

- Pass 1 Results for 87 Labs - - Pass 2 Results for 87 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	7	3.22	0.06	0.06	7	3.22	0.06	0.06
Ammoniacal Nitrogen, Other .....		001.99	10	3.32	0.20	0.04	10	3.32	0.20	0.04
Method Group 001.XX PCT			17	3.28	0.17	0.05	16	3.25	0.11	0.05
Nitrate Nitrogen, Other .....		002.99	3	0.10	0.12	0.05	3	0.10	0.12	0.05
Water Insoluble Nitrogen, Meth I .....	945.01	003.10	3	1.51	0.08	0.02	3	1.51	0.08	0.02
Water Insoluble Nitrogen, Other .....		003.99	1	1.59	0.01	0.02	1	1.59	0.01	0.02
Method Group 003.XX PCT			4	1.53	0.08	0.02	4	1.53	0.08	0.02
Nitrogen From Urea, Urease (as N) .....	959.03	005.00	1	2.06	0.01	0.02	1	2.06	0.01	0.02
Nitrogen From Urea, Other .....		005.99	4	3.89	2.70	0.08	4	3.89	2.70	0.08
Method Group 005.XX PCT			5	3.52	2.50	0.06	4	2.35	0.39	0.02
Percent Urea, Urease (as Urea) .....	959.03	007.00	1	5.46	0.11	0.15	1	5.46	0.11	0.15
Ammon & Nitrate N, Devarda .....	892.01	009.10	2	3.51	0.23	0.04	2	3.51	0.23	0.04
Ammon & Nitrate N, Other .....		009.99	1	3.64	0.30	0.42	1	3.64	0.30	0.42
Method Group 009.XX PCT			3	3.56	0.23	0.16	3	3.56	0.23	0.16
Total Nitrogen, Modified Comprehensive	978.02	010.11	8	11.59	0.08	0.04	7	11.59	0.07	0.02
Total Nitrogen, Salicylic .....	955.04D	010.12	3	11.65	0.10	0.12	3	11.65	0.10	0.12
Total Nitrogen, Raney .....	970.03	010.16	1	11.40	0.14	0.20	1	11.40	0.14	0.20
Total Nitrogen, Combustion .....		010.60	56	11.69	0.15	0.09	53	11.68	0.14	0.07
Total Nitrogen, Other .....		010.99	2	11.82	0.32	0.11	2	11.82	0.32	0.11
Method Group 010.XX PCT			71	11.67	0.16	0.09	66	11.66	0.14	0.07
Total Phosphate, Grav Quimociac .....	962.02	020.10	4	4.18	0.10	0.08	4	4.18	0.10	0.08
Total Phosphate, Spectrometric .....	958.01	020.20	19	4.16	0.10	0.04	18	4.16	0.10	0.03
Total Phosphate, Automated .....	978.01	020.40	5	4.13	0.19	0.05	5	4.13	0.19	0.05
Total Phosphate, ICP .....		020.50	9	4.16	0.15	0.05	9	4.16	0.15	0.05
Total Phosphate, Other .....		020.99	1	3.90	0.03	0.04	1	3.90	0.03	0.04
Method Group 020.XX PCT			39	4.16	0.15	0.05	37	4.15	0.13	0.04
Insoluble Phosphate, Grav Quimociac ...	963.03C	030.10	1	0.02	0.00	0.00	1	0.02	0.00	0.00
Insoluble Phosphate, Automated .....	978.01	030.40	1	0.07	0.00	0.00	1	0.07	0.00	0.00
Insoluble Phosphate, ICP .....		030.50	1	0.02	0.00	0.00	1	0.02	0.00	0.00
Insoluble Phosphate, Other .....		030.99	1	0.02	0.00	0.00	1	0.02	0.00	0.00
Method Group 030.XX PCT			4	0.03	0.02	0.00	4	0.03	0.02	0.00
InDir Available Phosphate, Grav Quim ..	960.02	040.10	1	4.23	0.01	0.02	1	4.23	0.01	0.02
InDir Available Phosphate, Spectrometri	960.02	040.20	1	4.05	0.01	0.02	1	4.05	0.01	0.02
InDir Available Phosphate, Automated ..	960.02	040.40	3	3.82	0.47	0.03	3	3.82	0.47	0.03
InDir Available Phosphate, ICP .....		040.50	2	3.85	0.07	0.08	2	3.85	0.07	0.08
Method Group 040.XX PCT			7	3.92	0.33	0.04	7	3.92	0.33	0.04
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	15	4.11	0.09	0.06	15	4.11	0.09	0.06
Dir Available Phosphate, Spectrometric	960.03D	041.20	3	3.96	0.12	0.12	3	3.96	0.12	0.12
Dir Available Phosphate, Automated ....	978.01	041.40	4	4.06	0.11	0.04	4	4.06	0.11	0.04

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Dir Available Phosphate, ICP .....		041.50	12	4.12	0.10	0.07	11	4.13	0.09	0.05
Dir Available Phosphate, EDTA Extract .	993.01	041.60	11	4.05	0.08	0.03	11	4.05	0.08	0.03
Dir Available Phosphate, Other .....		041.99	3	4.05	0.10	0.04	3	4.05	0.10	0.04
Method Group 041.XX PCT			48	4.08	0.10	0.05	46	4.09	0.10	0.05
Water Soluble Phosphate, Spectrometric	970.01	048.20	4	3.49	0.28	0.07	4	3.49	0.28	0.07
Water Soluble Phosphate, Other .....		048.99	1	3.32	0.03	0.04	1	3.32	0.03	0.04
Method Group 048.XX PCT			5	3.45	0.25	0.06	5	3.45	0.25	0.06
Soluble Potash, STPB Oxalate .....	958.02	050.00	17	22.60	0.24	0.11	16	22.60	0.24	0.09
Soluble Potash, AA (Oxalate) .....		050.30	10	22.62	0.79	0.15	9	22.30	0.98	0.05
Soluble Potash, AA (Citrate) .....		050.31	1	23.39	0.18	0.26	1	23.39	0.18	0.26
Soluble Potash, ICP (Oxalate) .....		050.50	3	22.65	0.39	0.18	3	22.65	0.39	0.18
Soluble Potash, ICP (Citrate) .....		050.51	11	22.54	0.58	0.16	11	22.54	0.58	0.16
Soluble Potash, Flame (Oxalate) .....	983.02(a)	050.60	8	22.66	0.49	0.26	8	22.66	0.49	0.26
Soluble Potash, Flame (Citrate) .....	983.02(b)	050.61	8	22.91	0.38	0.11	8	22.91	0.38	0.11
Soluble Potash, Other .....		050.99	19	22.63	0.78	0.28	16	22.61	0.77	0.13
Method Group 050.XX PCT			78	22.64	0.60	0.18	72	22.62	0.57	0.13
Free Water, Vacuum Oven .....	965.08B	060.00	5	1.29	0.21	0.05	5	1.29	0.21	0.05
Acid Soluble Calcium, AA .....	945.04	101.00	3	0.39	0.01	0.00	3	0.39	0.01	0.00
Acid Soluble Calcium, ICP .....		101.30	17	0.39	0.03	0.02	16	0.39	0.03	0.01
Acid Soluble Calcium, Other .....		101.99	1	0.39	0.01	0.01	1	0.39	0.01	0.01
Method Group 101.XX PCT			21	0.39	0.03	0.01	20	0.39	0.03	0.01
Acid Soluble Magnesium, AA .....	984.01	121.00	16	2.22	0.09	0.06	16	2.22	0.09	0.06
Acid Soluble Magnesium, ICP .....		121.30	29	2.26	0.16	0.04	29	2.26	0.16	0.04
Acid Soluble Magnesium, Other .....		121.99	2	2.17	0.13	0.10	2	2.17	0.13	0.10
Method Group 121.XX PCT			47	2.24	0.14	0.05	45	2.23	0.13	0.05
Water Soluble Magnesium, AA .....		131.00	2	1.79	0.40	0.13	2	1.79	0.40	0.13
Water Soluble Magnesium, ICP .....		131.30	1	2.07	0.03	0.04	1	2.07	0.03	0.04
Method Group 131.XX PCT			3	1.88	0.34	0.10	3	1.88	0.34	0.10
Sulfur, Gravimetric .....	980.02a	144.01	16	13.40	0.19	0.06	15	13.40	0.19	0.04
Sulfur, Gravimetric .....	980.02b	144.02	1	13.42	0.04	0.06	1	13.42	0.04	0.06
Sulfur, Spectrometric .....		144.70	1	13.48	0.04	0.06	1	13.48	0.04	0.06
Sulfur, Other .....		144.99	15	13.31	0.79	0.30	15	13.14	0.80	0.28
Method Group 144.XX PCT			34	13.38	0.55	0.18	30	13.34	0.33	0.11
Arsenic, Atomic Absorption .....		151.00	1	0.77	0.01	0.01	1	0.77	0.01	0.01
Arsenic, ICP .....		151.30	4	0.98	0.26	0.23	4	0.98	0.26	0.23
Method Group 151.XX PPM			5	0.94	0.25	0.18	5	0.94	0.25	0.18
Acid Soluble Boron, Other .....		165.99	4	0.002	0.001	0.000	3	0.002	0.001	0.000
Cadmium, Atomic Absorption .....		181.00	1	0.45	0.21	0.30	1	0.45	0.21	0.30
Cadmium, ICP .....		181.30	9	0.94	0.58	0.23	8	0.84	0.46	0.08

