

- Pass 1 Results for 69 Labs - - Pass 2 Results for 69 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	0.31	0.07	0.01	3	0.31	0.07	0.01
Ammoniacal Nitrogen, Other		001.99	5	0.25	0.13	0.02	5	0.25	0.13	0.02
Method Group 001.XX PCT			8	0.27	0.11	0.02	8	0.27	0.11	0.02
Nitrate Nitrogen, Jones Modified	930.02	002.20	2	0.62	0.67	0.06	2	0.62	0.67	0.06
Nitrate Nitrogen, Other		002.99	2	0.65	0.75	0.01	2	0.65	0.75	0.01
Method Group 002.XX PCT			4	0.63	0.65	0.03	3	0.45	0.66	0.01
Nitrogen From Urea, Urease (as N)	959.03	005.00	1	6.42	0.12	0.17	1	6.42	0.12	0.17
Ammon & Nitrate N, Devarda	892.01	009.10	3	1.02	0.51	0.05	3	1.02	0.51	0.05
Total Nitrogen, Modified Comprehensive	978.02	010.11	5	9.36	0.06	0.02	5	9.36	0.06	0.02
Total Nitrogen, Salicylic	955.04D	010.12	3	9.23	0.24	0.09	3	9.23	0.24	0.09
Total Nitrogen, Comprehensive	970.02	010.17	1	9.98	0.04	0.06	1	9.98	0.04	0.06
Total Nitrogen, Combustion		010.60	41	9.33	0.28	0.11	39	9.34	0.26	0.09
Total Nitrogen, Other		010.99	6	9.25	0.33	0.08	6	9.25	0.33	0.08
Method Group 010.XX PCT			56	9.33	0.28	0.10	53	9.34	0.27	0.08
Total Phosphate, Grav Quimociac	962.02	020.10	8	3.06	0.05	0.04	8	3.06	0.05	0.04
Total Phosphate, Spectrometric	958.01	020.20	13	3.06	0.16	0.06	12	3.04	0.14	0.05
Total Phosphate, Automated	978.01	020.40	6	3.04	0.09	0.04	6	3.04	0.09	0.04
Total Phosphate, ICP		020.50	11	2.96	0.14	0.06	10	2.97	0.14	0.04
Total Phosphate, Other		020.99	3	2.96	0.22	0.01	3	2.96	0.22	0.01
Method Group 020.XX PCT			42	3.03	0.14	0.05	38	3.03	0.13	0.03
InDir Available Phosphate, ICP		040.50	1	3.09	0.00	0.00	1	3.09	0.00	0.00
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	7	3.08	0.07	0.05	7	3.08	0.07	0.05
Dir Available Phosphate, Spectrometric	960.03D	041.20	1	3.06	0.03	0.04	1	3.06	0.03	0.04
Dir Available Phosphate, Automated	978.01	041.40	1	2.90	0.01	0.02	1	2.90	0.01	0.02
Dir Available Phosphate, ICP		041.50	8	3.01	0.10	0.04	8	3.01	0.10	0.04
Dir Available Phosphate, EDTA Extract .	993.01	041.60	9	3.07	0.08	0.06	9	3.07	0.08	0.06
Dir Available Phosphate, Other		041.99	1	3.07	0.01	0.02	1	3.07	0.01	0.02
Method Group 041.XX PCT			27	3.05	0.09	0.05	27	3.05	0.09	0.05
Water Soluble Phosphate, Other		048.99	1	3.13	0.18	0.25	1	3.13	0.18	0.25
Soluble Potash, STPB Oxalate	958.02	050.00	10	4.24	0.10	0.05	9	4.23	0.09	0.03
Soluble Potash, AA (Oxalate)		050.30	3	4.28	0.14	0.02	3	4.28	0.14	0.02
Soluble Potash, ICP (Oxalate)		050.50	5	4.26	0.09	0.04	5	4.26	0.09	0.04
Soluble Potash, ICP (Citrate)		050.51	13	4.24	0.10	0.04	12	4.23	0.10	0.03
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	6	4.05	0.15	0.01	6	4.05	0.15	0.01
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	8	4.30	0.18	0.07	8	4.30	0.18	0.07
Soluble Potash, Other		050.99	19	4.20	0.15	0.07	19	4.20	0.15	0.07
Method Group 050.XX PCT			64	4.22	0.15	0.05	61	4.21	0.14	0.05
Free Water, Karl Fischer	972.01	060.20	1	72.60	1.27	1.80	1	72.60	1.27	1.80
Acid Soluble Calcium, AA	945.04	101.00	1	0.00	0.00	0.00	1	0.00	0.00	0.00

