

- Pass 1 Results for 77 Labs - - Pass 2 Results for 75 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	0.46	0.23	0.07	3	0.46	0.23	0.07
Ammoniacal Nitrogen, Other		001.99	3	0.19	0.07	0.02	3	0.19	0.07	0.02
Method Group 001.XX PCT			6	0.32	0.21	0.04	5	0.24	0.09	0.02
Nitrate Nitrogen, Jones Modified	930.02	002.20	1	0.35	0.00	0.00	1	0.35	0.00	0.00
Nitrate Nitrogen, Other		002.99	4	0.55	0.64	0.30	3	0.41	0.61	0.06
Method Group 002.XX PCT			5	0.51	0.57	0.24	4	0.40	0.52	0.05
Nitrogen From Urea, Other		005.99	1	8.42	0.11	0.16	1	8.42	0.11	0.16
Ammon & Nitrate N, Devarda	892.01	009.10	1	1.70	0.82	1.16	1	1.70	0.82	1.16
Total Nitrogen, Modified Comprehensive	978.02	010.11	4	9.08	0.20	0.04	4	9.08	0.20	0.04
Total Nitrogen, Salicylic	955.04D	010.12	7	9.27	0.20	0.01	7	9.27	0.20	0.01
Total Nitrogen, Comprehensive	970.02	010.17	1	9.47	0.04	0.06	1	9.47	0.04	0.06
Total Nitrogen, Combustion		010.60	46	9.21	0.17	0.11	44	9.20	0.15	0.08
Total Nitrogen, Other		010.99	4	9.18	0.34	0.03	4	9.18	0.34	0.03
Method Group 010.XX PCT			63	9.22	0.20	0.09	58	9.22	0.19	0.06
Total Phosphate, Grav Quimociac	962.02	020.10	7	6.10	0.10	0.10	7	6.10	0.10	0.10
Total Phosphate, Spectrometric	958.01	020.20	14	6.10	0.14	0.06	13	6.09	0.14	0.05
Total Phosphate, Automated	978.01	020.40	7	6.08	0.07	0.02	7	6.08	0.07	0.02
Total Phosphate, ICP		020.50	4	6.05	0.09	0.08	4	6.05	0.09	0.08
Total Phosphate, Other		020.99	3	6.05	0.33	0.09	3	6.05	0.33	0.09
Method Group 020.XX PCT			36	6.09	0.15	0.08	34	6.10	0.12	0.07
Insoluble Phosphate, ICP		030.50	1	0.00	0.00	0.00	1	0.00	0.00	0.00
InDir Available Phosphate, ICP		040.50	1	5.94	0.05	0.07	1	5.94	0.05	0.07
InDir Available Phosphate, Other		040.99	2	6.18	0.18	0.20	2	6.18	0.18	0.20
Method Group 040.XX PCT			3	6.10	0.19	0.15	3	6.10	0.19	0.15
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	10	6.10	0.10	0.05	9	6.09	0.09	0.03
Dir Available Phosphate, Automated	978.01	041.40	2	5.91	0.18	0.15	2	5.91	0.18	0.15
Dir Available Phosphate, ICP		041.50	8	6.03	0.16	0.13	8	6.03	0.16	0.13
Dir Available Phosphate, EDTA Extract	993.01	041.60	7	6.09	0.06	0.05	7	6.09	0.06	0.05
Dir Available Phosphate, Other		041.99	1	6.40	0.06	0.08	1	6.40	0.06	0.08
Method Group 041.XX PCT			29	6.07	0.14	0.08	27	6.09	0.13	0.07
Water Soluble Phosphate, Grav Quimociac	962.03	048.10	1	4.33	0.18	0.26	1	4.33	0.18	0.26
Water Soluble Phosphate, Spectrometric	970.01	048.20	1	0.19	0.01	0.01	1	0.19	0.01	0.01
Water Soluble Phosphate, ICP		048.50	2	6.19	0.26	0.10	2	6.19	0.26	0.10
Method Group 048.XX PCT			4	4.22	2.63	0.12	4	4.22	2.63	0.12
Soluble Potash, STPB Oxalate	958.02	050.00	13	8.26	0.15	0.07	12	8.26	0.15	0.05
Soluble Potash, STPB Citrate	969.04	050.10	1	8.11	0.03	0.04	1	8.11	0.03	0.04
Soluble Potash, AA (Oxalate)		050.30	6	8.10	0.25	0.16	6	8.10	0.25	0.16
Soluble Potash, AA (Citrate)		050.31	2	8.19	0.20	0.06	2	8.19	0.20	0.06
Soluble Potash, ICP (Oxalate)		050.50	9	8.20	0.27	0.18	9	8.20	0.27	0.18

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Soluble Potash, ICP (Citrate)		050.51	8	8.15	0.14	0.06	8	8.15	0.14	0.06
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	2	8.05	0.19	0.11	2	8.05	0.19	0.11
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	7	8.28	0.09	0.07	7	8.28	0.09	0.07
Soluble Potash, Other		050.99	14	8.22	0.32	0.18	17	8.17	0.44	0.16
Method Group 050.XX PCT			63	8.21	0.23	0.13	57	8.20	0.18	0.10
Acid Soluble Calcium, ICP		101.30	5	0.36	0.61	0.03	4	0.41	0.68	0.01
Acid Soluble Calcium, Other		101.99	1	0.01	0.00	0.00	1	0.01	0.00	0.00
Method Group 101.XX PCT			6	0.30	0.57	0.03	5	0.33	0.62	0.01
Acid Soluble Magnesium, ICP		121.30	3	0.07	0.08	0.00	3	0.07	0.08	0.00
Water Soluble Magnesium, AA		131.00	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Sulfur, Gravimetric	980.02b	144.02	1	0.04	0.00	0.00	1	0.04	0.00	0.00
Sulfur, Other		144.99	6	0.06	0.04	0.01	5	0.06	0.04	0.00
Method Group 144.XX PCT			7	0.05	0.04	0.01	6	0.05	0.04	0.00
Arsenic, ICP		151.30	1	7.38	0.09	0.13	1	7.38	0.09	0.13