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Method Group 181.XX PPM			10	0.89	0.57	0.24	9	0.79	0.45	0.11
Water Soluble Chlorine, Titrimetric ...	928.02	190.00	2	0.50	0.06	0.03	2	0.50	0.06	0.03
Water Soluble Chlorine, Other .....		190.99	2	0.46	0.17	0.05	2	0.46	0.17	0.05
Method Group 190.XX PCT			4	0.48	0.12	0.04	4	0.48	0.12	0.04
Chromium, ICP .....		191.30	11	71.80	6.81	2.82	11	71.80	6.81	2.82
Acid Soluble Cobalt, ICP .....	965.11	202.30	10	7.54	1.07	0.26	9	7.42	1.05	0.19
Method Group 202.XX PPM			10	7.54	1.07	0.26	9	7.42	1.05	0.19
Acid Soluble Copper, Atomic Absorption	975.01	221.00	4	0.0012	0.0002	0.0001	4	0.0012	0.0002	0.0001
Acid Soluble Copper, ICP .....		221.30	16	0.0011	0.0004	0.0001	15	0.0011	0.0003	0.0001
Method Group 221.XX PCT			22	0.0011	0.0004	0.0002	19	0.0011	0.0003	0.0001
Acid Soluble Iron, Atomic Absorption ..	980.01	241.00	15	0.90	0.08	0.04	14	0.90	0.08	0.03
Acid Soluble Iron, ICP .....		241.30	31	0.86	0.12	0.03	30	0.86	0.12	0.03
Acid Soluble Iron, Other .....		241.99	2	0.92	0.03	0.02	2	0.92	0.03	0.02
Method Group 241.XX PCT			49	0.87	0.12	0.04	47	0.87	0.12	0.03
Lead, Atomic Absorption .....		251.00	1	22.00	2.83	4.00	1	22.00	2.83	4.00
Lead, ICP .....		251.30	9	11.46	1.86	1.21	9	11.46	1.86	1.21
Method Group 251.XX PPM			12	14.91	7.06	2.49	11	14.22	6.58	1.35
Acid Soluble Manganese, AA .....	972.02a	261.00	13	0.250	0.016	0.008	12	0.252	0.016	0.006
Acid Soluble Manganese, AA .....	972.02b	261.11	2	0.257	0.012	0.011	2	0.257	0.012	0.011
Acid Soluble Manganese, ICP .....	972.02a	261.30	24	0.250	0.014	0.009	22	0.250	0.013	0.006
Acid Soluble Manganese, ICP .....	972.02b	261.31	2	0.258	0.010	0.005	2	0.258	0.010	0.005
Acid Soluble Manganese, Other .....		261.99	5	0.255	0.012	0.011	5	0.255	0.012	0.011
Method Group 261.XX PCT			47	0.250	0.015	0.009	43	0.251	0.013	0.007
Water Soluble Manganese, Atomic Abs ...	972.03	271.00	1	0.190	0.007	0.010	1	0.190	0.007	0.010
Water Soluble Manganese, ICP .....	972.03	271.30	2	0.209	0.053	0.007	2	0.209	0.053	0.007
Method Group 271.XX PCT			3	0.203	0.042	0.008	3	0.203	0.042	0.008
Molybdenum, ICP .....		289.30	12	8.55	0.67	0.50	12	8.55	0.67	0.50
Nickel, Atomic Absorption .....		291.00	1	45.50	2.12	3.00	1	45.50	2.12	3.00
Nickel, ICP .....		291.30	8	37.45	3.20	1.68	8	37.45	3.20	1.68
Method Group 291.XX PPM			9	38.35	4.01	1.83	9	38.35	4.01	1.83
Selenium, ICP .....		301.30	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Sodium, Other .....		311.99	7	0.19	0.01	0.01	7	0.19	0.01	0.01
Acid Soluble Zinc, Atomic Absorption ..	975.02	321.00	9	0.010	0.001	0.001	8	0.010	0.001	0.001
Acid Soluble Zinc, ICP .....		321.30	21	0.010	0.001	0.001	20	0.010	0.001	0.001
Acid Soluble Zinc, Other .....		321.99	1	0.010	0.000	0.000	1	0.010	0.000	0.000
Method Group 321.XX PCT			31	0.010	0.001	0.001	29	0.010	0.001	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: 001.XX PCT			Meth: 003.XX PCT			Meth: 009.10 PCT			Meth: 010.16 PCT		
<u>Ammoniacal Nitrogen</u>			<u>Ammoniacal Nitrogen</u>			<u>Water Insoluble Nitr</u>			<u>Ammon &amp; Nitrate N</u>			<u>Total Nitrogen</u>		
<u>MgO Distillation</u>			090 3.28 .28			372 1.59 .79			<u>Devarda</u>			<u>Raney</u>		
230	3.28	1.01	Avg	3.25		Avg	1.53		200	3.32	-.87	419	11.40	.71
090	3.28	.89	255	3.23	-.34	090	1.51	-.31	Meth: 009.99 PCT			Meth: 010.60 PCT		
309	3.27	.86	394	3.22	-.41	057	1.42	-1.39	<u>Ammon &amp; Nitrate N</u>			<u>Total Nitrogen</u>		
Avg	3.22		232	3.21	-.43	Meth: 005.00 PCT			<u>Other</u>			<u>Combustion</u>		
232	3.21	-.29	420	3.22	-.54	<u>Nitrogen From Urea</u>			234	3.64	.71	102	12.31 s	4.43
324	3.17	-.95	029	3.21	-.74	<u>Urease (as N)</u>			Meth: 009.XX PCT			393	12.18 s	3.55
029	3.21	-1.05	324	3.17	-.81	232 2.06 .71			<u>Ammon &amp; Nitrate N</u>			043	12.03	2.47
444	3.16	-1.36	444	3.16	-1.03	Meth: 005.99 PCT			234	3.64	.98	450	12.00	2.27
Meth: 001.99 PCT			027 3.11 -1.37			<u>Nitrogen From Urea</u>			257	3.71	.67	443	11.80 R	1.65
<u>Ammoniacal Nitrogen</u>			Meth: 002.99 PCT			<u>Other</u>			Avg	3.56		095	11.81 R	1.46
<u>Other</u>			<u>Nitrate Nitrogen</u>			397 8.22 1.61			200	3.32	-1.05	042	11.74 R	1.35
022	11.65 s	41.57	<u>Other</u>			Avg	3.89		Meth: 010.11 PCT			292	11.86	1.32
393	4.26 S	4.68	105	0.25	1.31	029	2.94	-.35	<u>Total Nitrogen</u>			028	11.86	1.30
372	3.79	2.33	Avg	0.10		394	2.37	-.56	<u>Modified Comprehensi</u>			070	11.84	1.21
419	3.46	.68	232	0.05	-.42	027	2.02	-.69	309	11.63 R	1.22	007	11.80	1.11
371	3.45	.61	393	0.00	-.78	Meth: 005.XX PCT			029	11.68	1.21	157	11.76	.96
397	3.37	.22	Meth: 003.10 PCT			<u>Nitrogen From Urea</u>			105	11.65	.79	034	11.79	.96
Avg	3.32		<u>Water Insoluble Nitr</u>			397 8.22 R 14.92			288	11.64	.66	324	11.80	.86
096	3.29	-.22	<u>Meth I</u>			029 2.94 1.51			105	11.65	.79	325	11.80	.85
255	3.23	-.50	232	3.30 S	22.10	394 2.37 .05			090	11.61	.65	230	11.80	.85
394	3.22	-.55	029	1.60	1.14	Avg 2.35			416	11.57	-.28	231	11.80	.82
420	3.22	-.59	Avg	1.51		232 2.06 -.73			371	11.50	-1.21	057	11.79	.81
105	3.12	-1.02	090	1.51	-.07	027 2.02 -.83			211	11.48	-1.41	330	11.70	.72
027	3.11	-1.09	057	1.42	-1.10	Meth: 007.00 PCT			322	10.63 s	-12.71	389	11.78	.69
Meth: 001.XX PCT			Meth: 003.99 PCT			Percent Urea			Meth: 010.12 PCT			027	11.78	.67
<u>Ammoniacal Nitrogen</u>			<u>Water Insoluble Nitr</u>			<u>Urease (as Urea)</u>			<u>Total Nitrogen</u>			452	11.77	.62
022	11.65 s	79.08	<u>Other</u>			255	5.46	.71	<u>Salicylic</u>			361	11.76	.58
393	4.26 s	9.52	372	1.59	.71	Meth: 009.10 PCT			137	11.74	1.00	025	11.76	.54
372	3.79 A	5.08	Meth: 003.XX PCT			<u>Ammon &amp; Nitrate N</u>			Avg	11.65		049	11.74	.51
419	3.46	1.98	<u>Water Insoluble Nitr</u>			<u>Devarda</u>			185	11.60	-.59	177	11.74	.47
371	3.45	1.84	232	3.30 s	22.59	257 3.71 .86			397	11.60	-1.07	114	11.75	.46
397	3.37	1.09	029	1.60	.92	Avg 3.51						029	11.70	.38
096	3.29	.47										451	11.73	.38
230	3.28	.40										136	11.72	.27
309	3.27	.36										291	11.69	.25
												086	11.68	.14

