

MAGRUDER - Fertilizer Check Sample No. - 200311 Grade 14-14-14 Blend

- Pass 1 Results for 80 Labs - - Pass 2 Results for 79 Labs -

Method	AOAC Ref.	Method Code	No. of Labs	Grand Avq.	Std. Dev.	Average Range of Dups	No. of Labs	Grand Avq.	Std. Dev.	Average Range of Dups
Ammoniacal Nitrogen, MgO Distillation .	920.03	001.10	5	5.56	0.11	0.12	5	5.56	0.11	0.12
Ammoniacal Nitrogen, Other		001.99	8	5.60	0.18	0.07	7	5.61	0.17	0.03
Method Group 001.XX PCT			13	5.58	0.15	0.09	12	5.59	0.15	0.06
Nitrate Nitrogen, Other		002.99	5	1.49	0.05	0.04	5	1.49	0.05	0.04
Method Group 002.XX PCT			5	1.49	0.05	0.04	5	1.49	0.05	0.04
Water Insoluble Nitrogen, Meth I	945.01	003.10	4	1.46	0.18	0.16	4	1.46	0.18	0.16
Nitrogen From Urea, Urease (as N)	959.03	005.00	1	4.25	0.01	0.02	1	4.25	0.01	0.02
Percent Urea, Other		007.99	1	4.19	0.01	0.01	1	4.19	0.01	0.01
Ammon & Nitrate N, Devarda	892.01	009.10	4	7.33	0.32	0.06	4	7.33	0.32	0.06
Ammon & Nitrate N, Other		009.99	1	7.02	0.11	0.15	1	7.02	0.11	0.15
Method Group 009.XX PCT			5	7.26	0.32	0.08	5	7.26	0.32	0.08
Total Nitrogen, Reduced Iron		010.10	1	13.15	0.13	0.18	1	13.15	0.13	0.18
Total Nitrogen, Modified Comprehensive	978.02	010.11	8	13.27	0.14	0.09	8	13.27	0.14	0.09
Total Nitrogen, Salicylic	955.04D	010.12	1	13.51	0.00	0.01	1	13.51	0.00	0.01
Total Nitrogen, Comprehensive	970.02	010.17	1	13.30	0.02	0.03	1	13.30	0.02	0.03
Total Nitrogen, Combustion		010.60	51	13.53	0.16	0.08	46	13.51	0.13	0.07
Total Nitrogen, Other		010.99	1	13.52	0.07	0.09	1	13.52	0.07	0.09
Method Group 010.XX PCT			63	13.49	0.18	0.08	61	13.48	0.17	0.08
Total Phosphate, Grav Quimociac	962.02	020.10	8	16.41	0.08	0.04	8	16.41	0.08	0.04
Total Phosphate, Spectrometric	958.01	020.20	18	16.39	0.24	0.07	18	16.39	0.24	0.07
Total Phosphate, Automated	978.01	020.40	7	16.36	0.19	0.17	7	16.36	0.19	0.17
Total Phosphate, ICP		020.50	4	16.42	0.16	0.11	4	16.42	0.16	0.11
Total Phosphate, Other		020.99	1	16.73	0.05	0.07	1	16.73	0.05	0.07
Method Group 020.XX PCT			39	16.39	0.20	0.09	36	16.42	0.17	0.07
Insoluble Phosphate, Grav Quimociac ...	963.03C	030.10	3	0.07	0.02	0.00	3	0.07	0.02	0.00
Insoluble Phosphate, Spectrometric	963.03C	030.20	2	0.21	0.17	0.05	2	0.21	0.17	0.05
Insoluble Phosphate, Automated	978.01	030.40	3	0.18	0.11	0.02	3	0.18	0.11	0.02
Method Group 030.XX PCT			8	0.15	0.12	0.02	7	0.12	0.09	0.01
InDir Available Phosphate, Grav Quim ..	960.02	040.10	2	16.21	0.26	0.08	2	16.21	0.26	0.08
InDir Available Phosphate, Spectrometri	960.02	040.20	3	16.14	0.23	0.03	3	16.14	0.23	0.03
