

- Pass 1 Results for 81 Labs - - Pass 2 Results for 81 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, MgO Distillation	920.03	001.10	3	5.12	0.11	0.14	3	5.12	0.11	0.14
Ammoniacal Nitrogen, Other		001.99	5	5.18	0.18	0.06	5	5.18	0.18	0.06
Method Group 001.XX PCT			8	5.16	0.15	0.09	8	5.16	0.15	0.09
Nitrate Nitrogen, Other		002.99	2	0.07	0.01	0.01	2	0.07	0.01	0.01
Ammon & Nitrate N, Devarda	892.01	009.10	4	5.69	0.65	0.10	4	5.69	0.65	0.10
Ammon & Nitrate N, Other		009.99	1	5.00	0.01	0.01	1	5.00	0.01	0.01
Method Group 009.XX PCT			5	5.55	0.64	0.08	5	5.55	0.64	0.08
Total Nitrogen, Modified Comprehensive	978.02	010.11	9	5.37	0.16	0.03	9	5.37	0.16	0.03
Total Nitrogen, Salicylic	955.04D	010.12	3	5.38	0.12	0.04	3	5.38	0.12	0.04
Total Nitrogen, Comprehensive	970.02	010.17	1	5.59	0.11	0.15	1	5.59	0.11	0.15
Total Nitrogen, Combustion		010.60	51	5.40	0.14	0.05	49	5.40	0.13	0.04
Total Nitrogen, Other		010.99	7	5.46	0.28	0.05	8	5.54	0.34	0.05
Method Group 010.XX PCT			72	5.41	0.17	0.05	70	5.40	0.16	0.04
Total Phosphate, Grav Quimociac	962.02	020.10	5	20.01	0.13	0.12	5	20.01	0.13	0.12
Total Phosphate, Spectrometric	958.01	020.20	16	20.04	0.40	0.10	16	20.04	0.40	0.10
Total Phosphate, Automated	978.01	020.40	5	19.93	0.22	0.09	4	19.98	0.20	0.03
Total Phosphate, ICP		020.50	14	19.93	0.49	0.20	14	19.93	0.49	0.20
Total Phosphate, Other		020.99	2	19.02	0.40	0.03	2	19.02	0.40	0.03
Method Group 020.XX PCT			42	19.94	0.44	0.13	40	19.92	0.44	0.11
Insoluble Phosphate, Grav Quimociac	963.03C	030.10	1	0.03	0.00	0.00	1	0.03	0.00	0.00
Insoluble Phosphate, Spectrometric	963.03C	030.20	2	0.05	0.01	0.01	2	0.05	0.01	0.01
Insoluble Phosphate, Alka Quimociac	963.03C	030.30	1	0.04	0.02	0.03	1	0.04	0.02	0.03
Insoluble Phosphate, Automated	978.01	030.40	1	0.04	0.01	0.02	1	0.04	0.01	0.02
Insoluble Phosphate, ICP		030.50	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Insoluble Phosphate, Other		030.99	1	0.05	0.01	0.01	1	0.05	0.01	0.01
Method Group 030.XX PCT			7	0.04	0.02	0.01	7	0.04	0.02	0.01
InDir Available Phosphate, Grav Quim	960.02	040.10	1	20.05	0.05	0.07	1	20.05	0.05	0.07
InDir Available Phosphate, Spectrometri	960.02	040.20	1	19.96	0.04	0.06	1	19.96	0.04	0.06
InDir Available Phosphate, Automated	960.02	040.40	1	19.96	0.01	0.01	1	19.96	0.01	0.01
InDir Available Phosphate, Other		040.99	3	20.07	0.13	0.08	3	20.07	0.13	0.08
Method Group 040.XX PCT			6	20.03	0.10	0.06	6	20.03	0.10	0.06
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	10	19.97	0.15	0.06	10	19.97	0.15	0.06
Dir Available Phosphate, Spectrometric	960.03D	041.20	1	19.88	0.20	0.28	1	19.88	0.20	0.28
Dir Available Phosphate, Automated	978.01	041.40	4	19.84	0.26	0.27	4	19.84	0.26	0.27
Dir Available Phosphate, ICP		041.50	11	19.97	0.36	0.18	10	19.92	0.33	0.13
Dir Available Phosphate, EDTA Extract	993.01	041.60	14	20.04	0.18	0.13	13	20.05	0.16	0.09
Dir Available Phosphate, Other		041.99	1	19.86	0.03	0.04	1	19.86	0.03	0.04
Method Group 041.XX PCT			42	19.96	0.25	0.14	39	19.96	0.23	0.10
Water Soluble Phosphate, Spectrometric	970.01	048.20	5	16.33	0.76	0.11	5	16.33	0.76	0.11

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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
Water Soluble Phosphate, ICP		048.50	1	16.76	0.16	0.23	1	16.76	0.16	0.23
Method Group 048.XX PCT			6	16.40	0.71	0.13	6	16.40	0.71	0.13
Soluble Potash, STPB Oxalate	958.02	050.00	11	20.50	0.46	0.23	10	20.53	0.43	0.14
Soluble Potash, AA (Oxalate)		050.30	8	20.14	0.69	0.30	8	20.14	0.69	0.30
Soluble Potash, AA (Citrate)		050.31	2	19.03	0.20	0.27	2	19.03	0.20	0.27
Soluble Potash, ICP (Oxalate)		050.50	9	20.02	0.60	0.26	9	20.02	0.60	0.26
Soluble Potash, ICP (Citrate)		050.51	9	20.52	0.35	0.21	9	20.52	0.35	0.21
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	5	19.96	0.48	0.21	5	19.96	0.48	0.21
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	9	20.50	0.25	0.22	9	20.50	0.25	0.22
Soluble Potash, Other		050.99	21	20.25	0.56	0.30	21	20.25	0.56	0.30
Method Group 050.XX PCT			74	20.26	0.57	0.26	73	20.26	0.57	0.24
Free Water, Vacuum Oven	965.08B	060.00	4	0.75	0.08	0.02	4	0.75	0.08	0.02
Acid Soluble Calcium, AA	945.04	101.00	1	2.40	0.01	0.02	1	2.40	0.01	0.02
Acid Soluble Calcium, ICP		101.30	14	2.64	0.19	0.09	13	2.63	0.19	0.08
Acid Soluble Calcium, Other		101.99	1	2.35	0.00	0.00	1	2.35	0.00	0.00
Method Group 101.XX PCT			16	2.60	0.20	0.08	15	2.59	0.19	0.07
Acid Soluble Magnesium, AA	984.01	121.00	11	2.39	0.15	0.05	11	2.39	0.15	0.05
Acid Soluble Magnesium, ICP		121.30	37	2.32	0.17	0.04	35	2.31	0.17	0.03
Acid Soluble Magnesium, Other		121.99	1	2.33	0.00	0.00	1	2.33	0.00	0.00
Method Group 121.XX PCT			49	2.33	0.17	0.04	47	2.33	0.17	0.04
Water Soluble Magnesium, AA		131.00	2	1.86	0.09	0.06	2	1.86	0.09	0.06
Water Soluble Magnesium, ICP		131.30	6	1.93	0.22	0.06	6	1.93	0.22	0.06
Method Group 131.XX PCT			8	1.91	0.20	0.06	8	1.91	0.20	0.06
Sulfur, Gravimetric	980.02a	144.01	16	7.47	0.21	0.10	16	7.47	0.21	0.10
Sulfur, Gravimetric	980.02b	144.02	1	7.94	0.02	0.03	1	7.94	0.02	0.03
Sulfur, Other		144.99	29	7.31	0.33	0.10	28	7.33	0.32	0.09
Method Group 144.XX PCT			46	7.38	0.31	0.10	45	7.39	0.30	0.09
Arsenic, Atomic Absorption		151.00	1	3.65	0.07	0.10	1	3.65	0.07	0.10
Arsenic, ICP		151.30	9	4.21	2.73	0.35	8	3.79	2.60	0.23
Arsenic, Other		151.99	1	3.81	0.01	0.01	1	3.81	0.01	0.01
Method Group 151.XX PPM			11	4.12	2.46	0.30	9	3.91	2.40	0.11
Acid Soluble Boron, Spectrometric	982.01	165.00	8	0.279	0.042	0.006	7	0.277	0.044	0.004
Acid Soluble Boron, Other		165.99	27	0.285	0.036	0.012	25	0.284	0.035	0.009
Method Group 165.XX PCT			35	0.284	0.037	0.011	33	0.283	0.036	0.008
Water Soluble Boron, Other		171.99	4	0.269	0.023	0.013	4	0.269	0.023	0.013
Cadmium, Atomic Absorption		181.00	2	29.23	2.18	1.45	2	29.23	2.18	1.45
Cadmium, ICP		181.30	13	27.44	1.84	1.33	12	27.35	1.58	0.86
Cadmium, Other		181.99	1	25.80	0.40	0.57	1	25.80	0.40	0.57
Method Group 181.XX PPM			16	27.56	1.94	1.30	15	27.50	1.77	0.92