Acid Soluble Boron, Spectrometric	982.01	165.00	1	0.023	0.001	0.001	1	0.023	0.001	0.001
Acid Soluble Boron, Other		165.99	18	0.023	0.003	0.001	18	0.023	0.003	0.001
Method Group 165.XX PCT			19	0.023	0.003	0.001	19	0.023	0.003	0.001
Water Soluble Boron, Other		171.99	1	0.023	0.000	0.000	1	0.023	0.000	0.000
Cadmium, ICP		181.30	2	0.31	0.30	0.02	2	0.31	0.30	0.02
Cadmium, Other		181.99	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Method Group 181.XX PPM			3	0.21	0.28	0.01	3	0.21	0.28	0.01
Water Soluble Chlorine, Titrimetric	928.02	190.00	1	0.44	0.01	0.02	1	0.44	0.01	0.02
Chromium, ICP		191.30	3	1.70	0.94	0.05	3	1.70	0.94	0.05
Chromium, Other		191.99	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Method Group 191.XX PPM			4	1.27	1.12	0.04	3	1.12	1.28	0.01
Acid Soluble Cobalt, ICP	965.11	202.30	2	0.27	0.30	0.01	2	0.27	0.30	0.01
Acid Soluble Copper, Atomic Absorption	975.01	221.00	3	0.0402	0.0004	0.0004	3	0.0402	0.0004	0.0004
Acid Soluble Copper, ICP		221.30	22	0.0396	0.0019	0.0011	20	0.0399	0.0014	0.0010
Acid Soluble Copper, Other		221.99	2	0.0428	0.0032	0.0005	2	0.0428	0.0032	0.0005
Method Group 221.XX PCT			29	0.0399	0.0022	0.0012	27	0.0400	0.0021	0.0009
Acid Soluble Iron, Atomic Absorption	980.01	241.00	5	0.06	0.01	0.00	4	0.06	0.01	0.00
Acid Soluble Iron, ICP		241.30	20	0.06	0.00	0.00	19	0.06	0.00	0.00
Acid Soluble Iron, Other		241.99	2	0.06	0.01	0.01	2	0.06	0.01	0.01
Method Group 241.XX PCT			27	0.06	0.00	0.00	25	0.06	0.00	0.00
Lead, ICP		251.30	2	0.73	0.49	0.08	2	0.73	0.49	0.08
Acid Soluble Manganese, AA	972.02a	261.00	3	0.055	0.004	0.002	3	0.055	0.004	0.002
Acid Soluble Manganese, ICP		261.30	16	0.052	0.002	0.001	16	0.052	0.002	0.001
Acid Soluble Manganese, ICP		261.31	2	0.055	0.002	0.001	2	0.055	0.002	0.001
Acid Soluble Manganese, Other		261.99	6	0.053	0.004	0.002	5	0.054	0.003	0.001

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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 261.XX PCT			31	0.053	0.003	0.002	29	0.053	0.003	0.001
Mercury, ICP		281.30	1	6.51	0.04	0.05	1	6.51	0.04	0.05
Mercury, Other		281.99	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Method Group 281.XX PPM			2	3.25	3.76	0.02	2	3.25	3.76	0.02
Molybdenum, Atomic Absorption		289.00	1	2.73	0.78	1.11	1	2.73	0.78	1.11
Molybdenum, ICP		289.30	9	9.52	2.72	0.70	8	10.39	0.94	0.49
Molybdenum, Other		289.99	3	7.33	5.68	0.24	3	7.33	5.68	0.24
Method Group 289.XX PPM			15	8.79	5.45	0.55	14	9.24	5.36	0.42
Nickel, ICP		291.30	2	0.51	0.33	0.03	2	0.51	0.33	0.03
Selenium, ICP		301.30	1	1.49	0.02	0.03	1	1.49	0.02	0.03
Sodium, Other		311.99	4	0.07	0.04	0.01	4	0.07	0.04	0.01
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	5	0.053	0.004	0.001	5	0.053	0.004	0.001
Acid Soluble Zinc, ICP		321.30	24	0.051	0.003	0.001	22	0.050	0.002	0.001
Acid Soluble Zinc, Other		321.99	2	0.051	0.001	0.000	2	0.051	0.001	0.000
Method Group 321.XX PCT			33	0.051	0.004	0.001	32	0.051	0.004	0.001
Water Soluble Zinc, ICP		325.30	1	0.058	0.004	0.005	1	0.058	0.004	0.005
Water Soluble Zinc, Other		325.99	1	0.053	0.003	0.004	1	0.053	0.003	0.004
Method Group 325.XX PCT			2	0.055	0.004	0.005	2	0.055	0.004	0.005

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 001.10 PCT											
Ammoniacal Nitrogen											
MgO Distillation	258	0.75	1.29								
Avg	0.46										
230	0.35	-0.48									
481	0.28	-0.78									
Meth: 001.99 PCT											
Ammoniacal Nitrogen											
Other	368	0.25	.98								
096	0.21	.29									
Avg	0.19										
450	0.11	-1.21									
Meth: 001.XX PCT											
Ammoniacal Nitrogen											
258	0.75 R	5.94									
230	0.35	1.30									
481	0.28	.50									
368	0.25	.27									
Avg	0.24										
096	0.21	-.38									
450	0.11	-1.53									
Meth: 002.20 PCT											
Nitrate Nitrogen											
Jones Modified	230	0.35	.00								
Meth: 002.99 PCT											
Nitrate Nitrogen											
Other	481	1.20	1.29								
258	0.95 R	1.20									
Avg	0.41										
368	0.03	-.62									
450	0.00	-.67									
