	481	98.00	.71	481	180.00	.00
095	231.50	-.29	Meth: 181.30 PPM			Meth: 190.00 PCT			Meth: 191.30 PPM			Meth: 202.30 PPM		
481	228.50	-.38	Cadmium			Water Soluble Chlori			Chromium			Acid Soluble Cobalt		
037	225.62	-.51	<u>ICP</u>			<u>Titrimetric</u>			<u>ICP</u>			<u>ICP</u>		
230	225.50	-.53	368	235.50	1.99	498	48.40	1.37	027	134.00 R	1.70	368	308.00	1.30
027	205.00	-1.42	102	204.89	.65	105	47.71	.62	102	132.34	1.52	102	307.90	1.27
096	45.55 s	-8.36	041	204.00 X	.63	405	47.42	.27	041	116.00 X	.76	041	300.50 X	1.01
Meth: 151.99 PPM			096	195.65	.23	009	47.22	.04	035	99.80	.24	095	278.00	.18
Arsenic			095	193.50	.18	Avg	47.19		037	103.98	.22	Avg	275.97	
<u>Other</u>			Avg	191.38		494	46.66	-.62	096	102.65	.15	230	270.00	-.27
042	81.65	1.19	027	179.00	-.56	506	45.70	-1.67	Avg	99.58		096	271.00	-.37
Avg	64.08		037	178.84	-.57	Meth: 190.99 PCT			230	72.85	-1.24	037	261.34	-.63
506	46.50	-.30	230	173.50	-.81	Water Soluble Chlori			368	69.45	-1.40	035	245.00	-1.31
Meth: 151.XX PPM			481	157.50	-1.53	<u>Other</u>			Meth: 191.99 PPM			Meth: 202.99 PPM		
Arsenic			035	153.50 R	-1.90	389	49.10	.86	Chromium			Acid Soluble Cobalt		
368	282.00	1.10	Meth: 181.99 PPM			Avg	47.05		<u>Other</u>			<u>Other</u>		
041	258.00 X	.79	Cadmium			027	45.00	-.87	506	69.00	.86	506	200.00	.82
102	240.79	.57	<u>Other</u>			368	34.65 S	-5.23	Avg	56.83		Avg	184.30	
095	231.50	.45	506	145.05	.82	Meth: 190.XX PCT			042	44.65	-.87	042	168.60	-.91
481	228.50	.41	Avg	139.48		Water Soluble Chlori			Meth: 191.XX PPM			Meth: 202.XX PPM		
230	225.50	.37	042	133.90	-.91	389	49.10	1.49	Chromium			Acid Soluble Cobalt		
037	225.62	.37	Meth: 181.XX PPM			498	48.40	.96	027	134.00 R	1.75	368	308.00	1.18
027	205.00	.12	Cadmium			105	47.71	.44	102	132.34	1.62	102	307.90	1.18
Avg	196.77		368	235.50	1.87	405	47.42	.21	041	116.00 X	.98	041	300.50 X	1.03
025	175.55	-.27	102	204.89	.82	009	47.22	.05	037	103.98	.51	095	278.00	.54
042	81.65 R	-1.73	041	204.00 X	.80	Avg	47.15		096	102.65	.46	096	271.00	.42
506	46.50	-1.94	096	195.65	.49	494	46.66	-.39	035	99.80	.40	230	270.00	.37
096	45.55	-1.95	095	193.50	.42	506	45.70	-1.11	481	98.00	.34	037	261.34	.22
Meth: 165.99 PCT			Avg	181.94		027	45.00	-1.65	Avg	90.87		Avg	252.70	
Acid Soluble Boron			027	179.00	-.11	027	45.00	-1.65	230	72.85	-.71	027	242.00	-.23
<u>Other</u>			037	178.84	-.13	368	34.65 s	-9.56	368	69.45	-.84	035	245.00	-.29
102	0.056	.65	230	173.50	-.29	Meth: 191.XX PPM			506	69.00	-.85	506	200.00	-1.12
Avg	0.055		481	157.50	-.85	Chromium			042	44.65	-1.80	481	180.00	-1.55
354	0.054	-1.04	035	153.50 R	-1.18	Meth: 191.XX PPM			Chromium			Meth: 202.XX PPM		

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

Laboratory Averages & Accuracy Indexes