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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
Water Soluble Chlorine, Titrimetric ...	928.02	190.00	2	11.65	0.55	0.21	2	11.65	0.55	0.21
Chromium, ICP		191.30	11	104.20	12.17	5.52	10	103.12	11.61	3.65
Chromium, Other		191.99	1	101.64	1.81	2.56	1	101.64	1.81	2.56
Method Group 191.XX PPM			12	103.98	11.66	5.28	11	102.99	11.06	3.55
Acid Soluble Cobalt, AA		202.00	1	3.00	0.00	0.00	1	3.00	0.00	0.00
Acid Soluble Cobalt, ICP	965.11	202.30	9	4.40	0.84	0.20	8	4.39	0.89	0.14
Acid Soluble Cobalt, Other		202.99	1	3.67	0.06	0.09	1	3.67	0.06	0.09
Method Group 202.XX PPM			12	3.97	1.15	0.16	11	3.93	1.19	0.11
Acid Soluble Copper, Atomic Absorption	975.01	221.00	3	0.0040	0.0004	0.0003	3	0.0040	0.0004	0.0003
Acid Soluble Copper, ICP		221.30	17	0.0035	0.0011	0.0004	15	0.0034	0.0011	0.0003
Acid Soluble Copper, Other		221.99	2	0.0035	0.0000	0.0000	2	0.0035	0.0000	0.0000
Method Group 221.XX PCT			22	0.0035	0.0010	0.0004	19	0.0034	0.0010	0.0002
Acid Soluble Iron, Atomic Absorption	980.01	241.00	10	0.60	0.03	0.01	10	0.60	0.03	0.01
Acid Soluble Iron, ICP		241.30	38	0.59	0.04	0.02	37	0.59	0.04	0.01
Acid Soluble Iron, Other		241.99	1	0.66	0.00	0.00	1	0.66	0.00	0.00
Method Group 241.XX PCT			49	0.60	0.04	0.01	48	0.60	0.04	0.01
Lead, Atomic Absorption		251.00	1	4.75	0.16	0.22	1	4.75	0.16	0.22
Lead, ICP		251.30	8	3.28	1.24	0.17	7	3.29	1.32	0.06
Lead, Other		251.99	1	3.53	0.04	0.06	1	3.53	0.04	0.06
Method Group 251.XX PPM			10	3.45	1.19	0.16	9	3.48	1.25	0.08
Acid Soluble Manganese, AA	972.02a	261.00	8	0.014	0.003	0.001	8	0.014	0.003	0.001
Acid Soluble Manganese, AA	972.02b	261.11	1	0.014	0.001	0.001	1	0.014	0.001	0.001
Acid Soluble Manganese, ICP		261.30	24	0.015	0.003	0.001	23	0.015	0.003	0.001
Acid Soluble Manganese, ICP	972.02a	261.31	2	0.016	0.001	0.001	2	0.016	0.001	0.001
Acid Soluble Manganese, Other		261.99	5	0.015	0.006	0.000	4	0.015	0.007	0.000
Method Group 261.XX PCT			40	0.015	0.003	0.001	38	0.015	0.003	0.001
Water Soluble Manganese, ICP	972.03	271.30	2	0.004	0.001	0.001	2	0.004	0.001	0.001
Water Soluble Manganese, Other		271.99	1	0.012	0.000	0.000	1	0.012	0.000	0.000
Method Group 271.XX PCT			3	0.007	0.004	0.000	3	0.007	0.004	0.000
Mercury, Atomic Absorption		281.00	1	0.02	0.00	0.00	1	0.02	0.00	0.00
Mercury, ICP		281.30	1	0.01	0.00	0.00	1	0.01	0.00	0.00
Mercury, Other		281.99	1	0.03	0.00	0.00	1	0.03	0.00	0.00
Method Group 281.XX PPM			3	0.02	0.01	0.00	3	0.02	0.01	0.00
Molybdenum, ICP		289.30	12	6.29	0.70	0.31	10	6.16	0.65	0.14
Molybdenum, Other		289.99	2	6.92	0.80	0.11	2	6.92	0.80	0.11
Method Group 289.XX PPM			14	6.38	0.73	0.28	12	6.29	0.72	0.13
Nickel, Atomic Absorption		291.00	1	30.50	0.71	1.00	1	30.50	0.71	1.00
Nickel, ICP		291.30	14	19.96	2.99	1.01	13	19.72	2.91	0.78
Nickel, Other		291.99	1	15.45	0.04	0.05	1	15.45	0.04	0.05

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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 291.XX PPM			16	20.34	4.02	0.95	15	20.15	4.05	0.74
Selenium, ICP		301.30	2	0.03	0.03	0.01	2	0.03	0.03	0.01
Selenium, Other		301.99	2	0.62	0.44	0.08	2	0.62	0.44	0.08
Method Group 301.XX PPM			4	0.32	0.43	0.04	4	0.32	0.43	0.04
Sodium, Flame Photometric	974.01	311.30	1	0.51	0.01	0.02	1	0.51	0.01	0.02
Sodium, Other		311.99	7	0.55	0.06	0.01	7	0.55	0.06	0.01
Method Group 311.XX PCT			8	0.54	0.05	0.01	8	0.54	0.05	0.01
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	13	0.529	0.037	0.016	13	0.529	0.037	0.016
Acid Soluble Zinc, ICP		321.30	35	0.542	0.036	0.021	34	0.541	0.035	0.018
Acid Soluble Zinc, Other		321.99	4	0.588	0.035	0.026	3	0.577	0.013	0.002
Method Group 321.XX PCT			53	0.545	0.042	0.019	51	0.543	0.040	0.016
Water Soluble Zinc, ICP		325.30	2	0.295	0.300	0.010	2	0.295	0.300	0.010
Water Soluble Zinc, Other		325.99	1	0.549	0.008	0.011	1	0.549	0.008	0.011
Method Group 325.XX PCT			3	0.380	0.267	0.010	3	0.380	0.267	0.010

