

- Pass 1 Results for 85 Labs - - Pass 2 Results for 85 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	2	11.51	0.06	0.05	2	11.51	0.06	0.05
Ammoniacal Nitrogen, Other		001.99	4	11.52	0.29	0.13	4	11.52	0.29	0.13
Method Group 001.XX PCT			6	11.52	0.23	0.10	5	11.52	0.24	0.05
Nitrate Nitrogen, Other		002.99	2	0.83	0.02	0.02	2	0.83	0.02	0.02
Ammon & Nitrate N, Devarda	892.01	009.10	3	12.84	0.19	0.05	3	12.84	0.19	0.05
Ammon & Nitrate N, Other		009.99	1	11.99	0.04	0.06	1	11.99	0.04	0.06
Method Group 009.XX PCT			4	12.63	0.43	0.05	4	12.63	0.43	0.05
Total Nitrogen, Modified Comprehensive	978.02	010.11	5	12.74	0.24	0.04	5	12.74	0.24	0.04
Total Nitrogen, Salicylic	955.04D	010.12	3	12.73	0.24	0.06	3	12.73	0.24	0.06
Total Nitrogen, Combustion		010.60	55	12.62	0.16	0.10	51	12.61	0.13	0.08
Total Nitrogen, Other		010.99	5	12.58	0.21	0.08	5	12.58	0.21	0.08
Method Group 010.XX PCT			69	12.62	0.18	0.10	65	12.63	0.17	0.08
Total Phosphate, Grav Quimociac	962.02	020.10	6	13.38	0.25	0.11	6	13.38	0.25	0.11
Total Phosphate, Spectrometric	958.01	020.20	17	13.47	0.33	0.13	16	13.44	0.32	0.11
Total Phosphate, Automated	978.01	020.40	5	13.52	0.16	0.11	5	13.52	0.16	0.11
Total Phosphate, ICP		020.50	10	13.40	0.40	0.28	10	13.40	0.40	0.28
Total Phosphate, Other		020.99	4	13.10	0.65	0.22	3	12.82	0.39	0.03
Method Group 020.XX PCT			43	13.42	0.38	0.18	40	13.40	0.36	0.14
Insoluble Phosphate, Grav Quimociac	963.03C	030.10	1	0.04	0.00	0.00	1	0.04	0.00	0.00
Insoluble Phosphate, Spectrometric	963.03C	030.20	2	0.07	0.04	0.00	2	0.07	0.04	0.00
Insoluble Phosphate, Automated	978.01	030.40	1	0.07	0.01	0.01	1	0.07	0.01	0.01
Insoluble Phosphate, ICP		030.50	2	0.03	0.04	0.00	2	0.03	0.04	0.00
Insoluble Phosphate, Other		030.99	1	0.06	0.01	0.01	1	0.06	0.01	0.01
Method Group 030.XX PCT			7	0.05	0.03	0.00	7	0.05	0.03	0.00
InDir Available Phosphate, Grav Quim	960.02	040.10	1	13.53	0.06	0.09	1	13.53	0.06	0.09
InDir Available Phosphate, Spectrometri	960.02	040.20	1	13.54	0.16	0.22	1	13.54	0.16	0.22
InDir Available Phosphate, Automated	960.02	040.40	1	13.38	0.06	0.09	1	13.38	0.06	0.09
InDir Available Phosphate, ICP		040.50	1	13.89	0.03	0.04	1	13.89	0.03	0.04
InDir Available Phosphate, Other		040.99	3	13.66	0.21	0.20	3	13.66	0.21	0.20
Method Group 040.XX PCT			7	13.61	0.21	0.15	7	13.61	0.21	0.15
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	15	13.33	0.16	0.15	15	13.33	0.16	0.15
Dir Available Phosphate, Spectrometric	960.03D	041.20	2	13.06	0.11	0.13	2	13.06	0.11	0.13
Dir Available Phosphate, Automated	978.01	041.40	4	13.61	0.21	0.08	4	13.61	0.21	0.08
Dir Available Phosphate, ICP		041.50	9	13.32	0.20	0.18	8	13.32	0.18	0.12
Dir Available Phosphate, EDTA Extract	993.01	041.60	14	13.43	0.19	0.13	14	13.43	0.19	0.13
Dir Available Phosphate, Other		041.99	3	13.61	0.34	0.36	3	13.61	0.34	0.36
Method Group 041.XX PCT			47	13.39	0.22	0.16	45	13.39	0.21	0.13
Water Soluble Phosphate, Spectrometric	970.01	048.20	3	11.83	0.42	0.07	3	11.83	0.42	0.07
Water Soluble Phosphate, ICP		048.50	1	11.97	0.02	0.03	1	11.97	0.02	0.03

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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 048.XX PCT			4	11.86	0.36	0.06	4	11.86	0.36	0.06
Soluble Potash, STPB Oxalate	958.02	050.00	14	13.27	0.21	0.08	13	13.24	0.18	0.06
Soluble Potash, AA (Oxalate)		050.30	9	12.95	0.43	0.16	9	12.95	0.43	0.16
Soluble Potash, AA (Citrate)		050.31	1	13.03	0.10	0.14	1	13.03	0.10	0.14
Soluble Potash, ICP (Oxalate)		050.50	7	13.03	0.44	0.18	6	13.12	0.38	0.11
Soluble Potash, ICP (Citrate)		050.51	12	13.38	0.40	0.18	11	13.36	0.39	0.12
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	5	13.12	0.14	0.06	5	13.12	0.14	0.06
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	10	13.23	0.22	0.14	10	13.23	0.22	0.14
Soluble Potash, Other		050.99	18	13.07	0.38	0.14	18	13.07	0.38	0.14
Method Group 050.XX PCT			77	13.16	0.36	0.14	74	13.15	0.35	0.12
Free Water, Vacuum Oven	965.08B	060.00	6	0.96	0.10	0.03	5	0.95	0.10	0.01
Acid Soluble Calcium, AA	945.04	101.00	1	0.34	0.02	0.03	1	0.34	0.02	0.03
Acid Soluble Calcium, ICP		101.30	18	0.49	0.07	0.02	16	0.47	0.03	0.01
Method Group 101.XX PCT			19	0.48	0.07	0.02	17	0.47	0.05	0.01
Acid Soluble Magnesium, AA	984.01	121.00	13	2.15	0.11	0.05	12	2.16	0.11	0.03
Acid Soluble Magnesium, ICP		121.30	34	2.16	0.13	0.05	33	2.16	0.13	0.05
Acid Soluble Magnesium, Other		121.99	2	2.14	0.04	0.03	2	2.14	0.04	0.03
Method Group 121.XX PCT			49	2.16	0.12	0.05	47	2.16	0.12	0.04
Water Soluble Magnesium, AA		131.00	3	1.69	0.22	0.08	3	1.69	0.22	0.08
Water Soluble Magnesium, ICP		131.30	2	1.68	0.20	0.01	2	1.68	0.20	0.01
Water Soluble Magnesium, Other		131.99	1	2.28	0.00	0.00	1	2.28	0.00	0.00
Method Group 131.XX PCT			6	1.79	0.29	0.04	5	1.80	0.32	0.02
Sulfur, Gravimetric	980.02a	144.01	15	12.25	0.25	0.21	15	12.25	0.25	0.21
Sulfur, Gravimetric	980.02b	144.02	1	12.04	0.13	0.19	1	12.04	0.13	0.19
Sulfur, Spectrometric		144.70	1	12.59	0.08	0.11	1	12.59	0.08	0.11
Sulfur, Other		144.99	26	11.79	0.55	0.21	25	11.83	0.49	0.18
Method Group 144.XX PCT			45	11.92	0.55	0.20	44	11.95	0.51	0.18
Arsenic, Atomic Absorption		151.00	1	7.85	0.35	0.50	1	7.85	0.35	0.50
Arsenic, ICP		151.30	6	7.78	1.04	0.66	6	7.78	1.04	0.66
Arsenic, Other		151.99	2	8.08	1.80	1.34	2	8.08	1.80	1.34
Method Group 151.XX PPM			9	7.85	1.14	0.79	9	7.85	1.14	0.79
Acid Soluble Boron, Spectrometric	982.01	165.00	7	0.124	0.006	0.006	7	0.124	0.006	0.006
Acid Soluble Boron, Other		165.99	22	0.125	0.017	0.005	20	0.124	0.017	0.003
Method Group 165.XX PCT			30	0.125	0.015	0.005	28	0.125	0.015	0.004
Water Soluble Boron, Other		171.99	1	0.117	0.005	0.007	1	0.117	0.005	0.007
Cadmium, Atomic Absorption		181.00	2	3.78	0.10	0.05	2	3.78	0.10	0.05
Cadmium, ICP		181.30	11	3.99	0.41	0.23	11	3.99	0.41	0.23
Method Group 181.XX PPM			13	3.95	0.39	0.20	13	3.95	0.39	0.20
Water Soluble Chlorine, Titrimetric	928.02	190.00	2	8.60	1.09	0.35	2	8.60	1.09	0.35

