

- Pass 1 Results for 92 Labs - - Pass 2 Results for 90 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	6	17.29	0.44	0.08	6	17.29	0.44	0.08
Ammoniacal Nitrogen, Other		001.99	15	17.29	0.33	0.06	14	17.30	0.34	0.04
Method Group 001.XX PCT			22	17.23	0.45	0.07	20	17.29	0.37	0.05
Nitrate Nitrogen, Other		002.99	2	0.18	0.01	0.02	2	0.18	0.01	0.02
Ammon & Nitrate N, Devarda	892.01	009.10	2	17.63	0.54	0.04	2	17.63	0.54	0.04
Total Nitrogen, Modified Comprehensive	978.02	010.11	5	17.53	0.23	0.04	5	17.53	0.23	0.04
Total Nitrogen, Salicylic	955.04D	010.12	3	18.04	0.27	0.07	3	18.04	0.27	0.07
Total Nitrogen, Combustion		010.60	68	17.77	0.25	0.11	63	17.76	0.23	0.09
Total Nitrogen, Other		010.99	5	17.57	0.33	0.11	6	17.45	0.41	0.12
Method Group 010.XX PCT			82	17.74	0.28	0.10	76	17.74	0.25	0.08
Total Phosphate, Grav Quimociac	962.02	020.10	9	46.53	0.69	0.22	8	46.72	0.34	0.09
Total Phosphate, Spectrometric	958.01	020.20	20	46.43	0.53	0.24	18	46.45	0.47	0.16
Total Phosphate, Automated	978.01	020.40	6	46.59	0.23	0.11	5	46.64	0.19	0.06
Total Phosphate, ICP		020.50	11	46.53	1.02	0.41	11	46.53	1.02	0.41
Total Phosphate, Other		020.99	2	47.94	1.42	0.04	2	47.94	1.42	0.04
Method Group 020.XX PCT			48	46.55	0.77	0.25	42	46.50	0.58	0.17
Insoluble Phosphate, Grav Quimociac ...	963.03C	030.10	1	0.31	0.02	0.03	1	0.31	0.02	0.03
Insoluble Phosphate, Spectrometric	963.03C	030.20	3	0.47	0.08	0.05	3	0.47	0.08	0.05
Insoluble Phosphate, Automated	978.01	030.40	2	0.34	0.01	0.01	2	0.34	0.01	0.01
Insoluble Phosphate, ICP		030.50	2	0.45	0.14	0.09	2	0.45	0.14	0.09
Method Group 030.XX PCT			8	0.41	0.11	0.05	8	0.41	0.11	0.05
InDir Available Phosphate, Grav Quim ..	960.02	040.10	2	47.04	0.68	0.42	2	47.04	0.68	0.42
InDir Available Phosphate, Spectrometri	960.02	040.20	4	45.71	0.62	0.07	4	45.71	0.62	0.07
InDir Available Phosphate, Automated ..	960.02	040.40	2	46.32	0.14	0.08	2	46.32	0.14	0.08
InDir Available Phosphate, ICP		040.50	1	45.75	0.21	0.30	1	45.75	0.21	0.30
InDir Available Phosphate, Other		040.99	2	45.20	1.04	0.13	2	45.20	1.04	0.13
Method Group 040.XX PCT			11	45.97	0.86	0.17	10	45.82	0.71	0.11
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	12	46.22	0.30	0.14	12	46.22	0.30	0.14
Dir Available Phosphate, Automated	978.01	041.40	3	46.49	0.21	0.03	3	46.49	0.21	0.03
Dir Available Phosphate, ICP		041.50	10	46.22	0.78	0.45	11	46.21	0.95	0.33
Dir Available Phosphate, EDTA Extract .	993.01	041.60	10	46.52	0.39	0.28	10	46.52	0.39	0.28
Dir Available Phosphate, Other		041.99	2	45.99	0.36	0.52	2	45.99	0.36	0.52
Method Group 041.XX PCT			38	46.29	0.53	0.29	36	46.24	0.45	0.24
Water Soluble Phosphate, Spectrometric	970.01	048.20	4	42.39	2.30	0.18	4	42.39	2.30	0.18
Water Soluble Phosphate, ICP		048.50	1	20.13	0.11	0.16	1	20.13	0.11	0.16
Method Group 048.XX PCT			5	37.93	9.60	0.17	5	37.93	9.60	0.17
Soluble Potash, STPB Oxalate	958.02	050.00	1	0.10	0.14	0.20	1	0.10	0.14	0.20
Soluble Potash, ICP (Oxalate)		050.50	3	0.23	0.19	0.01	3	0.23	0.19	0.01
Soluble Potash, ICP (Citrate)		050.51	6	0.20	0.13	0.01	5	0.19	0.15	0.00

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Soluble Potash, Other		050.99	6	0.11	0.04	0.00	6	0.11	0.04	0.00
Method Group 050.XX PCT			16	0.17	0.13	0.02	14	0.17	0.13	0.00
Free Water, Vacuum Oven	965.08B	060.00	6	1.73	0.15	0.04	6	1.73	0.15	0.04
Acid Soluble Calcium, ICP		101.30	15	0.23	0.02	0.01	15	0.23	0.02	0.01
Acid Soluble Calcium, Other		101.99	2	0.23	0.02	0.02	2	0.23	0.02	0.02
Method Group 101.XX PCT			17	0.23	0.02	0.02	17	0.23	0.02	0.02
Acid Soluble Magnesium, ICP		121.30	16	0.89	0.08	0.02	15	0.90	0.07	0.01
Sulfur, Gravimetric	980.02a	144.01	7	1.07	0.04	0.03	6	1.07	0.04	0.02