- Pass 1 Results for 69 Labs - - Pass 2 Results for 69 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
Acid Soluble Calcium, ICP		101.30	2	0.01	0.00	0.00	2	0.01	0.00	0.00
Method Group 101.XX PCT			3	0.01	0.01	0.00	3	0.01	0.01	0.00
Acid Soluble Magnesium, AA	984.01	121.00	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Acid Soluble Magnesium, ICP		121.30	1	0.01	0.00	0.00	1	0.01	0.00	0.00
Method Group 121.XX PCT			2	0.00	0.00	0.00	2	0.00	0.00	0.00
Sulfur, Gravimetric	980.02b	144.02	1	0.03	0.00	0.00	1	0.03	0.00	0.00
Sulfur, Other		144.99	5	0.02	0.01	0.00	4	0.02	0.01	0.00
Method Group 144.XX PCT			6	0.02	0.01	0.00	5	0.02	0.01	0.00
Arsenic, ICP		151.30	1	0.90	0.00	0.00	1	0.90	0.00	0.00
Arsenic, Other		151.99	1	0.03	0.01	0.01	1	0.03	0.01	0.01
Method Group 151.XX PPM			2	0.46	0.51	0.00	2	0.46	0.51	0.00
Acid Soluble Boron, Spectrometric	982.01	165.00	2	0.022	0.001	0.001	2	0.022	0.001	0.001
Acid Soluble Boron, Other		165.99	14	0.022	0.002	0.001	14	0.022	0.002	0.001
Method Group 165.XX PCT			16	0.022	0.002	0.001	16	0.022	0.002	0.001
Water Soluble Boron, Other		171.99	2	0.021	0.002	0.000	2	0.021	0.002	0.000
Cadmium, ICP		181.30	2	0.07	0.04	0.00	2	0.07	0.04	0.00
Cadmium, Other		181.99	1	0.18	0.06	0.08	1	0.18	0.06	0.08
Method Group 181.XX PPM			3	0.10	0.07	0.03	3	0.10	0.07	0.03
Chromium, ICP		191.30	3	0.39	0.27	0.00	3	0.39	0.27	0.00
Chromium, Other		191.99	1	0.21	0.01	0.02	1	0.21	0.01	0.02
Method Group 191.XX PPM			4	0.35	0.24	0.01	4	0.35	0.24	0.01
Acid Soluble Cobalt, Other		202.99	1	0.06	0.01	0.01	1	0.06	0.01	0.01
Acid Soluble Copper, Atomic Absorption	975.01	221.00	6	0.0372	0.0016	0.0008	6	0.0372	0.0016	0.0008
Acid Soluble Copper, ICP		221.30	18	0.0397	0.0027	0.0006	17	0.0395	0.0027	0.0005
Acid Soluble Copper, Other		221.99	2	0.0380	0.0047	0.0005	2	0.0380	0.0047	0.0005
Method Group 221.XX PCT			26	0.0390	0.0028	0.0006	24	0.0391	0.0029	0.0005
Acid Soluble Iron, Atomic Absorption ..	980.01	241.00	6	0.06	0.01	0.00	6	0.06	0.01	0.00
Acid Soluble Iron, ICP		241.30	17	0.06	0.00	0.00	16	0.06	0.00	0.00
Acid Soluble Iron, Other		241.99	2	0.06	0.00	0.00	2	0.06	0.00	0.00
Method Group 241.XX PCT			25	0.06	0.00	0.00	24	0.06	0.00	0.00
Lead, ICP		251.30	2	0.35	0.07	0.04	2	0.35	0.07	0.04
Lead, Other		251.99	1	0.13	0.03	0.04	1	0.13	0.03	0.04
Method Group 251.XX PPM			3	0.28	0.13	0.04	3	0.28	0.13	0.04
Acid Soluble Manganese, AA	972.02a	261.00	4	0.052	0.007	0.001	4	0.052	0.007	0.001
Acid Soluble Manganese, AA	972.02b	261.11	1	0.054	0.000	0.000	1	0.054	0.000	0.000
Acid Soluble Manganese, ICP	972.02a	261.30	16	0.052	0.003	0.001	15	0.052	0.003	0.001
Acid Soluble Manganese, ICP	972.02b	261.31	1	0.056	0.001	0.002	1	0.056	0.001	0.002
Acid Soluble Manganese, Other		261.99	2	0.053	0.004	0.001	2	0.053	0.004	0.001
Method Group 261.XX PCT			24	0.052	0.004	0.001	23	0.052	0.004	0.001

- Pass 1 Results for 69 Labs - - Pass 2 Results for 69 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
Molybdenum, ICP		289.30	9	10.28	0.47	0.14	8	10.21	0.44	0.09
Molybdenum, Other		289.99	1	8.95	0.07	0.10	1	8.95	0.07	0.10
Method Group 289.XX PPM			10	10.14	0.60	0.13	9	10.07	0.58	0.09
Selenium, Other		301.99	1	0.06	0.01	0.01	1	0.06	0.01	0.01
Sodium, Flame Photometric	974.01	311.30	1	0.07	0.00	0.00	1	0.07	0.00	0.00
Sodium, Other		311.99	3	0.05	0.03	0.00	3	0.05	0.03	0.00
Method Group 311.XX PCT			4	0.06	0.02	0.00	4	0.06	0.02	0.00
Acid Soluble Zinc, Atomic Absorption ..	975.02	321.00	5	0.048	0.002	0.000	5	0.048	0.002	0.000
Acid Soluble Zinc, ICP		321.30	23	0.050	0.003	0.001	23	0.050	0.003	0.001
Method Group 321.XX PCT			28	0.050	0.003	0.001	27	0.050	0.003	0.001