InDir Available Phosphate, Automated ..	960.02	040.40	3	16.34	0.26	0.11	3	16.34	0.26	0.11
InDir Available Phosphate, Other		040.99	1	16.25	0.01	0.02	1	16.25	0.01	0.02
Method Group 040.XX PCT			9	16.23	0.23	0.07	9	16.23	0.23	0.07
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	15	16.50	0.11	0.07	15	16.50	0.11	0.07
Dir Available Phosphate, Spectrometric	960.03D	041.20	5	16.28	0.22	0.11	5	16.28	0.22	0.11
Dir Available Phosphate, Alka Quim	960.03C	041.30	1	16.37	0.02	0.03	1	16.37	0.02	0.03
Dir Available Phosphate, Automated	978.01	041.40	7	16.32	0.30	0.09	6	16.34	0.31	0.04
Dir Available Phosphate, ICP		041.50	6	16.23	0.19	0.14	6	16.23	0.19	0.14
Dir Available Phosphate, EDTA Extract .	993.01	041.60	10	16.27	0.10	0.06	10	16.27	0.10	0.06

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Method	AOAC Ref.	Method Code	No. of Labs	Grand Avq.	Std. Dev.	Average Range of Dups	No. of Labs	Grand Avq.	Std. Dev.	Average Range of Dups
Method Group 041.XX PCT			44	16.35	0.20	0.09	42	16.36	0.20	0.07
Water Soluble Phosphate, Grav Quimociac	962.03	048.10	1	13.58	0.31	0.44	1	13.58	0.31	0.44
Water Soluble Phosphate, Spectrometric	970.01	048.20	6	13.67	0.30	0.14	6	13.67	0.30	0.14
Method Group 048.XX PCT			7	13.65	0.29	0.18	7	13.65	0.29	0.18
Soluble Potash, STPB Oxalate	958.02	050.00	21	13.42	0.28	0.07	20	13.41	0.29	0.06
Soluble Potash, STPB Citrate	969.04	050.10	1	13.45	0.06	0.08	1	13.45	0.06	0.08
Soluble Potash, AA (Oxalate)		050.30	8	13.15	0.39	0.14	8	13.15	0.39	0.14
Soluble Potash, ICP (Oxalate)		050.50	6	13.16	0.39	0.11	6	13.16	0.39	0.11
Soluble Potash, ICP (Citrate)		050.51	7	13.32	0.29	0.10	7	13.32	0.29	0.10
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	6	13.37	0.16	0.09	6	13.37	0.16	0.09
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	8	13.41	0.21	0.14	8	13.41	0.21	0.14
Soluble Potash, Other		050.99	14	13.14	0.38	0.11	13	13.13	0.39	0.09
Method Group 050.XX PCT			71	13.30	0.33	0.10	68	13.30	0.33	0.09
Free Water, Vacuum Oven	965.08B	060.00	7	1.87	0.19	0.06	7	1.87	0.19	0.06
Acid Soluble Calcium, AA	945.04	101.00	1	2.36	0.08	0.12	1	2.36	0.08	0.12
Acid Soluble Calcium, ICP		101.30	6	2.30	0.15	0.04	6	2.30	0.15	0.04
Method Group 101.XX PCT			7	2.30	0.14	0.05	7	2.30	0.14	0.05
Acid Soluble Magnesium, AA	984.01	121.00	17	1.80	0.11	0.04	16	1.80	0.12	0.03
Acid Soluble Magnesium, ICP		121.30	22	1.71	0.11	0.04	20	1.71	0.11	0.02
Acid Soluble Magnesium, Titrimetric	964.01	121.70	1	2.10	0.11	0.16	1	2.10	0.11	0.16
Method Group 121.XX PCT			40	1.76	0.13	0.04	37	1.75	0.12	0.03
Water Soluble Magnesium, AA		131.00	1	0.80	0.00	0.00	1	0.80	0.00	0.00