<u>Lab</u>	<u>Average*</u>	<u>Index</u>	<u>Lab</u>	<u>Average*</u>	<u>Index</u>	<u>Lab</u>	<u>Average*</u>	<u>Index</u>	<u>Lab</u>	<u>Average*</u>	<u>Index</u>	<u>Lab</u>	<u>Average*</u>	<u>Index</u>
Meth: 202.XX PPM			Meth: 221.XX PCT			Meth: 241.99 PCT			Meth: 251.99 PPM			Meth: 261.99 PCT		
<u>Acid Soluble Cobalt</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Iron</u>			<u>Lead</u>			<u>Acid Soluble Manganese</u>		
042 168.60 -1.79			025 1.4140 1.41			<u>Other</u>			<u>Other</u>			<u>Other</u>		
			041 1.3750 X .65			506 4.08 -.71			042 293.65 S .00			506 0.260 .71		
Meth: 221.00 PCT			230 1.3800 .65						506 605.00 .00					
<u>Acid Soluble Copper</u>			095 1.3400 .28			Meth: 241.XX PCT			Avg 605.00			Meth: 261.XX PCT		
<u>Atomic Absorption</u>			105 1.3420 .17			<u>Acid Soluble Iron</u>						<u>Acid Soluble Manganese</u>		
105 1.3420 .87			481 1.3400 .14			102 5.82 1.34			Meth: 251.XX PPM			041 0.302 X 1.90		
Avg 1.3410			Avg 1.3283			354 5.43 .95			<u>Lead</u>			105 0.272 .79		
481 1.3400 -.87			433 1.3200 -.10			096 5.34 .83			368 847.00 2.15			096 0.274 .44		
498 0.0067 S1155.58			037 1.2985 -.38			105 5.30 .80			481 836.50 R 2.11			Avg 0.265		
			035 1.3200 -.38			041 4.73 X .45			041 783.50 X 1.28			102 0.260 -.51		
			472 1.2950 -.45			Avg 4.54			035 744.50 .75			472 0.255 -.57		
Meth: 221.30 PCT			042 1.3110 -.96			377 4.43 -.12			Avg 690.50			354 0.252 -.68		
<u>Acid Soluble Copper</u>			368 1.2400 -1.08			035 4.06 -.52			102 687.79 -.07			035 0.248 -1.00		
<u>ICP</u>			506 1.2150 R -1.74			506 4.08 -.57			096 682.70 -.19			506 0.260 -1.02		
102 1.6870 s 4.31			096 1.1503 -2.21			472 3.37 -1.22			037 672.30 -.27					
354 1.4700 1.81			498 0.0067 s -16.24			025 2.83 -1.78			095 664.50 -.37			Meth: 281.00 PPM		
025 1.4140 R 1.46									230 657.00 -.46			<u>Mercury</u>		
041 1.3750 X .78									027 650.50 -.57			<u>Atomic Absorption</u>		
095 1.3400 .39			Meth: 241.00 PCT			Meth: 251.00 PPM			506 605.00 -1.18			230 0.70 .71		
035 1.3200 .36			<u>Acid Soluble Iron</u>			<u>Lead</u>			025 600.70 -1.23					
433 1.3200 .09			<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			042 293.65 s -5.47			Meth: 281.99 PPM		
Avg 1.3121			105 5.30 .71			025 600.70 -.71						<u>Mercury</u>		
037 1.2985 -.18												<u>Other</u>		
472 1.2950 -.26			Meth: 241.30 PCT			Meth: 251.30 PPM			Meth: 261.11 PCT			042 0.33 .71		
368 1.2400 -.83			<u>Acid Soluble Iron</u>			<u>Lead</u>			<u>Acid Soluble Manganese</u>					
096 1.1503 -1.88			<u>ICP</u>			<u>ICP</u>			<u>AA</u>					
			102 5.82 1.25			368 847.00 2.08			105 0.272 .71			Meth: 281.XX PPM		
			354 5.43 .91			481 836.50 R 2.06						<u>Mercury</u>		
Meth: 221.99 PCT			096 5.34 .80			041 783.50 X 1.12			Meth: 261.30 PCT			230 0.70 .87		