Sulfur, Gravimetric	980.02b	144.02	1	0.98	0.01	0.01	1	0.98	0.01	0.01
Sulfur, Spectrometric		144.70	1	1.05	0.01	0.01	1	1.05	0.01	0.01
Sulfur, Other		144.99	22	0.99	0.09	0.03	21	0.99	0.09	0.03
Method Group 144.XX PCT			32	1.02	0.10	0.03	31	1.03	0.11	0.02
Arsenic, ICP		151.30	5	18.42	1.43	0.51	4	18.36	1.50	0.09
Arsenic, Other		151.99	2	17.23	0.57	0.34	2	17.23	0.57	0.34
Method Group 151.XX PPM			7	18.08	1.34	0.46	6	17.98	1.35	0.18
Acid Soluble Boron, Other		165.99	8	0.018	0.017	0.002	7	0.016	0.017	0.001
Cadmium, ICP		181.30	5	3.14	0.45	0.31	4	3.30	0.20	0.13
Cadmium, Other		181.99	1	3.32	0.08	0.12	1	3.32	0.08	0.12
Method Group 181.XX PPM			6	3.17	0.41	0.27	5	3.31	0.18	0.13
Chromium, ICP		191.30	7	106.57	8.11	2.29	7	106.57	8.11	2.29
Chromium, Other		191.99	1	104.00	1.41	2.00	1	104.00	1.41	2.00
Method Group 191.XX PPM			8	106.25	7.61	2.26	8	106.25	7.61	2.26
Acid Soluble Cobalt, AA		202.00	1	5.00	0.00	0.00	1	5.00	0.00	0.00
Acid Soluble Cobalt, ICP	965.11	202.30	4	5.36	0.50	0.09	4	5.36	0.50	0.09
Acid Soluble Cobalt, Other		202.99	2	4.73	0.90	0.14	2	4.73	0.90	0.14
Method Group 202.XX PPM			7	5.13	0.64	0.09	7	5.13	0.64	0.09
Acid Soluble Copper, Atomic Absorption	975.01	221.00	1	0.0001	0.0000	0.0000	1	0.0001	0.0000	0.0000
Acid Soluble Copper, ICP		221.30	3	3.7150	4.3001	0.0033	3	3.7150	4.3001	0.0033
Acid Soluble Copper, Other		221.99	1	1.5850	0.1202	0.1700	1	1.5850	0.1202	0.1700
Method Group 221.XX PCT			5	2.5460	3.5820	0.0360	4	2.7863	4.0206	0.0025
Acid Soluble Iron, Atomic Absorption	980.01	241.00	1	1.41	0.00	0.00	1	1.41	0.00	0.00
Acid Soluble Iron, ICP		241.30	13	1.47	0.13	0.03	12	1.46	0.12	0.03
Acid Soluble Iron, Other		241.99	1	1.48	0.02	0.03	1	1.48	0.02	0.03
Method Group 241.XX PCT			15	1.47	0.12	0.03	13	1.45	0.11	0.02
Lead, ICP		251.30	4	2.80	0.71	0.09	4	2.80	0.71	0.09
Lead, Other		251.99	1	2.28	0.08	0.11	1	2.28	0.08	0.11
Method Group 251.XX PPM			5	2.69	0.66	0.10	5	2.69	0.66	0.10
Acid Soluble Manganese, ICP	972.02a	261.30	11	0.026	0.002	0.001	11	0.026	0.002	0.001
Acid Soluble Manganese, ICP	972.02b	261.31	1	0.027	0.000	0.000	1	0.027	0.000	0.000

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Method	AOAC Ref.	Method Code	No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups	No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups
Acid Soluble Manganese, Other		261.99	3	0.028	0.002	0.001	3	0.028	0.002	0.001
Method Group 261.XX PCT			15	0.026	0.002	0.001	15	0.026	0.002	0.001
Molybdenum, ICP		289.30	6	10.38	0.54	0.30	6	10.38	0.54	0.30
Molybdenum, Other		289.99	1	10.85	0.07	0.10	1	10.85	0.07	0.10
Method Group 289.XX PPM			7	10.45	0.53	0.27	7	10.45	0.53	0.27
Nickel, ICP		291.30	8	17.75	9.37	0.58	8	17.75	9.37	0.58
Nickel, Other		291.99	1	22.40	1.27	1.80	1	22.40	1.27	1.80
Method Group 291.XX PPM			9	18.27	8.93	0.72	9	18.27	8.93	0.72
Selenium, ICP		301.30	1	0.05	0.02	0.03	1	0.05	0.02	0.03
Sodium, Other		311.99	8	0.15	0.04	0.00	8	0.15	0.04	0.00
Acid Soluble Zinc, ICP		321.30	9	0.006	0.002	0.001	8	0.006	0.002	0.000
Acid Soluble Zinc, Other		321.99	4	0.005	0.001	0.000	4	0.005	0.001	0.000
Method Group 321.XX PCT			13	0.006	0.002	0.001	12	0.006	0.002	0.000
Water Soluble Zinc, ICP		325.30	1	0.010	0.000	0.000	1	0.010	0.000	0.000

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 001.10 PCT			Meth: 001.XX PCT			Meth: 010.11 PCT			Meth: 010.60 PCT			Meth: 010.60 PCT		
Ammoniacal Nitrogen			Ammoniacal Nitrogen			Total Nitrogen			Total Nitrogen			Total Nitrogen		
<u>MgO Distillation</u>			<u>Modified Comprehensi</u>			<u>Combustion</u>			<u>Combustion</u>			<u>Combustion</u>		
481	17.86	1.28	474	17.46	.45	211	17.60	.30	136	17.87	.57	472	17.49	-1.18
258	17.71	.96	232	17.30	.28	Avg	17.53		485	17.85	.46	443	17.45	-1.37