Meth: 002.XX PCT											
Nitrate Nitrogen											
481	1.20	1.56									
258	0.95 R	1.44									
Avg	0.40										
230	0.35	-.09									
368	0.03	-.70									
450	0.00	-.76									
Meth: 005.99 PCT											
Nitrogen From Urea											
Other	309	8.42	.71								
Meth: 009.10 PCT											
Ammon & Nitrate N											
Devarda	258	1.70	.71								
Meth: 010.11 PCT											
Total Nitrogen											
Modified Comprehensive	114	9.20	.63								
211	9.20	.62									
090	9.16	.41									
Avg	9.08										
309	8.77	-1.60									
Meth: 010.12 PCT											
Total Nitrogen											
Salicylic	455	9.69	2.09								
351	9.33	.29									
397	9.30	.13									
Avg	9.27										
185	9.25	-.10									
416	9.16	-.57									
254	9.10	-.84									
117	9.07	-.99									
481	8.58 S	-3.43									
Meth: 010.12 PCT											
Total Nitrogen											
Salicylic	484	7.37 s	-9.47								
Meth: 010.17 PCT											
Total Nitrogen											
Comprehensive	027	9.47	.71								
Meth: 010.60 PCT											
Total Nitrogen											
Combustion	049	9.14	-.44								
483	9.13	-.49									
041	9.13	-.56									
233	9.12	-.62									
022	9.20	-.65									
007	9.20	-.65									
426	9.15	-.67									
070	9.10	-.68									
247	9.10	-.71									
230	9.07	-.86									
009	9.07	-.88									
405	9.07	-.91									
157	9.05	-1.01									
472	9.05	-1.05									
234	9.04	-1.08									
260	9.05	-1.11									
451	9.11	-1.12									
177	9.01	-1.25									
377	9.04	-1.40									
106	8.88	-2.11									
086	8.99 R	-2.36									
Meth: 010.99 PCT											
Total Nitrogen											
Other	460	9.68	1.46								
Avg	9.18										
255	9.13	-.15									
450	9.12	-.19									
420	8.79	-1.14									
042	8.31 S	-2.59									
Meth: 010.XX PCT											
Total Nitrogen											
460	9.68	1.46									
Avg	9.18										
255	9.13	-.15									
450	9.12	-.19									
420	8.79	-1.14									
042	8.31 S	-2.59									
Meth: 010.XX PCT											
Total Nitrogen											
096	9.73	2.64									
455	9.69	2.43									
460	9.68	2.37									

\* 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											
Total Nitrogen											
022	9.20	-.52									
007	9.20	-.52									
450	9.12	-.53									
233	9.12	-.56									
426	9.15	-.58									
070	9.10	-.61									
254	9.10	-.61									
247	9.10	-.63									
230	9.07	-.75									
117	9.07	-.77									
009	9.07	-.77									
405	9.07	-.79									
157	9.05	-.87									
472	9.05	-.91									
234	9.04	-.93									
451	9.11 R	-.93									
260	9.05	-.95									
177	9.01	-1.07									
377	9.04 R	-1.17									
106	8.88	-1.75									
086	8.99 R	-1.92									
420	8.79	-2.24									
309	8.77	-2.34									
481	8.58 S	-3.30									
042	8.31 S	-4.80									
484	7.37 S	-9.55									
Meth: 020.10 PCT											
Total Phosphate											
444	6.17	1.32									
114	6.21	1.26									
041	6.13	.32									
211	6.10	.01									
Avg	6.10										
049	6.09	-.29									
090	6.03	-.85									
157	5.98	-1.50									
Meth: 020.20 PCT											
Total Phosphate											
324	6.41	2.27									
309	6.25 S	1.99									
450	6.17 R	.97									
169	6.20	.74									
231	6.19	.67									
481	6.17	.55									
292	6.10	.04									
371	6.10	.04									
Avg	6.09										
416	6.07	-.19									
405	6.06	-.30									
177	6.04	-.40									
234	6.09	-.50									
258	6.02	-.60									
200	6.00	-.68									
420	5.81	-2.17									
397	2.64 S	-24.81									
Meth: 020.40 PCT											
Total Phosphate											
095	6.12	.65									
247	6.12	.60									
035	6.09	.15									
Avg	6.08										
456	6.01	-.95									
027	6.01	-.98									
096	6.00	-1.09									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
484	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.50 PCT											
Total Phosphate											
422	6.77 S	7.74									
426	6.74 S	7.53									
432	6.75 S	7.50									
451	6.70 S	6.92									
Meth: 020.											