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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
Chromium, Atomic Absorption		191.00	1	73.00	7.07	10.00	1	73.00	7.07	10.00
Chromium, ICP		191.30	13	68.88	6.04	1.20	12	69.03	6.25	0.96
Chromium, Other		191.99	1	53.61	0.14	0.20	1	53.61	0.14	0.20
Method Group 191.XX PPM			16	66.72	8.81	1.68	15	66.30	8.85	1.12
Acid Soluble Cobalt, AA		202.00	1	6.50	0.71	1.00	1	6.50	0.71	1.00
Acid Soluble Cobalt, ICP	965.11	202.30	12	14.91	2.54	0.86	12	14.91	2.54	0.86
Acid Soluble Cobalt, Other		202.99	1	8.00	2.63	3.73	1	8.00	2.63	3.73
Method Group 202.XX PPM			15	12.90	4.97	1.01	14	13.25	4.93	0.81
Acid Soluble Copper, Atomic Absorption	975.01	221.00	3	0.0050	0.0003	0.0004	3	0.0050	0.0003	0.0004
Acid Soluble Copper, ICP		221.30	21	0.0044	0.0006	0.0001	19	0.0044	0.0005	0.0001
Acid Soluble Copper, Other		221.99	1	0.0050	0.0001	0.0001	1	0.0050	0.0001	0.0001
Method Group 221.XX PCT			25	0.0045	0.0006	0.0002	22	0.0045	0.0005	0.0001
Acid Soluble Iron, Atomic Absorption	980.01	241.00	10	0.43	0.03	0.01	9	0.42	0.03	0.01
Acid Soluble Iron, ICP		241.30	40	0.43	0.05	0.01	38	0.43	0.04	0.01
Acid Soluble Iron, Other		241.99	2	0.44	0.02	0.01	2	0.44	0.02	0.01
Method Group 241.XX PCT			52	0.43	0.04	0.01	50	0.43	0.04	0.01
Lead, Atomic Absorption		251.00	1	10.40	0.99	1.40	1	10.40	0.99	1.40
Lead, ICP		251.30	12	13.03	2.36	2.05	11	13.03	2.14	1.51
Lead, Other		251.99	1	11.57	1.24	1.76	1	11.57	1.24	1.76
Method Group 251.XX PPM			14	12.74	2.32	1.98	13	12.72	2.13	1.52
Acid Soluble Manganese, AA	972.02a	261.00	9	0.428	0.054	0.039	8	0.427	0.048	0.022
Acid Soluble Manganese, ICP	972.02a	261.30	32	0.417	0.030	0.013	31	0.416	0.029	0.012
Acid Soluble Manganese, Other	972.02b	261.31	1	0.437	0.018	0.026	1	0.437	0.018	0.026
Acid Soluble Manganese, Other		261.99	6	0.420	0.041	0.014	6	0.420	0.041	0.014
Method Group 261.XX PCT			50	0.417	0.041	0.022	48	0.418	0.037	0.015
Mercury, Atomic Absorption		281.00	1	0.01	0.00	0.01	1	0.01	0.00	0.01
Mercury, ICP		281.30	1	1.20	0.04	0.05	1	1.20	0.04	0.05
Method Group 281.XX PPM			2	0.60	0.68	0.03	2	0.60	0.68	0.03
Molybdenum, ICP		289.30	18	9.25	1.92	0.84	17	9.17	1.92	0.73
Molybdenum, Other		289.99	1	9.40	0.25	0.35	1	9.40	0.25	0.35
Method Group 289.XX PPM			19	9.26	1.87	0.82	18	9.18	1.87	0.71
Nickel, Atomic Absorption		291.00	2	26.25	7.23	0.50	2	26.25	7.23	0.50
Nickel, ICP		291.30	13	25.55	3.11	0.84	13	25.55	3.11	0.84
Nickel, Other		291.99	1	19.08	0.43	0.61	1	19.08	0.43	0.61
Method Group 291.XX PPM			17	24.78	4.33	1.15	16	25.23	3.94	0.78
Selenium, ICP		301.30	2	2.08	1.24	0.03	2	2.08	1.24	0.03
Selenium, Other		301.99	1	0.12	0.02	0.03	1	0.12	0.02	0.03
Method Group 301.XX PPM			3	1.42	1.40	0.03	3	1.42	1.40	0.03
Sodium, Flame Photometric	974.01	311.30	2	0.33	0.03	0.03	2	0.33	0.03	0.03

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Method	AOAC Ref.	Method Code	Pass 1 Results for 85 Labs		Pass 2 Results for 85 Labs		Average Range of Dups
			No. of Labs	Grand Avg.	No. of Labs	Grand Avg.	
Sodium, Other		311.99	8	0.34	7	0.34	0.01
Method Group 311.XX PCT			10	0.34	10	0.34	0.03
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	12	0.270	12	0.270	0.015
Acid Soluble Zinc, ICP		321.30	37	0.282	35	0.280	0.022
Acid Soluble Zinc, Other		321.99	2	0.263	2	0.263	0.005
Method Group 321.XX PCT			52	0.280	49	0.277	0.034
Water Soluble Zinc, ICP		325.30	1	0.310	1	0.310	0.016
Water Soluble Zinc, Other		325.99	1	0.273	1	0.273	0.015
Method Group 325.XX PCT			2	0.291	2	0.291	0.025

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	11.54	.56									
Avg	11.51										
456	11.48	-1.09									
Meth: 001.99 PCT											
Ammoniacal Nitrogen											
Other											
393	11.80 X	.96									
096	11.66	.49									
Avg	11.52										
420	11.50	-.67									
027	11.13	-1.37									
Meth: 001.11 PCT											
Total Nitrogen											
Modified Comprehensi											
260	13.21 S	1.97									
309	13.14	1.63									
479	12.85	.50									
Avg	12.74										
105	12.63	-.47									
470	12.59	-.64									
211	12.50	-.99									
114	11.82 S	-3.81									
474	11.56 S	-4.88									
416	11.16 S	-6.51									
Meth: 002.99 PCT											
Nitrate Nitrogen											
Other											
232	0.85	.95									
Avg	0.83										
393	0.82	-.78									
Meth: 009.10 PCT											
Ammon & Nitrate N											
Devarda											
090	13.04	1.09									
169	12.86	.12									
Avg	12.84										
393	12.62	-1.14									
Meth: 009.99 PCT											
Ammon & Nitrate N											
Other											
027	11.99	.71									
Meth: 009.99 PCT											
Total Nitrogen											
Combustion											
422	13.17 s	4.59									
255	13.11 A	3.87									
450	12.80 R	2.07									
117	12.85	1.90									
043	12.82	1.71									
055	12.82	1.69									
452	12.76	1.18									
351	12.71	1.18									
007	12.75	1.16									
233	12.63	1.12									
330	12.70	1.04									
405	12.74	1.04									
057	12.72	1.00									
049	12.69	.99									
360	12.71	.99									
086	12.66	.91									
072	12.72	.89									
136	12.71	.86									
296	12.71	.78									
377	12.70	.71									
231	12.69	.62									
354	12.67	.54									
325	12.65	.50									
262	12.65	.50									
402	12.67	.45									
291	12.66	.37									
131	12.65	.31									
106	12.62	.25									
420	12.61	.21									
023	12.63	.21									
177	12.62	.09									
185	12.52	-.91									
Meth: 010.12 PCT											
Total Nitrogen											
Salicylic											
455	13.25 S	2.21									
481	13.02	1.25									
Avg	12.73										
254	12.65	-.33									
Meth: 010.60 PCT											
Total Nitrogen											
Combustion											
035	13.21 s	4.62									
Meth: 010.60 PCT											
Total Nitrogen											
Combustion											
009	12.60	-.29									
162	12.57	-.34									
247	12.56	-.53									
389	12.55	-.58									
034	12.54	-.62									
037	12.52	-.79									
102	12.49	-.98									
157	12.50	-1.13									
307	12.46	-1.16									
483	12.46	-1.17									
368	12.46	-1.19									
232	12.45	-1.21									
234	12.45	-1.21									
230	12.45	-1.27									
095	12.41	-1.55									
018	12.40	-1.59									
406	12.40	-1.63									
451	12.56 R	-1.85									
029	12.33	-2.19									
324	12.45 R	-2.27									
041	12.20 s	-3.47									
Meth: 010.99 PCT											
Total Nitrogen											
Other											
030	12.90	1.49									
397	12.64	.40									
Avg	12.58										
137	12.58	-.01									
460	12.50	-.62									
200	12.31	-1.32									
072	11.50 s	-5.61									
Meth: 010.99 PCT											
Total Nitrogen											
Other											
030	12.90	1.49									
397	12.64	.40									
Avg	12.58										
137	12.58	-.01									
460	12.50	-.62									
200	12.31	-1.32									
072	11.50 s	-5.61									
Meth: 010.99 PCT											
Total Nitrogen											
Other											
030	12.90	1.49									
397	12.64	.40									
Avg	12.58										
137	12.58	-.01									
460	12.50	-.62									
200	12.31	-1.32									
072	11.50 s	-5.61									
Meth: 010.99 PCT											
Total Nitrogen											
Other											
030	12.90	1.49									
397	12.64	.40									
Avg	12.58										
137	12.58	-.01									
460	12.50	-.62									
200	12.31	-1.32									
072	11.50 s	-5.61									
Meth: 010.99 PCT											
Total Nitrogen											
Other											
030	12.90	1.49									
397	12.64	.40									
Avg	12.58										
137	12.58	-.01									
460	12.50	-.62									
200	12.31	-1.32									
072	11.50 s	-5.61									
Meth: 010.99 PCT											
Total Nitrogen											
Other											
030	12.90	1.49									
397	12.64	.40									
Avg	12.58										
137	12.58	-.01									
460	12.50	-.62									
200	12.31	-1.32									
072	11.50 s	-5.61									
Meth: 010.99 PCT											