232	17.30	.24	473	17.31	.05	470	17.10	-1.85	450	17.85	.46	421	17.43	-1.44
405	17.30	.02	405	17.30	.01	Avg	17.29		489	17.86	.45	232	17.43	-1.46
Avg	17.29		096	17.21	-.23	Meth: 010.12 PCT			043	17.83	.33	117	17.40	-1.57
351	16.95	-.76	371	17.18	-.32	Total Nitrogen			479	17.83	.32	260	17.39	-1.63
456	16.62	-1.51	397	17.17	-.35	<u>Salicylic</u>			405	17.82	.32	102	17.46 R	-1.68
Meth: 001.99 PCT			486	17.28 R	-.48	254	18.38	1.28	452	17.82	.26	402	17.27	-2.17
Ammoniacal Nitrogen			420	17.09	-.57	Avg	18.04		042	17.78	.25	028	17.26	-2.24
<u>Other</u>			409	17.04	-.70	481	17.91	-.51	368	17.81	.25	009	17.20	-2.45
487	17.95 X	1.91	255	17.01	-.78	185	17.84	-.77	231	17.81	.23	423	16.89 s	-3.83
393	17.91	1.78	351	16.95	-.93	Meth: 010.60 PCT			377	17.81	.23	Meth: 010.99 PCT		
137	17.61	.92	489	16.92	-1.03	Total Nitrogen			325	17.80	.19	Total Nitrogen		
479	17.50	.58	027	16.82	-1.31	<u>Combustion</u>			177	17.79	.17	<u>Other</u>		
474	17.46	.48	456	16.62	-1.83	478	18.57 A	3.56	360	17.79	.14	460	17.93	1.18
473	17.31	.05	368	15.96 A	-3.62	409	18.12	1.59	292	17.76	.04	486	17.88	1.06
Avg	17.30		Meth: 002.99 PCT			330	18.10	1.56	131	17.74	-.12	300	17.50	.21
096	17.21	-.25	Nitrate Nitrogen			095	18.04	1.40	057	17.72	-.19	371	17.45	.05
371	17.18	-.35	<u>Other</u>			034	18.07	1.37	262	17.75	-.22	Avg	17.57	
397	17.17	-.39	393	0.19	.99	354	18.06	1.34	037	17.76	-.24	420	17.10	-.84
486	17.28 R	-.51	Avg	0.18		291	18.05	1.26	022	17.70	-.25	200	16.83 S	-1.50
420	17.09	-.62	232	0.18	-.72	049	18.04	1.25	157	17.70	-.25	Meth: 010.XX PCT		
409	17.04	-.76	Meth: 009.10 PCT			096	18.03	1.19	162	17.69	-.31	Total Nitrogen		
255	17.01	-.84	Ammon & Nitrate N			023	18.02	1.17	351	17.66	-.42	478	18.57 A	3.28
489	16.92	-1.11	<u>Devarda</u>			488	18.00	1.15	389	17.65	-.52	254	18.38	2.52
027	16.82	-1.42	393	18.10	.87	307	17.94 R	1.12	233	17.75	-.55	409	18.12	1.50
368	15.96 s	-3.91	Avg	17.63		055	18.01	1.09	426	17.66	-.55	330	18.10	1.47
Meth: 001.XX PCT			090	17.17	-.87	073	18.00	1.04	041	17.63	-.58	095	18.04	1.32
Ammoniacal Nitrogen			Meth: 010.11 PCT			035	17.97	.93	324	17.60	-.69	034	18.07	1.31
487	17.95 X	1.78	Total Nitrogen			390	17.97	.91	234	17.59	-.75	354	18.06	1.28
393	17.91	1.66	<u>Modified Comprehensi</u>			029	17.78 R	.88	451	17.61	-.77	291	18.05	1.20
481	17.86	1.52	090	17.72	.82	040	17.95	.87	105	17.58	-.81	049	18.04	1.19
258	17.71	1.14	114	17.63	.43	483	17.95	.84	275	17.55	-.99	096	18.03	1.14
137	17.61	.86	105	17.60	.37	025	17.94 X	.78	086	17.63 R	-1.13	023	18.02	1.12
479	17.50	.55	Meth: 010.11 PCT			007	17.85	.77	406	17.50	-1.14	488	18.00	1.10
Meth: 010.11 PCT			Total Nitrogen			027	17.87	.63						

* 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			Meth: 010.XX PCT			Meth: 020.10 PCT			Meth: 020.20 PCT			Meth: 020.99 PCT		
<u>Total Nitrogen</u>			<u>Total Nitrogen</u>			<u>Total Phosphate</u>			<u>Total Phosphate</u>			<u>Total Phosphate</u>		
307	17.94 R	1.06	022	17.70	-.16	<u>Grav Quimociac</u>			<u>Spectrometric</u>			<u>Other</u>		
055	18.01	1.05	157	17.70	-.16	114	47.37	1.90	428	39.34 s	-15.09	322	46.71	-.87
073	18.00	1.01	162	17.69	-.22	211	47.00	.81	Meth: 020.40 PCT			137	20.22 S	-19.51
035	17.97	.90	351	17.66	-.32	090	46.82	.32	<u>Total Phosphate</u>			Meth: 020.XX PCT		
390	17.97	.89	389	17.65	-.41	043	46.75	.10	<u>Automated</u>			<u>Total Phosphate</u>		
040	17.95	.85	114	17.63	-.44	Avg	46.72		035	46.92	1.42	486	49.17 A	4.60
483	17.95	.83	426	17.66	-.45	041	46.66	-.19	096	46.79	.80	390	48.85 s	4.52
460	17.93	.81	041	17.63	-.46	470	46.49	-.69	Avg	46.64		300	49.05 s	4.42
029	17.78 R	.81	211	17.60	-.56	105	46.39	-1.08	027	46.56	-.44	483	48.46 s	3.82
025	17.94 X	.77	324	17.60	-.56	057	46.31	-1.21	409	46.53	-.59	452	47.91	2.50