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 041.50 PCT											
Dir Available Phosph											
ICP	393	6.20	393	6.20	.90						
325	6.75 s	4.52	022	6.20	.90						
377	6.20	1.11	073	6.19	.80						
393	6.20	1.06	029	6.13	.52						
007	6.09	.90	055	6.13	.30						
009	6.08	.35	254	6.11	.18						
354	6.06	.19	136	6.11	.15						
Avg	6.03		Avg	6.09							
023	5.86	-1.14	043	6.08	-.10						
043	5.87	-1.15	072	6.08	-.16						
360	5.90	-1.24	009	6.06	-.23						
			354	6.06	-.23						
			086	6.05	-.27						
Meth: 041.60 PCT											
Dir Available Phosph											
EDTA Extract	073	6.19	1.58	009	6.08	-.30					
029	6.13	1.03	131	6.02	-.54						
136	6.11	.25	131	6.02	-.58						
Avg	6.09		106	6.02	-.59						
043	6.08	-.24	102	5.95	-1.17						
028	6.08	-.67	024	5.92	-1.48						
351	6.03	-.91	043	5.87	-1.88						
106	6.02	-1.24	023	5.86	-1.89						
024	5.92 s	-3.05	360	5.90 R	-1.92						
			027	5.79 R	-2.62						
			072	5.43 s	-5.28						
Meth: 041.99 PCT											
Dir Available Phosph											
Other	230	6.40	.71	472	0.20 s	-46.97					
Meth: 041.XX PCT											
Dir Available Phosph											
Grav Quimociac	444	4.33	.71	102	7.48 s	-5.40					
325	6.75 s	5.30									
230	6.40	2.51									
185	6.24	1.36									
040	6.20	1.20									
007	6.09	1.04									
377	6.20	.98									
Meth: 048.50 PCT											
Water Soluble Phosph											
ICP	444	6.41	.90	444	6.41	.90					
393	6.20	1.11	Avg	6.19							
029	6.20	1.06	393	5.97	-.83						
007	6.09	.90									
009	6.08	.35									
354	6.06	.19									
Avg	6.03										
023	5.86	-1.14									
043	5.87	-1.15									
360	5.90	-1.24									
Meth: 048.XX PCT											
Water Soluble Phosph											
444	6.41	.83	393	5.97	.66						
444	6.41	.83	444	4.33	.06						
Avg	6.06		Avg	4.22							
354	6.06	-.23	420	0.19	-1.54						
086	6.05	-.27									
009	6.08	-.30									
028	6.08	-.32									
351	6.03	-.42									
131	6.02	-.54									
131	6.02	-.58									
Avg	6.02										
102	5.95	-1.17									
024	5.92	-1.48									
043	5.87	-1.88									
023	5.86	-1.89									
360	5.90 R	-1.92									
027	5.79 R	-2.62									
072	5.43 s	-5.28									
472	0.20 s	-46.97									
Meth: 048.10 PCT											
Water Soluble Phosph											
Grav Quimociac	444	4.33	.71	211	8.26	-.01					
325	6.75 s	5.30		231	8.18	-.70					
230	6.40	2.51		397	8.11	-1.04					
185	6.24	1.36		136	8.05	-1.44					
040	6.20	1.20		114	8.01	-1.79					
007	6.09	1.04		102	7.48 s	-5.40					
377	6.20	.98									
Meth: 050.50 PCT											
Soluble Potash											
AA (Oxalate)	185	8.35	1.05	444	7.87	-1.34					
309	8.25	.87									
157	8.13	.44									
040	8.15	.30									
Avg	8.10										
234	8.05	-.24									
073	7.66	-1.82									
351	7.08 S	-4.15									
Meth: 050.31 PCT											
Soluble Potash											
AA (Citrate)	254	8.36	.84	472	8.02	-.89					
Avg	8.19										
472	8.02	-.89									
Meth: 050.50 PCT											
Soluble Potash											
ICP (Oxalate)	422	10.30 s	7.94	422	10.30 s	7.94					
426	8.52	1.30									
086	8.42	.88									
055	8.36	.63									
292	8.36	.60									
106	8.32	.48									
Avg	8.20										
390	8.05	-.58									
354	7.95	-1.07									
324	7.95	-1.33									
444	7.87	-1.34									
Meth: 050.51 PCT											
Soluble Potash											
Other	322	9.30 S	2.56	325	9.00 S	1.88					
325	9.00 S	1.88									
451	8.90	1.66									
255	8.67 S	1.45									
450	8.73	1.34									

\* 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: 050.99 PCT																