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 001.10 PCT			Meth: 002.99 PCT			Meth: 010.12 PCT			Meth: 010.60 PCT			Meth: 010.XX PCT		
Ammoniacal Nitrogen			Nitrate Nitrogen			Total Nitrogen			Total Nitrogen			Total Nitrogen		
<u>MgO Distillation</u>			<u>Other</u>			<u>Salicylic</u>			<u>Combustion</u>					
444	0.71 S	5.81	481	1.30	.87	504	9.38	.65	368	9.28	-.25	351	10.64 s	4.88
105	0.40	1.30	Avg	0.65		416	9.37	.63	055	9.28	-.29	460	10.61 s	4.71
Avg	0.31		506	0.00	-.87	Avg	9.23		291	9.25	-.38	360	10.05	2.66
481	0.27	-.63	Meth: 002.XX PCT			481	8.93	-1.30	072	9.25	-.45	508	9.98	2.39
230	0.27	-.63	<u>Nitrate Nitrogen</u>			Meth: 010.17 PCT			377	9.23	-.48	007	9.80	1.76
Meth: 001.99 PCT			481	1.30	1.29	Total Nitrogen			483	9.24	-.51	420	9.81	1.74
Ammoniacal Nitrogen			230	1.20 R	1.14	<u>Comprehensive</u>			508	9.21	-.54	025	9.75	1.54
<u>Other</u>			Avg	0.45		508	9.98	-.71	389	9.23	-.54	034	9.59	.92
506	0.45	1.56	105	0.05	-.61	Meth: 010.60 PCT			102	9.21	-.54	423	9.58	.92
510	0.30	.42	506	0.00	-.68	Total Nitrogen			234	9.20	-.56	095	9.55	.90
Avg	0.25		Meth: 005.00 PCT			<u>Combustion</u>			157	9.15	-.78	292	9.54	.73
096	0.22	-.26	Nitrogen From Urea			351	10.64 s	5.07	486	9.09	-1.02	028	9.43 R	.71
500	0.20	-.41	<u>Urease (as N)</u>			360	10.05	2.75	023	9.33 R	-1.06	049	9.50	.60
368	0.09	-1.28	444	6.42	.71	007	9.80	1.81	452	9.04	-1.18	354	9.49	.55
Meth: 001.XX PCT			Meth: 009.10 PCT			025	9.75	1.59	444	9.04	-1.20	029	9.39	.45
<u>Ammoniacal Nitrogen</u>			Ammon & Nitrate N			096	9.75	1.56	177	9.01	-1.31	231	9.46	.43
444	0.71 s	3.97	<u>Devarda</u>			034	9.59	.94	230	8.87	-1.91	506	9.36	.36
506	0.45	1.59	169	1.66	1.25	096	9.75	1.56	451	8.74	-2.34	090	9.43	.36
105	0.40	1.16	Avg	1.02		034	9.59	.94	042	8.70 R	-2.61	035	9.41	.35
510	0.30	.29	444	0.84	-.36	423	9.58	.94	307	8.29 s	-4.11	105	9.41	.26
Avg	0.27		504	0.56	-.90	095	9.55	.93	325	2.25 s	-27.49	105	9.40	.23
481	0.27	-.04	Meth: 010.11 PCT			292	9.54	.74	Meth: 010.99 PCT			041	9.39 X	.20
230	0.27	-.04	Total Nitrogen			028	9.43	.73	Total Nitrogen			136	9.37	.19
096	0.22	-.51	<u>Modified Comprehensi</u>			049	9.50	.61	<u>Other</u>			324	9.35	.19
500	0.20	-.68	090	9.43	1.24	354	9.49	.56	460	10.61 S	4.06	416	9.37	.19
368	0.09	-1.68	105	9.40	.22	029	9.39	.46	420	9.81	1.66	504	9.38	.17
Meth: 002.20 PCT			324	9.35	.20	231	9.46	.43	506	9.36	.43	043	9.35	.13
Nitrate Nitrogen			136	9.37	.19	035	9.41	.35	493	9.30	.20	405	9.35	.13
<u>Jones Modified</u>			470	9.36	-.19	105	9.40	.22	Avg	9.25		371	9.34	.07
230	1.20	.87	Avg	9.36		324	9.35	.20	247	9.19	-.19	470	9.36	.06
Avg	0.62		470	9.36	-.19	136	9.37	.19	500	9.12	-.41	Avg	9.34	
105	0.05	-.86	371	9.34	-.56	041	9.39 X	.19	487	8.75	-1.52	211	9.29	-.21
			211	9.29	-1.41	405	9.35	.14				501	9.32	-.24
			510	7.96 s	-24.45	043	9.35	.13				356	9.28	-.22
						Avg	9.34					368	9.28	-.22
						501	9.32	-.22				493	9.30	-.24
						356	9.28	-.24				055	9.28	-.27