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	
Meth: 010.XX PCT												
<u>Total Nitrogen</u>												
292	12.60	-1.17										
106	12.62	-1.19										
420	12.61	-1.19										
027	12.61	-2.25										
470	12.59	-2.26										
009	12.60	-2.29										
137	12.58	-2.29										
073	12.58	-2.32										
096	12.58	-2.33										
162	12.57	-2.39										
247	12.56	-2.52										
389	12.55	-2.56										
034	12.54	-2.60										
185	12.52	-2.71										
037	12.52	-2.73										
211	12.50	-2.77										
233	12.63	-2.86										
102	12.49	-2.88										
157	12.50	-2.97										
460	12.50	-2.97										
307	12.46	-1.02										
483	12.46	-1.04										
368	12.46	-1.05										
232	12.45	-1.07										
234	12.45	-1.07										
230	12.45	-1.11										
095	12.41	-1.33										
018	12.40	-1.36										
406	12.40	-1.40										
451	12.56 R	-1.47										
029	12.33	-1.83										
324	12.45 R	-1.83										
200	12.31	-1.93										
041	12.20 R	-2.81										
114	11.82 s	-4.84										
474	11.56 s	-6.39										
072	11.50 s	-7.27										
416	11.16 s	-8.74										
Meth: 020.10 PCT												
<u>Total Phosphate</u>												
041	13.60	.89										
090	13.57	.76										
105	13.42	.43										
470	13.46	.30										
Avg	13.38											
157	13.35	-.23										
114	12.89	-1.95										
Meth: 020.20 PCT												
<u>Total Phosphate</u>												
324	14.20	2.36										
405	13.88 R	1.52										
371	13.71	.93										
474	13.64	.70										
292	13.67	.69										
479	13.59	.47										
450	13.50	.45										
169	13.54	.30										
231	13.45	.16										
406	13.46	.08										
Avg	13.44											
416	13.44	-.05										
232	13.41	-.12										
420	13.30	-.48										
481	13.22	-.75										
200	13.19	-.78										
309	12.90	-1.69										
234	12.88	-1.82										
Meth: 020.40 PCT												
<u>Total Phosphate</u>												
027	13.94 s	3.25										
456	13.69	1.11										
247	13.66	.96										
Avg	13.52											
Meth: 020.40 PCT												
<u>Total Phosphate</u>												
096	13.44	4.98										
307	13.97	1.61										
452	13.92	1.29										
422	13.43	.72										
393	13.69	.72										
Avg	13.36	-.11										
402	13.32	-.25										
451	13.28	-.47										
368	13.00	-1.05										
330	13.15	-1.06										
255	12.88	-1.29										
389	12.08 S	-3.28										
Meth: 020.50 PCT												
<u>Total Phosphate</u>												
483	15.41 s	4.98										
307	13.97	1.61										
452	13.92	1.29										
422	13.43	.72										
393	13.69	.72										
Avg	13.36	-.11										
402	13.32	-.25										
451	13.28	-.47										
368	13.00	-1.05										
330	13.15	-1.06										
255	12.88	-1.29										
389	12.08 S	-3.28										
Meth: 020.99 PCT												
<u>Total Phosphate</u>												
460	15.30 S	6.31										
007	13.94 R	3.02										
137	13.23	1.05										
322	12.86	.12										
Avg	12.82											
455	12.36	-1.17										
Meth: 020.99 PCT												
<u>Total Phosphate</u>												
483	15.41 s	5.55										
460	15.30 s	5.26										
324	14.20	2.21										
007	13.94 R	1.84										
Meth: 020.XX PCT												
<u>Total Phosphate</u>												
307	13.97 R	1.79										
027	13.94	1.67										
405	13.88 X	1.45										
452	13.92	1.44										
371	13.71	.93										
422	13.43	.81										
393	13.69	.80										
456	13.69	.80										
292	13.67	.73										
474	13.64	.73										
247	13.66	.72										
041	13.60	.56										
479	13.59	.53										
090	13.57	.47										
450	13.50	.45										
169	13.54	.38										
105	13.45	.37										
105	13.42	.28										
231	13.45	.19										
096	13.44	.17										
406	13.46	.17										
470	13.46	.15										
416	13.44	.10										
232	13.41	.06										
Avg	13.40											
291	13.36	-.13										
035	13.36	-.16										
157	13.35	-.20										
402	13.32	-.28										
420	13.30	-.33										
137	13.23	-.47										
451	13.28	-.53										
481	13.22	-.56										
200	13.19	-.59										
368	13.00	-1.18										
330	13.15 R	-1.19										
309	12.90	-1.39										
114	12.89	-1.42										
Meth: 020.XX PCT												
<u>Total Phosphate</u>												
255	12.88	-1.45										
322	12.86	-1.50										
234	12.88	-1.51										
455	12.36	-2.90										
389	12.08 s	-3.67										
Meth: 030.10 PCT												
<u>Insoluble Phosphate</u>												
090	0.04	.00										
Meth: 030.20 PCT												
<u>Insoluble Phosphate</u>												
474	0.10	.87										
Avg	0.07											
405	0.03	-.87										
Meth: 030.40 PCT												
<u>Insoluble Phosphate</u>												
096	0.07	.71										
Meth: 030.50 PCT												
<u>Insoluble Phosphate</u>												
479	0.07	.87										
Avg	0.03											
255	0.00	-.87										
Meth: 030.99 PCT												
<u>Insoluble Phosphate</u>												
Other												
247	0.06	.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.XX PCT											
<u>InSoluble Phosphate</u>											
474	0.10	1.59									
479	0.07	.58									
096	0.07	.47									
247	0.06	.20									
Avg	0.05										
090	0.04	-.37									
405	0.03	-.69									
255	0.00	-1.66									
Meth: 040.10 PCT											
<u>InDir Available Phos</u>											
090	13.53	.71									
Meth: 040.20 PCT											
<u>InDir Available Phos</u>											
474	13.54	.71									
Meth: 040.40 PCT											
<u>InDir Available Phos</u>											
096	13.38	.71									
Meth: 040.50 PCT											
<u>InDir Available Phos</u>											
086	13.24	-1.45									
185	13.10	-1.49									
009	13.11	-1.87									
Meth: 041.20 PCT											
<u>InDir Available Phosph</u>											
030	13.12	.58									
Avg	13.06										
262	13.00	-1.08									
247	13.60	-.35									
479	13.52	-.66									
Meth: 041.10 PCT											
<u>Dir Available Phosph</u>											
072	13.47	1.10									
260	13.43	1.01									
057	13.43	1.00									
055	13.46	.87									
211	13.46	.83									
105	13.42	.82									
254	13.38	.55									
Avg	13.33										
177	13.33	-.08									
049	13.31	-.19									
131	13.28	-.38									
102	13.25	-.61									
040	13.30	-.67									
086	13.24	-1.45									
185	13.10	-1.49									
009	13.11	-1.87									
Meth: 041.60 PCT											
<u>Dir Available Phosph</u>											
034	13.61	1.02									
106	13.57	.93									
136	13.59	.87									
105	13.55	.71									
231	13.55	.59									
105	13.52	.55									
296	13.52	.32									
043	13.45	.29									
Avg	13.43										
233	13.43	-.14									
177	13.33	-.56									
037	13.33	-.62									
Meth: 041.40 PCT											
<u>Dir Available Phosph</u>											
027	13.92	1.51									
Avg	13.61										
072	13.60	-.37									
131	13.47	-.69									
095	13.45	-.78									
Meth: 041.50 PCT											
<u>Dir Available Phosph</u>											
325	13.55	1.51									
377	13.52	1.08									
055	13.36	.41									
393	13.36	.24									
Avg	13.32										
360	13.29	-.20									
043	13.32	-.36									
009	13.13	-1.21									
023	13.06	-1.48									
368	13.29 R	-1.81									
354	12.58 S	-4.14									
Meth: 041.60 PCT											
<u>Dir Available Phosph</u>											
027	13.92	2.56									
296	13.50 R	2.37									
230	13.80	1.98									
034	13.61	1.10									
325	13.55	1.06									
072	13.60	1.06									
106	13.57	.99									
136	13.59	.97									
105	13.55	.82									
231	13.55	.82									
105	13.52	.67									
296	13.52	.67									
260	13.43	.63									
072	13.47	.63									
377	13.52	.62									
057	13.43	.61									
029	13.43	.57									
057	13.49	.48									
105	13.42	.46									
055	13.46	.40									
043	13.45	.39									
131	13.47	.38									
095	13.45	.36									
Meth: 041.99 PCT											
<u>Dir Available Phosph</u>											
230	13.80	.57									
Avg	13.61										
105	13.52	-.31									
296	13.50	-1.44									
Meth: 041.XX PCT											
<u>Dir Available Phosph</u>											
027	13.92	2.56									
296	13.50 R	2.37									
230	13.80	1.98									
034	13.61	1.10									
325	13.55	1.06									
072	13.60	1.06									
106	13.57	.99									
136	13.59	.97									
105	13.55	.82									
231	13.55	.82									
105	13.52	.67									
296	13.52	.67									
260	13.43	.63									
072	13.47	.63									
377	13.52	.62									
057	13.43	.61									
029	13.43	.57									
057	13.49	.48									
105	13.42	.46									
055	13.46	.40									
043	13.45	.39									
131	13.47	.38									
095	13.45	.36									
Meth: 041.XX PCT											
<u>Dir Available Phosph</u>											
027	13.92	2.56									
296	13.50 R	2.37									
230	13.80	1.98									
034	13.61	1.10									
325	13.55	1.06									
072	13.60	1.06									
106	13.57	.99									
136	13.59	.97									
105	13.55	.82									
231	13.55	.82									
105	13.52	.67									
296	13.52	.67									
260	13.43	.63									
072	13.47	.63									
377	13.52	.62									
057	13.43	.61									
029	13.43	.57									
057	13.49	.48									
105	13.42	.46									
055	13.46	.40									
043	13.45	.39									
131	13.47	.38									
095	13.45	.36									
Meth: 048.20 PCT											
<u>Water Soluble Phosph</u>											
420	12.25	1.02									
096	11.90	.21									
Avg	11.83										
474	11.33	-1.19									