Soluble Potash																
Other			254	8.36	.90	Meth: 050.99 PCT										
027	8.34	.43	185	8.35	.89	Soluble Potash										
177	8.33	.36	292	8.36	.88	472	8.02	-1.03	Meth: 101.99 PCT							
043	8.26	.22	309	8.25	.87	009	8.00	-1.06	Acid Soluble Calcium							
368	8.18	.15	247	8.22	.11	114	8.01	-1.08	Sulfur							
247	8.22	.11	090	8.34	.81	072	8.00	-1.10	Other							
405	8.21	.08	095	8.33	.81	131	8.00	-1.20	Meth: 144.99 PCT							
Avg	8.22		009	8.34	.80	484	8.05	-1.53	Sulfur							
481	8.11	-.18	177	8.33	.73	354	7.95	-1.54	Other							
072	8.00	-.40	106	8.32	.71	096	7.91	-1.56	Meth: 165.99 PCT							
131	8.00	-.45	291	8.32	.71	200	7.90	-1.70	Acid Soluble Boron							
484	8.05	-.61	037	8.27	.69	360	7.93	-1.73	Spectrometric							
360	7.93	-.67	416	8.32	.68	324	7.95	-1.91	Other							
042	7.82	-1.02	023	8.27	.64	444	7.87	-1.93	Meth: 151.30 PPM							
455	7.45	-1.64	024	8.31	.63	042	7.82	-2.57	Arsenic							
460	7.40	-1.75	055	8.28	.53	073	7.66	-2.95	ICP							
Meth: 050.99 PCT																
Soluble Potash																
422	10.30	s	035	8.22	.26	102	7.48	s	Meth: 131.00 PCT							
432	9.45	s	131	8.24	.25	455	7.45	s	Water Soluble Magnes							
322	9.30	s	393	8.23	.23	460	7.40	s	AA							
230	9.00	s	247	8.22	.15	351	7.08	s	484							
325	9.00	s	405	8.21	.10				Meth: 144.02 PCT							
451	8.90	A	377	8.20	.03				Sulfur							
255	8.67	s	AvG	8.20					Gravimetric							
483	8.72	s	169	8.19	-.06	422	1.51	1.61	292							
450	8.73	A	456	8.18	-.10	AvG	0.41		Meth: 144.99 PCT							
029	8.56	R	231	8.18	-.32	483	0.16	R	Sulfur							
426	8.52	1.91	368	8.18	-.35	102	0.00	-.60	Other							
258	8.45	1.40	040	8.15	-.37	086	0.00	-.60	422							
086	8.42	1.30	007	8.13	-.43				096							
028	8.43	1.28	043	8.12	-.47				354							
072	8.40	1.18	444	8.11	-.48				483							
022	8.40	1.12	397	8.11	-.48				090							
049	8.27	.93	481	8.11	-.55				096							
055	8.36	.93	157	8.13	-.69				360							
027	8.34	.92	136	8.05	-.80				368							
Meth: 101.99 PCT																
Acid Soluble Calcium																
			422	1.51	1.89	Meth: 101.99 PCT										
			AvG	0.33		Acid Soluble Calcium										
						Other										
						484										
						Meth: 121.30 PCT										
						Acid Soluble Magnesi										
						ICP										
						422										
						AvG										
						354										
						102										
						Meth: 151.30 PPM										
						Arsenic										
						ICP										
						393										
						Meth: 165.00 PCT										
						Acid Soluble Boron										
						Spectrometric										
						481										
						Meth: 165.99 PCT										
						Acid Soluble Boron										
						Other										
						255										
						354										
						042										
						483										
						090										
						096										
						360										
						368										
						433										
						AvG										
						230										
						450										
						324										
						258										
						086										
						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: 165.99 PCT											
Acid Soluble Boron											
Other											
422	0.020	-1.01									
444	0.020	-1.18									
043	0.019	-1.35									
472	0.019	-1.37									
Meth: 165.XX PCT											
Acid Soluble Boron											
255	0.036 s	4.06									
354	0.030	2.26									
042	0.028	1.63									
483	0.027	1.26									
090	0.025	.67									
096	0.025	.61									
360	0.025	.48									
368	0.023	.42									
433	0.024	.34									
Avg	0.023										
230	0.023	-1.12									
450	0.023	-2.20									