<u>Acid Soluble Copper</u>			041 4.73 R .43			035 744.50 .53			<u>Acid Soluble Manganese</u>			Avg 0.51		
<u>Other</u>			Avg 4.47			Avg 709.98			<u>ICP</u>			042 0.33 -.87		
230 1.3800 .76			377 4.43 -.04			102 687.79 -.34			041 0.302 X 1.85					
042 1.3110 .74			035 4.06 -.40			096 682.70 -.45			096 0.274 .44			Meth: 289.00 PPM		
Avg 1.3020			472 3.37 -1.01			037 672.30 -.58			Avg 0.265			<u>Molybdenum</u>		
506 1.2150 -1.17			025 2.83 -1.51			095 664.50 -.70			102 0.260 -.49			<u>Atomic Absorption</u>		
						230 657.00 -.81			472 0.255 -.54			481 737.50 .71		
Meth: 221.XX PCT						027 650.50 -.92			354 0.252 -.65					
<u>Acid Soluble Copper</u>									035 0.248 -.96					
102 1.6870 s 4.42														
354 1.4700 1.75														

* 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	Lab	Average*	Index
<u>Meth: 289.30 PPM</u>			<u>Meth: 291.00 PPM</u>			<u>Meth: 291.XX PPM</u>			<u>Meth: 321.00 PCT</u>			<u>Meth: 321.30 PCT</u>		
<u>Molybdenum</u>			<u>Nickel</u>			<u>Nickel</u>			<u>Acid Soluble Zinc</u>			<u>Acid Soluble Zinc</u>		
<u>ICP</u>			<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			<u>ICP</u>		
368	734.00	1.86	481	189.50	.71	042	132.20	-2.01	485	36.370	.22	096	37.148 R	-.46
041	709.00 X	1.42							Avg	36.277		055	36.135	-.48
102	651.21	.26							028	36.250	-.07	433	36.130	-.48
230	650.00	.13	<u>Meth: 291.30 PPM</u>			<u>Selenium</u>			169	35.765	-.59	095	36.110	-.56
Avg	646.84		<u>Nickel</u>			<u>ICP</u>			105	35.795	-.63	486	35.750	-.65
433	625.00	-.47	368	230.50	1.93	368	2.14	.71	040	35.656	-.72	472	35.410	-.80
027	631.50	-.49	041	209.50 X	.88	Avg	1.75		258	35.480	-.93	354	35.266	-.87
095	614.00	-.72	102	206.63	.60	041	1.36 X	-1.00	351	35.415	-1.01	102	35.084	-.95
037	603.90	-.97	095	199.50	.39	<u>Meth: 301.99 PPM</u>			500	35.400	-1.04	402	34.250	-1.33
035	603.00	-1.00	Avg	195.86		<u>Selenium</u>			029	35.135 R	-2.03	157	33.950	-1.49
096	313.25 s	-7.07	096	192.15	-.43	<u>Other</u>						377	33.200	-1.80
			230	188.50	-.43	485	0.87	.71	<u>Meth: 321.30 PCT</u>			483	32.450	-2.14
			037	183.95	-.63	<u>Meth: 301.XX PPM</u>			<u>Acid Soluble Zinc</u>					
<u>Meth: 289.99 PPM</u>			035	180.00	-.92	<u>Selenium</u>			<u>ICP</u>			<u>Meth: 321.99 PCT</u>		
<u>Molybdenum</u>			027	172.00	-1.37	<u>Avg</u>			<u>ICP</u>			<u>Acid Soluble Zinc</u>		
<u>Other</u>						368	2.14	1.01	041	42.450 X	2.38	<u>Other</u>		
506	600.00	.86				Avg	1.45		114	41.515	1.97	325	40.000	1.47
Avg	504.13		<u>Meth: 291.99 PPM</u>			485	0.87	-.67	035	40.600 R	1.69	117	37.155	.52
042	408.25	-.88	<u>Nickel</u>			041	1.36 X	-1.02	360	39.580	1.09	042	36.895	.10
			<u>Other</u>						452	39.400	1.00	Avg	36.680	
			506	147.05	.74	<u>Meth: 311.99 PCT</u>			307	39.054	.91	506	35.800	-.39