* 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: 048.50 PCT														
Water Soluble Phosph														
ICP			Meth: 050.51 PCT											
393	11.97	.71	Soluble Potash			Soluble Potash								
Meth: 048.XX PCT														
Water Soluble Phosph														
420	12.25	1.09	ICP (Citrate)			Other								
393	11.97	.30	389	13.15	-.54	Meth: 050.99 PCT						Meth: 050.XX PCT		
096	11.90	.18	296	12.86	-1.40	Soluble Potash						Soluble Potash		
Avg	11.86		009	12.78	-1.49	Other						177 13.40		
474	11.33	-1.48	Meth: 050.60 PCT			Avg						291 13.39		
Meth: 050.00 PCT														
Soluble Potash														
STPB Oxalate			Soluble Potash											
233	13.62	2.22	Flame (Oxalate)			Avg						450 13.38		
057	13.55	1.67	105	13.34	1.65	322						325 13.30		
049	13.47	1.25	Meth: 050.31 PCT			027						397 13.32		
397	13.32	.53	Soluble Potash			330						292 13.33		
072	13.29	.50	AA (Citrate)			455						072 13.29		
114	13.33	.48	030	13.03	-.71	255						106 13.29		
090	13.27	.27	Meth: 050.50 PCT			309						009 13.27		
009	13.27	.24	Soluble Potash			169						090 13.27		
Avg	13.24		ICP (Oxalate)			072						131 13.24		
416	13.22	-.12	Meth: 050.61 PCT			072						096 13.21		
211	13.21	-.18	Soluble Potash			037						416 13.22		
470	13.21	-.21	422	13.55	1.11	018						211 13.21		
231	13.15	-.61	292	13.33	.53	034						470 13.21		
102	13.10	-.77	420	13.15	.45	131						023 13.20		
055	12.79	-2.48	106	13.29	.44	057						035 13.17		
230	12.55	-3.76	Avg	13.12		029						406 13.18		
Meth: 050.30 PCT														
Soluble Potash														
AA (Oxalate)			Meth: 050.99 PCT											
185	13.45	1.17	452	14.05	1.79	041						Avg 13.15		
157	13.40	1.15	483	13.91	1.50	043						389 13.15		
040	13.00	.48	Avg	13.03	-.26	049						136 13.10		
254	13.04	.35	324	12.50	-1.80	157						102 13.10		
Meth: 050.51 PCT														
Soluble Potash														
ICP (Citrate)			Soluble Potash											
102	13.10	-.77	354	12.40	-1.88	041						231 13.15		
055	12.79	-2.48	Meth: 050.51 PCT			037						037 13.11		
230	12.55	-3.76	Soluble Potash			018						200 13.09		
Meth: 050.30 PCT														
Soluble Potash														
AA (Oxalate)			Soluble Potash											
185	13.45	1.17	422	13.55	1.11	034						034 13.06		
157	13.40	1.15	292	13.33	.53	131						262 13.06		
040	13.00	.48	420	13.15	.45	057						131 13.05		
254	13.04	.35	106	13.29	.44	029						262 13.06		
Meth: 050.61 PCT														
Soluble Potash														
ICP (Oxalate)			Soluble Potash											
102	13.10	-.77	Avg	13.12		029						131 13.05		
055	12.79	-2.48	055	13.03	-.26	095						095 13.53		
230	12.55	-3.76	324	12.50	-1.80	483						035 13.17		
Meth: 050.99 PCT														
Soluble Potash														
AA (Oxalate)			Soluble Potash											
185	13.45	1.17	354	12.40	-1.88	007						406 13.18		
157	13.40	1.15	Meth: 050.51 PCT			035						Avg 13.15		
040	13.00	.48	Soluble Potash			037						389 13.15		
254	13.04	.35	422	13.55	1.11	018						136 13.10		
Meth: 050.30 PCT														
Soluble Potash														
ICP (Citrate)			Soluble Potash											
102	13.10	-.77	292	13.33	.53	034						102 13.10		
055	12.79	-2.48	420	13.15	.45	131						231 13.15		
230	12.55	-3.76	106	13.29	.44	057						037 13.11		
Meth: 050.99 PCT														
Soluble Potash														
AA (Oxalate)			Soluble Potash											
185	13.45	1.17	Avg	13.12		041						200 13.09		
157	13.40	1.15	055	13.03	-.26	043						034 13.06		
040	13.00	.48	324	12.50	-1.80	049						262 13.06		
254	13.04	.35	354	12.40	-1.88	157						131 13.05		
Meth: 050.51 PCT														
Soluble Potash														
ICP (Citrate)			Soluble Potash											
102	13.10	-.77	422	13.55	1.11	041						018 13.10		
055	12.79	-2.48	292	13.33	.53	034						102 13.10		
230	12.55	-3.76	420	13.15	.45	131						231 13.15		
Meth: 050.99 PCT														
Soluble Potash														
AA (Oxalate)			Soluble Potash											
185	13.45	1.17	Avg	13.12		029						037 13.11		
157	13.40	1.15	055	13.03	-.26	095						200 13.09		
040	13.00	.48	324	12.50	-1.80	483						035 13.17		
254	13.04	.35	354	12.40	-1.88	007						406 13.18		
Meth: 050.61 PCT														
Soluble Potash														
ICP (Oxalate)			Soluble Potash											
102	13.10	-.77	422	13.55	1.11	035						Avg 13.15		
055	12.79	-2.48	292	13.33	.53	037						389 13.15		
230	12.55	-3.76	420	13.15	.45	018						136 13.10		
Meth: 050.99 PCT														
Soluble Potash														
AA (Oxalate)			Soluble Potash											
185	13.45	1.17	Avg	13.12		034						102 13.10		
157	13.40	1.15	055	13.03	-.26	131						231 13.15		
040	13.00	.48	324	12.50	-1.80	057						037 13.11		
254	13.04	.35	354	12.40	-1.88	041						200 13.09		
Meth: 050.51 PCT														
Soluble Potash														
ICP (Citrate)			Soluble Potash											
102	13.10	-.77	422	13.55	1.11	043						034 13.06		
055	12.79	-2.48	292	13.33	.53	049						262 13.06		
230	12.55	-3.76	420	13.15	.45	157						131 13.05		
Meth: 050.99 PCT														
Soluble Potash														
AA (Oxalate)			Soluble Potash											
185	13.45	1.17	Avg	13.12		041						018 13.10		
157	13.40	1.15	055	13.03	-.26	043						018 13.10		
040	13.00	.48	324	12.50	-1.80	049						322 13.03		
254	13.04	.35	354	12.40	-1.88	157						055 13.03		
Meth: 050.61 PCT														
Soluble Potash														
ICP (Oxalate)			Soluble Potash											
102	13.10	-.77	422	13.55	1.11	041						018 13.10		
055	12.79	-2.48	292	13.33	.53	043						018 13.10		
230	12.55	-3.76	420	13.15	.45	049						322 13.03		
Meth: 050.99 PCT														
Soluble Potash														
AA (Oxalate)			Soluble Potash											
185	13.45	1.17	Avg	13.12		041						018 13.10		
157	13.40	1.15	055	13.03	-.26	043						018 13.10		
040	13.00	.48	324	12.50	-1.80	049						322 13.03		
254	13.04	.35	354	12.40	-1.88	157						055 13.03		
Meth: 050.51 PCT														
Soluble Potash														
ICP (Citrate)			Soluble Potash											
102	13.10	-.77	422	13.55	1.11	041						018 13.10		
055	12.79	-2.48	292	13.33	.53	043						018 13.10		
230	12.55	-3.76	420	13.15	.45	049						322 13.03		
Meth: 050.99 PCT														
Soluble Potash														
AA (Oxalate)			Soluble Potash											
185	13.45	1.17	Avg	13.12		041						018 13.10		
157	13.40	1.15	055	13.03	-.26	043						018 13.10		
040	13.00	.48	324	12.50	-1.80	049						322 13.03		
254	13.04	.35	354	12.40	-1.88	157						055 13.03		