Water Soluble Magnesium, Titrimetric		131.70	1	1.95	0.04	0.05	1	1.95	0.04	0.05
Method Group 131.XX PCT			2	1.38	0.66	0.03	2	1.38	0.66	0.03
Sulfur, Gravimetric	980.02a	144.01	12	4.35	0.27	0.09	12	4.35	0.27	0.09
Sulfur, Gravimetric	980.02b	144.02	2	4.54	0.06	0.01	2	4.54	0.06	0.01
Sulfur, Turbidimetric	63.845	144.50	1	4.67	0.01	0.01	1	4.67	0.01	0.01
Sulfur, Spectrometric		144.70	1	3.79	0.03	0.04	1	3.79	0.03	0.04
Sulfur, Other		144.99	17	4.45	0.37	0.09	16	4.49	0.34	0.06
Method Group 144.XX PCT			33	4.41	0.34	0.08	32	4.43	0.32	0.07
Arsenic, Atomic Absorption		151.00	2	131.30	142.49	3.14	2	131.30	142.49	3.14
Arsenic, ICP		151.30	9	159.18	67.32	5.05	9	159.18	67.32	5.05
Arsenic, Other		151.99	2	194.50	19.09	12.00	2	194.50	19.09	12.00
Method Group 151.XX PPM			13	160.32	76.71	5.83	13	160.32	76.71	5.83
Acid Soluble Boron, Spectrometric	982.01	165.00	11	0.103	0.013	0.002	11	0.103	0.013	0.002
Acid Soluble Boron, Other		165.99	15	0.106	0.011	0.003	14	0.105	0.010	0.003
Method Group 165.XX PCT			26	0.105	0.012	0.003	23	0.104	0.011	0.002
Cadmium, Atomic Absorption		181.00	6	14.00	2.98	0.09	6	14.00	2.98	0.09
Cadmium, ICP		181.30	12	17.43	2.80	1.11	12	17.43	2.80	1.11

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Cadmium, Other		181.99	2	15.82	1.24	1.57	2	15.82	1.24	1.57
Method Group 181.XX PPM			20	16.24	3.11	0.85	19	16.02	3.01	0.73
Water Soluble Chlorine, Other		190.99	2	4.67	0.13	0.04	2	4.67	0.13	0.04
Chromium, Atomic Absorption		191.00	2	213.50	12.48	17.00	2	213.50	12.48	17.00
Chromium, ICP		191.30	10	173.72	32.44	6.63	9	176.13	33.17	4.92
Chromium, Other		191.99	1	199.50	3.54	5.00	1	199.50	3.54	5.00
Method Group 191.XX PPM			13	181.82	32.51	8.10	12	179.06	32.02	6.28
Acid Soluble Cobalt, AA		202.00	2	28.28	8.89	6.75	2	28.28	8.89	6.75
Acid Soluble Cobalt, ICP	965.11	202.30	10	31.63	14.51	4.25	10	31.63	14.51	4.25
Acid Soluble Cobalt, Other		202.99	1	55.50	7.78	11.00	1	55.50	7.78	11.00
Method Group 202.XX PPM			13	32.95	14.75	5.16	13	32.95	14.75	5.16
Acid Soluble Copper, Atomic Absorption	975.01	221.00	16	0.1152	0.0087	0.0040	15	0.1146	0.0083	0.0032
Acid Soluble Copper, ICP		221.30	21	0.1175	0.0082	0.0026	20	0.1177	0.0084	0.0023
Acid Soluble Copper, Other		221.99	1	0.1130	0.0014	0.0020	1	0.1130	0.0014	0.0020
Method Group 221.XX PCT			38	0.1164	0.0084	0.0032	37	0.1162	0.0083	0.0028
Acid Soluble Iron, Atomic Absorption	980.01	241.00	14	3.69	0.18	0.13	14	3.69	0.18	0.13
Acid Soluble Iron, ICP		241.30	18	3.43	0.55	0.13	17	3.46	0.55	0.11
Acid Soluble Iron, Other		241.99	1	3.55	0.44	0.62	1	3.55	0.44	0.62