007	17.85	.73	105	17.60	-.60	157	44.95 R	-5.51	456	46.43	-1.13	451	47.57 R	2.02
481	17.91	.69	234	17.59	-.61	262	23.85 s	-66.78	105	46.34 R	-1.82	368	47.53 R	1.96
486	17.88	.65	451	17.61	-.64	Meth: 020.20 PCT			Meth: 020.50 PCT			393	47.39	1.54
027	17.87	.62	105	17.58	-.67	<u>Total Phosphate</u>			<u>Total Phosphate</u>			114	47.37	1.51
136	17.87	.57	255	17.55	-.84	<u>Spectrometric</u>			<u>ICP</u>			234	47.00 R	1.22
233	17.75	.49	275	17.55	-.96	300	49.05 s	5.54	390	48.85 S	2.53	258	47.15	1.21
450	17.85	.47	406	17.50	-.96	258	47.15	1.58	483	48.46 S	2.14	211	47.00	.87
485	17.85	.47	086	17.63 R	-.99	234	47.00 R	1.58	452	47.91	1.38	035	46.92	.73
489	17.86	.47	300	17.50	-1.00	406	46.89	.94	451	47.57	1.11	406	46.89	.68
185	17.84	.37	472	17.49	-1.00	420	46.86	.88	368	47.53	1.08	420	46.86	.63
043	17.83	.36	371	17.45	-1.16	371	46.79	.74	393	47.39	.84	426	46.51	.60
479	17.83	.35	443	17.45	-1.17	481	46.77	.67	360	46.71	.17	090	46.82	.56
405	17.82	.34	421	17.43	-1.24	405	46.74	.61	Avg	46.53		371	46.79	.52
452	17.82	.30	232	17.43	-1.26	479	46.66	.44	426	46.51	-.34	096	46.79	.51
368	17.81	.28	117	17.40	-1.35	232	46.49	.41	291	46.14	-.39	481	46.77	.46
377	17.81	.27	260	17.39	-1.41	231	46.60	.32	421	46.10	-.47	043	46.75	.43
231	17.81	.27	102	17.46 R	-1.47	473	46.59	.30	255	46.09	-.47	405	46.74	.41
042	17.78	.25	402	17.27	-1.90	292	46.53	.17	402	44.97	-1.54	360	46.71	.37
325	17.80	.23	028	17.26	-1.96	Avg	46.45		389	44.95	-1.55	322	46.71	.36
037	17.76	.22	009	17.20	-2.15	200	46.38	-.15	307	43.67 S	-2.94	041	46.66	.28
177	17.79	.21	420	17.10	-2.54	397	46.39	-.24	Meth: 020.99 PCT			479	46.66	.28
262	17.75	.20	470	17.10	-2.56	474	46.15	-.68	<u>Total Phosphate</u>			231	46.60	.18
360	17.79	.19	423	16.89 A	-3.39	324	46.25	-.68	<u>Other</u>			473	46.59	.16
292	17.76	.08	200	16.83 s	-3.62	489	45.96	-1.05	486	49.17	.87	027	46.56	.11
Avg	17.74					487	45.57 X	-1.90	Meth: 020.99 PCT			409	46.53	.06
131	17.74	-.08				450	45.50 R	-2.23	<u>Total Phosphate</u>			292	46.53	.06
057	17.72	-.12				042	45.33	-2.38	<u>Other</u>					
090	17.72	-.12							Avg			Avg		

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 020.XX PCT <u>Total Phosphate</u>			Meth: 030.40 PCT <u>Insoluble Phosphate</u>			Meth: 040.20 PCT <u>InDir Available Phos Spectrometri</u>			Meth: 041.10 PCT <u>Dir Available Phosph Grav Quimociac</u>			Meth: 041.50 PCT <u>Dir Available Phosph ICP</u>		
470	46.49	-.02	096	0.35	.83	Avg	45.71		022	46.60	1.26	023	45.31	-.97
456	46.43	-.13	Avg	0.34		489	44.79	-1.50	131	46.55	1.08	368	44.69 S	-1.66
200	46.38	-.20	409	0.33	-.90				049	46.50	.93	354	44.20 S	-2.15
397	46.39	-.25				Meth: 040.40 PCT <u>InDir Available Phos Automated</u>			040	46.30	.72	Meth: 041.60 PCT <u>Dir Available Phosph EDTA Extract</u>		
057	46.31	-.33	Meth: 030.50 PCT <u>Insoluble Phosphate ICP</u>			096	46.44	.92	260	46.36	.49	009	46.34	.43
232	46.49	-.33	479	0.56	.91	Avg	46.32		177	46.34	.42	029	47.39	2.30
105	46.39	-.33	Avg	0.45		409	46.21	-.81	Avg	46.22		105	46.61	.46
105	46.34	-.41	255	0.34	-.82				055	46.18	-.48	485	46.62	.42
324	46.25	-.61				Meth: 040.50 PCT <u>InDir Available Phos ICP</u>			254	46.03	-.66	057	46.58	.37
291	46.14	-.62	Meth: 030.XX PCT <u>Insoluble Phosphate</u>			255	45.75	.71	105	46.02	-.74	043	46.61	.27
474	46.15	-.63	489	1.17 s	7.21				185	45.75	-1.66	Avg	46.52	
421	46.10	-.77	479	0.56	1.59	Meth: 040.99 PCT <u>InDir Available Phos Other</u>			102	45.75	-1.68	177	46.48	-.17
255	46.09	-.77	473	0.56	1.46	479	46.09	.86	Meth: 041.40 PCT <u>Dir Available Phosph Automated</u>			231	46.30	-.63
489	45.96	-.94	474	0.43	.40	Avg	45.20		472	48.05 S	7.48	136	46.27	-.66