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	
Meth: 001.10 PCT												
Ammoniacal Nitrogen												
MgO Distillation												
232	5.18	.86										Meth: 010.12 PCT
444	5.17	.66										Total Nitrogen
Avg	5.12											Salicylic
456	5.03	-1.15	393	6.73	1.59	254	5.53	1.26	292	5.40	.11	
Meth: 001.99 PCT												
Ammoniacal Nitrogen												
Other												
393	6.73 S	8.61										Combustion
022	5.35	1.01										Avg
371	5.30	.71										040
096	5.28	.57										009
Avg	5.18											231
420	5.02	-.89										307
027	4.93	-1.36										034
Meth: 009.99 PCT												
Ammon & Nitrate N												
Other												
027	5.00	.71										354
Meth: 010.17 PCT												
Total Nitrogen												
Comprehensive												
479	5.59	.71										402
Meth: 010.60 PCT												
Total Nitrogen												
Combustion												
478	6.07 S	5.00										325
444	5.55	-.12										230
090	5.28	-.42										233
169	5.25	-.49										102
027	5.00	-.86										360
Meth: 010.11 PCT												
Total Nitrogen												
Modified Comprehensive												
309	5.63	1.60										007
456	5.63	1.57										136
Avg	5.37											232
114	5.37	-.06										234
105	5.36	-.08										023
211	5.35	-.14										324
474	5.36	-.14										444
090	5.32	-.39										330
470	5.23	-.91										450
260	5.12	-1.57										037
Meth: 010.99 PCT												
Nitrate Nitrogen												
Other												
027	0.07	.87										157
232	0.07	.87										377
Avg	0.07											351
Meth: 010.60 PCT												
Total Nitrogen												
Other												
030	6.09 S	1.62										406
200	5.87	.97										027
137	5.72	.53										368
Meth: 010.99 PCT												
Total Nitrogen												
Other												
030	6.09 S	1.62										472
200	5.87	.97										029
137	5.72	.53										131
Meth: 010.12 PCT												
Total Nitrogen												
Salicylic												
254	5.53	1.26										472
Avg	5.38											405
481	5.31	-.61										035
185	5.30	-.73										389
Meth: 010.17 PCT												
Total Nitrogen												
Comprehensive												
479	5.59	.71										406
Meth: 010.60 PCT												
Total Nitrogen												
Combustion												
478	6.07 S	5.00										406
426	5.76 S	2.79										027
255	5.71	2.36										368
475	5.70	2.20										029
275	5.64	1.77										131
422	5.64	1.77										131
072	5.60	1.46										131
043	5.60	1.45										131
291	5.57	1.30										131
095	5.56	1.17										131
420	5.56	1.13										131
042	5.48 R	.95										131
472	5.50	.74										131
405	5.49	.65										131
035	5.43	.49										131
389	5.46	.38										131
247	5.45	.34										131
029	5.45	.32										131
131	5.45	.32										131
096	5.45	.30										131
041	5.43	.30										131
049	5.42	.27										131
055	5.43	.19										131
177	5.41	.13										131
Meth: 010.99 PCT												
Total Nitrogen												
Other												
030	6.09 S	1.62										476
200	5.87	.97										035
137	5.72	.53										389
Meth: 010.99 PCT												
Total Nitrogen												
Other												
030	6.09 S	1.62										476
200	5.87	.97										035
137	5.72	.53										389
Meth: 010.99 PCT												
Total Nitrogen												
Other												
030	6.09 S	1.62										476
200	5.87	.97										035
137	5.72	.53										389

* 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: 010.XX PCT											
<u>Total Nitrogen</u>											
096	5.45	.26	157	5.23	-1.05	Meth: 020.20 PCT					
041	5.43	.26	470	5.23	-1.09	<u>Total Phosphate</u>					
049	5.42	.23	377	5.22	-1.15	Spectrometric					
055	5.43	.17	351	5.19	-1.30	420	19.63	-1.05	Other		
177	5.41	.11	406	5.16	-1.49	309	19.23	-2.07	Avg		
292	5.40	.09	260	5.12	-1.74	Meth: 020.40 PCT					
<u>Automated</u>											
027	5.10	-1.86	247	20.18	.98	Total Phosphate					
368	5.03	-2.35	456	20.07	.48	Spectrometric					
420	5.01	-2.41	096	20.00	.08	Avg					
Meth: 020.10 PCT											
<u>Grav Quimociac</u>											
114	5.37	-0.21	114	20.14	1.02	307	20.47	R	1.41		
402	5.37	-0.23	090	20.08	.58	324	20.50	1.33	1.08		
325	5.37	-0.25	Avg	20.01		481	20.40	1.99			
105	5.36	-0.26	470	19.93	-.64	Meth: 020.50 PCT					
474	5.36	-0.31	444	20.00	-1.08	<u>Total Phosphate</u>					
211	5.35	-0.32	041	19.92	-1.25	ICP					
230	5.36	-0.33	478	20.65	1.47	478 20.65 1.47					
233	5.36	-0.35	426	20.61	1.40	426 20.61 1.40					
102	5.34	-0.38	307	20.47	1.25	307 20.47 1.25					
360	5.36	-0.40	247	20.27	.69	247 20.27 .69					
007	5.35	-0.45	402	20.00	.55	402 20.00 .55					
136	5.33	-0.48	389	20.05	.27	389 20.05 .27					
255	5.36	-0.50	291	20.03	.21	291 20.03 .21					
232	5.32	-0.51	Avg	19.93		Avg 19.93					
234	5.32	-0.55	444	19.90	-1.10	444 19.90 -1.10					
023	5.32	-0.55	330	19.80	-0.33	330 19.80 -0.33					
090	5.32	-0.56	393	19.75	-0.36	393 19.75 -0.36					
324	5.31	-0.58	157	19.80	-.48	157 19.80 -.48					
444	5.32	-0.58	368	19.32	-1.24	368 19.32 -1.24					
481	5.31	-0.60	432	19.19	-1.55	432 19.19 -1.55					
450	5.30	-0.63	422	19.15	-1.58	422 19.15 -1.58					
037	5.30	-0.63	255	16.81	s -6.34	255 16.81 s -6.34					
185	5.30	-0.68	Meth: 020.99 PCT								
371	5.25	-0.94	<u>Total Phosphate</u>								
Other											
476 19.37 .87											
Meth: 020.99 PCT											
<u>Total Phosphate</u>											
Other											
476 19.37 .87											
Avg											
137 18.67 -.86											
Meth: 020.XX PCT											
<u>Total Phosphate</u>											
Other											
406 20.67 1.69											
478 20.65 1.65											
426 20.61 1.57											
232 20.61 1.56											
307 20.47 R 1.41											
324 20.50 1.33											
481 20.40 1.08											
292 20.36 .99											
247 20.27 .78											
479 20.21 .67											
402 20.00 R .62											
247 20.18 .58											
114 20.14 .50											
090 20.08 .36											
444 20.00 .35											
456 20.07 .34											
389 20.05 .31											
371 20.05 .29											
291 20.03 .25											
474 20.02 .22											
096 20.00 .17											
405 19.95 .15											
231 19.95 .13											
470 19.93 .02											
Avg 19.92											
444 19.90 -.10											
450 19.90 -.20											
041 19.92 -.28											
234 19.85 -.35											
330 19.80 -.36											
393 19.75 -.39											
169 19.70 -.50											
Meth: 030.10 PCT											
<u>Insoluble Phosphate</u>											
<u>Grav Quimociac</u>											
090 0.03 .00											
Meth: 030.20 PCT											
<u>Insoluble Phosphate</u>											
<u>Spectrometric</u>											
474 0.06 .82											
Avg 0.05											
405 0.04 -.91											
Meth: 030.30 PCT											
<u>Insoluble Phosphate</u>											
<u>Alka Quimociac</u>											
479 0.04 .71											
Meth: 030.40 PCT											
<u>Insoluble Phosphate</u>											
<u>Automated</u>											
096 0.04 .71											

* 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: 030.50 PCT											
Insoluble Phosphate											
ICP											
255	0.00	.00									
Meth: 030.99 PCT											
Insoluble Phosphate											
Other											
247	0.05	.71									
Meth: 030.XX PCT											
Insoluble Phosphate											
474	0.06	1.11									
479	0.04	.83									
096	0.04	.61									
247	0.05	.59									
Avg	0.04										
405	0.04	-.29									
090	0.03	-.33									
255	0.00	-1.91									
Meth: 040.10 PCT											
InDir Available Phos											
Grav_Quim											
090	20.05	-.71									
Meth: 040.20 PCT											
InDir Available Phos											
Spectrometri											
474	19.96	-.71									
Meth: 040.40 PCT											
InDir Available Phos											
Automated											
096	19.96	.71									
Meth: 040.50 PCT											
InDir Available Phos											
ICP											
255	16.81	S	.00								
Meth: 040.99 PCT											
InDir Available Phos											
Other											
479	20.16	.81									
247	20.13	.49									
Avg	20.07										
405	19.92	-1.27									
Meth: 040.XX PCT											
InDir Available Phos											
Automated											
472	19.90	1.57									
131	20.03	.74									
Avg	19.84										
095	19.76	-.36									
027	19.69	-.61									
072	18.24	S	-6.56								
Meth: 041.40 PCT											
Dir Available Phosph											
Automated											
472	19.90	1.57									
131	20.03	.74									
Avg	19.84										
095	19.76	-.36									
027	19.69	-.61									
072	18.24	S	-6.56								
Meth: 041.50 PCT											
Dir Available Phosph											
ICP											
475	20.57	1.97									
007	20.41	R	1.77								
009	20.21	.88									
043	20.05	.41									
377	19.96	.17									
Avg	19.92										
055	19.85	-.29									
325	19.90	-.31									
040	19.90	-.31									
360	19.85	-.51									
023	19.58	-1.08									
393	19.36	-1.71									
354	17.69	S	-6.82								
Meth: 041.60 PCT											
Dir Available Phosph											
EDTA Extract											
231	20.35	1.87									
043	20.17	.75									
296	20.13	.70									
117	20.14	.64									
233	20.06	.52									
073	20.11	.39									
037	20.08	.36									
105	20.07	.29									
177	20.08	.25									
Avg	20.05										
Meth: 041.10 PCT											
Dir Available Phosph											
Grav_Quimociac											
211	20.26	1.90									
254	20.11	.97									
009	20.03	.49									
072	20.03	.36									
131	20.01	.27									
177	20.00	.22									
Avg	19.97										
055	19.87	-.72									
049	19.84	-.88									
105	19.80	-1.13									
102	19.79	-1.38									
185	19.50	S	-3.17								
Meth: 041.20 PCT											
Dir Available Phosph											
Spectrometric											
030	19.88	.71									
Meth: 041.20 PCT											
Water Soluble Phosph											
Spectrometric											
420	17.75	1.86									
Avg	16.33										
405	16.21	-.17									
474	16.01	-.44									
479	15.87	-.63									
096	15.85	-.64									