481	0.023	-2.26									
324	0.022	-2.30									
258	0.023	-2.33									
086	0.022	-2.36									
422	0.020	-1.03									
231	0.020	-1.03									
444	0.020	-1.20									
043	0.019	-1.37									
472	0.019	-1.39									
Meth: 171.99 PCT											
Water Soluble Boron											
Other											
027	0.023	.00									
Meth: 181.30 PPM											
Cadmium											
ICP											
393	0.57	.87									
Avg	0.31										
102	0.05	-.86									
Meth: 181.99 PPM											
Cadmium											
Other											
484	0.00	.00									
Meth: 181.XX PPM											
Cadmium											
393	0.57	1.29									
Avg	0.21										
102	0.05	-.56									
484	0.00	-.72									
Meth: 190.00 PCT											
Water Soluble Chlori											
Titrimetric											
422	0.44	.71									
Meth: 191.30 PPM											
Chromium											
ICP											
393	2.74	1.11									
035	1.72	.07									
Avg	1.70										
102	0.63	-1.13									
Meth: 191.99 PPM											
Chromium											
Other											
484	0.00	.00									
Meth: 191.XX PPM											
Chromium											
ICP											
393	2.74	1.26									
Avg	1.72	.47									
102	0.63	-.38									
484	0.00	-.88									
Meth: 202.30 PPM											
Acid Soluble Cobalt											
ICP											
393	0.53	.87									
Avg	0.27										
422	0.00	-.87									
Meth: 221.00 PCT											
Acid Soluble Copper											
Atomic Absorption											
028	0.0429 s	6.89									
397	0.0405	1.47									
Avg	0.0402										
043	0.0401	-.35									
481	0.0400	-.46									
258	0.0370 s	-10.88									
Meth: 221.99 PCT											
Acid Soluble Copper											
Other											
042	0.0455	.87									
Avg	0.0428										
484	0.0400	-.86									
Meth: 221.XX PCT											
Acid Soluble Copper											
ICP											
393	0.0738 s	16.13									
324	0.0492 s	4.37									
483	0.0454 s	2.80									
042	0.0455	2.63									
028	0.0429	1.40									
230	0.0420	.96									
009	0.0416	.84									
450	0.0405	.75									
247	0.0413	.59									
390	0.0411	.57									
037	0.0411	.50									
102	0.0410	.47									
397	0.0405	.33									
Meth: 221.30 PCT											
Acid Soluble Copper											
ICP											
393	0.0738 s	23.48									
324	0.0492 s	6.43									
483	0.0454 s	4.15									
230	0.0420	1.49									
444	0.0400 R	1.39									
009	0.0416	1.30									
368	0.0399	1.23									
450	0.0405	1.12									
247	0.0413	.95									
390	0.0411	.91									
037	0.0411	.81									
102	0.0410	.77									
Meth: 241.00 PCT											
Acid Soluble Iron											
Atomic Absorption											
258	0.06 R	1.89									
043	0.06	.83									
028	0.06	.55									
397	0.06	.25									
Avg	0.06										
481	0.05	-1.56									
Meth: 241.30 PCT											
Acid Soluble Iron											
ICP											
393	0.12 s	22.56									
354	0.11 s	16.21									
422	0.08 s	7.86									
324	0.07	2.74									

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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			390	0.06	1.06	397	0.068 S	3.06	230	0.054	-0.81	444	0.052	-0.36
390	0.06	1.40	042	0.06	.95	028	0.059	1.16	037	0.055	.31	360	0.051	-0.48
102	0.06	.93	102	0.06	.81	043	0.055	.08	255	0.054	.20	035	0.051	-0.62
090	0.06	.82	090	0.06	.72	Avg	0.055		Avg	0.054		022	0.051	-0.64
022	0.06	.70	022	0.06	.65	481	0.050	-1.07	027	0.052	-0.69	231	0.050	-0.79
255	0.06	.46	043	0.06	.60	481	0.050	-2.01	484	0.050	-1.24	481	0.050	-0.79
009	0.06	.25	255	0.06	.47	258	0.047 S	-2.01	483	0.046 R	-2.55	484	0.050	-0.79
230	0.06	.21	028	0.06	.33							422	0.050	-0.79