487	45.57 X	-1.63	Avg	0.41		488	44.30	-.87	095	46.70	.97	028	46.27	-1.10
450	45.50 R	-1.89	405	0.41	-.29				131	46.55	.26	037	46.10	-1.25
042	45.33	-2.02	096	0.35	-.58	Meth: 040.XX PCT <u>InDir Available Phos</u>			Avg	46.49		397	45.29 s	-3.41
402	44.97	-2.66	255	0.34	-.75	300	47.57 R	2.52	027	46.24	-1.22	Meth: 041.99 PCT <u>Dir Available Phosph Other</u>		
389	44.95	-2.67	409	0.33	-.82	090	46.52	.98	Meth: 041.50 PCT <u>Dir Available Phosph ICP</u>			486	47.72 S	4.93
157	44.95 R	-2.89	090	0.31	-1.02	096	46.44	.87	377	47.83	1.71	105	46.13	.58
307	43.67 s	-5.13				405	46.33	.72	325	47.70 S	1.60	Avg	45.99	
428	39.34 s	-12.34	Meth: 040.10 PCT <u>InDir Available Phos Grav Quim</u>			409	46.21	.55	007	46.24 R	1.14	485	45.85	-1.08
262	23.85 s	-39.06	300	47.57	.95	479	46.09	.39	360	46.27	.37	Meth: 041.XX PCT <u>Dir Available Phosph</u>		
137	20.22 s	-45.32	Avg	47.04		473	46.03	.30	393	46.49	.30	472	48.05 s	4.05
			Meth: 040.20 PCT <u>InDir Available Phos Spectrometri</u>			Avg	45.82		423	46.46	.29	377	47.83 A	3.55
			405	46.33	.99	474	45.72	-.17	009	46.28	.16	486	47.72 s	3.38
			473	46.03	.50	255	45.75	-.23	Avg	46.22		325	47.70 s	3.33
			474	45.72	.11	489	44.79	-1.45	043	46.08	-.14	029	47.39	2.59
						488	44.30	-2.13	452	45.86	-.38	095	46.70	1.01
									055	45.38	-.90	485	46.62	.89

* 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.XX PCT			Meth: 048.20 PCT			Meth: 050.51 PCT			Meth: 050.XX PCT			Meth: 101.30 PCT		
<u>Dir Available Phosph</u>			<u>Water Soluble Phosph</u>			<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Acid Soluble Calcium</u>		
105	46.61	.88	<u>Spectrometric</u>			<u>ICP (Citrate)</u>			389	0.10	-.50	<u>ICP</u>		
043	46.61	.84	420	46.08	1.61	393	0.24 R	.37	488	0.10	-.50	421	0.21	-1.29
057	46.58	.81	Avg	42.39		Avg	0.19		421	0.10	-.50	027	0.11 s	-5.68
022	46.60	.80	473	41.38	-.44	096	0.18	-.09	473	0.09	-.58	Meth: 101.99 PCT		
360	46.27	.77	096	41.34	-.46	452	0.12	-.51	486	0.07	-.73	<u>Acid Soluble Calcium</u>		
028	46.27	.75	474	40.75	-.72	377	0.10	-.63	022	0.10 R	-.91	<u>Other</u>		
131	46.55	.68	Meth: 048.50 PCT			Meth: 050.61 PCT			Meth: 060.00 PCT			488	0.25	.93
131	46.55	.68	<u>Water Soluble Phosph</u>			<u>Soluble Potash</u>			<u>Free Water</u>			Avg	0.23	
049	46.50	.57	<u>ICP</u>			<u>Flame (Citrate)</u>			<u>Vacuum Oven</u>			486	0.22	-.80
393	46.49	.56	255	20.13	.71	034	46.66 S	.00	473	1.88	.97	Meth: 101.XX PCT		
423	46.46	.56	Meth: 048.XX PCT			Meth: 050.99 PCT			474	1.85	.77	<u>Acid Soluble Calcium</u>		
177	46.48	.54	<u>Water Soluble Phosph</u>			<u>Soluble Potash</u>			489	1.79	.37	483	0.34 s	10.98
040	46.30	.47	420	46.08	.85	<u>Other</u>			Avg	1.73		473	0.31 s	3.89
009	46.28	.30	473	41.38	.36	325	0.20	2.07	007	1.71	-.17	096	0.28	2.23
260	46.36	.28	096	41.34	.35	Avg	0.11		456	1.73	-.37	452	0.25	1.22
231	46.30	.26	474	40.75	.29	474	0.10	-.23	096	1.45	-1.91	488	0.25	1.19
009	46.34	.25	Avg	37.93		488	0.10	-.23	Meth: 101.30 PCT			420	0.25	.96
177	46.34	.24	255	20.13	-1.85	421	0.10	-.23	<u>Acid Soluble Calcium</u>			041	0.23	.96
136	46.27	.09	Meth: 050.00 PCT			473	0.09	-.46	<u>ICP</u>			035	0.24	.60
Avg	46.24		<u>Soluble Potash</u>			486	0.07	-.92	483	0.34 s	10.93	390	0.23	.43
027	46.24	-.05	<u>STPB Oxalate</u>			Meth: 050.XX PCT			473	0.31 s	3.91	009	0.23	.31
055	46.18	-.34	022	0.10	.71	<u>Soluble Potash</u>			096	0.28	2.26	Avg	0.23	
043	46.08	-.37	Meth: 050.50 PCT			034	46.66 s	352.70	452	0.25	1.25	474	0.22	-.40
105	46.13	-.44	<u>Soluble Potash</u>			354	0.48	2.38	420	0.25	1.00	389	0.22	-.40
254	46.03	-.48	<u>ICP (Oxalate)</u>			483	0.47	2.27	041	0.23	.96	131	0.22	-.54
105	46.02	-.53	354	0.48	1.29	393	0.24 R	.59	035	0.24	.62	486	0.22	-.63
037	46.10	-.60	Avg	0.23		325	0.20	.26	390	0.23	.43	423	0.22	-.67