\* 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: 010.60 PCT Total Nitrogen <u>Combustion</u>			Meth: 010.99 PCT Total Nitrogen <u>Other</u>			Meth: 010.XX PCT Total Nitrogen			Meth: 010.XX PCT Total Nitrogen			Meth: 020.20 PCT Total Phosphate <u>Spectrometric</u>		
394	11.69	.11	030	9.77 S	-6.70	136	11.72	.40	096	11.44	-1.64	177	4.11	-.50
Avg	11.68		420	9.29 S	-7.88	291	11.69	.30	419	11.40	-2.02	288	4.10	-.64
406	11.65	-.30				086	11.68	.21	444	11.35	-2.28	234	4.08	-.80
247	11.64	-.32	Meth: 010.XX PCT <u>Total Nitrogen</u>			394	11.69	.20	425	11.36 s	-2.87	169	4.07	-.95
360	11.65	-.36	102	12.31 s	4.63	029	11.68	.14	426	11.24 A	-3.12	200	4.04	-1.26
369	11.63	-.40	393	12.18 s	3.73	Avg	11.66		105	10.85 s	-5.88	262	4.00	-1.60
233	11.62	-.44	102	12.31 s	4.63	105	11.65	-.13	322	10.63 s	-7.40	324	3.62 s	-5.53
131	11.62	-.48	393	12.18 s	3.73	288	11.64	-.20	030	9.77 s	-14.40			
351	11.60	-.55	354	12.10 A	3.16	247	11.64	-.21	420	9.29 s	-17.08	Meth: 020.40 PCT Total Phosphate <u>Automated</u>		
262	11.60	-.57	043	12.03	2.63	406	11.65	-.23				035	22.77 s	96.35
055	11.68	-.60	450	12.00	2.43	369	11.63	-.27	Meth: 020.10 PCT Total Phosphate <u>Grav Quimociac</u>			393	4.37	1.25
009	11.59	-.65	443	11.80 R	1.75	360	11.65	-.30	444	4.63 s	5.21	394	4.17	.24
296	11.59	-.66	095	11.81 R	1.57	233	11.62	-.31	105	4.26	1.01	096	4.15	.14
255	11.64	-.68	292	11.86	1.47	131	11.62	-.37	090	4.25	.73	105	4.14	.06
423	11.58	-.75	028	11.86	1.45	351	11.60	-.42	Avg	4.18		042	3.81	-1.69
372	11.57	-.79	042	11.74 R	1.41	262	11.60	-.45	114	4.14	-.43			
040	11.61	-.86	070	11.84	1.35	090	11.61	-.52	041	4.06	-1.33			
390	11.60	-.91	007	11.80	1.23	009	11.59	-.52				Meth: 020.20 PCT Total Phosphate <u>Spectrometric</u>		
037	11.58	-1.01	034	11.79	1.08	296	11.59	-.54	Meth: 020.20 PCT Total Phosphate <u>Spectrometric</u>			Meth: 020.50 PCT Total Phosphate <u>ICP</u>		
041	11.54	-1.13	157	11.76	1.06	185	11.60	-.54	425	4.58 s	4.32	393	4.96 s	5.37
023	11.52	-1.15	324	11.80	1.00	309	11.63	-.62	428	4.35	1.99	307	4.53 S	2.90
035	11.50	-1.29	230	11.80	.99	423	11.58	-.63	232	4.32	1.60	330	4.37	1.42
402	11.48	-1.43	325	11.80	.99	255	11.64	-.64	257	4.32	1.60	389	4.25	.71
232	11.48	-1.44	231	11.80	.96	372	11.57	-.67	309	4.19 R	.88	361	4.26	.66
307	11.48	-1.44	057	11.79	.95	416	11.57	-.70	451	4.20	.67	426	4.22	.39
096	11.44	-1.75	389	11.78	.83	040	11.61	-.80	406	4.21	.54	Avg	4.16	
444	11.35	-2.38	027	11.78	.81	234	11.55	-.83	450	4.19	.53	402	4.16	-.03
425	11.36 s	-2.94	330	11.70	.77	390	11.60	-.85	231	4.21	.48	423	4.11	-.36
426	11.24 s	-3.21	452	11.77	.76	397	11.60	-.85	292	4.20	.41	390	4.11	-.46
			361	11.76	.72	037	11.58	-.93	Avg	4.16		444	4.13	-.48
			025	11.76	.68	041	11.54	-1.03	416	4.13	-.28	255	3.83	-2.20
			049	11.74	.63	023	11.52	-1.03	193	4.12	-.38	247	3.24 s	-6.11
Meth: 010.99 PCT Total Nitrogen <u>Other</u>			137	11.74	.63	035	11.50	-1.17	369	4.12	-.44			
354	12.10	.88	055	11.68	.62	371	11.50	-1.20	372	4.12	-.46			
Avg	11.82		177	11.74	.60	211	11.48	-1.31						
234	11.55	-.85	114	11.75	.60	402	11.48	-1.32						
105	10.85 S	-3.04	451	11.73	.51	307	11.48	-1.33						
			029	11.70	.45	232	11.48	-1.33						