* 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>												
057	13.02	-.41										
254	13.04	-.47										
420	13.15	-.48										
169	12.99	-.49										
043	12.98	-.57										
027	12.99	-.59										
040	13.00	-.72										
330	12.85	-.96										
296	12.86	-1.05										
055	12.79	-1.05										
009	12.78	-1.08										
455	12.77	-1.10										
255	12.75	-1.14										
368	12.76	-1.17										
137	12.68	-1.35										
230	12.55	-1.72										
307	12.56	-1.78										
324	12.50 R	-2.05										
354	12.40	-2.14										
072	12.40	-2.15										
351	12.31	-2.42										
481	12.22	-2.66										
Meth: 060.00 PCT												
Free Water												
<u>Vacuum Oven</u>												
105	1.08	1.24										
096	1.01 R	.80										
416	1.00	.51										
Avg	0.95											
456	0.95	-.10										
007	0.94	-.11										
474	0.78	-1.64										
Meth: 101.00 PCT												
<u>Acid Soluble Calcium</u>												
296	4.68 s	90.93										
483	4.48 s	86.75										
422	1.42 s	20.60										
393	0.71 A	5.26										
041	0.52 R	2.50										
354	0.55	1.72										
106	0.51	.93										
Meth: 101.00 PCT												
<u>Acid Soluble Calcium</u>												
AA												
105	0.34	.71										
Avg	0.34											
Meth: 101.30 PCT												
<u>Acid Soluble Calcium</u>												
483	4.48 s	116.84										
422	1.42 s	27.57										
393	0.71 A	6.87										
041	0.52 R	3.28										
354	0.55	2.09										
106	0.51	1.03										
096	0.51	.90										
009	0.49	.82										
057	0.50	.60										
474	0.49	.33										
479	0.48	.33										
389	0.48	.16										
Avg	0.47											
102	0.47	-.09										
397	2.29	-1.12										
028	2.27	-1.37										
105	2.20	-.54										
296	2.19	-.67										
309	2.18	-.69										
Avg	2.16	-.03										
040	2.13	-2.35										
043	2.12	-.34										
169	2.08	-.76										
029	2.05	-1.08										
262	2.05	-1.08										
481	2.12 R	-1.39										
351	1.98	-1.58										
Meth: 101.XX PCT												
<u>Acid Soluble Calcium</u>												
096	0.51	.83										
009	0.49	.73										
057	0.50	.62										
474	0.49	.41										
479	0.48	.36										
389	0.48	.29										
035	0.47	.11										
102	0.47	.11										
Avg	0.47											
307	0.46	-.12										
131	0.46	-.25										
232	0.45	-.33										
086	0.45	-.35										
420	0.44	-.59										
027	0.39	-1.57										
105	0.34	-2.74										
Meth: 121.00 PCT												
<u>Acid Soluble Magnesi</u>												
AA												
177	2.35	1.75										
397	2.29	1.19										
028	2.27	1.03										
105	2.20	.41										
296	2.19	.36										
309	2.18	.22										
Avg	2.16											
102	0.47	-.09										
035	0.47	-.12										
307	0.46	-.37										
131	0.46	-.54										
232	0.45	-.67										
086	0.45	-.69										
420	0.44	-1.03										
027	0.39	-2.35										
Meth: 121.30 PCT												
<u>Acid Soluble Magnesi</u>												
041	2.76 s	4.92										
483	2.44	2.28										
057	2.35	1.60										
177	2.35	1.55										
389	2.33	1.40										
131	2.33	1.40										
231	2.33	1.38										
009	2.24 R	1.12										
397	2.29	1.06										
028	2.27	.92										
023	2.26	.89										
452	2.25	.80										
102	2.24	.73										
106	2.23	.61										
291	2.22	.53										
450	2.21	.51										
055	2.17	.45										
027	2.20	.43										
105	2.20	.37										
296	2.19	.33										
247	2.19	.32										
460	2.17 X	.27										
037	2.16	.23										
360	2.17	.20										
233	2.16	.14										
Avg	2.16											
035	2.14	-.14										
096	2.14	-.19										
433	2.13	-.26										
300	2.15	-.35										
324	2.11	-.40										
095	2.10	-.40										
307	2.08	-.60										
368	2.15	-.63										
255	2.07	-.68										
422	2.11	-.71										
354	2.03	-.96										
420	2.03	-.97										
232	2.02	-1.08										
114	1.95	-1.70										
474	1.88	-2.13										
086	1.86	-2.24										
479	1.70 s	-3.50										