* 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: 048.50 PCT																					
Water Soluble Phosph																					
ICP			Meth: 050.51 PCT																		
444	16.76	-.71	Avg	20.14	-1.08	Soluble Potash									114	20.72	.80				
Meth: 048.XX PCT																					
Water Soluble Phosph																					
444	16.76	.52	AA (Oxalate)	20.26	-1.16	Other	042	20.52	.83	Meth: 050.99 PCT					360	20.68	.80				
Avg	16.40	-.28	Soluble Potash	20.11	-1.24	ICP (Citrate)	042	20.52	.83	Soluble Potash									360	20.68	.80
405	16.21	-.57	AA (Citrate)	19.03	1.07	AA (Oxalate)	042	20.52	.83	Other									007	20.69	.76
474	16.01	-.77	Avg	19.00	-.25	Soluble Potash	042	20.52	.83	Soluble Potash									105	20.69	.75
479	15.87	-.79	472	17.90 S	-5.75	Flame (Oxalate)	042	20.52	.83	Other									105	20.69	.75
096	15.85	-.79	Meth: 050.31 PCT	19.50	-.99	Flame (Citrate)	042	20.52	.83	Soluble Potash									432	20.58	.72
Meth: 050.00 PCT																					
Soluble Potash																					
STPB Oxalate			309	19.40	-1.33	Avg	042	20.52	.83	Other									102	20.62	.66
397	21.04	1.20	Soluble Potash	20.20	.50	AA (Citrate)	042	20.52	.83	Soluble Potash									090	20.60	.61
009	21.01	1.15	472	17.90 S	-5.75	Soluble Potash	042	20.52	.83	Other									037	20.58	.59
114	20.72	.44	Meth: 050.50 PCT	19.50	-.99	AA (Oxalate)	042	20.52	.83	Soluble Potash									232	20.50	.56
102	20.62	.33	Soluble Potash	20.20	.50	Flame (Oxalate)	042	20.52	.83	Other									456	20.55	.52
090	20.60	.27	472	17.90 S	-5.75	Flame (Citrate)	042	20.52	.83	Soluble Potash									234	20.49	.51
Avg	20.53	-.03	Meth: 050.60 PCT	19.40	-1.33	Avg	042	20.52	.83	Other									136	20.55	.50
470	20.52	-.14	Soluble Potash	20.20	.50	Soluble Potash	042	20.52	.83	Soluble Potash									247	20.55	.50
211	20.47	-.14	ICP (Oxalate)	20.98	1.60	ICP (Citrate)	042	20.52	.83	Other									470	20.52	.46
231	20.47	-.16	420	20.90	1.46	Soluble Potash	042	20.52	.83	Soluble Potash									105	20.46	.39
233	20.42	-.35	324	20.25	.69	Flame (Oxalate)	042	20.52	.83	Other									131	20.27	.38
049	20.19 R	-1.55	Avg	20.02	-.06	Flame (Citrate)	042	20.52	.83	Soluble Potash									233	20.42	.33
055	19.47	-2.49	444	19.99	-.06	Avg	042	20.52	.83	Other									035	20.32	.24
230	17.45 s	-7.17	157	20.00	-.17	Soluble Potash	042	20.52	.83	Soluble Potash									034	20.33	.17
Meth: 050.30 PCT																					
Soluble Potash																					
AA (Oxalate)			426	19.61	-.72	ICP (Citrate)	042	20.52	.83	Other									073	20.32	.13
023	20.89	1.21	055	19.52	-.84	Avg	042	20.52	.83	Soluble Potash									377	20.30	.08
185	20.65	.82	354	19.42	-1.02	Soluble Potash	042	20.52	.83	Other									095	20.26	.02
136	20.55	.59	422	19.55	-1.03	ICP (Oxalate)	042	20.52	.83	Soluble Potash									Avg	20.26	.02
234	20.49	.57	Meth: 050.51 PCT	19.55	-1.03	Soluble Potash	042	20.52	.83	Other									137	20.25	-.02
073	20.32	.27	Soluble Potash	20.27	-1.27	ICP (Citrate)	042	20.52	.83	Soluble Potash									406	20.24	-.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	
Meth: 050.XX PCT												
<u>Soluble Potash</u>												
324	20.25	-.61										
255	20.22	-.65										
307	19.91	-.68										
072	19.83	-.82										
325	19.80	-.83										
481	19.80	-.94										
049	20.19 R	-1.01										
444	19.62	-1.14										
426	19.61	-1.16										
368	19.53	-1.30										
055	19.52	-1.30										
200	19.50	-1.34										
055	19.47	-1.40										
422	19.55	-1.43										
354	19.42	-1.48										
309	19.40	-1.60										
043	19.30	-1.69										
330	19.25	-1.79										
254	19.07	-2.14										
030	19.00	-2.22										
351	18.94	-2.33										
472	17.90 S	-4.15										
230	17.45 S	-4.93										
096	17.16 S	-5.44										
393	16.39 S	-6.79										
Meth: 060.00 PCT												
<u>Free Water</u>												
Vacuum Oven												
096	1.14 S	5.37										
007	0.86	1.40										
456	0.78	.27										
Avg	0.75											
474	0.71	-.60										
479	0.68	-1.05										
Meth: 101.00 PCT												
<u>Acid Soluble Calcium</u>												
AA			479	2.63	.50							
105	2.40	-.71	090	2.61	.32							
Meth: 101.30 PCT												
<u>Acid Soluble Calcium</u>												
041	2.93	1.73	035	2.63	.28							
049	2.76 R	1.12	389	2.64	.25							
474	2.81	.98	131	2.63	.17							
420	2.79	.85	009	2.60	.09							
479	2.63	.48	Avg	2.59								
096	2.69	.34	232	2.52	-.40							
389	2.64	.09	354	2.54	-.49							
Avg	2.63		105	2.40	-.99							
131	2.63	-.03	309	2.35	-1.25							
009	2.60	-.33	102	2.15	-2.29							
232	2.52	-.60										
354	2.54	-.63										
102	2.15	-2.56										
Meth: 101.99 PCT												
<u>Acid Soluble Calcium</u>												
Other			029	2.34	-.48							
309	2.35	.00	481	2.27	-.81							
Meth: 101.30 PCT												
<u>Acid Soluble Calcium</u>												
422	3.74 S	5.90										
393	3.56 S	4.95										
041	2.93	1.82										
049	2.76 R	1.19										
474	2.81	1.11										
420	2.79	.99										
096	2.69	.50										
Meth: 101.XX PCT												
<u>Acid Soluble Calcium</u>												
479	2.63	.50										
090	2.61	.32										
035	2.63	.28										
389	2.64	.25										
131	2.63	.17										
009	2.60	.09										
Avg	2.59											
232	2.52	-.40										
354	2.54	-.49										
105	2.40	-.99										
309	2.35	-1.25										
102	2.15	-2.29										
Meth: 121.00 PCT												
<u>Acid Soluble Magnesi</u>												
AA			200	2.72 X	2.08							
169	2.56	1.09	177	2.47	.52							
028	2.47	.83	028	2.47	.47							
Avg	2.39		Avg	2.39								
040	2.39	-.11	040	2.39	-.11							
296	2.39	-.32	296	2.39	-.32							
105	2.35	-.46	105	2.35	-.46							
029	2.34	-.48	029	2.34	-.48							
481	2.27	-.81	481	2.27	-.81							
043	2.23	-1.09	043	2.23	-1.09							
351	2.17	-1.45	351	2.17	-1.45							
Meth: 121.30 PCT												
<u>Acid Soluble Magnesi</u>												
ICP			231	2.53	1.27							
393	2.47	.98	393	2.47	.98							
472	2.46	.89	472	2.46	.89							
049	2.36 R	.76	049	2.36 R	.76							
009	2.41 R	.73	009	2.41 R	.73							
450	2.42	.60	450	2.42	.60							
023	2.41	.56	023	2.41	.56							
037	2.40	.49	037	2.40	.49							
474	2.39	.46	474	2.39	.46							
420	2.39	.46	420	2.39	.46							
426	2.36	.42	426	2.36	.42							
432	2.38	.39	432	2.38	.39							
131	2.37	.34	131	2.37	.34							
096	2.37	.32	096	2.37	.32							
255	2.37	.31	255	2.37	.31							
035	2.32	.15	035	2.32	.15							
233	2.34	.14	233	2.34	.14							
095	2.34	.13	095	2.34	.13							
027	2.33	.09	027	2.33	.09							
Avg	2.31		Avg	2.31								
055	2.29	-.15	055	2.29	-.15							
444	2.29	-.18	444	2.29	-.18							
157	2.27	-.28	157	2.27	-.28							
433	2.26	-.31	433	2.26	-.31							
368	2.25	-.37	368	2.25	-.37							
324	2.25	-.40	324	2.25	-.40							
307	2.24	-.46	307	2.24	-.46							
389	2.20	-.66	389	2.20	-.66							
230	2.21	-.71	230	2.21	-.71							
232	2.19	-.72	232	2.19	-.72							
291	2.14	-1.06	291	2.14	-1.06							
354	2.13	-1.13	354	2.13	-1.13							
247	1.94	-2.18	247	1.94	-2.18							
102	1.93	-2.22	102	1.93	-2.22							
479	1.92	-2.30	479	1.92	-2.30							
042	2.60	1.68	042	2.60	1.68							
422	2.60	1.66	422	2.60	1.66							
Meth: 121.99 PCT												
<u>Acid Soluble Magnesi</u>												
Other			137	2.33	.00							
Meth: 121.XX PCT												
<u>Acid Soluble Magnesi</u>												
041	3.51 S	7.04										
114	3.05 S	4.25										
117	2.97 S	3.77										
200	2.72 X	2.28										
475	2.65	1.89										
042	2.60	1.59										
422	2.60	1.57										
169	2.56	1.37										
231	2.53	1.18										
393	2.47	.89										
177	2.47	.83										
028	2.47	.80										
472	2.46	.79										
049	2.36 R	.73										
009	2.41 R	.65										
450	2.42	.50										
023	2.41	.46										
296	2.39	.46										
037	2.40	.38										
426	2.36	.37										
474	2.39	.35										
420	2.39	.35										
040	2.39	.33										
105	2.35	.32										
029	2.34	.29										
432	2.38	.28										
131	2.37	.23										
096	2.37	.21										
255	2.37	.20										
233	2.34	.03										
095	2.34	.02										
Avg	2.33											
137	2.33	-.01										