* 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: 010.XX PCT Total Nitrogen			Meth: 020.20 PCT Total Phosphate			Meth: 020.50 PCT Total Phosphate			Meth: 020.XX PCT Total Phosphate			Meth: 041.10 PCT Dir Available Phosph		
291	9.25	-.35	<u>Spectrometric</u>			<u>ICP</u>			<u>Total Phosphate</u>			<u>Grav Quimociac</u>		
072	9.25	-.42	324	3.32 R	2.20	368	2.99	.39	049	3.08	.38	055	3.18	1.66
377	9.23	-.45	169	3.24	1.41	025	2.99	.19	177	3.07	.35	102	3.10	.80
483	9.24	-.47	356	3.20	1.36	Avg	2.97		452	3.07	.30	185	3.12	.61
508	9.21	-.50	420	3.12	.54	483	2.90	-.60	416	3.05	.30	105	3.09	.08
102	9.21	-.50	231	3.11	.46	451	2.88 R	-1.07	322	3.05	.30	Avg	3.08	
389	9.23	-.50	405	3.10	.39	291	2.77	-1.47	470	3.06	.23	485	3.07	-.31
234	9.20	-.52	177	3.07	.23	444	2.70	-1.95	307	3.05	.19	072	3.05	-.61
247	9.19	-.55	416	3.05	.23	Meth: 020.99 PCT			470	3.03	.08	493	3.00	-1.50
157	9.15	-.73	Avg	3.04		Total Phosphate			292	3.04	.08	Meth: 041.20 PCT		
500	9.12	-.82	292	3.04	-.06	<u>Other</u>			Avg	3.03		Dir Available Phosph		
486	9.09	-.96	481	3.01	-.24	460	3.59 S	2.81	105	3.03	-.04	<u>Spectrometric</u>		
023	9.33 R	-1.02	506	2.92	-.91	500	3.20	1.07	211	3.03	-.04	504	3.06	.71
452	9.04	-1.12	027	2.95	-.94	247	2.98	.10	481	3.01	-.14	Meth: 041.40 PCT		
444	9.04	-1.14	510	2.73	-2.27	Avg	2.96		025	2.99	-.31	Dir Available Phosph		
177	9.01	-1.24	Meth: 020.40 PCT			487	2.70	-1.16	247	2.98	-.35	<u>Automated</u>		
481	8.93	-1.55	Total Phosphate			Meth: 020.XX PCT			090	3.00	-.43	Dir Available Phosph		
230	8.87	-1.82	<u>Automated</u>			<u>Total Phosphate</u>			368	2.99	-.50	027 2.90 -.71		
487	8.75	-2.20	042	3.20	1.71	389	16.74 s	147.07	096	2.96	-.62	Meth: 041.50 PCT		
451	8.74	-2.23	028	3.08	.47	157	3.74 s	5.40	456	2.95	-.69	Dir Available Phosph		
042	8.70 R	-2.49	Avg	3.04		460	3.59 s	4.30	506	2.92	-.83	<u>ICP</u>		
307	8.29 s	-3.94	470	3.03	-.16	324	3.32 R	2.42	027	2.95 R	-.89	486	3.38 S	3.77
510	7.96 s	-5.15	105	3.03	-.18	444	3.25	1.71	483	2.90	-1.02	360	3.11	1.12
325	2.25 s	-26.40	096	2.96	-1.02	169	3.24	1.60	451	2.88 R	-1.44	023	3.11	.95
Meth: 020.10 PCT			456	2.95	-1.12	324	3.32 R	2.42	291	2.77	-1.98	423	3.09	.76
Total Phosphate			035	2.41 S	-6.81	444	3.25	1.71	510	2.73	-2.24	007	3.05	.64
<u>Grav Quimociac</u>			Meth: 020.50 PCT			487	2.70	-2.47	487	2.70	-2.47	Avg	3.01	
444	3.25 s	4.10	Total Phosphate			444	2.70	-2.49	035	2.41 s	-4.69	325	3.00	-.13
157	3.11	1.50	<u>ICP</u>			500	3.20	1.33	Meth: 040.50 PCT			377	3.01	-.17
095	3.10	.82	389	16.74 s	137.14	234	3.13	.80	InDir Available Phos			368	2.90	-1.13
105	3.09	.50	157	3.74 s	5.39	157	3.11	.75	<u>ICP</u>			043	2.85	-1.74
049	3.08	.29	234	3.13	1.11	420	3.12	.69	072	3.09	.00	Meth: 041.60 PCT		
Avg	3.06		501	3.08	.73	231	3.11	.61	Dir Available Phosph			<u>EDTA Extract</u>		
470	3.06	-.20	508	3.07	.69	095	3.10	.57	354 3.20 1.66					
322	3.05	-.71	452	3.07	.65	405	3.10	.53						
211	3.03	-.82	307	3.05	.55	105	3.09	.46						
090	3.00	-1.74				028	3.08	.44						
						501	3.08	.39						