* 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: 121.XX PCT											
<u>Acid Soluble Magnesi</u>											
233	2.16	.15									
Avg	2.16										
035	2.14	- .15									
096	2.14	- .20									
040	2.13	- .22									
433	2.13	- .27									
043	2.12	- .30									
137	2.11	- .37									
300	2.15	- .37									
324	2.11	- .43									
095	2.10	- .43									
307	2.08	- .64									
169	2.08	- .66									
368	2.15	- .68									
255	2.07	- .72									
422	2.11	- .75									
029	2.05	- .95									
262	2.05	- .95									
354	2.03	- 1.02									
420	2.03	- 1.03									
232	2.02	- 1.16									
481	2.12 R	- 1.22									
351	1.98	- 1.39									
114	1.95	- 1.81									
474	1.88	- 2.28									
086	1.86	- 2.40									
479	1.70 s	- 3.75									
230	1.68 s	- 3.91									
393	1.21 s	- 7.70									
Meth: 131.00 PCT											
<u>Water Soluble Magnes</u>											
AA											
296	1.91	1.00									
029	1.72	.43									
Avg	1.69										
309	1.44	- 1.14									
Meth: 131.30 PCT											
<u>Water Soluble Magnes</u>											
ICP											
230	1.85	.87									
Avg	1.68										
027	1.51	- .87									
Meth: 131.99 PCT											
<u>Water Soluble Magnes</u>											
Other											
200	2.28	.00									
Meth: 131.XX PCT											
<u>Water Soluble Magnes</u>											
200	2.28	1.51									
296	1.91	.36									
230	1.85	.17									
Avg	1.80										
029	1.72 R	- .36									
027	1.51	- .90									
309	1.44	- 1.12									
Meth: 144.01 PCT											
<u>Sulfur</u>											
Gravimetric											
055	12.72	2.01									
296	12.60	1.81									
029	12.45	.80									
043	12.38	.60									
324	12.30	.45									
057	12.33	.34									
114	12.29	.21									
Avg	12.25										
095	12.21	- .16									
233	12.12	- .57									
040	12.10	- .70									
105	12.04	- .87									
371	12.10	- .89									
262	12.01	- .94									
230	12.05	- .98									
Meth: 144.01 PCT											
<u>Sulfur</u>											
Gravimetric											
397	12.00	- 1.26									
200	11.14 s	- 4.38									
481	10.66 s	- 6.29									
Meth: 144.02 PCT											
<u>Sulfur</u>											
Gravimetric											
292	12.04	.71									
Meth: 144.70 PCT											
<u>Sulfur</u>											
Spectrometric											
474	12.59	- .71									
Meth: 144.99 PCT											
<u>Sulfur</u>											
Other											
483	13.10	2.59									
117	12.35	1.09									
389	12.35	1.05									
232	12.27	.89									
351	12.21	.89									
479	12.16	.66									
037	12.07	.56									
452	12.07	.50									
157	12.08	.49									
360	12.08	.49									
027	11.96	.45									
177	11.99	.31									
Avg	11.83										
049	11.79	- .10									
291	11.77	- .15									
247	11.79	- .24									
096	11.75	- .28									
023	11.65	- .37									
137	11.52	- .63									
086	11.52	- .64									
Meth: 144.99 PCT											
<u>Sulfur</u>											
Other											
368	11.45	- .80									
450	11.48	- .83									
422	11.34	- 1.01									
300	11.25	- 1.22									
009	11.19	- 1.36									
255	10.69	- 2.31									
307	10.63 R	- 2.62									
354	10.16 S	- 3.42									
393	10.01 S	- 3.69									
035	8.68 s	- 6.38									
Meth: 144.XX PCT											
<u>Sulfur</u>											
483	13.10	2.28									
055	12.72	1.54									
296	12.60	1.39									
474	12.59	1.24									
029	12.45	.97									
043	12.38	.85									
117	12.35	.83									
389	12.35	.78									
057	12.33	.73									
324	12.30	.71									
351	12.21	.67									
114	12.29	.65									
232	12.27	.63									
095	12.21	.50									
371	12.10	.44									
479	12.16	.41									
397	12.00	.40									
037	12.07	.37									
027	11.96	.36									
233	12.12	.35									
230	12.05	.35									
040	12.10	.35									
452	12.07	.28									
292	12.04	.25									
Meth: 151.00 PPM											
<u>Arsenic</u>											
ICP											
009	9.20 s	2.18									
450	9.00	1.51									
393	8.38	.58									
096	8.10	.36									

* 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: 151.30 PPM											
Arsenic											
ICP			Meth: 165.00 PCT								
102	7.95	.20	Acid Soluble Boron								
Avg	7.78		Spectrometric			368	0.138	.96	Meth: 181.00 PPM		
230	6.76	-.98	057	0.122	-.70	136	3.85	.94	Cadmium		
474	6.50	-1.32	397	0.120	-.71	Avg	3.78		Atomic Absorption		
368	4.60 s	-4.54	037	0.120	-1.80	422	0.137	.74	481	3.70	-.66
						043	0.130 R	.72	368	3.80	-.87
						433	0.136	.66	096	3.50	-1.29
						360	0.132	.40	230	3.24	-1.89
						117	0.130	.35	086	2.50 s	-4.07
						393	0.130	.33	Meth: 191.00 PPM		
						231	0.130	.30	Chromium		
						389	0.130	.30	Atomic Absorption		
						452	0.130	.27	481	73.00	.71
						029	0.128	.14	Meth: 191.30 PPM		
						Avg	0.125		Chromium		
						055	0.125	-.13	ICP		
						057	0.122	-.32	009	9.52	.89
						300	0.125	-.33	Avg	8.60	
						481	0.125	-.33	422	7.68	-.84
						106	0.120	-.36	Meth: 181.99 PPM		
						397	0.120	-.36	Cadmium		
						232	0.118	-.50	Other		
						324	0.116	-.65	231	5.65 S	.00
						037	0.120 R	-.74	Meth: 181.00 PCT		
						009	0.114	-.78	Chromium		
						114	0.110	-1.01	Atomic Absorption		
						354	0.108	-1.28	481	73.00	.71
						296	0.105	-1.38	Meth: 191.30 PPM		
						086	0.100	-1.70	Chromium		
						230	0.094	-2.06	ICP		
						230	0.094	-2.06	009	76.91	1.29
									106	76.00	1.12
									450	75.50	1.04
									096	74.40	.88
									393	70.00	.16
									Avg	69.03	
									037	68.66	-.10
									035	68.25	-.12
									452	67.95	-.17
									102	66.69	-.37
									368	67.15 R	-.44
									232	65.45	-.57
									086	64.20	-.78
									230	54.30	-2.36
									474	45.50 s	-3.77
									Avg	3.95	
									Meth: 171.99 PCT		
									Water Soluble Boron		
									Other		
									027	0.117	.71
									Meth: 165.00 PCT		
									Acid Soluble Boron		
									200	0.220 s	6.24
									291	0.164	2.50
									483	0.154	1.85

* 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: 191.99 PPM											
Chromium											
Other											
231	53.61	.71									
Meth: 191.XX PPM											
Chromium											
009	76.91	1.21									
106	76.00	1.10									
450	75.50	1.04									
481	73.00 R	.94									
096	74.40	.92									
393	70.00	.42									
037	68.66	.27									
368	67.15	.25									
035	68.25	.22									
452	67.95	.19									
102	66.69	.05									
Avg	66.30										
232	65.45	-.10									
086	64.20	-.25									
230	54.30	-1.36									
231	53.61	-1.43									
474	45.50	-2.35									
Meth: 202.00 PPM											
Acid Soluble Cobalt											
AA											
474	6.50	.71									
Meth: 202.30 PPM											
Acid Soluble Cobalt											
ICP											
450	18.35	1.37									
057	17.68	1.17									
009	17.78	1.13									
233	17.50	1.02									
368	15.45	.30									
452	15.36	.18									
035	15.00	.12									
393	13.56	.06									
Avg	13.25										
232	12.50	-.16									
086	12.74	-.28									
230	11.75	-.31									
102	11.29	-.41									
231	8.00 R	-1.13									
474	6.50	-1.37									
422	0.00	-2.68									
Meth: 221.00 PPM											
Acid Soluble Copper											
ICP											
450	18.35	1.37									
057	17.68	1.17									
009	17.78	1.13									
233	17.50	1.02									
368	15.45	.30									
452	15.36	.18									
035	15.00	.12									
393	13.56	.06									
Avg	13.25										
232	12.50	-.16									
086	12.74	-.28									
230	11.75	-.31									
102	11.29	-.41									
231	8.00 R	-1.13									
474	6.50	-1.37									
422	0.00	-2.68									
Meth: 221.99 PPM											
Acid Soluble Copper											
Other											
474	0.0052	1.45									
Avg	0.0050										
Meth: 221.00 PPM											
Acid Soluble Iron											
ICP											
450	18.35	1.37									
057	17.68	1.17									
009	17.78	1.13									
233	17.50	1.02									
368	15.45	.30									
452	15.36	.18									
035	15.00	.12									
393	13.56	.06									
Avg	13.25										
232	12.50	-.16									
086	12.74	-.28									
230	11.75	-.31									
102	11.29	-.41									
231	8.00 R	-1.13									
474	6.50	-1.37									
422	0.00	-2.68									
Meth: 221.30 PPM											
Acid Soluble Copper											
ICP											
450	18.35	1.37									
057	17.68	1.17									
009	17.78	1.13									
233	17.50	1.02									
368	15.45	.30									
452	15.36	.18									
035	15.00	.12									
393	13.56	.06									
Avg	13.25										
232	12.50	-.16									
086	12.74	-.28									
230	11.75	-.31									
102	11.29	-.41									
231	8.00 R	-1.13									
474	6.50	-1.37									
422	0.00	-2.68									
Meth: 221.00 PPM											
Acid Soluble Iron											
ICP											
450	18.35	1.37									
057	17.68	1.17									
009	17.78	1.13									
233	17.50	1.02									
368	15.45	.30									
452	15.36	.18									
035	15.00	.12									
393	13.56	.06									
Avg	13.25										
232	12.50	-.16									
086	12.74	-.28									
230	11.75	-.31									
102	11.29	-.41									
231	8.00 R	-1.13									
474	6.50	-1.37									
422	0.00	-2.68									
Meth: 221.30 PPM											
Acid Soluble Iron											
ICP											
450	18.35	1.37									
057	17.68	1.17									
009	17.78	1.13									
233	17.50	1.02									
368	15.45	.30									
452	15.36	.18									
035	15.00	.12									
393	13.56	.06									
Avg	13.25										
232	12.50	-.16									
086	12.74	-.28									
230	11.75	-.31									
102	11.29	-.41									
231	8.00 R	-1.13									
474	6.50	-1.37									
422	0.00	-2.68									