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 121.XX PCT														
<u>Acid Soluble Magnesi</u>														
027	2.33	-.02	475	2.18	1.38									
035	2.32	-.18	090	2.18	1.35									
055	2.29	-.26	296	1.93	.23									
444	2.29	-.28	Avg	1.91										
481	2.27	-.39	444	1.89	-.18									
157	2.27	-.39	230	1.90	-.19									
433	2.26	-.43	027	1.85	-.34									
368	2.25	-.49	029	1.79	-.64									
324	2.25	-.52	432	1.58	-1.77									
307	2.24	-.58												
043	2.23	-.64	Meth: 144.01 PCT											
389	2.20	-.79	<u>Sulfur</u>											
230	2.21	-.83	029	7.57	.74									
232	2.19	-.85	037	7.55	.69									
351	2.17	-.97	043	7.67	1.11									
291	2.14	-1.19	055	7.64	.79									
354	2.13	-1.26	095	7.59	.71									
247	1.94	-2.34	481	7.57	.48									
102	1.93	-2.37	296	7.51	.46									
479	1.92	-2.45	324	7.52	.41									
Meth: 131.00 PCT														
<u>Water Soluble Magnes</u>														
AA	1.93	.91	102	7.48	.07									
Avg	1.86		Avg	7.47										
029	1.79	-.82	114	7.31	-.75									
Meth: 131.30 PCT														
<u>Water Soluble Magnes</u>														
475	2.18	1.14	028	7.26	-1.01									
090	2.18	1.12	073	7.15	-1.63									
Avg	1.93	-.21	230	6.96	-2.40									
230	1.90	-.21	200	5.91 s	-7.27									
444	1.89	-.21	Meth: 144.02 PCT											
027	1.85	-.37	<u>Sulfur</u>											
432	1.58	-1.64	422	6.95	-1.18									
Meth: 144.02 PCT														
<u>Gravimetric</u>														
292	7.94	-.71	393	6.92	-1.30									
Meth: 144.70 PCT														
<u>Sulfur</u>														
474	9.98 s	8.62	474	9.98 s	8.62									
117	7.98	1.96	117	7.98	1.96									
292	7.94	1.81	292	7.94	1.81									
475	7.81	1.39	475	7.81	1.39									
157	7.77	1.33	157	7.77	1.33									
029	7.77	1.30	029	7.77	1.30									
043	7.67	1.01	043	7.67	1.01									
360	7.68	.97	360	7.68	.97									
055	7.64	.81	055	7.64	.81									
479	7.63	.79	479	7.63	.79									
096	7.60	.73	096	7.60	.73									
095	7.59	.73	095	7.59	.73									
481	7.57	.59	481	7.57	.59									
231	7.57	.58	231	7.57	.58									
037	7.55	.53	037	7.55	.53									
105	7.55	.52	105	7.55	.52									
037	7.55	.52	037	7.55	.52									
296	7.51	.50	296	7.51	.50									
324	7.52	.49	324	7.52	.49									
397	7.53	.44	397	7.53	.44									
233	7.52	.43	233	7.52	.43									
450	7.41	.40	450	7.41	.40									
040	7.50	.36	040	7.50	.36									
102	7.48	.28	102	7.48	.28									
049	7.41	.24	049	7.41	.24									
177	7.44	.17	177	7.44	.17									
Avg	7.39	.08	Avg	7.39	.08									
389	7.35	.01	389	7.35	.01									
009	7.36	-.23	009	7.36	-.23									
247	7.33	-.25	247	7.33	-.25									
114	7.31	-.29	114	7.31	-.29									
472	7.32	-.34	472	7.32	-.34									
255	7.34	-.34	255	7.34	-.34									
027	7.26	-.46	027	7.26	-.46									
028	7.26	-.47	028	7.26	-.47									
131	6.73	-1.89	131	6.73	-1.89									
307	6.73 R	-1.94	307	6.73 R	-1.94									
291	6.55	-2.46	291	6.55	-2.46									
354	6.22 s	-3.54	354	6.22 s	-3.54									
035	5.90 s	-4.48	035	5.90 s	-4.48									
Meth: 144.99 PCT														
<u>Sulfur</u>														
117	7.98	2.04	117	7.98	2.04									
475	7.81	1.51	475	7.81	1.51									
157	7.77	1.44	157	7.77	1.44									
360	7.68	1.11	360	7.68	1.11									
479	7.63	.94	479	7.63	.94									
096	7.60	.88	096	7.60	.88									
231	7.57	.74	231	7.57	.74									
037	7.55	.69	037	7.55	.69									
450	7.41	.45	450	7.41	.45									
177	7.44	.35	177	7.44	.35									
049	7.41	.34	049	7.41	.34									
255	7.34	.28	255	7.34	.28									
009	7.36	.22	009	7.36	.22									
389	7.35	.17	389	7.35	.17									
Avg	7.33		Avg	7.33										
247	7.33	-.11	247	7.33	-.11									
472	7.32	-.24	472	7.32	-.24									
027	7.26	-.24	027	7.26	-.24									
137	7.20	-.40	137	7.20	-.40									
351	7.20	-.41	351	7.20	-.41									
023	7.21	-.43	023	7.21	-.43									
426	7.21	-.47	426	7.21	-.47									
444	7.16	-.53	444	7.16	-.53									
368	7.15	-.55	368	7.15	-.55									
232	7.14	-.59	232	7.14	-.59									
422	6.95	-1.18	422	6.95	-1.18									
393	6.92	-1.30	393	6.92	-1.30									
131	6.73	-1.89	131	6.73	-1.89									
307	6.73 R	-1.94	307	6.73 R	-1.94									
291	6.55	-2.46	291	6.55	-2.46									
354	6.22 s	-3.54	354	6.22 s	-3.54									
035	5.90 s	-4.48	035	5.90 s	-4.48									
Meth: 151.00 PPM														
<u>Arsenic</u>														
136	3.65	-.71	136	3.65	-.71									
Meth: 151.30 PPM														
<u>Arsenic</u>														
ICP	7.90	1.58	ICP	7.90	1.58									
474	7.52 R	1.46	474	7.52 R	1.46									
009	7.30	1.35	009	7.30	1.35									
247	4.00	.08	247	4.00	.08									
450	3.81	.01	450	3.81	.01									
230	3.79		230	3.79										
Avg	3.14	-.25	Avg	3.14	-.25									
102	2.60	-.50	102	2.60	-.50									
368	1.60	-.85	368	1.60	-.85									
393	0.00	-1.46	393	0.00	-1.46									
296			296											
Meth: 151.99 PPM														
<u>Arsenic</u>														
Other	3.81	.71	Other	3.81	.71									
231			231											