Method Group 241.XX PCT			33	3.54	0.44	0.14	30	3.62	0.33	0.12
Lead, Atomic Absorption		251.00	7	263.97	31.98	15.68	7	263.97	31.98	15.68
Lead, ICP		251.30	8	249.49	18.90	12.14	8	249.49	18.90	12.14
Lead, Other		251.99	2	249.50	7.33	9.00	2	249.50	7.33	9.00
Method Group 251.XX PPM			17	255.46	24.95	13.23	16	253.67	23.87	11.05
Acid Soluble Manganese, AA	972.02a	261.00	14	0.287	0.025	0.011	14	0.287	0.025	0.011
Acid Soluble Manganese, AA	972.02b	261.11	2	0.304	0.012	0.016	2	0.304	0.012	0.016
Acid Soluble Manganese, ICP	972.02a	261.30	17	0.285	0.035	0.011	17	0.285	0.035	0.011
Acid Soluble Manganese, ICP	972.02b	261.31	3	0.284	0.026	0.011	3	0.284	0.026	0.011
Acid Soluble Manganese, Other		261.99	2	0.343	0.038	0.005	2	0.343	0.038	0.005
Method Group 261.XX PCT			38	0.290	0.033	0.011	37	0.292	0.029	0.011
Water Soluble Manganese, Atomic Abs	972.03	271.00	1	0.028	0.004	0.005	1	0.028	0.004	0.005
Mercury, Atomic Absorption		281.00	4	1.71	0.11	0.09	4	1.71	0.11	0.09
Mercury, ICP		281.30	1	2.03	0.01	0.02	1	2.03	0.01	0.02
Mercury, Other		281.99	1	1.70	0.14	0.20	1	1.70	0.14	0.20
Method Group 281.XX PPM			6	1.76	0.16	0.10	6	1.76	0.16	0.10
Molybdenum, Atomic Absorption		289.00	3	21.60	3.95	1.40	3	21.60	3.95	1.40
Molybdenum, ICP		289.30	10	16.54	2.52	0.34	10	16.54	2.52	0.34
Molybdenum, Other		289.99	1	19.50	0.71	1.00	1	19.50	0.71	1.00
Method Group 289.XX PPM			14	17.83	3.46	0.62	14	17.83	3.46	0.62
Nickel, Atomic Absorption		291.00	3	98.57	23.62	7.20	3	98.57	23.62	7.20

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Nickel, ICP		291.30	10	103.09	13.69	2.51	10	103.09	13.69	2.51
Nickel, Other		291.99	2	109.48	18.32	6.15	2	109.48	18.32	6.15
Method Group 291.XX PPM			16	98.86	22.71	3.75	15	98.45	23.33	2.94
Selenium, Atomic Absorption		301.00	2	0.84	0.81	0.08	2	0.84	0.81	0.08
Selenium, Other		301.99	2	2.22	0.40	0.16	2	2.22	0.40	0.16
Method Group 301.XX PPM			4	1.53	0.94	0.12	4	1.53	0.94	0.12
Sodium, Atomic Absorption	983.04	311.00	1	0.39	0.00	0.01	1	0.39	0.00	0.01
Sodium, Flame Photometric	974.01	311.30	1	0.41	0.00	0.01	1	0.41	0.00	0.01
Sodium, Other		311.99	4	0.38	0.03	0.01	4	0.38	0.03	0.01
Method Group 311.XX PCT			6	0.39	0.03	0.01	6	0.39	0.03	0.01
Acid Soluble Zinc, Atomic Absorption ..	975.02	321.00	19	0.298	0.014	0.008	19	0.298	0.014	0.008
Acid Soluble Zinc, ICP		321.30	20	0.301	0.029	0.008	20	0.301	0.029	0.008
Method Group 321.XX PCT			39	0.300	0.023	0.008	38	0.301	0.020	0.008
Water Soluble Zinc, Atomic Absorption .		325.00	1	0.003	0.000	0.000	1	0.003	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: 005.00 PCT			Meth: 010.11 PCT			Meth: 010.60 PCT		