Avg	0.06		230	0.06	.32	Meth: 261.30 PCT			037	0.055		086	0.050	-0.99
095	0.06	-0.11	009	0.06	.29	Acid Soluble Manganese			255	0.054	.20	258	0.047 s	-2.11
433	0.06	-0.33	095	0.06	.13	ICP			Avg	0.054		483	0.046	-2.13
360	0.06	-0.37	Avg	0.06		450	0.055 s	3.69	027	0.052		472	0.046	-2.22
096	0.06	-0.37	096	0.06	-0.04	354	0.055 s	3.55	484	0.050	-1.24			
444	0.06	-0.58	360	0.06	-0.04	368	0.057 s	3.42						
035	0.06	-0.73	433	0.06	-0.06	096	0.055	1.55						
131	0.06	-0.76	444	0.06	-0.20	090	0.054	1.21	Meth: 261.30 PCT					
027	0.06	-0.82	397	0.06	-0.20	390	0.054	1.20	Acid Soluble Manganese					
368	0.06	-0.85	035	0.06	-0.29	009	0.054	.97	397	0.068 s	4.58	393	6.51	-0.71
086	0.06	-1.29	131	0.06	-0.33	102	0.053	.60	028	0.059	2.05			
472	0.06	-1.32	027	0.06	-0.37	247	0.053	.60	042	0.059	1.97	Meth: 281.99 PPM		
231	0.06 R	-2.86	368	0.06	-0.44	131	0.052	.56	450	0.055 R	1.79	Mercury		
483	0.05 S	-3.68	086	0.06	-0.70	433	0.053	.37	354	0.055 R	1.71	Other		
450	0.05 S	-4.77	472	0.06	-0.71	095	0.052	.05	368	0.057	1.57	484 0.00 .00		
			484	0.06 R	-1.72	Avg	0.052		324	0.056	1.13	Meth: 281.30 PPM		
			231	0.06 R	-1.72	444	0.052	-0.44	037	0.055	.74	Mercury		
			483	0.05 s	-2.25	360	0.051	-0.63	043	0.055	.70	ICP		
			481	0.05	-2.44	035	0.051	-0.91	096	0.055	.61	393 6.51 .87		
			450	0.05 s	-2.91	022	0.051	-0.96	255	0.054	.52	Avg 3.25		
						231	0.050	-1.24	390	0.054	.45	484 0.00 -0.87		
						422	0.050	-1.24	090	0.054	.44	Meth: 289.00 PPM		
						086	0.050	-1.65	230	0.054	.37	Molybdenum		
						472	0.046 s	-4.09	009	0.054	.32	Atomic Absorption		
									247	0.053	.13	481 2.73 .71		
									102	0.053	.13	Meth: 289.30 PPM		
									433	0.053	.06	Molybdenum		
									Avg	0.053		ICP		
									095	0.052	-0.15	393 21.52 s 11.86		
									324	0.056	.92			
									Avg	0.055	-0.35			

\* 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: 289.30 PPM											
Molybdenum											
ICP			433	11.15	.81						
230	11.00	.69									
037	10.95	.61									
095	10.88	.53									
086	10.82	.51									
Avg	10.39										
368	10.30	-.10									
035	9.12	-1.44									
009	8.90	-1.83									
255	2.54 R	-8.47									
422	0.00 s	-11.08									
Meth: 289.99 PPM											
Molybdenum											
Other			231	11.21	.68						
042	10.78	.61									
Avg	7.33										
484	0.00	-1.29									
Meth: 289.99 PPM											
Molybdenum											
393	21.52	2.29									
231	11.21	.37									
433	11.15	.36									
230	11.00	.33									
037	10.95	.32									
095	10.88	.31									
086	10.82	.30									
042	10.78	.29									
368	10.30	.20									
Avg	9.24										
035	9.12	-.09									
009	8.90	-.17									
481	2.73	-1.22									
255	2.54 R	-1.27									
422	0.00	-1.72									
Meth: 289.99 PPM											
Selenium											
ICP			393	1.49	.71						
Meth: 311.99 PPM											
Sodium											
Other			231	0.12	1.19						
354	0.12	1.19									
422	0.10	.65									
Avg	0.07										
102	0.04	-.86									
009	0.04	-.96									
Meth: 321.00 PPM											
Acid Soluble Zinc											
Atomic Absorption			397	0.060	1.77						
Avg	0.053										
258	0.053	-.36									
028	0.051	-.44									
481	0.050	-.62									
043	0.049	-.81									
460	0.036 S	-4.09									
Meth: 321.99 PPM											
Acid Soluble Zinc											
ICP			472	0.047	-2.09						
131	0.049	-.83									
086	0.048	-1.03									
444	0.047	-1.26									
472	0.047	-1.46									
460	0.036 s	-4.50									
Meth: 321.30 PPM											
Acid Soluble Zinc											