452	45.86	-.87	420	0.11	-.64	096	0.18	.10	009	0.23	.31	307	0.22	-.67
185	45.75	-1.15	292	0.11	-.66	Avg	0.17		Avg	0.23		022	0.21	-.86
102	45.75	-1.16	Meth: 050.51 PCT			452	0.12	-.37	389	0.22	-.36	354	0.21	-1.30
485	45.85	-1.20	<u>Soluble Potash</u>			420	0.11	-.40	474	0.22	-.36	421	0.21	-1.33
055	45.38	-1.98	<u>ICP (Citrate)</u>			292	0.11	-.43	131	0.22	-.50	027	0.11 s	-5.75
023	45.31	-2.14	483	0.47	1.85	377	0.10	-.50	423	0.22	-.63			
397	45.29	-2.37				474	0.10	-.50	307	0.22	-.64			
007	46.24 R	-2.41							022	0.21	-.82			
368	44.69 s	-3.59							354	0.21	-1.27			
354	44.20 s	-4.64												

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 121.30 PCT Acid Soluble Magnesi			Meth: 144.02 PCT Sulfur			Meth: 144.XX PCT Sulfur			Meth: 151.30 PPM Arsenic			Meth: 165.99 PCT Acid Soluble Boron		
<u>ICP</u>			<u>Gravimetric</u>						<u>ICP</u>			<u>Other</u>		
473	1.57 s	9.75	292	0.98	.71	481	3.97 s	26.13	393	34.67 S	10.87	409	0.004	-.66
483	1.20 s	4.59				025	1.31 X	2.52	009	20.35	1.33	486	0.002	-.78
452	0.98	1.26	Meth: 144.70 PCT Sulfur			478	1.19	1.49	037	18.67 R	.76			
421	0.98	1.23	<u>Spectrometric</u>			043	1.15	1.08	474	19.00	.43	Meth: 181.30 PPM Cadmium		
390	0.95	.86	474	1.05	.71	483	1.10 R	.79	Avg	18.36		<u>ICP</u>		
009	0.94	.68				262	1.07 R	.59	041	17.13	-.82	393	6.18 S	14.38
035	0.93	.54	Meth: 144.99 PCT Sulfur			095	1.07	.40	096	16.95	-.94	096	3.45	.78
420	0.92	.41	<u>Other</u>			117	1.07	.39	Meth: 151.99 PPM Arsenic			009	3.45	.78
423	0.92	.40	025	1.31 s	3.53	102	1.07	.39	<u>Other</u>			Avg	3.30	
389	0.92	.30	481	1.31 s	3.48	041	1.06	.31	255	17.67	.96	452	3.27	-.74
131	0.90	.13	478	1.19	2.26	049	1.06	.31	Avg	17.23		041	3.04	-1.32
022	0.90	.04	483	1.10 R	1.35	452	1.04	.31	474	2.50 R	-4.73	474	2.50 R	-4.73
Avg	0.90		049	1.06	.80	027	1.03	.27	409	16.80	-.76	035	0.37 S	-14.67
096	0.88	-.30	452	1.04	.70	117	1.03	.27	Meth: 151.XX PPM Arsenic			Meth: 181.99 PPM Cadmium		
307	0.86	-.51	027	1.03	.57	421	1.03	.18	<u>Other</u>			<u>Other</u>		
027	0.83	-.92	474	1.05	.17	474	1.05	.17	393	34.67 s	12.34	409	3.32	.71
474	0.79	-1.61	027	1.03	.57	390	1.03	.09	009	20.35	1.75	Meth: 181.XX PPM Cadmium		
354	0.73	-2.39	117	1.03	.57	028	1.03	.09	037	18.67 R	.95	<u>Other</u>		
041	0.74 R	-2.40	421	1.03	.51	368	1.03	.08	474	19.00	.75	393	6.18 s	16.07
			390	1.03	.48	450	1.03	.03	Avg	17.98		096	3.45	.85
			450	1.03	.47	Avg	1.02		255	17.67	-.34	009	3.45	.85
			368	1.03	.46	393	1.01	-.20	041	17.13	-.63	409	3.32	.34
			231	1.00	.36	409	1.00	-.23	096	16.95	-.76	Avg	3.31	
			393	1.01	.20	389	1.00	-.25	409	16.80	-.87	452	3.27	-.83
			389	1.00	.18	231	1.00	-.36	Meth: 165.99 PCT Acid Soluble Boron			041	3.04	-1.49
			409	1.00	.14	473	0.98	-.41	<u>Other</u>			474	2.50 R	-5.31
			Avg	0.99		255	0.98	-.45	009	0.049	1.91	035	0.37 s	-16.43
			473	0.98	-.08	292	0.98	-.46	354	0.035 R	1.16	Meth: 191.30 PPM Chromium		
			307	0.98	-.19	307	0.98	-.46	483	0.033	1.01	<u>ICP</u>		
			255	0.98	-.20	096	0.93	-.86	Avg	0.016		393	209.50 s	12.69
			096	0.93	-.63	232	0.93	-.90	421	0.010	-.33	452	120.40	1.73
			232	0.93	-.69	009	0.92	-1.00	452	0.007	-.50			
			009	0.92	-.82	354	0.78	-2.24	423	0.005	-.65			
			354	0.78	-2.33	360	0.78	-2.24						
			360	0.78	-2.33	486	0.72 s	-2.77						
			486	0.72 s	-2.99	324	0.54 s	-5.83						

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
<u>Meth: 191.30 PPM Chromium ICP</u>			<u>Meth: 202.30 PPM Acid Soluble Cobalt ICP</u>			<u>Meth: 221.30 PCT Acid Soluble Copper ICP</u>			<u>Meth: 241.30 PCT Acid Soluble Iron ICP</u>			<u>Meth: 251.30 PPM Lead ICP</u>		
009	108.50	.49	009	5.75	.80	452	2.0000	-.40	131	1.43	-.28	452	2.70	-.16