\* 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: 020.99 PCT			Meth: 020.XX PCT			Meth: 030.XX PCT			Meth: 040.XX PCT			Meth: 041.40 PCT		
<u>Total Phosphate</u>			<u>Total Phosphate</u>			<u>Insoluble Phosphate</u>			<u>InDir Available Phos</u>			<u>Dir Available Phosph</u>		
<u>Other</u>			<u>Other</u>			<u>Other</u>			<u>Other</u>			<u>Automated</u>		
443	3.90	.71	288	4.10	-.40	027	1.59 s	67.72	Avg	3.92		027	4.22	1.41
			390	4.11	-.47	096	0.07	1.62	423	3.90	-.18	393	4.07	.32
			234	4.08	-.52	Avg	0.03		255	3.81	-.35	Avg	4.06	
			444	4.13	-.52	255	0.02	-.51	247	3.22	-2.13	131	4.02	-.41
Meth: 020.XX PCT			169			090			Meth: 041.10 PCT			029		
<u>Total Phosphate</u>			041			247			<u>Dir Available Phosph</u>			025		
035	22.77 s	140.99	200			Meth: 040.10 PCT			<u>Grav Quimociac</u>			Meth: 041.50 PCT		
393	4.96 s	6.17	262			<u>InDir Available Phos</u>			185			<u>Dir Available Phosph</u>		
444	4.63 s	4.21	443			<u>Grav Quim</u>			022			291		
307	4.53 s	3.35	255			090			137			360		
425	4.58 A	3.29	042			Meth: 040.20 PCT			296			007		
330	4.37	1.68	324			<u>InDir Available Phos</u>			055			393		
393	4.37	1.66	247			<u>Spectrometri</u>			057			452		
428	4.35	1.55	Meth: 030.10 PCT			372			009			Avg		
232	4.32	1.27	<u>Insoluble Phosphate</u>			Meth: 040.40 PCT			211			009		
257	4.32	1.26	<u>Grav Quimociac</u>			<u>InDir Available Phos</u>			029			325		
105	4.26	.96	090			<u>Automated</u>			Avg			361		
389	4.25	.86	Meth: 030.40 PCT			394			040			043		
361	4.26	.82	<u>Insoluble Phosphate</u>			096			136			043		
090	4.25	.78	<u>Automated</u>			Avg			131			354		
309	4.19 R	.68	096			247			105			023		
451	4.20	.55	Meth: 030.50 PCT			Meth: 040.50 PCT			260			022		
426	4.22	.51	<u>Insoluble Phosphate</u>			<u>InDir Available Phos</u>			049			Meth: 041.60 PCT		
406	4.21	.48	<u>ICP</u>			<u>ICP</u>			102			<u>Dir Available Phosph</u>		
450	4.19	.44	255			423			Meth: 041.20 PCT			<u>EDTA Extract</u>		
231	4.21	.43	0.02			Avg			<u>Dir Available Phosph</u>			351		
292	4.20	.37	Meth: 030.99 PCT			255			<u>Spectrometric</u>			296		
394	4.17	.18	<u>Insoluble Phosphate</u>			Avg			262			296		
096	4.15	.08	<u>Other</u>			255			030			043		
402	4.16	.06	027			Meth: 040.XX PCT			Avg			105		
Avg	4.15		247			<u>InDir Available Phos</u>			055			073		
105	4.14	-.11	Avg			090			419			397		
416	4.13	-.14	0.02			394			Meth: 041.20 PCT			Avg		
114	4.14	-.15	0.02			096			<u>Dir Available Phosph</u>			028		
193	4.12	-.21	Meth: 030.99 PCT			372			<u>Spectrometric</u>			037		
369	4.12	-.25	<u>Insoluble Phosphate</u>			Meth: 040.XX PCT			262			024		
372	4.12	-.27	<u>Other</u>			<u>InDir Available Phos</u>			030					
177	4.11	-.30	027			090			Avg					
423	4.11	-.35	247			394			055					
			Avg			096			419					
			0.02			372			2.05 S					
			0.02			4.05			-16.48					

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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: 048.99 PCT			Meth: 050.30 PCT			Meth: 050.51 PCT		
<u>Dir Available Phosph</u>			<u>Dir Available Phosph</u>			<u>Water Soluble Phosph</u>			<u>Soluble Potash</u>			<u>Soluble Potash</u>		
<u>EDTA Extract</u>			136 4.10 .17			<u>Other</u>			<u>AA (Oxalate)</u>			<u>ICP (Citrate)</u>		
034	3.96	-1.20	325	4.10	.17	394	3.32	.71	451	23.88 R	1.64	Avg	22.54	
288	3.90	-1.88	361	4.09	.11				073	23.63	1.36	023	22.50	-.30
			Avg	4.09		Meth: 048.XX PCT			369	23.09	.80	043	22.20	-.59
Meth: 041.99 PCT			073 4.09 -.05			<u>Water Soluble Phosph</u>			040 22.95 .66			389 22.00 -.93		
<u>Dir Available Phosph</u>			131 4.09 -.15			393 3.86 1.60			136 22.79 .50			444 21.78 -1.32		
<u>Other</u>			397 4.06 -.26			420 3.56 .53			262 22.64 .35			361 21.72 -1.42		
105	4.12	.75	105	4.08	-.37	Avg 3.45			Avg 22.55					
322	4.11	.56	260	4.06	-.40	096 3.35 -.44			137 22.11 -.20			Meth: 050.60 PCT		
Avg	4.05		393	4.07	-.41	394 3.32 -.52			185 21.95 R -.44			Soluble Potash		
230	3.93	-1.27	037	4.04	-.61	372 3.18 -1.09			351 21.68 -.64			<u>Flame (Oxalate)</u>		
			028	4.04	-.62	Meth: 050.00 PCT			428 21.53 -.80			443 25.46 s 5.73		
Meth: 041.XX PCT			131 4.02 -.69			Soluble Potash			425 20.32 S -2.03			406 23.55 1.80		
<u>Dir Available Phosph</u>			030 4.03 -.90			<u>STPB Oxalate</u>			Meth: 050.31 PCT			157 22.72 .72		
185	4.60 s	5.84	024	3.99	-1.02	233 22.97 1.53			Soluble Potash			055 22.91 .53		
022	4.25	1.74	049	4.00	-1.07	090 22.93 1.37			<u>AA (Citrate)</u>			169 22.67 .07		
137	4.24	1.59	354	3.98	-1.07	211 22.86 1.05			095 23.39 .71			Avg 22.66		
291	4.22	1.35	023	3.97	-1.30	416 22.84 .98			Meth: 050.50 PCT			131 22.58 -.17		
360	4.21	1.30	034	3.96	-1.32	022 22.70 R .92			Soluble Potash			105 22.59 -.58		
007	4.22	1.30	262	4.00 R	-1.32	057 22.67 .69			ICP (Oxalate)			309 22.43 -.61		
027	4.22	1.29	029	3.94	-1.48	049 22.75 .61			324 23.06 1.11			200 21.86 -1.64		
393	4.21	1.20	022	4.03 R	-1.48	029 22.69 .41			426 22.68 .28			Meth: 050.61 PCT		
452	4.17	.95	230	3.93	-1.63	009 22.62 .12			Avg 22.65			Soluble Potash		
296	4.17	.91	102	3.93	-1.64	043 22.58 -.11			354 22.23 -1.09			<u>Flame (Citrate)</u>		
055	4.17	.80	288	3.90	-1.88	372 22.54 -.26			420 20.82 S -4.75			030 23.50 1.60		
057	4.15	.70	055	3.85	-2.37	231 22.49 -.44			419 21.70 S -5.02			025 23.23 .86		
351	4.15	.69	025	3.32 s	-7.67	114 22.51 -.44			Meth: 050.51 PCT			041 23.08 .47		
296	4.15	.64	419	2.05 s	-20.38	257 22.39 -.85			Soluble Potash			034 23.01 .28		
009	4.14	.57	Meth: 048.20 PCT			397 22.32 -1.17			ICP (Citrate)			Avg 22.91		
211	4.14	.54	<u>Water Soluble Phosph</u>			055 22.34 -1.29			007 23.53 1.71			024 22.82 -.23		
043	4.13	.53	<u>Spectrometric</u>			102 22.11 -1.99			452 23.18 1.15			037 22.78 -.37		
043	4.11	.47	393 3.86 1.35			230 21.45 s -4.69			291 23.07 .91			028 22.52 -1.06		
009	4.13	.46	420 3.56 .40						009 22.86 .56			029 22.32 -1.60		
105	4.12	.45	Avg 3.49						393 22.58 .23			035 4.20 s -49.73		
029	4.12	.38	096 3.35 -.52						423 22.55 .04					
040	4.11	.24	372 3.18 -1.12											
322	4.11	.21												
105	4.11	.19												