* 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: 151.XX PPM											
<u>Arsenic</u>											
474	7.90	1.67									
009	7.52 R	1.53									
247	7.30	1.42									
450	4.00	.04									
Avg	3.91										
231	3.81	-.04									
230	3.81	-.05									
136	3.65	-.11									
102	3.14	-.32									
368	2.60 R	-.59									
393	1.60	-.97									
296	0.00	-1.63									
Meth: 165.00 PCT											
<u>Acid Soluble Boron</u>											
037	0.312	.81									
023	0.302	.58									
105	0.299	.50									
397	0.293 R	.42									
055	0.295	.42									
029	0.291	.33									
Avg	0.277										
028	0.258	-.43									
481	0.180	-2.19									
393	0.094 S	-4.14									
Meth: 165.99 PCT											
<u>Acid Soluble Boron</u>											
117	0.495 s	5.82									
368	0.328 R	1.53									
360	0.338	1.51									
444	0.330	1.32									
432	0.325	1.16									
231	0.320	1.02									
037	0.312	.81									
475	0.310	.79									
433	0.310	.74									
389	0.310	.74									
426	0.306	.64									
422	0.305	.59									
023	0.302	.53									
Meth: 165.XX PCT											
<u>Acid Soluble Boron</u>											
117	0.495 s	5.82									
368	0.328 R	1.53									
360	0.338	1.51									
444	0.330	1.32									
432	0.325	1.16									
231	0.320	1.02									
037	0.312	.81									
475	0.310	.79									
433	0.310	.74									
389	0.310	.74									
426	0.306	.64									
422	0.305	.59									
023	0.302	.53									
Meth: 165.99 PCT											
<u>Other</u>											
117	0.495 s	6.02									
368	0.328 R	1.57									
360	0.338	1.53									
444	0.330	1.34									
432	0.325	1.17									
231	0.320	1.02									
475	0.310	.79									
433	0.310	.73									
Meth: 165.XX PCT											
<u>Acid Soluble Boron</u>											
117	0.495 s	5.82									
368	0.328 R	1.53									
360	0.338	1.51									
444	0.330	1.32									
432	0.325	1.16									
231	0.320	1.02									
037	0.312	.81									
475	0.310	.79									
433	0.310	.74									
389	0.310	.74									
426	0.306	.64									
422	0.305	.59									
023	0.302	.53									
Meth: 165.99 PCT											
<u>Water Soluble Boron</u>											
200	0.280 X	.66									
027	0.280	.49									
444	0.280	.49									
Avg	0.269										
432	0.235	-1.61									
Meth: 171.99 PCT											
<u>Water Soluble Boron</u>											
200	0.280 X	.66									
027	0.280	.49									
444	0.280	.49									
Avg	0.269										
432	0.235	-1.61									
Meth: 165.99 PCT											
<u>Other</u>											
200	0.280 X	.66									
027	0.280	.49									
444	0.280	.49									
Avg	0.269										
432	0.235	-1.61									
Meth: 181.00 PPM											
<u>Cadmium</u>											
481	30.95	.90									
Avg	29.23										
136	27.50	-.83									
Meth: 181.30 PPM											
<u>Cadmium</u>											
368	28.50 R	2.33									
096	29.50	1.39									
233	29.35	1.27									
049	28.11	.93									
474	28.30	.60									
230	27.45	.42									
009	27.87	.33									
037	27.50	.13									
102	27.48	.10									
Avg	27.35										
296	26.80	-.43									
450	25.75	-1.07									
035	25.70	-1.25									
232	24.38	-1.87									
393	8.53 s	-11.88									
247	3.20 s	-15.24									
Meth: 181.00 PPM											
<u>Atomic Absorption</u>											
136	27.50	.28									
009	27.87	.22									
037	27.50	.08									
Avg	27.50										
102	27.48	-.05									
230	27.45	-.37									
296	26.80	-.45									
231	25.80	-.98									
450	25.75	-1.04									
035	25.70	-1.19									
232	24.38	-1.76									
393	8.53 s	-10.74									
247	3.20 s	-13.76									
Meth: 190.00 PCT											
<u>Water Soluble Chloride</u>											
105	12.11	.88									
Avg	11.65										
422	11.19	-.86									
Meth: 191.30 PPM											
<u>Chromium</u>											
368	114.95 R	1.46									
009	116.15	1.19									
096	114.50	1.00									
450	113.00	.86									
037	112.86	.84									
230	103.50	.22									
102	103.14	.05									
Avg	103.12										
035	102.65	-.46									
232	95.70	-.64									
474	85.00	-1.56									
444	84.72	-1.59									
393	35.16 s	-5.86									
474	28.30	.46									

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 191.99 PPM											
Chromium											
Other											
231	101.64	.71									
Meth: 202.30 PPM											
Acid Soluble Cobalt											
ICP											
393	1.41 s	-3.35									
Meth: 202.99 PPM											
Acid Soluble Cobalt											
Other											
231	3.67	.71									
Meth: 202.22 PPM											
Acid Soluble Cobalt											
ICP											
422	6.34	2.03									
009	4.88	.80									
368	4.45 R	.53									
Avg	102.99										
231	101.64	-.17									
035	102.65	-.48									
232	95.70	-.66									
474	85.00	-1.63									
444	84.72	-1.65									
393	35.16 s	-6.14									
Meth: 202.00 PPM											
Acid Soluble Cobalt											
AA											
474	3.00	.00									
Meth: 202.30 PPM											
Acid Soluble Cobalt											
ICP											
422	6.34	2.19									
009	4.88	.55									
368	4.45 R	.40									
450	4.50	.12									
Avg	4.39										
296	4.19	-.26									
035	4.16	-.27									
102	3.90	-.55									
230	3.85	-.66									
232	3.31	-1.22									
Meth: 221.00 PCT											
Acid Soluble Copper											
Atomic Absorption											
481	0.0060 S	5.11									
296	0.0044	1.19									
043	0.0040	.25									
Avg	0.0040										
474	0.0035	-1.01									
105	0.0003 S	-8.21									
Meth: 221.30 PCT											
Acid Soluble Copper											
ICP											
049	0.0062 s	3.80									
422	0.0070 s	3.71									
481	0.0060 s	2.87									
368	0.0050	1.65									
230	0.0048 R	1.63									
255	0.0046 R	1.43									
444	0.0040 R	1.20									
296	0.0044	1.04									
Meth: 221.99 PCT											
Acid Soluble Copper											
Other											
231	0.0035	.82									
Avg	0.0035										
444	0.0034	-.91									
Meth: 221.30 PCT											
Acid Soluble Copper											
ICP											
422	0.0070 S	3.27									
368	0.0050	1.47									
230	0.0048 R	1.45									
255	0.0046	1.28									
444	0.0040 R	1.06									
009	0.0040	.57									
095	0.0040	.54									
450	0.0038	.40									
232	0.0037	.31									
402	0.0037	.26									
096	0.0036	.07									
233	0.0036	.21									
444	0.0034	.15									
Avg	0.0035	.09									
433	0.0034	.07									
354	0.0025	-1.06									
393	0.0011	-2.42									
041	0.0010	-2.48									
105	0.0003 s	-3.21									
Meth: 221.00 PCT											
Acid Soluble Iron											
Atomic Absorption											
481	4.60 s	149.27									
296	0.63	1.17									
351	0.63	1.12									
028	0.61	.69									
105	0.61	.46									
474	0.61	.34									
Avg	0.60										
422	0.58	-.25									
247	0.58	-.34									
095	0.58	-.43									
073	0.58	-.44									
230	0.57	-.60									
090	0.56	-.83									
307	0.56	-.88									
444	0.56	-.97									
041	0.54	-1.34									
354	0.54	-1.52									