096	109.45	.36	037	5.66	.62	354	0.0000	-.86	096	1.42	-.33	041	1.83	-1.38
037	107.16	.18	452	5.44	.17				027	1.37	-.75			
Avg	106.57		Avg	5.36		Meth: 221.99 PCT Acid Soluble Copper			354	1.18	-2.38	Meth: 251.99 PPM Lead		
474	105.00	-.19	041	4.58	-1.56	<u>Other</u>			Meth: 241.99 PCT Acid Soluble Iron			<u>Other</u>		
027	102.58	-.49	035	0.68 S	-9.41	409	1.5850	.71	<u>Other</u>			409	2.28	-.71
041	92.91	-1.68	Meth: 202.99 PPM Acid Soluble Cobalt			Meth: 221.XX PCT Acid Soluble Copper			488	1.48	-.71	Meth: 251.XX PPM Lead		
035	11.75 s	-11.69	<u>Other</u>			393	9.1450	1.58	Meth: 241.XX PCT Acid Soluble Iron			393	3.66	1.46
Meth: 191.99 PPM Chromium			409	5.50	.87	Avg	2.7863		393	2.67 s	10.73	474	3.00	.47
<u>Other</u>			Avg	4.73		452	2.0000	-.20	473	2.10 s	5.67	452	2.70	.10
409	104.00	.71	486	3.95	-.86	409	1.5850 R	-.30	041	1.69	2.10	Avg	2.69	
Meth: 191.XX PPM Chromium			Meth: 202.XX PPM Acid Soluble Cobalt			474	0.0001	-.69	483	1.67 R	1.94	409	2.28	-.64
393	209.50 s	13.56	393	9.06 s	6.18	354	0.0000	-.69	452	1.53	.72	041	1.83	-1.31
452	120.40	1.88	009	5.75	.99	Meth: 241.00 PCT Acid Soluble Iron			390	1.50 R	.61	Meth: 261.30 PCT Acid Soluble Manganese		
009	108.50	.55	037	5.66	.84	<u>Atomic Absorption</u>			421	1.52	.60	<u>ICP</u>		
096	109.45	.42	409	5.50	.61	474	1.41	.00	035	1.50	.50	423	0.029	1.40
037	107.16	.21	452	5.44	.50	Meth: 241.30 PCT Acid Soluble Iron			423	1.48	.26	452	0.028	.84
Avg	106.25		Avg	5.13		<u>ICP</u>			488	1.48	.24	390	0.027	.69
474	105.00	-.16	474	5.00	-.20	393	2.67 s	10.19	Avg	1.45		041	0.027	.43
409	104.00	-.32	041	4.58	-.86	473	2.10 s	5.36	022	1.44	-.13	022	0.027	.43
027	102.58	-.48	486	3.95	-1.85	041	1.69	1.95	009	1.43	-.16	009	0.026	.14
041	92.91	-1.75	035	0.68 s	-7.00	483	1.67 R	1.80	131	1.43	-.25	096	0.026	
035	11.75 s	-12.41	Meth: 221.00 PCT Acid Soluble Copper			390	1.50	.55	096	1.42	-.30	Avg	0.026	
Meth: 202.00 PPM Acid Soluble Cobalt			<u>Atomic Absorption</u>			421	1.52	.52	474	1.41	-.37	096	0.025	-.16
<u>AA</u>			474	0.0001	.00	452	1.53	.64	027	1.37	-.74	389	0.025	-.31
474	5.00	.00	Meth: 221.30 PCT Acid Soluble Copper			390	1.50	.55	354	1.18	-2.44	035	0.025	-.35
Meth: 202.30 PPM Acid Soluble Cobalt			<u>ICP</u>			421	1.52	.52	Meth: 251.30 PPM Lead			131	0.025	-.51
<u>ICP</u>			393	9.1450	1.26	035	1.50	.43	<u>ICP</u>			354	0.020	-2.55
393	9.06 S	7.44	Avg	3.7150		423	1.48	.21	393	3.66	1.22	027	0.013 s	-5.70
						Avg	1.46		474	3.00	.29			
						022	1.44	-.16	Avg	2.80				
						009	1.43	-.20						

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 261.31 PCT			Meth: 289.30 PPM			Meth: 291.30 PPM			Meth: 311.99 PCT			Meth: 321.XX PCT		
Acid Soluble Manganese			Molybdenum			Nickel			Sodium			Acid Soluble Zinc		
<u>ICP</u>			<u>ICP</u>			<u>ICP</u>			<u>Other</u>					
421	0.027	.00	393	19.76 s	17.32	041	16.73	-.11	307	0.12	-.85	423	0.005	-.17
			096	11.00	1.27	452	7.82	-1.06	486	0.11	-.97	488	0.006	-.20
Meth: 261.99 PCT			452 10.91 1.02			035 2.60 -1.62			Meth: 321.30 PCT			037 0.005 -.39		
Acid Soluble Manganese			009 10.60 .68						Acid Soluble Zinc			009 0.005 -.55		
<u>Other</u>			Avg 10.38			Meth: 291.99 PPM			<u>ICP</u>			421 0.005 -.72		
393	0.048 S	10.06	037	10.10	-.54	Nickel			096 0.039 s 15.11			474 0.004 -.73		
474	0.030	1.22	474	10.00	-.71	<u>Other</u>			035 0.033 s 13.69			022 0.004 -.93		
Avg	0.028		041	9.70	-1.26	409 22.40 .71			292 0.010 1.73			486 0.004 -.95		
488	0.027	-.48	035	1.21 s	-16.95	Meth: 291.XX PPM			354 0.009 1.27			483 0.003 R -1.86		
409	0.026	-.88	Meth: 289.99 PPM			<u>Nickel</u>			452 0.007 .58			Meth: 325.30 PCT		
483	0.006 S	-10.52	Molybdenum			393 35.30 1.91			Avg 0.006			Water Soluble Zinc		
			<u>Other</u>			409 22.40 .47			423 0.005 -.34			<u>ICP</u>		