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 050.99 PCT			Meth: 050.XX PCT			Meth: 050.XX PCT			Meth: 060.00 PCT			Meth: 101.99 PCT		
<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Free Water</u>			<u>Acid Soluble Calcium</u>		
<u>Other</u>			<u>Other</u>			<u>Other</u>			<u>Vacuum Oven</u>			<u>Other</u>		
393	24.18	2.04	369	23.09	.81	028	22.52	-.24	007	1.37	.41	389	0.39	.71
234	23.58	1.27	324	23.06	.81	393	22.58	-.24	Avg	1.29				
307	23.27 R	1.09	041	23.08	.80	402	22.44	-.33	416	1.08	-1.00			
330	23.00 R	.97	291	23.07	.78	023	22.50	-.36	193	1.03	-1.24	Meth: 101.XX PCT		
232	23.13	.67	247	23.06	.77	257	22.39	-.40	<u>Acid Soluble Calcium</u>			<u>Acid Soluble Calcium</u>		
247	23.06	.59	177	23.06	.77	309	22.43	-.47	AA			041	0.45 s	3.00
177	23.06	.59	034	23.01	.68	105	22.59	-.48	193	0.40	1.32	390	0.43	1.78
042	22.98	.49	157	22.72 R	.63	397	22.32	-.54	Avg	0.39		307	0.39 R	1.26
027	22.76	.19	042	22.98	.63	029	22.32	-.57	086	0.39	-.26	096	0.41	1.06
131	22.64	.05	233	22.97	.61	055	22.34	-.58	105	0.38	-.83	247	0.42	.99
Avg	22.61		040	22.95	.57	354	22.23	-.68	Meth: 101.30 PCT			009	0.41	.82
360	22.57	-.07	090	22.93	.55	394	22.20	-.73	Acid Soluble Calcium			102	0.40	.79
105	22.55	-.13	055	22.91	.52	043	22.20	-.74	ICP			037	0.41	.65
402	22.44	-.23	009	22.86	.43	325	22.30 R	-.76	041	0.45 s	2.69	131	0.40	.45
394	22.20	-.53	211	22.86	.41	102	22.11	-.89	390	0.43	1.60	193	0.40	.34
325	22.30	-.56	416	22.84	.38	137	22.11	-.89	307	0.39 R	1.13	423	0.40	.31
322	21.93	-.88	022	22.70	.38	389	22.00	-1.08	096	0.41	.95	065	0.39	.30
390	21.90 R	-1.13	024	22.82	.35	322	21.93	-1.20	247	0.42	.89	433	0.39	.17
022	21.28	-1.73	136	22.79	.29	185	21.95	-1.25	009	0.41	.74	086	0.39	.01
255	21.13	-1.96	037	22.78	.28	200	21.86	-1.33	102	0.40	.71	Avg	0.39	
			057	22.67	.28	444	21.78	-1.47	037	0.41	.59	105	0.38	-.11
			027	22.76	.24	390	21.90 R	-1.53	131	0.40	.41	389	0.39	-.18
			049	22.75	.22	361	21.72	-1.58	423	0.40	.28	232	0.38	-.32
			426	22.68	.21	351	21.68	-1.64	065	0.39	.27	027	0.38	-.35
			029	22.69	.14	428	21.53	-1.91	433	0.39	.16	057	0.37	-.54
			262	22.64	.13	230	21.45	-2.04	Avg	0.39		035	0.36	-.95
			169	22.67	.10	022	21.28	-2.34	232	0.38	-.27	420	0.33	-1.91
			131	22.64	.05	255	21.13	-2.63	027	0.38	-.30	292	0.31	-2.63
			Avg	22.62		420	20.82 s	-3.15	057	0.37	-.47	Meth: 121.00 PCT		
			009	22.62	-.04	419	21.70 s	-3.37	035	0.36	-.84	<u>Acid Soluble Magnesi</u>		
			131	22.58	-.07	425	20.32 s	-4.01	420	0.33	-1.70	<u>AA</u>		
			043	22.58	-.08	035	4.20 s	-32.13	292	0.31	-2.34	200	2.73 s	5.55
			360	22.57	-.11	Meth: 060.00 PCT			029	2.39	1.84	095	2.35	1.47
			423	22.55	-.14	Free Water			450	2.32	1.30	177	2.31	.96
			372	22.54	-.15	<u>Vacuum Oven</u>			397	2.28	.62			
			105	22.55	-.18	105	1.52	1.11						
			114	22.51	-.22	096	1.44	.76						
			231	22.49	-.23									

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 121.00 PCT			Meth: 121.30 PCT			Meth: 121.XX PCT			Meth: 121.XX PCT			Meth: 144.01 PCT		
Acid Soluble Magnesi			Acid Soluble Magnesi			Acid Soluble Magnesi			Acid Soluble Magnesi			Sulfur		
<u>AA</u>			<u>ICP</u>			<u>ICP</u>			<u>AA</u>			<u>Gravimetric</u>		
105	2.26	.43	009	2.23	-.19	095	2.32	.87	030	2.01 s	-2.89	137	13.31	-.48
Avg	2.22		096	2.22	-.27	042	2.26 R	.77	292	1.83	-3.12	102	13.21	-1.03
137	2.20	-.27	419	2.24	-.32	231	2.33	.73	247	1.19 s	-11.32	105	13.39 R	-1.15
257	2.19	-.34	389	2.20	-.36	023	2.32	.71	Meth: 131.00 PCT			073	13.16	-1.30
040	2.22	-.41	065	2.23	-.37	131	2.32	.65	Water Soluble Magnes			114	13.16	-1.30
043	2.17	-.54	233	2.20	-.40	177	2.31	.60	<u>AA</u>			193	13.14	-1.38
309	2.17	-.57	255	2.17	-.57	102	2.30	.54	029	2.13	.87	028	8.26 s	-27.46
351	2.15	-.76	232	2.16	-.65	307	2.30	.51	Avg	1.79		Meth: 144.02 PCT		
055	2.16	-.84	426	2.13	-.78	419	2.24	.39	309	1.45	-.86	Sulfur		
262	2.15	-.92	324	2.09	-1.06	444	2.27	.38	Meth: 131.30 PCT			<u>Gravimetric</u>		
296	2.14	-.96	035	2.07	-1.22	397	2.28	.36	Water Soluble Magnes			029	13.42	.71
193	2.08	-1.66	420	1.99	-1.69	360	2.26	.24	<u>ICP</u>			Avg	13.42	
030	2.01 s	-3.92	292	1.83	-2.61	105	2.26	.22	452	2.07	-.71	292	11.20 S	-52.33
Meth: 121.30 PCT			Meth: 121.99 PCT			Avg			Meth: 131.XX PCT			Meth: 144.70 PCT		
Acid Soluble Magnesi			Acid Soluble Magnesi			009			Water Soluble Magnes			Sulfur		
<u>ICP</u>			<u>Other</u>			096			029			<u>Spectrometric</u>		
330	3.84 s	9.58	042	2.26	1.01	389	2.20	-.24	452	2.07	.56	452	13.48	.71
230	2.79 S	3.23	Avg	2.17		137	2.20	-.28	Avg	1.88		Meth: 144.99 PCT		
041	2.74 S	2.90	022	2.08	-.70	040	2.22	-.31	309	1.45	-1.28	Sulfur		
433	2.70	2.65	Meth: 121.XX PCT			257	2.19	-.33	Meth: 144.01 PCT			<u>Other</u>		
027	2.53	1.65	Acid Soluble Magnesi			233	2.20	-.34	Sulfur			393	16.50 S	4.19
090	2.46	1.25	330	3.84 s	12.45	065	2.23	-.42	<u>Gravimetric</u>			230	16.40 S	4.06
057	2.41	.89	230	2.79 s	4.34	309	2.17	-.50	055	13.96 s	3.29	090	16.10 S	3.69
452	2.39	.78	200	2.73 s	3.92	255	2.17	-.52	262	13.77	1.98	423	15.00	2.32
390	2.37	.73	041	2.74 s	3.92	232	2.16	-.63	296	13.60	1.08	307	14.45 R	1.79
423	2.36	.62	433	2.70 A	3.61	351	2.15	-.64	324	13.57	.93	360	13.85	.89
231	2.33	.40	027	2.53	2.32	055	2.16	-.68	043	13.54	.84	390	13.40	.59
023	2.32	.40	090	2.46	1.80	262	2.15	-.74	288	13.52	.66	389	13.55	.52
131	2.32	.34	057	2.41	1.35	296	2.14	-.77	029	13.49	.49	023	13.46	.41
102	2.30	.26	029	2.39	1.24	426	2.13	-.79	040	13.49	.46	450	13.46	.41
307	2.30	.23	452	2.39	1.21	324	2.09	-1.14	444	13.40	.11	027	13.38	.30
444	2.27	.19	390	2.37	1.12	022	2.08	-1.18	Avg	13.40		291	13.26	.15
360	2.26	.06	423	2.36	1.00	193	2.08	-1.29	372	13.33	-.37	247	13.22	.10
Avg	2.26		450	2.35	.98	035	2.07	-1.36	095	13.32	-.45	Avg	13.23	
291	2.24	-.13				420	1.99	-1.94						
354	2.24	-.16												