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 241.30 PCT											
Acid Soluble Iron											
ICP			233	0.61	.29	Meth: 241.30 PCT					
102	0.52	-1.82	474	0.61	.28	Acid Soluble Iron					
232	0.51	-2.15	450	0.60	.21	Lead					
027	0.49	-2.64	009	0.60	.15	ICP					
			131	0.60	.12	296					
			Avg	0.60		450					
Meth: 241.99 PCT											
Acid Soluble Iron											
Other			474	3.29		230					
042	0.47 S	.00	Avg	3.00	-.22	Avg					
137	0.66	.00	420	0.60	-.05	481					
Avg	0.66		402	0.59	-.06	027					
			389	0.60	-.13	114					
			397	0.59	-.30	450					
			479	0.59	-.31	Meth: 261.30 PCT					
			422	0.59	-.31	Acid Soluble Iron					
			043	0.58	-.31	ICP					
			247	0.58	-.41	354					
			040	0.59	-.48	444					
			095	0.58	-.51	232					
			073	0.58	-.51	232					
			157	0.60	-.58	232					
			230	0.57	-.67	232					
			090	0.56	-.92	232					
			307	0.56	-.97	232					
			444	0.56	-1.07	232					
			041	0.54	-1.46	232					
			177	0.54	-1.52	232					
			354	0.54	-1.64	232					
			102	0.52	-1.95	232					
			232	0.51	-2.30	232					
			027	0.49	-2.82	232					
			042	0.47 S	-3.42	232					
			169	0.39 S	-5.53	232					
			Meth: 251.00 PPM								
			Lead								
			Atomic Absorption								
			136	17.50 S	82.02	Meth: 251.30 PPM					
			481	4.75	.71	Lead					
			Avg	4.75		ICP					
			360	0.61	.31	231					
						3.53					
						206.99					
						61.41					
						53.82					
						14.59					
						2.10					
						2.10					
						1.62					
						1.36					
						.70					
						.51					
						.33					
						.32					
						.31					
						.20					
						.11					
						.05					
						-.09					
						-.18					
						-.22					
						-.22					
						-.29					
						-.43					

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 261.XX PCT			Meth: 271.30 PCT			Meth: 289.30 PPM			Meth: 289.XX PPM			Meth: 291.99 PPM		
<u>Acid Soluble Manganese</u>			Water Soluble Mangan			Molybdenum			<u>Molybdenum</u>			Nickel		
009	0.016	.65	ICP			ICP			Avg	6.29		Other		
055	0.016	.47	444	0.005	1.05	049	12.14 s	9.62	231	6.23		231	15.45	.71
028	0.016	.42	Avg	0.004		247	11.35 S	7.93	102	6.22				
255	0.015	.39	230	0.004	-.63	255	10.06 S	6.66	422	6.16		Meth: 291.XX PPM		
296	0.016	.34				368	6.85 R	1.44	296	6.00		<u>Nickel</u>		
433	0.016	.30	Meth: 271.99 PCT			035	6.93 R	1.41	433	5.96		136	30.50	2.56
233	0.015	.29	Water Soluble Mangan			450	7.00	1.28	037	5.29		444	23.73	.88
117	0.015	.28	<u>Other</u>			230	6.97	1.24	474	4.95		368	23.10 R	.88
043	0.015	.21	027	0.012	.00	232	6.67	.78	393	2.61 s		009	22.56	.68
096	0.015	.18				009	6.43	.40				450	22.00	.52
402	0.015	.09	Meth: 271.XX PCT			102	6.22	.13	Meth: 291.00 PPM			233	22.05	.48
029	0.015	.09	<u>Water Soluble Mangan</u>			Avg	6.16		<u>Nickel</u>			049	21.06	.29
351	0.015	.07	027	0.012	1.28	422	6.16	-.14	<u>Atomic Absorption</u>			230	20.45	.08
102	0.015	.04	Avg	0.007		296	6.00	-.25	136	30.50	.71	037	20.47	.08
Avg	0.015	.04	444	0.005	-.57	433	5.96	-.32	Meth: 291.30 PPM			Avg	20.15	
360	0.015	-.10	230	0.004	-.73	037	5.29	-1.38	<u>Nickel</u>			102	19.77	-.10
035	0.014	-.18	Meth: 281.00 PPM			474	4.95	-1.86	ICP			035	20.05	-.21
307	0.015	-.21	Mercury			393	2.61 S	-5.43	444	23.73	1.38	232	17.78	-.59
049	0.015	-.21							Meth: 289.99 PPM			296	17.45	-.67
230	0.015	-.23	<u>Atomic Absorption</u>			Meth: 289.99 PPM			Molybdenum			231	15.45	-1.16
095	0.014	-.28	230	0.02	.71	Molybdenum			009	22.56	1.07	247	15.00	-1.27
105	0.014	-.40				<u>Other</u>			450	22.00	.85	474	14.00	-1.52
131	0.014	-.42	Meth: 281.30 PPM			028	7.61	.86	233	22.05	.81	393	5.57 s	-3.60
354	0.014	-.47	Mercury			Avg	6.92		049	21.06	.53	Meth: 301.30 PPM		
444	0.014	-.47	ICP			231	6.23	-.87	035	20.05	.31	Selenium		
040	0.014	-.51	393	0.01	-.71				037	20.47	.26	ICP		
474	0.013	-.53				Meth: 289.XX PPM			230	20.45	.26	393	0.05	.90
232	0.013	-.74	Meth: 281.99 PPM			<u>Molybdenum</u>			102	19.77	.03	Avg	0.03	
027	0.011	-1.41	Mercury			049	12.14 s	8.56	Avg	19.72		450	0.00	-.83
450	0.010	-1.79	<u>Other</u>			247	11.35 s	7.02	232	17.78	-.67			
481	0.010	-1.79	009	0.03	.00	255	10.06 s	5.89	296	17.45	-.78	Meth: 301.99 PPM		
114	0.010	-1.79				028	7.61	1.83	247	15.00	-1.62	Selenium		
397	0.009	-2.19	Meth: 281.XX PPM			368	6.85 R	1.19	474	14.00	-1.96	<u>Other</u>		
393	0.005 A	-3.65	<u>Mercury</u>			035	6.93 R	1.14	393	5.57 s	-4.86	231	1.00	.87
			009	0.03	1.02	450	7.00	.98				Avg	0.62	
			230	0.02	.12	230	6.97	.95				296	0.24	-.86
			Avg	0.02		232	6.67	.54						
			393	0.01	-1.20	009	6.43	.19						