* 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: 041.60 PCT			Meth: 041.XX PCT			Meth: 050.30 PCT			Meth: 050.60 PCT			Meth: 050.99 PCT		
<u>Dir Available Phosph</u>			<u>Dir Available Phosph</u>			<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Soluble Potash</u>		
<u>EDTA Extract</u>			<u>AA (Oxalate)</u>			<u>Flame (Oxalate)</u>			<u>Other</u>					
043	3.14	.81	072	3.05	-.09	157	4.42	1.04	041	4.22 X	1.06	486	4.13	-.45
105	3.12	.78	041	3.05 X	-.19	185	4.30	.14	105	4.17	.74	027	4.11	-.57
136	3.08	.16	377	3.01	-.56	Avg	4.28		351	4.13	.48	508	4.11	-.63
Avg	3.07		007	3.05	-.58	136	4.12	-1.18	470	4.11	.34	307	4.09	-.88
029	3.06	-.23	325	3.00	-.59	Meth: 050.50 PCT			Avg	4.05		042	4.05	-1.02
041	3.05 X	-.39	493	3.00	-.82	<u>Soluble Potash</u>			510	3.88	-1.14	487	4.05	-1.02
351	3.07	-.97	024	2.98	-.89	<u>ICP (Oxalate)</u>			169	3.83	-1.47	504	4.03	-1.17
024	2.98	-1.24	037	2.98	-1.00	420	4.39	1.38	Meth: 050.61 PCT			Meth: 050.XX PCT		
037	2.98	-1.33	368	2.90	-1.71	444	4.31	.53	<u>Soluble Potash</u>			<u>Soluble Potash</u>		
Meth: 041.99 PCT			027	2.90	-1.74	Avg	4.26		<u>Flame (Citrate)</u>					
<u>Dir Available Phosph</u>			043	2.85	-2.39	292	4.22	-.52	456	4.64	1.88	322	8.02 s	27.89
<u>Other</u>			230	1.77 s	-14.93	324	4.25	-.57	095	4.43	.76	444	5.17 s	6.99
Avg	3.07		Meth: 048.99 PCT			Meth: 050.51 PCT			035	4.37	.43	072	4.85 s	4.65
105	3.07	-.71	<u>Water Soluble Phosph</u>			<u>Soluble Potash</u>			029	4.31	.36	456	4.64 A	3.16
230	1.77 S	-92.90	<u>Other</u>			<u>ICP (Citrate)</u>			Avg	4.30		230	4.54 s	2.89
Meth: 041.XX PCT			444	3.13	.71	072	4.85 s	6.43	028	4.30	-.11	500	4.59	2.74
<u>Dir Available Phosph</u>			Meth: 050.00 PCT			025	4.39	1.65	024	4.18	-.72	095	4.43	1.65
486	3.38 s	3.80	<u>Soluble Potash</u>			023	4.38	1.54	105	4.12	-1.02	157	4.42	1.53
354	3.20	1.76	<u>STPB Oxalate</u>			483	4.28 R	1.09	037	4.09	-1.22	506	4.38	1.33
055	3.18	1.60	230	4.54 s	4.03	291	4.34	1.07	Meth: 050.99 PCT			025	4.39	1.31
043	3.14	.98	416	4.39	1.64	389	4.26	.35	<u>Soluble Potash</u>			420	4.39	1.30
105	3.12	.90	049	4.34 R	1.56	423	4.25	.20	<u>Other</u>			416	4.39	1.29
351	3.07	.90	231	4.37	1.46	Avg	4.23		322	8.02 s	25.32	023	4.38	1.24
360	3.11	.89	211	4.24	.05	377	4.22	-.35	500	4.59	2.58	035	4.37	1.20
102	3.10	.81	Avg	4.23		007	4.20	-.35	506	4.38	1.30	049	4.34 R	1.20
185	3.12	.79	072	4.22	-.18	096	4.21	-.56	325	4.35	1.08	231	4.37	1.17
023	3.11	.63	405	4.21	-.28	452	4.18	-.62	177	4.35	1.03	325	4.35	1.08
423	3.09	.43	102	4.20	-.36	485	4.17	-.74	460	4.28	.55	177	4.35	1.03
105	3.09	.40	055	4.23	-.54	043	4.14	-1.10	234	4.26	.45	291	4.34	.91
136	3.08	.35	090	4.17	-.76	354	4.09	-1.55	360	4.22	.39	483	4.28 R	.84
504	3.06	.25	470	4.09	-1.60	Meth: 050.10 PCT			105	4.23	.30	029	4.31	.84
105	3.07	.25	Meth: 050.10 PCT			<u>Soluble Potash</u>			Avg	4.20		444	4.31	.73
485	3.07	.17	<u>Soluble Potash</u>			<u>STPB Citrate</u>			043	4.18	-.14	028	4.30	.67
029	3.06	.07	<u>STPB Citrate</u>						368	4.18	-.23	185	4.30	.62
Avg	3.05		444	5.17 S	.00				481	4.16	-.31	460	4.28	.50
												324	4.25	.46

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

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
<u>Meth: 050.XX PCT</u>			<u>Meth: 050.XX PCT</u>			<u>Meth: 121.30 PCT</u>			<u>Meth: 151.99 PPM</u>			<u>Meth: 165.XX PCT</u>		
<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Acid Soluble Magnesi</u>			<u>Arsenic</u>			<u>Acid Soluble Boron</u>		
360	4.22	.40	487	4.05	-1.24	ICP			Other			354	0.031 s	4.42
055	4.23	.39	504	4.03	-1.40	354	0.01	-.71	501	0.03	-.71	042	0.028	2.76
389	4.26	.39	451	3.99	-1.62	<u>Meth: 121.XX PCT</u>			<u>Meth: 151.XX PPM</u>			368	0.024	.99
234	4.26	.39	510	3.88	-2.43	<u>Acid Soluble Magnesi</u>			<u>Arsenic</u>			230	0.023	.74
423	4.25	.29	169	3.83	-2.79	354	0.01	.87	247	0.90	.87	485	0.022	.50
105	4.23	.26	<u>Meth: 060.20 PCT</u>			<u>Avg</u>			<u>Avg</u>			481	0.023	.36
377	4.22	.23	<u>Free Water</u>			105 0.00 -.86			501 0.03 -.87			307	0.023	.36
211	4.24	.18	<u>Karl Fischer</u>			<u>Meth: 144.02 PCT</u>			<u>Meth: 165.00 PCT</u>			433	0.022	.25
292	4.22	.16	371	72.60	.71	<u>Sulfur</u>			<u>Acid Soluble Boron</u>			300	0.022	.24
072	4.22	.10	<u>Meth: 101.00 PCT</u>			<u>Gravimetric</u>			<u>Spectrometric</u>			Avg	0.022	
041	4.22 X	.05	<u>Acid Soluble Calcium</u>			292 0.03 .00			481 0.023 .87			423	0.022	-.03
Avg	4.21		<u>AA</u>			<u>Meth: 144.99 PCT</u>			<u>Avg</u>			389	0.022	-.11
405	4.21	-.07	105 0.00 .71			<u>Sulfur</u>			506 0.021 -.87			043	0.021	-.69
007	4.20	-.08	<u>Meth: 101.30 PCT</u>			<u>Other</u>			<u>Meth: 165.99 PCT</u>			506	0.021	-.77
102	4.20	-.08	<u>Acid Soluble Calcium</u>			231 0.03 .92			<u>Acid Soluble Boron</u>			231	0.020	-.98
024	4.18	-.27	<u>ICP</u>			354 0.02 R .52			<u>Other</u>			095	0.020	-.98
043	4.18	-.27	354 0.01 .87			389 0.03 .51			354 0.031 s 4.19			324	0.020	-1.08
452	4.18	-.27	<u>Avg</u>			096 0.02 .10			042 0.028 2.61			444	0.020	-1.25
368	4.18	-.32	389 0.00 -.86			Avg 0.02			368 0.024 .91			483	0.012 s	-4.82
096	4.21	-.33	<u>Meth: 101.XX PCT</u>			072 0.00 -1.54			230 0.023 .67			<u>Meth: 171.99 PCT</u>		
485	4.17	-.36	<u>Acid Soluble Calcium</u>			<u>Meth: 144.XX PCT</u>			307 0.023 .32			<u>Water Soluble Boron</u>		
105	4.17	-.36	354 0.01 1.24			<u>Sulfur</u>			433 0.022 .21			<u>Other</u>		
090	4.17	-.37	<u>Avg</u>			231 0.03 .77			300 0.022 .20			027 0.023 .87		
481	4.16	-.43	389 0.00 -.30			292 0.03 .77			Avg 0.022			Avg 0.021		
055	4.15	-.50	105 0.00 -.94			354 0.02 R .37			423 0.022 -.05			444 0.019 -.87		
486	4.13	-.61	<u>Meth: 121.00 PCT</u>			389 0.03 .34			389 0.022 -.12			<u>Meth: 181.30 PPM</u>		
043	4.14	-.61	<u>Acid Soluble Magnesi</u>			<u>Avg</u>			485 0.022 -.48			<u>Cadmium</u>		
351	4.13	-.62	096 0.02 -.09			Avg 0.02			043 0.021 -.69			<u>ICP</u>		
105	4.12	-.67	072 0.00 -1.79			096 0.02 -.09			231 0.020 -.97			247 0.10 .87		
136	4.12	-.71	<u>Meth: 151.30 PPM</u>			Meth: 151.30 PPM			095 0.020 -.97			Avg 0.07		
027	4.11	-.74	<u>Arsenic</u>			Arsenic			324 0.020 -1.06			486 0.03 -.87		
470	4.11	-.78	<u>ICP</u>			ICP			444 0.020 -1.23			<u>Meth: 181.99 PPM</u>		
508	4.11	-.80	247 0.90 .00			247 0.90 .00			483 0.012 s -4.65			<u>Cadmium</u>		
354	4.09	-.92	<u>Other</u>			<u>Other</u>			<u>Other</u>			501 0.18 .71		
470	4.09	-.92												
037	4.09	-.96												
307	4.09	-1.06												
042	4.05	-1.24												