\* 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: 144.99 PCT			Meth: 144.XX PCT			Meth: 165.99 PCT			Meth: 181.XX PPM			Meth: 191.30 PPM		
<u>Sulfur</u>			<u>Sulfur</u>			<u>Acid Soluble Boron</u>			<u>Cadmium</u>			<u>Chromium</u>		
<u>Other</u>			<u>Other</u>			<u>Other</u>			<u>ICP</u>			<u>ICP</u>		
354	12.81	-.42	291	13.26	-.27	042	0.145 s	150.17	232	0.65	-.34	035	66.60	-.81
009	12.83	-.43	247	13.22	-.38	444	0.004 R	1.99	035	0.62	-.41	232	65.05	-1.00
351	12.83	-.48	102	13.21	-.42	433	0.003	1.10	065	0.42 X	-.83	324	64.50	-1.08
177	12.42	-.90	114	13.16	-.57	423	0.002	.04	136	0.45	-.83	230	61.71	-1.50
035	11.85 S	-1.70	073	13.16	-.57	Avg 0.002			Meth: 190.00 PCT			Meth: 202.00 PPM		
255	11.79	-1.72	193	13.14	-.62	232 0.001 -1.14			Water Soluble Chlori			Acid Soluble Cobalt		
136	8.42 s	-5.88	009	12.83	-1.62	Meth: 181.00 PPM			<u>Titrimetric</u>			<u>AA</u>		
			354	12.81	-1.64	Cadmium			105 0.54 .97			136 20.50 S .00		
			351	12.83	-1.71	<u>Atomic Absorption</u>			Avg 0.50					
			177	12.42	-2.81	136 0.45 .71			102 0.46 -.75					
			035	11.85 s	-4.73	Meth: 181.30 PPM			Meth: 190.99 PCT			Meth: 202.30 PPM		
			255	11.79 A	-4.79	Cadmium			Water Soluble Chlori			Acid Soluble Cobalt		
			292	11.20 s	-6.50	<u>ICP</u>			<u>Other</u>			<u>ICP</u>		
			136	8.42 s	-14.94	452 3.25 S 5.30			009 0.60 .88			419 10.00 s 4.53		
			028	8.26 s	-15.43	419 1.80 R 2.61			Avg 0.46			037 8.95 1.46		
						324 1.95 2.45			288 0.31 -.85			009 8.90 1.41		
						450 0.88 .10			Meth: 190.XX PCT			450 8.65 R 1.25		
						Avg 0.84			<u>Water Soluble Chlori</u>			057 8.30 .84		
						009 0.78 -.20			009 0.60 1.06			035 7.56 .13		
						230 0.72 -.26			105 0.54 .62			Avg 7.42		
						102 0.66 -.38			Avg 0.48			232 6.55 -.84		
						232 0.65 -.42			102 0.46 -.17			102 6.45 -.93		
						035 0.62 -.50			288 0.31 -1.40			230 6.43 -.94		
						065 0.42 X -.91			Meth: 191.30 PPM			324 6.30 -1.08		
						Meth: 181.XX PPM			Chromium			Meth: 202.XX PPM		
						<u>Cadmium</u>			<u>ICP</u>			<u>Acid Soluble Cobalt</u>		
						452 3.25 s 5.48			452 82.40 1.56			136 20.50 s 12.45		
						419 1.80 R 2.73			390 78.65 1.09			419 10.00 s 4.53		
						324 1.95 2.58			450 78.00 .92			037 8.95 1.46		
						450 0.88 .19			009 76.20 .65			009 8.90 1.41		
						Avg 0.79			037 74.78 .50			450 8.65 R 1.25		
						230 0.72 -.17			Avg 71.80			057 8.30 .84		
						009 0.78 -.17			065 70.81 -.22			035 7.56 .13		
						102 0.66 -.29			102 71.07 -.53			Avg 7.42		
												065 7.34 -.13		

\* 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: 202.XX PPM			Meth: 221.30 PCT			Meth: 241.00 PCT			Meth: 241.30 PCT			Meth: 241.XX PCT		
<u>Acid Soluble Cobalt</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>		
232	6.55	-.84	ICP			ICP			ICP			131	0.94	.62
102	6.45	-.93	041	0.0002	-3.16	137	0.95	.67	Avg	0.86		360	0.94	.58
230	6.43	-.94	Meth: 221.XX PCT			351	0.95	.64	065	0.85	-.15	371	0.94	.57
324	6.30	-1.08	<u>Acid Soluble Copper</u>			095	0.95	.61	423	0.84	-.18	040	0.93	.56
Meth: 221.00 PCT			402	0.0045 s	13.32	040	0.93	.48	232	0.84	-.18	028	0.93	.55
<u>Acid Soluble Copper</u>			354	0.0040 s	11.89	371	0.94	.47	090	0.82	-.33	354	0.92	.51
<u>Atomic Absorption</u>			420	0.0026 s	5.75	028	0.93	.46	452	0.80	-.52	029	0.92	.46
086	0.0018 s	4.45	086	0.0018 R	3.69	029	0.92	.31	389	0.79	-.60	096	0.91	.44
043	0.0015	1.58	419	0.0018 R	3.61	177	0.92	.22	307	0.79 R	-.76	420	0.91	.44
Avg	0.0012		043	0.0015	1.62	Avg	0.90		444	0.77	-.81	324	0.92	.42
095	0.0011	-.46	452	0.0014	1.23	105	0.90	-.15	255	0.74	-.96	177	0.92	.41
028	0.0011	-.48	433	0.0014	1.10	397	0.85	-.86	023	0.67	-1.50	057	0.91	.38
428	0.0011	-.76	423	0.0012	.58	296	0.83	-.97	402	0.67	-1.57	291	0.89	.33
105	0.0005 s	-4.06	230	0.0012	.50	043	0.78	-1.65	114	0.65	-1.73	105	0.90	.28
Meth: 221.30 PCT			450	0.0011	.39	262	0.75	-2.09	292	0.55	-2.48	234	0.90	.26
<u>Acid Soluble Copper</u>			324	0.0012	.33	428	0.62 s	-3.69	247	0.49 s	-2.97	419	0.87	.26
<u>ICP</u>			028	0.0011	.23	Meth: 241.30 PCT			Meth: 241.99 PCT			009	0.89	.22
402	0.0045 s	12.95	095	0.0011	.08	<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>			102	0.87	.16
354	0.0040 s	11.58	233	0.0011	.07	<u>ICP</u>			<u>Other</u>			Avg	0.87	
420	0.0026 S	5.65	Avg	0.0011		230	1.19	2.65	042	0.95	.82	035	0.87	-.03
419	0.0018 R	3.57	232	0.0011	-.11	330	1.03	1.33	Avg	0.92		426	0.87	-.21
452	0.0014	1.30	065	0.0010	-.16	390	0.97	.93	234	0.90	-.91	065	0.85	-.23
433	0.0014	1.17	428	0.0011	-.22	041	0.96	.84	Meth: 241.XX PCT			232	0.84	-.26
423	0.0012	.64	444	0.0010	-.31	433	0.95	.76	<u>Acid Soluble Iron</u>			423	0.84	-.27
230	0.0012	.59	102	0.0010	-.31	131	0.94	.65	086	1.20 s	3.24	397	0.85	-.37
450	0.0011	.41	009	0.0010	-.31	360	0.94	.61	230	1.19	2.79	296	0.83	-.37
324	0.0012	.41	035	0.0010	-.32	354	0.92	.54	330	1.03	1.36	090	0.82	-.43
233	0.0011	.15	057	0.0010	-.51	420	0.91	.48	055	1.02	1.32	452	0.80	-.64
232	0.0011	.11	105	0.0005 R	-2.71	096	0.91	.47	030	0.91 R	1.30	389	0.79	-.73
Avg	0.0011		041	0.0002	-3.39	324	0.92	.46	390	0.97	.92	043	0.78	-.81
065	0.0010	-.05	Meth: 241.00 PCT			057	0.91	.43	041	0.96	.83	307	0.79 R	-.89
444	0.0010	-.19	<u>Acid Soluble Iron</u>			291	0.89	.35	433	0.95	.74	444	0.77	-.94
102	0.0010	-.19	<u>Atomic Absorption</u>			009	0.89	.27	137	0.95	.70	262	0.75	-1.12
035	0.0010	-.20	086	1.20 s	4.61	419	0.87	.26	351	0.95	.69	255	0.74	-1.12
009	0.0010	-.21	030	0.91 R	1.93	426	0.87	.20	042	0.95	.67	023	0.67	-1.71
057	0.0010	-.39	055	1.02	1.63	102	0.87	.17	095	0.95	.66	402	0.67	-1.78
						035	0.87	.08				114	0.65	-1.95
												428	0.62	-2.15