<u>Ammoniacal Nitrogen</u>			<u>Ammoniacal Nitrogen</u>			Nitrogen From Urea			Total Nitrogen			Total Nitrogen		
<u>MgO Distillation</u>			105 5.55 R -1.42			<u>Urease (as N)</u>			<u>Modified Comprehensi</u>			<u>Combustion</u>		
220	5.65	1.00				288	4.25	.71	211	14.13 s	6.18	157	13.66	1.18
415	5.63	.63	Meth: 002.20 PCT						322	13.44	1.28	027	13.66	1.14
029	5.58	.49	Nitrate Nitrogen			Meth: 007.99 PCT			405	13.38	.78	330	13.65	1.12
Avg	5.56		<u>Jones Modified</u>			Percent Urea			090	13.37	.71	351	13.65	1.11
288	5.50	-.95	029 1.64 S .00			<u>Other</u>			105	13.36	.60	029	13.65	1.07
262	5.44	-1.40				029 4.19 X -.71			Avg	13.27		324	13.63	1.00
			Meth: 002.99 PCT			Meth: 009.10 PCT			029	13.24	-.74	292	13.61	.92
			Nitrate Nitrogen			Ammon & Nitrate N			363	13.16	-.84	028	13.62	.87
			<u>Other</u>			<u>Devarda</u>			414	13.18	-.94	024	13.61	.82
			289	1.55	1.43	391	7.70	1.17	288	13.08	-1.50	073	13.54	.81
			393	1.52	.58	391	7.70	1.17				369	13.61	.78
			394	1.50	.02	257	7.40	.25	Meth: 010.12 PCT			131	13.58	.54
			Avg	1.49		392	7.34	.17	Total Nitrogen			394	13.58	.52
			220	1.46	-.74	Avg	7.33		<u>Salicylic</u>			049	13.57	.46
			420	1.45	-1.25	420	6.87	-1.43	102	13.51	.71	325	13.57	.44
									Avg	13.51		114	13.55	.32
			Meth: 002.XX PCT			Meth: 009.99 PCT			415	12.68 S-176.44		296	13.53	.17
			<u>Nitrate Nitrogen</u>			Ammon & Nitrate N			254	12.60 S-194.50		095	13.53	.17
			029	1.64 s	3.43	<u>Other</u>						Avg	13.51	
			289	1.55	1.43	105	7.02	-.71	Meth: 010.17 PCT			177	13.48	-.22
			393	1.52	.58				Total Nitrogen			406	13.49	-.25
			394	1.50	.02	Meth: 009.XX PCT			<u>Comprehensive</u>			232	13.49	-.26
			Avg	1.49		Ammon & Nitrate N			368	15.34 S	97.73	055	13.51	-.33
			220	1.46	-.74	391	7.70	1.39	220	13.30	.71	220	13.46	-.41
			420	1.45	-1.25	257	7.40	.45	Avg	13.30		247	13.47	-.41
						392	7.34	.28				025	13.45	-.45
			Meth: 003.10 PCT			Avg			Meth: 010.60 PCT			231	13.50	-.52
			Water Insoluble Nitr			105 7.02 -.82			Total Nitrogen			377	13.44	-.55
			<u>Meth I</u>			420 6.87 -1.27			<u>Combustion</u>			106	13.45	-.57
			029	1.60	.83				409	13.97 A	3.47	042	13.46	-.63
			090	1.51	.69	Meth: 010.10 PCT			023	13.96 A	3.39	393	13.42	-.65
			023	1.48	.18	Total Nitrogen			022	13.77	1.92	096	13.51	-.71
			Avg	1.46		<u>Reduced Iron</u>			262	13.70	1.61	275	13.41	-.74
			220	1.24	-1.52	072 13.15 .71			072	13.70	1.50	360	13.51 R	-1.00
									037	13.62 R	1.28	040	13.36	-1.16
									361	13.68	1.25	007	13.35	-1.19
									041	13.51 R	1.19	043	13.35	-1.23