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

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
<u>Meth: 181.XX PPM</u>			<u>Meth: 221.00 PCT</u>			<u>Meth: 221.XX PCT</u>			<u>Meth: 241.00 PCT</u>			<u>Meth: 241.XX PCT</u>		
<u>Cadmium</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>		
501	0.18	1.21	<u>Atomic Absorption</u>			423	0.0468	2.67	<u>Atomic Absorption</u>			041	0.06 R	1.41
Avg	0.10		043	0.0370	-.63	230	0.0425	1.21	504	0.05	-1.23	230	0.07	1.41
247	0.10	-.05	506	0.0360	-.76	483	0.0423	1.11	<u>Meth: 241.30 PCT</u>			444	0.06	.76
486	0.03	-1.02	481	0.0350	-1.38	487	0.0421	1.04	<u>Acid Soluble Iron</u>			368	0.06	.46
<u>Meth: 191.30 PPM</u>			<u>Meth: 221.30 PCT</u>			444	0.0415	.85	<u>ICP</u>			102	0.06	.41
<u>Chromium</u>			<u>Acid Soluble Copper</u>			102	0.0408	.59	324	0.07	2.07	042	0.06	.29
<u>ICP</u>			<u>ICP</u>			354	0.0405	.52	354	0.07	1.45	105	0.06	.18
247	0.70	1.15	423	0.0468	2.74	041	0.0401 X	.44	041	0.06 R	1.43	096	0.06	.18
Avg	0.39		230	0.0425 R	1.16	095	0.0400	.31	230	0.07	1.38	231	0.06	.18
102	0.37	-.07	483	0.0423	1.05	371	0.0400	.31	444	0.06	.69	247	0.06	.18
486	0.10	-1.08	444	0.0415	.77	231	0.0400	.31	102	0.06	.32	307	0.06	.18
<u>Meth: 191.99 PPM</u>			102	0.0408	.49	485	0.0394	.15	096	0.06	.08	Avg	0.06	
<u>Chromium</u>			354	0.0405	.42	Avg	0.0391		231	0.06	.08	433	0.06	-.19
<u>Other</u>			041	0.0401 X	.37	307	0.0390	-.03	307	0.06	.08	423	0.06	-.26
501	0.21	-.71	231	0.0400	.19	096	0.0383	-.28	Avg	0.06		043	0.06	-.41
<u>Meth: 191.XX PPM</u>			095	0.0400	.19	504	0.0380	-.38	433	0.06	-.30	035	0.06	-.41
<u>Chromium</u>			371	0.0400	.19	105	0.0380 R	-.52	423	0.06	-.38	300	0.06	-.62
247	0.70	1.47	Avg	0.0395		433	0.0372	-.66	368	0.06	-.50	481	0.06	-.63
102	0.37	.11	027	0.0395	-.19	035	0.0370	-.77	035	0.06	-.54	371	0.06	-.86
Avg	0.35		307	0.0390	-.19	043	0.0370 R	-.81	300	0.06	-.77	389	0.05	-1.21
501	0.21	-.56	096	0.0383	-.45	300	0.0364	-.94	371	0.06	-1.02	506	0.05	-1.28
486	0.10	-1.01	433	0.0372	-.86	389	0.0361	-1.04	389	0.05	-1.39	420	0.05	-1.31
<u>Meth: 202.99 PPM</u>			035	0.0370	-.98	324	0.0361	-1.07	420	0.05	-1.50	504	0.05	-1.88
<u>Acid Soluble Cobalt</u>			300	0.0364	-1.16	506	0.0360	-1.08	483	0.02 s	-8.83	483	0.02 s	-8.24
<u>Other</u>			389	0.0361	-1.28	481	0.0350	-1.42	<u>Meth: 241.99 PCT</u>			<u>Meth: 251.30 PPM</u>		
501	0.06	.71	324	0.0361	-1.31	042	0.0340	-1.77	<u>Acid Soluble Iron</u>			<u>Lead</u>		
<u>Meth: 221.00 PCT</u>			368	0.0352 s	-2.64	368	0.0352 s	-2.36	<u>Other</u>			<u>ICP</u>		
<u>Acid Soluble Copper</u>			<u>Meth: 221.99 PCT</u>			<u>Meth: 241.00 PCT</u>			042	0.06	1.22	247	0.40	.76
<u>Atomic Absorption</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Iron</u>			247	0.06	.00	Avg	0.35	
485	0.0394	1.33	<u>Other</u>			<u>Atomic Absorption</u>			Avg	0.06		102	0.30	-.96
105	0.0380	.78	487	0.0421	.87	485	0.07	1.78	<u>Meth: 241.XX PCT</u>			<u>Meth: 251.99 PPM</u>		
504	0.0380	.48	Avg	0.0380		105	0.06	.42	<u>Acid Soluble Iron</u>			<u>Lead</u>		
Avg	0.0372		042	0.0340	-.86	Avg	0.06		324	0.07	2.06	<u>Other</u>		
<u>Meth: 221.00 PCT</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Iron</u>			485	0.07	1.89	501	0.13	-.71
<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			354	0.07	1.48			
485	0.0394	1.33	487	0.0421	.87	485	0.07	1.78						
105	0.0380	.78	Avg	0.0380		105	0.06	.42						
504	0.0380	.48	042	0.0340	-.86	043	0.06	-.10						
Avg	0.0372		Avg	0.0372		481	0.06	-.24						
						506	0.05	-.77						