<u>Meth: 289.XX PPM</u>			Avg	139.63		<u>Sodium</u>			291	39.165	.90	512	33.550	-1.38
<u>Molybdenum</u>			042	132.20	-.97	<u>Other</u>			027	39.090	.87			
481	737.50	1.11				354	0.19	1.39	117	38.790	.82			
368	734.00	1.08	<u>Meth: 291.XX PPM</u>			<u>Avg</u>			230	38.550	.62	<u>Meth: 321.XX PCT</u>		
041	709.00 X	.89	<u>Nickel</u>			<u>Avg</u>			371	38.050	.53	<u>Acid Soluble Zinc</u>		
102	651.21	.39	368	230.50	1.70	096	0.12	-.58	292	38.235	.48	428	48.862 s	5.98
230	650.00	.37	041	209.50 X	.94	035	0.14	-.76	368	38.100	.41	041	42.450 X	2.76
027	631.50	.26	102	206.63	.78	102	0.11	-.81	494	37.283	.27	114	41.515	2.31
433	625.00	.16	095	199.50	.56	<u>Meth: 321.00 PCT</u>			389	37.750	.26	035	40.600 R	1.98
095	614.00	.10	096	192.15	.35	<u>Acid Soluble Zinc</u>			090	37.390	.10	325	40.000	1.55
Avg	606.20		230	188.50	.16	<u>Atomic Absorption</u>			Avg	37.184		360	39.580	1.33
506	600.00	-.05	481	189.50	.14	428	48.862 s	14.62	049	36.995	-.09	452	39.400	1.24
037	603.90	-.14	Avg	185.96		498	37.750	1.78	037	36.985	-.10	307	39.054	1.13
035	603.00	-.15	037	183.95	-.08	136	37.670	1.62	231	36.955	-.10	291	39.165	1.13
042	408.25	-1.67	035	180.00	-.34	481	37.150	1.05	177	37.009	-.13	027	39.090	1.09
096	313.25	-2.46	027	172.00	-.64	043	36.625	.55	324	36.950	-.19	117	38.790	1.02
			506	147.05	-1.44				025	36.865	-.21	230	38.550	.82

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 321.XX PCT			Meth: 321.XX PCT			Meth: 325.00 PCT			Meth: 325.30 PCT		
<u>Acid Soluble Zinc</u>			<u>Acid Soluble Zinc</u>			<u>Water Soluble Zinc</u>			<u>Water Soluble Zinc</u>		
371	38.050	.69	157	33.950	-1.51	027	15.390	.87	368	5.110	.97
292	38.235	.66	512	33.550	-1.67	Avg	10.041		Avg	5.065	
368	38.100	.59	377	33.200	-1.84	105	4.691	-.87	025	5.020	-.75
117	37.155 R	.56	483	32.450	-2.22	Meth: 325.99 PCT			Meth: 325.XX PCT		
096	37.148 R	.52				<u>Atomic Absorption</u>			<u>Water Soluble Zinc</u>		
498	37.750	.48				027 15.390 .87			230 3.250 .71		
389	37.750	.43				Avg 10.041			Meth: 325.99 PCT		
136	37.670	.39				105 4.691 -.87			Water Soluble Zinc		
494	37.283	.35				Meth: 325.30 PCT			Other		
090	37.390	.24				Water Soluble Zinc			230 3.250 .71		
324	36.950	.18				ICP			Meth: 325.XX PCT		
481	37.150	.17				368 5.110 .97			Water Soluble Zinc		
177	37.009	.12				Avg 5.065			Other		
049	36.995	.06				025 5.020 -.75			230 3.250 .71		
037	36.985	.05				Meth: 325.99 PCT			Water Soluble Zinc		
231	36.955	.02				Water Soluble Zinc			Other		
Avg	36.906					230 3.250 .71			Meth: 325.XX PCT		
042	36.895	-.01				Meth: 325.99 PCT			Water Soluble Zinc		
025	36.865	-.17				Water Soluble Zinc			Other		
043	36.625	-.21				230 3.250 .71			Meth: 325.XX PCT		
485	36.370	-.28				Meth: 325.99 PCT			Water Soluble Zinc		
028	36.250	-.33				Water Soluble Zinc			Other		