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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.XX PCT			Meth: 251.XX PPM			Meth: 261.30 PCT			Meth: 261.XX PCT			Meth: 261.XX PCT		
<u>Acid Soluble Iron</u>			<u>Lead</u>			<u>Acid Soluble Manganese</u>			<u>Acid Soluble Manganese</u>			<u>Acid Soluble Manganese</u>		
292	0.55	-2.76	035	8.49	-.87	ICP			389	1.351 s	116.64	137	0.240	-.86
247	0.49 s	-3.29				131	0.259	.72	230	0.318 s	4.99	255	0.240	-.87
			Meth: 261.00 PCT			102	0.257	.69	257	0.280	2.14	065	0.241	-.87
Meth: 251.00 PPM			<u>Acid Soluble Manganese</u>			291	0.255	.57	390	0.262 R	1.44	233	0.244	-.90
<u>Lead</u>			<u>AA</u>			009	0.252	.30	028	0.268	1.38	296	0.234	-1.32
<u>Atomic Absorption</u>			257	0.280	1.81	360	0.250	.03	042	0.262	1.34	232	0.229	-1.67
136	22.00	.71	028	0.268	1.16	452	0.250	.03	040	0.266	1.19	262	0.235 R	-1.67
			055	0.262	.92	Avg	0.250		433	0.266	1.09	035	0.229	-1.68
Meth: 251.30 PPM			086	0.263	.80	444	0.249	-.24	055	0.262	1.09	420	0.247 R	-1.83
<u>Lead</u>			351	0.257	.37	426	0.247	-.26	090	0.265	1.08	095	0.226	-1.95
<u>ICP</u>			177	0.252	.07	057	0.249	-.32	324	0.265	1.08	292	0.220	-2.36
452	31.32 s	10.69	Avg	0.252		027	0.242	-.59	330	0.265	1.08	419	0.210 A	-3.20
419	22.50 s	7.19	043	0.247	-.37	307	0.241	-.73	086	0.263	.95			
324	13.75	1.36	105	0.245	-.45	065	0.241	-.78	423	0.263	.91	Meth: 271.00 PCT		
450	13.50	1.13	397	0.246	-.48	233	0.244	-.85	022	0.260	.64	Water Soluble Mangan		
037	12.59	.61	137	0.240	-.75	232	0.229	-1.59	041	0.260	.64	<u>Atomic Abs</u>		
102	11.94	.42	296	0.234	-1.14	035	0.229	-1.60	037	0.253	.61	029	0.190	.71
230	11.50	.22	262	0.235 R	-1.43	420	0.247 R	-1.88	354	0.259	.58	Meth: 271.30 PCT		
Avg	11.46		095	0.226	-1.68	292	0.220	-2.31	402	0.258	.56	Water Soluble Mangan		
009	11.05	-.22	Meth: 261.11 PCT			419	0.210 s	-3.19	131	0.259	.56	<u>ICP</u>		
065	10.37	-.62	<u>Acid Soluble Manganese</u>			Meth: 261.31 PCT			102	0.257	.56	114	0.255	.87
232	9.95	-1.33	<u>AA</u>			<u>Acid Soluble Manganese</u>			291	0.255	.46	Avg	0.209	
035	8.49	-1.61	040	0.266	.95	<u>ICP</u>			351	0.257	.45	452	0.164	-.86
Meth: 251.XX PPM			Avg	0.257		230	0.318 S	6.32	009	0.252	.23	Meth: 271.XX PCT		
<u>Lead</u>			029	0.249	-.77	324	0.265	.94	177	0.252	.08	<u>Water Soluble Mangan</u>		
452	31.32	2.60	Meth: 261.30 PCT			Avg	0.258		Avg	0.251		114	0.255	1.24
419	22.50 R	1.70	<u>Acid Soluble Manganese</u>			231	0.250	-.78	452	0.250	-.11	Avg	0.203	
136	22.00	1.22	<u>ICP</u>			Meth: 261.99 PCT			360	0.250	-.11	029	0.190	-.33
Avg	14.22		389	1.351 s	121.39	<u>Acid Soluble Manganese</u>			444	0.249	-.29	452	0.164	-.93
450	13.50	-.13	390	0.262 R	1.58	<u>Other</u>			029	0.249	-.33	Meth: 289.30 PPM		
324	13.75	-.17	433	0.266	1.28	042	0.262	1.40	057	0.249	-.35	Molybdenum		
037	12.59	-.25	330	0.265	1.26	022	0.260	.47	426	0.247	-.37	<u>ICP</u>		
102	11.94	-.36	090	0.265	1.26	402	0.258	.46	043	0.247	-.42	419	12.65 s	10.07
230	11.50	-.42	090	0.265	1.26	Avg	0.255		105	0.245	-.51	037	9.59	1.76
009	11.05	-.48	423	0.263	1.09	037	0.253	-.71	397	0.246	-.56	232	9.50	1.61
065	10.37	-.59	041	0.260	.81	255	0.240	-1.26	027	0.242	-.71			
232	9.95	-.71	354	0.259	.75				307	0.241	-.83			