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

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
<u>Meth: 251.XX PPM</u>			<u>Meth: 261.30 PCT</u>			<u>Meth: 261.XX PCT</u>			<u>Meth: 289.XX PPM</u>			<u>Meth: 321.00 PCT</u>		
<u>Lead</u>			<u>Acid Soluble Manganese</u>			<u>Acid Soluble Manganese</u>			<u>Molybdenum</u>			<u>Acid Soluble Zinc</u>		
247	0.40	.99	ICP			389	0.049	-.96	Avg	10.07				
102	0.30	.36	420	0.048	-1.48	300	0.049	-1.01	102	10.06	-.04			
Avg	0.28					420	0.048	-1.15	095	10.00	-.11			
501	0.13	-1.18	<u>Meth: 261.31 PCT</u>			506	0.042	-2.82	486	9.30	-1.33			
			<u>Acid Soluble Manganese</u>			<u>Meth: 289.00 PPM</u>			501	8.95	-1.93			
			<u>ICP</u>			<u>Molybdenum</u>			<u>Meth: 301.99 PPM</u>			<u>Meth: 321.30 PCT</u>		
<u>Meth: 261.00 PCT</u>			324	0.056	.71	<u>Atomic Absorption</u>			<u>Selenium</u>			<u>Acid Soluble Zinc</u>		
<u>Acid Soluble Manganese</u>			<u>Meth: 261.99 PCT</u>			506	20.00 S	.00	<u>Other</u>			<u>ICP</u>		
<u>AA</u>			<u>Acid Soluble Manganese</u>			<u>Meth: 289.30 PPM</u>			501	0.06	.71	423	0.056	2.19
481	0.059	1.09	<u>Other</u>			<u>Molybdenum</u>			<u>Meth: 311.30 PCT</u>			324	0.054	1.38
485	0.053	.25	423	0.057	.86	<u>ICP</u>			<u>Sodium</u>			230	0.053	1.21
043	0.053	.23	Avg	0.053		230	10.85 R	1.58	<u>Flame Photometric</u>			037	0.053	.98
Avg	0.052		042	0.050	-.87	368	10.70	1.15	510	0.07	.00	354	0.052	.72
506	0.042	-1.49	<u>Meth: 261.11 PCT</u>			300	10.60	.90	<u>Meth: 311.99 PCT</u>			444	0.052	.72
			<u>Acid Soluble Manganese</u>			096	10.45	.57	<u>Sodium</u>			247	0.052	.55
			<u>AA</u>			433	10.41	.46	<u>Other</u>			368	0.051	.39
105	0.054	.00	481	0.059	1.87	Avg	10.21		354	0.08	1.26	483	0.050	.05
			230	0.058	1.55	102	10.06	-.35	Avg	0.05		Avg	0.050	
			423	0.057	1.20	035	10.14	-.41	096	0.04	-.40	102	0.050	-.09
			324	0.056	1.04	095	10.00	-.47	423	0.03	-.86	292	0.050	-.09
			041	0.054 R	.91	486	9.30	-2.07				307	0.050	-.09
			105	0.054	.48	<u>Meth: 289.99 PPM</u>			<u>Meth: 311.XX PCT</u>			095	0.050	-.09
			027	0.054	.48	<u>Molybdenum</u>			<u>Sodium</u>			231	0.050	-.09
			307	0.054	.48	<u>Other</u>			354	0.08	1.20	096	0.050	-.28
			368	0.053	.43	501	8.95	.71	510	0.07	.59	027	0.050	-.37
			247	0.054	.37	<u>Meth: 289.XX PPM</u>			Avg	0.06		371	0.050	-.37
			485	0.053	.35	<u>Molybdenum</u>			096	0.04	-.64	041	0.049 X	-.49
			043	0.053	.34	506	20.00 s	17.20	423	0.03	-1.15	035	0.049	-.54
			444	0.053	.34	230	10.85 R	1.42				420	0.048	-.84
			Avg	0.052		368	10.70	1.11	<u>Meth: 321.00 PCT</u>			433	0.047	-1.03
			096	0.052	-.07	300	10.60	.92	<u>Acid Soluble Zinc</u>			300	0.045	-2.02
			354	0.052	.04	096	10.45	.67	<u>Atomic Absorption</u>			389	0.044	-2.26
			Avg	0.052		433	10.41	.59	043	0.468 s	199.11	072	0.000 s	-17.92
			102	0.051	-.39	433	10.14	.31	504	0.051	1.39			
			433	0.051	-.42				481	0.049	.44			
			035	0.052	-.58									
			231	0.050	-.74									
			389	0.049	-1.22									
			300	0.049	-1.28									