055	36.135	-.38				230 3.250 .71			Meth: 325.XX PCT		
433	36.130	-.39				Meth: 325.99 PCT			Water Soluble Zinc		
095	36.110	-.50				Water Soluble Zinc			Other		
506	35.800	-.55				230 3.250 .71			Meth: 325.XX PCT		
105	35.795	-.57				Meth: 325.99 PCT			Water Soluble Zinc		
169	35.765	-.57				Water Soluble Zinc			Other		
486	35.750	-.58				230 3.250 .71			Meth: 325.XX PCT		
040	35.656	-.62				Meth: 325.99 PCT			Water Soluble Zinc		
258	35.480	-.71				Water Soluble Zinc			Other		
351	35.415	-.74				230 3.250 .71			Meth: 325.XX PCT		
472	35.410	-.74				Meth: 325.99 PCT			Water Soluble Zinc		
500	35.400	-.76				Water Soluble Zinc			Other		
354	35.266	-.82				230 3.250 .71			Meth: 325.XX PCT		
102	35.084	-.91				Meth: 325.99 PCT			Water Soluble Zinc		
029	35.135 R	-1.10				Water Soluble Zinc			Other		
402	34.250	-1.32				230 3.250 .71			Meth: 325.XX PCT		

* 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	4	141.50	283.00	1.11	221.00	3	- 385.1	667.17	0.0250
010.XX	4	141.50	283.00	1.11	221.30	11	0.4968	1.5877	0.3409
020.XX	3	0.00	1.12	0.01	221.99	3	0.0000	0.7998	0.6378
041.50	3	0.00	1.10	0.14	221.XX	17	- 0.778	4.2293	0.4504
041.XX	4	0.00	1.08	0.03	241.30	8	0.03	0.96	0.15
050.00	11	- 1.35	3.49	1.44	241.XX	10	0.00	1.01	0.18
050.30	5	0.00	0.98	0.37	251.30	10	0.19	1.14	0.25
050.50	6	0.14	1.00	0.44	251.99	2	0.00	0.00	0.00
050.51	10	0.74	2.50	0.45	251.XX	13	- 0.27	1.90	0.23
050.60	7	- 0.04	0.96	0.51	261.30	6	0.000	0.974	0.354
050.61	6	0.22	2.28	1.36	261.XX	8	0.000	0.862	0.536
050.99	19	- 0.69	3.12	0.47	281.XX	2	0.000	1.224	0.017
050.XX	61	- 0.30	2.41	0.71	289.30	10	- 0.71	2.42	0.29
060.99	7	- 0.14	1.03	0.10	289.99	2	0.00	1.21	0.14
060.XX	8	- 0.13	1.04	0.08	289.XX	13	0.00	1.01	0.12
101.30	6	0.00	0.98	0.33	291.30	9	0.00	0.94	0.39
101.XX	7	0.00	0.97	0.36	291.99	2	0.00	1.05	0.45
121.30	6	0.00	0.97	0.37	291.XX	12	0.00	0.99	0.25
121.XX	7	0.00	0.98	0.32	301.30	2	0.00	0.57	0.77
144.01	2	0.00	1.22	0.01	301.XX	3	0.00	0.73	0.69
144.99	8	0.00	1.03	0.08	311.99	4	0.00	0.96	0.43
144.XX	10	- 0.05	1.07	0.06	311.XX	4	0.00	0.96	0.43
151.30	9	- 0.93	2.95	0.13	321.00	14	0.944	4.033	0.619
151.99	2	0.00	0.42	0.81	321.30	34	0.045	1.001	0.206
151.XX	12	- 0.12	1.07	0.25	321.99	5	0.000	1.028	0.234
165.99	2	0.000	0.816	0.645	321.XX	52	0.127	1.287	0.241
165.XX	2	0.000	0.816	0.645	325.00	2	0.000	1.224	0.020
181.30	10	- 0.17	1.10	0.30	325.30	2	0.000	0.519	0.784
181.99	2	0.00	1.16	0.28	325.XX	4	0.085	1.204	0.022
181.XX	13	- 0.56	1.98	0.20					
190.00	6	0.00	1.04	0.11					
190.99	3	- 1.74	3.14	0.10					
190.XX	9	- 1.06	3.33	0.13					
191.30	8	0.20	1.11	0.24					
191.99	2	0.00	1.22	0.07					
191.XX	11	0.15	1.09	0.19					
202.30	9	0.00	1.00	0.25					
202.99	2	0.00	1.16	0.28					
202.XX	12	0.00	1.01	0.12					