ICP			422	0.060 s	5.11						
483	0.058 A	4.33									
368	0.052 R	2.67									
324	0.054	1.93									
450	0.053	1.79									
102	0.053	1.22									
096	0.052	.78									
037	0.052	.72									
009	0.051	.51									
022	0.051	.41									
090	0.051	.41									
247	0.051	.41									
360	0.051	.30									
Avg	0.050										
095	0.050	-.04									
231	0.050	-.11									
292	0.050	-.11									
390	0.050	-.30									
230	0.050	-.37									
433	0.049	-.47									
255	0.050	-.63									
027	0.049	-.82									
131	0.049	-.88									
086	0.048	-1.26									
444	0.047	-1.68									
472	0.047	-2.09									
Meth: 321.30 PPM											
Acid Soluble Zinc											
ICP			354	0.060	2.40						
397	0.060	2.40									
422	0.060	2.40									
483	0.058	1.99									
368	0.052 R	1.36									
450	0.053	.71									
324	0.054	.69									
258	0.053	.51									
102	0.053	.32									
037	0.052	.14									
096	0.052	.07									
Avg	0.051										
042	0.051	-.13									
090	0.051	-.13									
247	0.051	-.13									
022	0.051	-.14									
360	0.051	-.31									
009	0.051	-.37									
028	0.051	-.37									
095	0.050	-.37									
481	0.050	-.42									
292	0.050	-.42									
484	0.050	-.42									
231	0.050	-.42									
390	0.050	-.48									
255	0.050	-.49									
230	0.050	-.55									
433	0.049	-.60									
043	0.049	-.65									
027	0.049	-.75									
131	0.049	-.83									
086	0.048	-1.03									
444	0.047	-1.26									
472	0.047	-1.46									
460	0.036 s	-4.50									

\* 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	1.09	0.19	144.XX	7	0.02	0.96	0.25
001.99	3	0.00	1.10	0.18	165.99	19	0.208	1.320	0.220
001.XX	6	0.98	2.58	0.38	165.XX	20	0.203	1.322	0.223
002.99	4	0.22	1.01	0.41	181.30	2	0.00	1.22	0.05
002.XX	5	0.21	1.05	0.44	181.XX	3	0.00	1.12	0.04
010.11	4	0.00	1.07	0.14	191.30	3	0.00	1.12	0.04
010.12	9	- 1.43	3.34	0.13	191.XX	4	0.12	0.94	0.02
010.60	47	- 0.08	1.08	0.54	202.30	2	0.00	1.22	0.02
010.99	5	- 0.51	1.47	0.25	202.XX	2	0.00	1.22	0.02
010.XX	66	- 0.28	1.66	0.39	221.00	5	- 0.257	5.1787	3.4846
020.10	7	0.00	0.79	0.62	221.30	25	1.1892	5.0111	0.6280
020.20	16	- 1.45	6.30	0.51	221.99	2	0.0000	1.2147	0.1104
020.40	7	0.00	1.02	0.17	221.XX	32	0.6743	3.0952	0.4674
020.50	9	3.81	3.76	1.17	241.00	5	0.20	1.03	0.73
020.99	3	0.00	1.10	0.17	241.30	25	1.43	5.84	1.06
020.XX	41	- 0.17	5.08	0.62	241.99	2	0.00	0.96	0.54
040.99	2	0.00	0.94	0.56	241.XX	32	0.84	3.45	0.74
040.XX	3	0.00	0.97	0.45	251.30	2	0.00	1.22	0.08
041.10	10	0.12	0.99	0.45	251.XX	2	0.00	1.22	0.08
041.40	4	- 8.82	15.88	0.41	261.00	5	0.256	1.892	0.503
041.50	9	0.50	1.72	0.49	261.30	20	0.118	1.531	1.126
041.60	8	- 0.35	1.29	0.63	261.31	2	0.000	1.126	0.341
041.XX	28	- 1.66	9.01	0.70	261.99	6	- 0.399	1.351	0.391
048.50	2	0.00	1.18	0.24	261.XX	33	0.127	1.250	0.537
048.XX	3	- 0.15	1.21	0.23	281.XX	2	0.000	1.225	0.005
050.00	15	- 0.02	2.15	0.45	289.30	11	- 0.69	5.78	0.51
050.30	7	- 0.59	1.80	0.35	289.99	3	0.00	1.12	0.03
050.31	2	0.00	1.19	0.19	289.XX	15	- 0.08	1.03	0.08
050.50	10	0.79	2.65	0.47	291.30	2	0.00	1.22	0.06
050.51	10	1.33	3.18	0.76	291.XX	2	0.00	1.22	0.06
050.60	2	0.00	1.10	0.38	311.99	4	0.00	1.07	0.10
050.61	8	0.36	1.31	1.08	311.XX	4	0.00	1.07	0.10
050.99	19	0.20	1.12	0.32	321.00	6	- 0.682	1.908	0.207
050.XX	68	0.38	2.51	0.64	321.30	26	0.592	1.795	0.618
101.30	5	- 0.07	0.95	0.04	321.99	2	0.000	1.225	0.000
101.XX	6	- 0.05	0.96	0.04	321.XX	34	- 0.129	1.229	0.309
121.30	3	0.00	1.12	0.04					
121.XX	3	0.00	1.12	0.04					
144.99	6	0.01	0.95	0.25					