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

Laboratory Averages & Accuracy Indexes

<u>Lab</u>	<u>Average*</u>	<u>Index</u>	<u>Lab</u>	<u>Average*</u>	<u>Index</u>	<u>Lab</u>	<u>Average*</u>	<u>Index</u>	<u>Lab</u>	<u>Average*</u>	<u>Index</u>
Meth: 321.XX PCT											
<u>Acid Soluble Zinc</u>											
043	0.468	s 152.97									
423	0.056	2.45									
324	0.054	R 1.60									
230	0.053	1.43									
037	0.053	1.20									
354	0.052	.91									
444	0.052	.91									
247	0.052	.76									
368	0.051	.57									
504	0.051	.47									
371	0.050	.38									
027	0.050	.38									
096	0.050	.30									
483	0.050	.20									
292	0.050	.10									
307	0.050	.10									
095	0.050	.10									
231	0.050	.10									
102	0.050	.10									
Avg	0.050										
481	0.049	-.26									
035	0.049	-.36									
041	0.049	X -.38									
420	0.048	-.67									
485	0.048	-.71									
105	0.048	-.83									
433	0.047	-.87									
506	0.045	-1.73									
300	0.045	-1.87									
389	0.044	-2.12									
072	0.000	s -18.20									

* 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	4	1.45	3.04	0.21	165.99	16	- 0.038	1.829	0.392
001.99	5	0.00	1.05	0.10	165.XX	18	- 0.032	1.806	0.395
001.XX	9	0.44	1.63	0.12	171.99	2	0.000	1.225	0.000
002.20	2	0.00	1.22	0.06	171.XX	2	0.000	1.225	0.000
002.99	2	0.00	1.22	0.00	181.30	2	0.00	1.22	0.00
002.XX	4	0.28	1.08	0.04	181.XX	3	0.00	1.05	0.32
009.10	3	0.00	1.12	0.05	191.30	3	0.00	1.12	0.01
009.XX	3	0.00	1.12	0.05	191.XX	4	0.00	1.08	0.02
010.11	6	- 4.07	10.00	0.67	221.00	6	0.0000	0.9681	0.3683
010.12	3	0.00	1.08	0.22	221.30	19	- 0.027	1.0559	0.4998
010.60	44	- 0.66	4.37	0.33	221.99	2	0.0000	1.2204	0.0727
010.99	7	0.58	1.80	0.14	221.XX	27	- 0.091	0.9888	0.4016
010.XX	59	- 0.49	3.76	0.34	241.00	6	0.00	1.03	0.19
020.10	9	0.45	1.56	0.58	241.30	18	- 0.45	2.29	0.38
020.20	13	0.16	1.09	0.37	241.99	2	0.00	0.00	0.87
020.40	7	- 0.97	2.72	0.36	241.XX	26	- 0.29	1.88	0.32
020.50	13	7.85	26.95	26.79	251.30	2	0.00	1.07	0.42
020.99	4	0.70	1.68	0.07	251.XX	3	0.00	1.09	0.20
020.XX	42	2.57	16.13	16.02	261.00	4	0.000	1.072	0.112
041.10	7	0.00	0.87	0.53	261.30	16	0.057	0.973	0.364
041.50	9	0.42	1.56	0.27	261.99	2	0.000	1.218	0.092
041.60	9	0.00	0.91	0.46	261.XX	24	0.023	0.978	0.233
041.99	2	- 45.96	65.00	9.51	289.30	9	0.16	1.07	0.25
041.XX	26	- 0.43	3.12	0.65	289.XX	11	1.69	5.24	0.17
050.00	11	0.40	1.34	0.82	311.99	3	0.00	1.12	0.04
050.30	3	0.00	1.11	0.08	311.XX	4	0.00	1.08	0.04
050.50	5	0.00	1.01	0.28	321.00	6	33.185	81.291	0.193
050.51	14	0.49	1.94	0.33	321.30	24	- 0.747	3.781	0.233
050.60	6	0.00	1.05	0.05	321.XX	29	4.759	28.722	0.228
050.61	8	0.00	1.01	0.22					
050.99	20	1.27	5.74	0.28					
050.XX	61	0.69	3.74	0.60					
101.30	2	0.00	1.22	0.08					
101.XX	3	0.00	1.12	0.06					
121.XX	2	0.00	1.22	0.09					
144.99	5	0.09	0.96	0.09					
144.XX	6	0.05	0.96	0.09					
151.XX	2	0.00	1.22	0.01					
165.00	2	0.000	1.095	0.387					