Meth: 261.XX PCT			409 10.85 -.71			096 20.50 .26			037 0.005 -.54			393 0.010 .00		
Acid Soluble Manganese			Meth: 289.XX PPM			009 20.10 .22			421 0.005 -.82					
393	0.048 s	9.78	<u>Molybdenum</u>			037 19.98 .21			022 0.004 -1.02					
474	0.030	1.74	393 19.76 s 17.69			474 19.00 .08			483 0.003 R -1.82					
423	0.029	1.20	096 11.00 1.19			Avg 18.27								
452	0.028	.65	452 10.91 .93			041 16.73 -.17								
390	0.027	.50	409 10.85 .76			452 7.82 -1.17								
421	0.027	.39	009 10.60 .64			035 2.60 -1.75								
488	0.027	.34	Avg 10.45			Meth: 301.30 PPM			Meth: 321.99 PCT					
041	0.027	.28	037 10.10 -.68			Selenium			Acid Soluble Zinc					
022	0.027	.28	474 10.00 -.86			<u>ICP</u>			<u>Other</u>					
Avg	0.026		041 9.70 -1.43			041 0.05 .71			409 0.006 1.05					
009	0.026	-.11	035 1.21 s -17.56			Meth: 311.99 PCT			488 0.006 .84					
409	0.026	-.33	Meth: 291.30 PPM			Sodium			Avg 0.005					
096	0.025	-.36	Nickel			<u>Other</u>			474 0.004 -.63					
035	0.025	-.50	<u>ICP</u>			473 0.22 1.83			486 0.004 -1.14					
389	0.025	-.52	393 35.30 1.87			354 0.20 1.30								
131	0.025	-.72	096 20.50 .30			009 0.15 .18			Meth: 321.XX PCT					
354	0.020	-2.77	009 20.10 .26			Avg 0.15			Acid Soluble Zinc					
027	0.013 s	-5.94	037 19.98 .25			474 0.13 -.44			096 0.039 s 17.33					
483	0.006 s	-8.95	474 19.00 .13			035 0.13 -.52			035 0.033 s 15.70					
			Avg 17.75			423 0.13 -.53			292 0.010 2.18					
									354 0.009 1.66					
									452 0.007 .81					
									409 0.006 .12					
									Avg 0.006					

* 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	6	0.00	1.04	0.12	060.00	6	0.00	1.03	0.17
001.99	16	- 0.25	1.36	0.17	060.XX	6	0.00	1.03	0.17
001.XX	22	- 0.17	1.23	0.15	101.30	18	0.20	2.25	2.30
002.99	2	0.00	0.84	0.63	101.99	2	0.00	0.93	0.56
002.XX	2	0.00	0.84	0.63	101.XX	20	0.17	2.15	2.20
009.10	2	0.00	1.22	0.04	121.30	18	0.65	2.72	0.40
009.XX	2	0.00	1.22	0.04	121.XX	18	0.65	2.72	0.40
010.11	5	0.00	1.05	0.11	144.01	9	6.79	26.04	3.85
010.12	3	0.00	1.10	0.15	144.99	25	0.21	1.50	0.20
010.60	69	- 0.02	1.14	0.33	144.XX	34	0.16	2.78	2.14
010.99	6	0.00	1.03	0.16	151.30	6	1.85	4.50	0.30
010.XX	82	- 0.05	1.16	0.29	151.99	2	0.00	1.07	0.42
020.10	10	- 7.20	21.02	0.62	151.XX	8	1.61	4.43	0.30
020.20	22	- 0.47	3.62	0.40	165.99	8	0.140	1.040	0.115
020.40	6	- 0.26	1.13	0.41	165.XX	8	0.140	1.040	0.115
020.50	14	0.10	1.42	0.52	181.30	7	- 0.62	8.55	1.01
020.99	3	- 6.50	11.30	0.01	181.XX	8	- 0.61	8.85	1.06
020.XX	54	- 1.57	8.41	0.54	191.30	9	0.11	6.16	0.18
030.20	4	2.17	4.42	0.30	191.XX	10	0.11	6.19	0.19
030.40	2	0.00	1.18	0.24	202.30	6	- 0.33	5.42	0.11
030.50	2	0.00	1.12	0.35	202.99	2	0.00	1.22	0.08
030.XX	9	0.80	2.57	0.28	202.XX	9	- 0.09	3.42	0.09
040.10	2	0.00	1.09	0.39	221.30	3	0.0000	1.1180	0.0007
040.20	4	0.00	1.08	0.07	221.XX	5	- 0.059	0.9449	0.0095
040.40	2	0.00	1.13	0.33	241.30	15	1.15	3.01	0.18
040.99	2	0.00	1.22	0.07	241.XX	17	1.10	2.99	0.18
040.XX	11	0.22	1.22	0.19	251.30	4	0.00	1.08	0.08
041.10	12	0.00	0.97	0.32	251.XX	5	0.00	1.06	0.08
041.40	4	1.87	3.85	0.14	261.30	12	- 0.473	1.901	0.204
041.50	13	- 0.16	1.09	0.38	261.99	5	- 0.092	7.320	0.196
041.60	11	- 0.29	1.30	0.55	261.XX	18	- 0.283	3.625	0.192
041.99	3	1.61	2.82	0.83	289.30	8	0.05	9.20	0.34
041.XX	35	0.16	1.77	0.64	289.XX	9	0.01	8.85	0.33
048.20	4	0.00	1.08	0.05	291.30	8	0.00	1.03	0.04
048.XX	5	0.00	1.06	0.01	291.XX	9	0.00	1.03	0.06
050.50	3	0.00	1.12	0.04	311.99	8	0.00	1.03	0.09
050.51	6	0.05	0.96	0.10	311.XX	8	0.00	1.03	0.09
050.99	6	0.00	1.05	0.00	321.30	11	2.345	5.738	1.823
050.XX	17	20.75	85.55	0.20	321.99	4	0.000	1.047	0.230

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
321.XX	15	1.992	5.704	1.770					