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 289.30 PPM			Meth: 291.00 PPM			Meth: 321.30 PCT			Meth: 321.00 PCT			Meth: 321.00 PCT		
Molybdenum			Nickel			Acid Soluble Zinc			Acid Soluble Zinc			Acid Soluble Zinc		
<u>ICP</u>			<u>Other</u>			<u>ICP</u>			<u>Other</u>			<u>ICP</u>		
065	8.88	.59	102	0.20	1.53	023	0.252 s	187.26	390	0.012	2.03	354	0.012	1.79
009	8.80	.59	009	0.20	.92	Avg	38.35		433	0.012	1.75	420	0.012	1.24
057	8.60	.17	423	0.19	.10	102	37.51	-.52	065	0.101 s	70.42	420	0.012	1.24
433	8.59	.08	Avg	0.19		232	34.85	-.88	402	0.013 R	2.07	233	0.011	1.16
Avg	8.55		232	0.19	-.18	035	34.65	-.97	390	0.012	1.75	037	0.011	.88
102	8.37	-.28	057	0.18	-.46	324	32.55	-1.45	354	0.012	1.53	423	0.011	.87
230	8.30	-.37	307	0.18	-1.04	Meth: 301.30 PPM			420	0.012	1.01	452	0.011	.74
450	8.50	-.75	035	0.18	-1.41	Selenium			233	0.011	.96	371	0.011	.72
255	8.06	-.88	Meth: 311.99 PCT			<u>ICP</u>			037	0.011	.72	296	0.011	.67
035	7.68	-1.32	Sodium			450	0.00	.00	423	0.011	.67	444	0.011	.53
324	7.70	-1.34	Other			444	0.011	.42	452	0.011	.55	450	0.010	.35
444	0.28 s	-12.36	102	0.20	1.53	Avg	0.010	.27	444	0.011	.42	Avg	0.010	
Meth: 291.30 PPM			009	0.20	.92	102	0.010	-.23	450	0.010	.27	102	0.010	-.10
Nickel			423	0.19	.10	009	0.010	-.49	200	0.010	-.10	200	0.010	-.10
<u>Atomic Absorption</u>			Avg	0.19		057	0.010	-.51	022	0.010	-.10	262	0.010	-.10
136	45.50	.71	232	0.19	-.18	324	0.010	-.51	095	0.010	-.35	009	0.010	-.39
Meth: 291.00 PPM			230	0.010	-.73	230	0.010	-.73	009	0.010	-.39	324	0.010	-.41
Nickel			255	0.009	-.75	255	0.010	-.75	324	0.010	-.41	057	0.010	-.41
<u>ICP</u>			232	0.009	-1.00	028	0.010	-.51	057	0.010	-.41	028	0.010	-.51
450	41.00	1.11	307	0.009	-1.00	230	0.010	-.67	230	0.010	-.67	230	0.010	-.67
009	40.40	1.07	035	0.009	-1.17	255	0.009	-.68	255	0.009	-.68	255	0.009	-.68
037	39.79	.78	041	0.008	-1.78	307	0.009	-.94	307	0.009	-.94	307	0.009	-.94
102	37.51	.60	Meth: 321.99 PCT			Acid Soluble Zinc			232	0.009	-.94	035	0.009	-1.12
065	38.87	.47	Acid Soluble Zinc			<u>Atomic Absorption</u>			035	0.009	-1.12	105	0.009	-1.13
Avg	37.45		086	0.014 s	5.47	086	0.014 s	5.47	105	0.009	-1.13	428	0.008	-1.58
232	34.85	-.83	043	0.013 R	3.82	043	0.013 R	3.82	041	0.008	-1.78	041	0.008	-1.78
035	34.65	-.95	371	0.011	1.31	371	0.011	1.31	Meth: 321.00 PCT			Acid Soluble Zinc		
324	32.55	-1.53	296	0.011	1.22	296	0.011	1.22	Acid Soluble Zinc			<u>Other</u>		
Meth: 291.30 PPM			200	0.010	.36	200	0.010	.36	022	0.010	.00	Meth: 321.00 PCT		
Nickel			262	0.010	.36	262	0.010	.36	Acid Soluble Zinc			Acid Soluble Zinc		
136	45.50	1.82	095	0.010	.02	095	0.010	.02	023	0.252 s	203.15	Meth: 321.00 PCT		
009	40.40	.67	Avg	0.010		Avg	0.010		065	0.101 s	76.49	Acid Soluble Zinc		
450	41.00	.66	028	0.010	-.35	028	0.010	-.35	086	0.014 s	3.71	Meth: 321.00 PCT		
037	39.79	.42	105	0.009	-1.08	105	0.009	-1.08	043	0.013 R	2.52	Acid Soluble Zinc		
Meth: 291.00 PPM			428	0.008	-1.66	428	0.008	-1.66	402	0.013 R	2.37	Meth: 321.00 PCT		
Nickel			Meth: 321.00 PCT			Acid Soluble Zinc			Meth: 321.00 PCT			Acid Soluble Zinc		

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## 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	7	0.00	0.82	0.60	050.60	9	0.63	2.10	0.39
001.99	12	3.85	11.99	0.12	050.61	9	- 5.53	16.60	0.17
001.XX	19	4.93	18.14	0.29	050.99	19	0.02	0.97	0.31
002.99	3	0.00	1.05	0.30	050.XX	75	- 0.44	3.92	0.49
002.XX	3	0.00	1.05	0.30	060.00	5	0.00	1.05	0.13
003.10	4	5.52	11.08	0.32	060.XX	5	0.00	1.05	0.13
003.XX	5	4.52	10.14	0.30	101.00	3	0.00	0.94	0.49
005.99	4	0.00	1.08	0.02	101.30	18	0.11	1.01	0.60
005.XX	5	2.98	6.74	0.13	101.XX	22	0.10	1.02	0.61
009.10	2	0.00	1.22	0.11	121.00	18	0.18	1.68	0.86
009.XX	3	0.00	0.91	0.53	121.30	33	0.28	2.36	1.09
010.11	9	- 1.35	4.35	0.42	121.99	2	0.00	0.98	0.52
010.12	3	0.00	0.80	0.64	121.XX	53	0.35	2.49	1.16
010.60	60	0.08	1.27	0.49	131.00	2	0.00	1.20	0.16
010.99	5	- 3.46	3.66	0.90	131.XX	3	0.00	1.10	0.15
010.XX	76	- 0.43	2.94	0.78	144.01	18	- 1.36	6.61	0.48
020.10	5	0.88	2.13	1.31	144.02	2	- 26.16	37.00	0.53
020.20	21	- 0.04	1.81	0.31	144.99	20	0.38	2.24	0.27
020.40	6	16.06	39.35	0.38	144.XX	40	- 0.27	4.68	0.51
020.50	12	0.15	2.70	0.47	151.30	4	0.00	0.86	0.56
020.XX	42	3.34	21.83	0.65	151.XX	5	0.00	0.88	0.53
030.99	2	0.00	0.00	0.00	165.99	5	30.407	66.912	2.300
030.XX	5	13.54	30.30	0.00	165.XX	5	30.407	66.912	2.300
040.40	3	0.00	1.12	0.04	181.30	10	0.74	1.96	0.50
040.50	2	0.00	0.87	0.61	181.XX	11	0.70	1.95	0.50
040.XX	7	0.00	1.04	0.08	190.00	2	0.00	1.06	0.43
041.10	16	0.34	1.63	0.89	190.99	2	0.00	1.21	0.15
041.20	4	- 4.12	8.27	0.53	190.XX	4	0.00	1.05	0.21
041.40	5	- 1.35	3.15	0.20	191.30	11	0.00	0.99	0.25
041.50	12	- 0.09	0.98	0.52	191.XX	11	0.00	0.99	0.25
041.60	11	0.00	0.99	0.24	202.30	11	0.33	1.21	1.16
041.99	3	0.00	1.08	0.23	202.XX	12	1.34	3.68	1.12
041.XX	41	- 0.62	3.59	0.67	221.00	6	- 0.053	2.2740	1.5240
048.20	4	0.00	1.06	0.16	221.30	19	1.6917	3.9658	1.1121
048.XX	5	0.00	1.05	0.16	221.XX	25	1.3389	3.6866	1.1530
050.00	18	- 0.24	1.44	0.33	241.00	17	0.02	1.63	0.75
050.30	11	0.11	1.05	0.13	241.30	32	- 0.11	1.10	0.20
050.50	5	- 1.44	2.26	1.98	241.99	2	0.00	1.11	0.36
050.51	11	0.00	1.01	0.18	241.XX	51	- 0.01	1.14	0.33

## Method Evaluation - Z Values Based on 1 Reports

Method Code	Number Of Labs	Avg Bias of Labs	Std Dev of Biases	Std Dev Within Labs	Method Code	Number Of Labs	Avg Bias of Labs	Std Dev of Biases	Std Dev Within Labs
251.30	11	1.51	3.62	1.28					
251.XX	12	0.10	1.03	0.36					
261.00	13	- 0.082	0.985	0.375					
261.11	2	0.000	0.985	0.514					
261.30	26	3.214	16.898	16.831					
261.31	3	2.106	3.731	0.302					
261.99	5	0.000	0.767	0.655					
261.XX	49	1.705	11.842	11.795					
271.30	2	0.000	1.221	0.070					
271.XX	3	0.000	1.111	0.100					
289.30	14	- 0.44	3.89	2.18					
289.XX	14	- 0.44	3.89	2.18					
291.30	8	0.00	0.97	0.34					
291.XX	9	0.00	0.99	0.28					
311.99	7	0.00	0.93	0.42					
311.XX	7	0.00	0.93	0.42					
321.00	10	0.827	1.963	1.022					
321.30	23	11.278	41.076	0.478					
321.XX	33	8.675	37.366	0.600					