* 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: 241.30 PCT														
Acid Soluble Iron														
ICP	117	0.46	0.75	Meth: 241.30 PCT	117	0.37	-1.33	Meth: 251.99 PPM	231	11.57	.71	Meth: 261.30 PCT	117	0.551 s
157	0.43	-0.08	.62	Acid Soluble Iron	041	0.37	-1.39	Lead	041	0.450 R	1.55	Acid Soluble Manganese	041	0.450 R
393	0.42	-0.22	.58	106	0.46	0.37	-1.40	Other	360	0.458	1.51	ICP	360	0.458
368	0.43	-0.23	.51	231	0.45	0.36	-1.55	Meth: 251.30 PPM	422	0.455	1.34	360	0.455	1.34
095	0.42	-0.25	.46	247	0.45	0.35	-1.86	Lead	009	0.452	1.25	422	0.455	1.34
255	0.42	-0.27	.46	137	0.45	0.32	-2.48	136	26.00 s	6.30	1.25	009	0.452	1.25
307	0.42	-0.38	.40	131	0.45	0.29 s	-3.36	474	13.00 R	1.88	1.24	450	0.452	1.24
035	0.40	-0.60	.33	102	0.44	0.24 s	-4.41	232	15.80	1.67	1.11	055	0.445	1.11
354	0.40 R	-0.73	.32	479	0.44	0.23 s	-4.61	450	15.00	1.42	1.00	231	0.445	1.00
402	0.40	-0.76	.29	360	0.44	0.10 s	-7.60	233	15.31	1.22	.95	131	0.444	.95
420	0.39	-0.79	.26	433	0.44	.26		009	13.63	.63	.95	057	0.443	.95
389	0.39	-1.00	.24	009	0.44	.24		035	14.00	.61	.91	368	0.442	.91
232	0.38	-1.15	.23	460	0.44	.23		102	12.85	.42	.89	096	0.442	.89
041	0.37	-1.33	.20	450	0.44	.20		Avg	12.72		.57	102	0.428	.57
086	0.37	-1.34	.16	023	0.43	.16		393	12.45	-0.16	.38	105	0.427	.38
027	0.36	-1.49	.16	096	0.44	.16		368	12.30	-0.46	.38	452	0.427	.38
300	0.35	-1.79	.14	397	0.44	.14		037	11.49	-0.58	.17	233	0.421	.17
230	0.32	-2.40	.13	037	0.44	.13		231	11.57	-0.68	.09	023	0.418	.09
Meth: 241.99 PCT														
Acid Soluble Iron														
Other	157	0.43	-0.09	232	15.80	1.55		Meth: 251.30 PPM	230	10.50	-1.04	Avg	0.416	
137	0.45	.78	-0.24	450	15.00	1.31		Lead	481	10.40	-1.13	095	0.416	-0.04
Avg	0.44		-0.25	233	15.31	1.07		ICP	106	10.00	-1.36	247	0.415	-0.18
371	0.42	-0.94	-0.26	009	13.63	.54		Meth: 261.00 PCT	157	0.409	-0.33	157	0.409	-0.33
481	0.29 S	-7.87	-0.28	035	14.00	.46		Acid Soluble Manganese	433	0.409	-0.35	433	0.409	-0.35
Meth: 241.30 PCT														
Acid Soluble Iron														
452	0.55	2.76	-0.37	Avg	13.03			AA	402	0.406	-0.36	291	0.406	-0.36
114	0.53	2.31	-0.41	393	12.45	-0.29		481	0.435 R	1.79	-0.37	402	0.406	-0.37
422	0.53	2.21	-0.49	102	12.85	-0.43		397	0.501	1.55	-0.56	389	0.400	-0.56
483	0.48	1.19	-0.49	368	12.30	-0.54		043	0.465	.80	-0.68	035	0.397	-0.68
057	0.48	1.04	-0.64	037	11.49	-0.72		351	0.440	.48	-0.69	230	0.397	-0.69
351	0.47	.93	-0.77	230	10.50	-1.19		029	0.431	.35	-0.89	300	0.400	-0.89
105	0.46 R	.90	-0.80	460	0.420	-0.26		Avg	0.427		-0.91	420	0.390	-0.91
055	0.47	.81	-0.83	296	0.423	-0.34		460	0.420	-0.26	-1.09	307	0.391	-0.93
324	0.46	.77	-0.88	040	0.400	-0.59		296	0.423	-0.34	-1.46	354	0.385	-1.09
* 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: 261.31 PCT											
Acid Soluble Manganese											
ICP											
324	0.437	.71									
Meth: 261.99 PCT											
Acid Soluble Manganese											
Other											
137	0.470	1.20									
483	0.465	1.08									
037	0.421	.39									
393	0.421	.07									
Avg	0.420										
255	0.376	-1.09									
474	0.370	-1.24									
Meth: 261.XX PCT											
Acid Soluble Manganese											
117	0.551 s	3.70									
481	0.435 R	2.34									
397	0.501	2.25									
137	0.470	1.41									
043	0.465	1.28									
483	0.465	1.27									
041	0.450	1.19									
360	0.458	1.15									
422	0.455	1.01									
009	0.452	.94									
450	0.452	.93									
055	0.445	.84									
351	0.440	.79									
231	0.445	.75									
131	0.444	.71									
057	0.443	.70									
368	0.442	.67									
096	0.442	.66									
324	0.437	.63									
029	0.431	.56									
037	0.421	.44									
296	0.423	.44									
Meth: 261.XX PCT											
Acid Soluble Manganese											
117	0.551 s	3.70									
481	0.435 R	2.34									
397	0.501	2.25									
137	0.470	1.41									
043	0.465	1.28									
483	0.465	1.27									
041	0.450	1.19									
360	0.458	1.15									
422	0.455	1.01									
009	0.452	.94									
450	0.452	.93									
055	0.445	.84									
351	0.440	.79									
231	0.445	.75									
131	0.444	.71									
057	0.443	.70									
368	0.442	.67									
096	0.442	.66									
324	0.437	.63									
029	0.431	.56									
037	0.421	.44									
296	0.423	.44									
Meth: 281.30 PPM											
Mercury											
ICP											
393	1.20	.71									
Meth: 281.XX PPM											
Mercury											
393	1.20	.87									
Avg	0.60										
230	0.01	-.87									
Meth: 289.30 PPM											
Molybdenum											
ICP											
037	12.32	1.71									
433	11.97	1.51									
368	10.60 R	1.07									
233	11.05	1.01									
393	10.56	.75									
232	10.20	.56									
450	9.50	.32									
035	9.72	.29									
102	9.38	.25									
452	9.53	.19									
231	9.40	.15									
057	9.35	.11									
009	9.38	.11									
Avg	9.18										
086	8.76	-.37									
230	7.65	-.90									
474	7.50	-.94									
106	7.50	-.94									
096	6.50	-1.44									
422	5.00	-2.30									
255	0.93 s	-4.42									
114	0.00 s	-4.92									
Meth: 291.00 PPM											
Nickel											
Atomic Absorption											
136	32.50	.87									
Avg	26.25										
481	20.00	-.86									
Meth: 291.30 PPM											
Nickel											
ICP											
096	33.00	2.39									
481	20.00	-1.33									
230	19.55	-1.45									
231	19.08	-1.56									
474	17.50 R	-2.15									
Meth: 291.99 PPM											
Nickel											
Other											
231	19.08	.71									
Meth: 291.XX PPM											
Nickel											
096	33.00	1.97									
136	32.50	1.85									
009	28.25	.79									
450	28.00	.70									
233	25.77	.34									
368	25.65	.16									
232	25.45	.15									
Avg	25.23										
393	24.93	-.08									
035	24.85	-.10									
102	24.84	-.17									
037	24.26	-.26									
106	25.00	-.26									
086	22.62	-.66									
481	20.00	-1.33									
230	19.55	-1.45									
231	19.08	-1.56									
474	17.50 R	-2.15									