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 301.XX PPM											
<u>Selenium</u>											
231	1.00	1.58									
Avg	0.32										
296	0.24	-1.19									
393	0.05	-0.64									
450	0.00	-0.75									
Meth: 311.30 PCT											
<u>Sodium</u>											
105	0.51	-0.71									
<u>Flame Photometric</u>											
Meth: 311.99 PCT											
<u>Sodium</u>											
422	0.65	1.77									
474	0.61	1.09									
Avg	0.55										
035	0.54	-0.26									
307	0.53	-0.31									
102	0.51	-0.73									
009	0.51	-0.77									
232	0.49	-0.94									
Meth: 311.XX PCT											
<u>Sodium</u>											
422	0.65	1.93									
474	0.61	1.22									
Avg	0.54										
035	0.54	-0.23									
307	0.53	-0.24									
105	0.51	-0.63									
102	0.51	-0.68									
009	0.51	-0.73									
232	0.49	-0.90									
Meth: 321.00 PCT											
<u>Acid Soluble Zinc</u>											
397	0.589	1.64									
105	0.564	1.04									
177	0.557	0.75									
028	0.554	0.70									
371	0.550	0.57									
296	0.547	0.56									
040	0.542	0.42									
Avg	0.529										
200	0.515 X	-0.55									
029	0.522	-0.64									
481	0.495	-0.92									
043	0.485	-1.19									
351	0.480	-1.34									
169	0.475	-1.45									
Meth: 321.30 PCT											
<u>ICP</u>											
450	0.549	0.26									
389	0.545	0.18									
433	0.545	0.14									
027	0.545	0.10									
Avg	0.541										
402	0.540	-0.12									
095	0.535	-0.20									
426	0.540	-0.20									
233	0.532	-0.33									
131	0.528	-0.39									
291	0.535	-0.47									
479	0.525	-0.49									
230	0.519	-0.72									
420	0.507	-1.00									
354	0.508	-1.12									
307	0.505	-1.13									
102	0.498	-1.30									
422	0.485	-1.62									
232	0.481	-1.73									
090	0.462	-2.30									
023	0.015 s	-15.14									
Meth: 321.99 PCT											
<u>Acid Soluble Zinc</u>											
114	0.565 R	1.73									
049	0.596	1.62									
292	0.595	1.56									
475	0.580	1.12									
231	0.570	0.88									
009	0.542	0.79									
055	0.565	0.70									
117	0.564	0.66									
324	0.554	0.64									
157	0.554	0.49									
360	0.556	0.47									
041	0.545	0.45									
255	0.551	0.31									
037	0.549	0.28									
Meth: 321.XX PCT											
<u>Acid Soluble Zinc</u>											
035	0.599	1.49									
114	0.565 R	1.49									
472	0.598	1.47									
049	0.596	1.37									
292	0.595	1.32									
307	0.590	1.19									
397	0.589	1.17									
042	0.580	0.94									
475	0.580	0.94									
231	0.570	0.73									
105	0.564	0.66									
055	0.565	0.57									
117	0.564	0.54									
324	0.554	0.54									
474	0.562	0.50									
157	0.554	0.40									
041	0.545	0.38									
360	0.556	0.37									
177	0.557	0.35									
028	0.554	0.33									
296	0.547	0.28									
255	0.551	0.23									
037	0.549	0.22									
450	0.549	0.20									
Meth: 321.30 PCT											
<u>ICP</u>											
231	0.620 R	5.20									
137	0.590	0.99									
042	0.580	0.20									
Avg	0.577										
474	0.562	-1.21									
Meth: 321.XX PCT											
<u>Acid Soluble Zinc</u>											
247	0.942 s	9.99									
432	0.670 s	3.19									
368	0.610 s	2.99									
231	0.620 R	2.31									
Meth: 325.30 PCT											
<u>Water Soluble Zinc</u>											
393	0.555	0.87									
Avg	0.295										
479	0.035	-0.87									
Meth: 325.99 PCT											
<u>Water Soluble Zinc</u>											
450	0.549	0.71									
Meth: 325.XX PCT											
<u>Water Soluble Zinc</u>											
393	0.555	0.66									
450	0.549	0.63									
Avg	0.380										
479	0.035	-1.29									

* 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
001.10	3	0.00	0.79	0.65	060.00	5	1.01	2.44	0.83
001.99	6	1.43	3.64	0.18	060.XX	5	1.01	2.44	0.83
001.XX	9	1.13	3.50	0.31	101.30	16	0.73	2.06	0.34
002.99	2	0.00	0.00	0.87	101.XX	18	0.65	1.97	0.31
002.XX	2	0.00	0.00	0.87	121.00	11	0.00	1.00	0.20
009.10	4	0.00	1.08	0.09	121.30	40	0.40	1.68	0.24
009.XX	5	0.00	1.06	0.08	121.XX	52	0.30	1.55	0.23
010.11	9	0.00	1.02	0.11	131.00	2	0.00	1.13	0.33
010.12	3	0.00	1.09	0.21	131.30	6	0.00	1.03	0.20
010.60	53	0.10	1.29	0.27	131.XX	8	0.00	1.01	0.21
010.99	8	0.00	1.03	0.11	144.01	17	0.43	1.99	0.31
010.XX	71	0.14	1.16	0.32	144.99	31	0.32	1.40	0.24
020.10	5	0.00	0.76	0.66	144.XX	50	0.15	1.94	0.24
020.20	16	0.00	1.00	0.15	151.30	9	0.16	1.08	0.11
020.40	5	0.26	1.10	0.39	151.XX	11	0.09	1.05	0.11
020.50	15	0.42	1.89	0.29	165.00	9	0.420	1.664	0.088
020.99	2	0.00	1.22	0.04	165.99	28	0.245	1.491	0.265
020.XX	41	0.16	1.48	0.23	165.XX	37	0.041	1.616	0.227
030.20	2	0.00	1.15	0.29	171.99	4	0.000	0.980	0.393
030.XX	7	0.00	0.96	0.38	171.XX	4	0.000	0.980	0.393
040.99	3	0.00	1.04	0.34	181.00	2	0.00	1.12	0.35
040.XX	7	4.45	11.81	0.81	181.30	15	1.76	4.91	0.66
041.10	11	0.28	1.33	0.32	181.XX	18	1.33	4.10	0.56
041.40	5	1.23	2.79	1.25	190.00	2	0.00	1.19	0.20
041.50	12	0.44	2.23	0.40	190.XX	2	0.00	1.19	0.20
041.60	14	0.05	0.94	0.54	191.30	12	0.40	1.96	0.36
041.99	3	11.14	46.53	12.37	191.XX	13	0.39	1.97	0.37
041.XX	37	0.54	2.36	0.97	202.30	10	0.33	1.40	0.16
048.20	5	0.00	1.06	0.09	202.XX	12	0.04	0.98	0.11
048.XX	6	0.00	1.04	0.11	221.00	5	0.717	4.6724	1.1084
050.00	12	0.66	2.25	0.42	221.30	19	0.4015	1.2878	0.5903
050.30	8	0.00	0.99	0.27	221.99	2	0.0000	1.1604	0.2770
050.31	3	1.91	3.31	0.75	221.XX	25	0.3605	1.5519	0.6180
050.50	9	0.00	0.98	0.31	241.00	12	11.78	43.37	0.38
050.51	11	1.93	4.40	0.37	241.30	39	0.10	1.08	0.52
050.60	5	0.00	1.00	0.31	241.99	2	0.00	0.00	0.00
050.61	9	0.00	0.85	0.55	241.XX	53	1.89	14.49	0.49
050.99	21	0.00	0.95	0.33	251.00	2	40.98	57.95	2.33
050.XX	73	0.27	1.54	0.35	251.30	8	0.01	0.96	0.12

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
251.XX	11	1.00	3.53	0.17					
261.00	8	0.000	1.016	0.187					
261.30	28	11.515	40.640	7.184					
261.31	2	0.000	1.040	0.458					
261.99	5	0.012	0.936	0.068					
261.XX	44	6.827	30.861	5.407					
271.30	2	0.000	0.863	0.614					
271.XX	3	0.000	1.115	0.072					
281.XX	3	0.000	1.082	0.231					
289.30	16	1.24	3.64	1.12					
289.99	2	0.00	1.22	0.08					
289.XX	18	0.94	3.12	0.96					
291.30	15	- 0.25	1.60	0.26					
291.XX	17	- 0.17	1.30	0.18					
301.30	2	0.00	1.18	0.24					
301.99	2	0.00	1.22	0.11					
301.XX	4	0.00	1.08	0.08					
311.99	7	0.00	1.03	0.13					
311.XX	8	0.00	1.02	0.15					
321.00	13	0.000	0.980	0.273					
321.30	39	0.071	3.284	0.599					
321.99	4	0.843	1.913	1.985					
321.XX	55	- 0.006	2.457	0.479					
325.30	2	0.000	1.225	0.017					
325.XX	2	0.645	0.017	0.020					