* 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: 301.30 PPM														
Selenium														
ICP														
393	3.15	.87												
Avg	2.08													
450	1.00	-.87												
Meth: 301.99 PPM														
Selenium														
Other														
086	0.12	.71												
Meth: 301.XX PPM														
Selenium														
393	3.15	1.24												
Avg	1.42													
450	1.00	-.30												
086	0.12	-.94												
Meth: 311.30 PCT														
Sodium														
Flame Photometric														
105	0.36	.85												
Avg	0.33													
086	0.31	-.88												
Meth: 311.99 PCT														
Sodium														
Other														
422	0.41	2.02												
057	0.36	.74												
Avg	0.34													
035	0.34	-.14												
102	0.33	-.40												
474	0.32	-.57												
232	0.33 R	-.64												
307	0.31	-.75												
009	0.31	-.89												
Meth: 311.XX PCT														
Sodium														
ICP														
422	0.41	2.26												
057	0.36	.87												
105	0.36	.67												
Avg	0.34													
035	0.34	-.11												
102	0.33	-.36												
474	0.32	-.55												
232	0.33	-.68												
307	0.31	-.74												
009	0.31	-.90												
086	0.31	-.96												
Meth: 321.00 PCT														
Acid Soluble Zinc														
Atomic Absorption														
397	0.335 s	3.43												
177	0.302	1.69												
481	0.285	1.07												
029	0.286	.83												
028	0.271	.72												
296	0.282	.69												
105	0.275	.56												
Avg	0.270													
371	0.270	-.02												
043	0.270	-.51												
040	0.262	-.56												
460	0.260	-.74												
351	0.243	-1.40												
200	0.240 X	-1.55												
262	0.100 s	-8.70												
Meth: 321.30 PCT														
Acid Soluble Zinc														
ICP														
483	0.372 A	2.88												
452	0.340	1.84												
114	0.340	1.84												
102	0.309	1.36												
Meth: 321.99 PCT														
Acid Soluble Zinc														
Other														
231	0.398 s	5.31												
483	0.372 A	3.21												
452	0.340	2.08												
114	0.340	2.08												
397	0.335	1.99												
102	0.309 R	1.53												
057	0.322	1.45												
117	0.321	1.41												
086	0.281 R	1.31												
055	0.310	1.25												
023	0.308	1.25												
422	0.305	1.22												
324	0.301	1.18												
041	0.295	1.00												
035	0.307	.98												
368	0.300	.92												
177	0.302	.88												
481	0.285	.55												
157	0.288	.48												
106	0.290	.31												
231	0.285	.22												
247	0.281	.02												
Avg	0.280													
Meth: 321.XX PCT														
Acid Soluble Zinc														
Other														
231	0.398 s	5.31												
483	0.372 A	3.21												
452	0.340	2.08												
114	0.340	2.08												
397	0.335	1.99												
102	0.309 R	1.53												
057	0.322	1.45												
117	0.321	1.41												
086	0.281 R	1.31												
055	0.310	1.25												
023	0.308	1.25												
422	0.305	1.22												
324	0.301	1.18												
041	0.295	1.00												
035	0.307	.98												
368	0.300	.92												
177	0.302	.88												
481	0.285	.55												
157	0.288	.48												
106	0.290	.41												
292	0.286	.33												
231	0.285	.30												
296	0.282	.27												
247	0.281	.10												
Avg	0.277													
Meth: 325.30 PCT														
Water Soluble Zinc														
ICP														
393	0.310	.71												
Meth: 325.99 PCT														
Water Soluble Zinc														
Other														
450	0.273	.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
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Meth: 325.XX PCT
Water Soluble Zinc
 393 0.310 .88
 Avg 0.291
 450 0.273 -.86

* 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	2	0.00	0.79	0.66	050.99	19	0.42	2.08	0.24
001.99	4	0.00	1.01	0.34	050.XX	72	0.15	1.40	0.37
001.XX	6	-	0.94	0.35	060.00	6	0.09	0.97	0.24
002.99	2	0.00	0.86	0.62	060.XX	6	0.09	0.97	0.24
002.XX	2	0.00	0.86	0.62	101.00	2	96.07	135.87	0.69
009.10	3	0.00	1.10	0.18	101.30	20	7.62	26.46	0.97
009.XX	4	0.00	1.08	0.08	101.XX	22	9.30	26.15	0.69
010.11	9	-	1.47	0.13	121.00	13	-	0.96	0.42
010.12	4	0.55	1.42	0.17	121.30	38	-	1.85	0.30
010.60	58	0.16	1.38	0.62	121.99	2	0.00	1.00	0.50
010.99	6	-	0.86	0.94	121.XX	53	-	1.72	0.33
010.XX	76	-	1.87	0.64	131.00	3	0.00	1.08	0.25
020.10	6	0.00	1.01	0.24	131.30	2	0.00	1.22	0.04
020.20	17	0.08	1.01	0.29	131.XX	6	-	0.95	0.12
020.40	6	0.45	1.39	0.85	144.01	17	-	1.98	0.48
020.50	12	0.14	1.97	0.42	144.99	29	-	1.75	0.29
020.99	5	1.83	2.90	0.46	144.XX	48	-	1.53	0.27
020.XX	45	0.21	1.59	0.36	151.30	8	-	1.47	1.39
030.20	2	0.00	1.22	0.03	151.99	2	0.00	1.03	0.47
030.50	2	0.00	1.22	0.01	151.XX	11	-	1.25	1.13
030.XX	7	0.00	1.04	0.09	165.00	8	0.271	0.977	0.818
040.50	2	-	17.87	1.30	165.99	23	0.287	1.481	0.245
040.99	3	0.00	0.80	0.64	165.XX	31	0.197	1.458	0.289
040.XX	8	-	0.44	0.46	181.00	2	0.00	1.11	0.37
041.10	15	0.00	0.77	0.64	181.30	12	-	1.39	0.53
041.20	2	0.00	0.76	0.68	181.XX	15	0.04	1.78	0.88
041.40	4	0.00	1.05	0.21	190.00	2	0.00	1.19	0.20
041.50	10	-	0.43	0.70	190.XX	2	0.00	1.19	0.20
041.60	15	-	0.57	1.39	191.30	14	-	1.37	0.14
041.99	3	0.00	0.50	0.82	191.XX	16	0.05	1.00	0.17
041.XX	39	-	0.32	1.62	202.30	13	-	1.89	0.22
048.20	3	0.00	1.11	0.10	202.XX	15	-	1.01	0.14
048.XX	4	0.00	1.07	0.10	221.00	4	-	4.6706	2.9577
050.00	15	-	0.11	0.31	221.30	23	-	1.3559	0.6352
050.30	9	0.00	0.99	0.26	221.XX	28	-	1.5832	0.9003
050.50	7	-	0.23	0.35	241.00	13	-	3.50	0.28
050.51	12	0.07	0.98	0.38	241.30	40	0.04	1.04	0.14
050.60	5	0.00	1.02	0.26	241.99	3	-	4.59	0.54
050.61	10	0.00	0.92	0.43	241.XX	56	-	1.66	0.17

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
251.00	2	7.88	11.14	1.51					
251.30	12	0.00	0.86	0.70					
251.XX	15	0.42	1.81	0.69					
261.00	10	-	2.285	0.611					
261.30	35	0.039	1.366	0.664					
261.99	6	0.000	1.023	0.212					
261.XX	52	-	1.575	0.556					
281.XX	2	0.000	1.224	0.026					
289.30	20	-	1.68	0.27					
289.XX	21	-	1.69	0.27					
291.00	2	0.00	1.22	0.05					
291.30	14	-	1.19	0.35					
291.XX	17	-	1.08	0.25					
301.30	2	0.00	1.22	0.01					
301.XX	3	0.00	1.12	0.01					
311.30	2	0.00	1.04	0.46					
311.99	8	-	0.96	0.25					
311.XX	10	0.00	0.98	0.31					
321.00	14	-	2.679	0.510					
321.30	37	0.076	1.006	0.453					
321.99	3	4.709	8.193	6.547					
321.XX	53	0.005	1.320	0.617					