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 010.60 PCT			Meth: 010.XX PCT			Meth: 010.XX PCT			Meth: 020.20 PCT			Meth: 020.99 PCT		
Total Nitrogen			Total Nitrogen			Total Nitrogen			Spectrometric			Total Phosphate		
<u>Combustion</u>												<u>Other</u>		
035	13.33	-1.32	360	13.51	.80	009	13.31	-1.02	376	16.40	.15	394	16.73	.71
034	13.33	-1.38	369	13.61	.78	376	13.30	-1.03	257	16.41	.10			
234	13.32	-1.39	073	13.54	.70	220	13.30	-1.06	Avg	16.39		Meth: 020.XX PCT		
233	13.31	-1.50	131	13.58	.59	389	13.28	-1.18	232	16.36	-.14	<u>Total Phosphate</u>		
009	13.31	-1.53	394	13.58	.59	029	13.24	-1.51	418	16.36 X	-.17	330	17.30 s	6.04
376	13.30	-1.54	096	13.51	.58	414	13.18	-1.82	234	16.36	-.20	415	16.88	2.71
389	13.28	-1.74	049	13.57	.54	363	13.16	-1.85	292	16.38	-.26	394	16.73	1.84
			325	13.57	.52	072	13.15	-1.97	363	16.30	-.45	389	16.63	1.23
			114	13.55	.43	288	13.08	-2.36	420	16.20	-.79	406	16.62	1.19
			231	13.50	.43	105	12.70 s	-4.56	324	16.17	-.99	392	16.61	1.11
Meth: 010.99 PCT			231			105			220			362		
Total Nitrogen			354			415			220			320		
<u>Other</u>			095			254			397			231		
354	13.52	.71	055	13.51	.31	362	11.28 s	-12.82	369	14.45 s	-8.22	096	16.54	.71
Avg	13.52		296	13.53	.29	Meth: 020.10 PCT			Meth: 020.40 PCT			090	16.52	.65
105	12.70 S	-12.64	232	13.49	.19	Total Phosphate			Total Phosphate			414	16.51	.55
362	11.28 S	-34.32	102	13.51	.18	<u>Grav Quimociac</u>			<u>Automated</u>			114	16.48	.41
			406	13.49	.15	090	16.52	1.37	320	16.56	1.04	391	16.45	.35
Meth: 010.XX PCT			177			414			096			288		
Total Nitrogen			Avg			114			247			095		
368	15.34 s	11.02	220	13.46	-.15	114	16.51	1.17	Avg	16.36	.07	361	16.43	.06
211	14.13 s	3.77	025	13.45	-.19	095	16.42	.15	042	16.35	-.25	Avg	16.42	
409	13.97 A	2.89	247	13.47	-.21	Avg	16.41		409	16.24	-.77	257	16.41	-.11
023	13.96	2.83	377	13.44	-.26	300	16.38	-.54	193	16.35	-.80	376	16.40	-.24
022	13.77	1.68	106	13.45	-.33	049	16.36	-.81	035	16.14	-1.81	247	16.37	-.28
262	13.70	1.42	322	13.44	-.33	157	16.33	-.99				300	16.38	-.28
072	13.70	1.34	393	13.42	-.34	313	16.31	-1.24				232	16.36	-.35
361	13.68	1.16	275	13.41	-.41	405	16.07 s	-4.13				418	16.36 X	-.39
037	13.62	1.12	042	13.46	-.42	Meth: 020.20 PCT			Total Phosphate			234	16.36	-.40
157	13.66	1.10	405	13.38	-.63	Total Phosphate			<u>ICP</u>			292	16.38	-.41
027	13.66	1.07	090	13.37	-.63	<u>Spectrometric</u>			330			049	16.36	-.41
330	13.65	1.05	105	13.36	-.71	415	16.88	2.09	389	16.63	1.29	042	16.35	-.49
351	13.65	1.04	040	13.36	-.74	406	16.62	.99	361	16.43	.04	157	16.33	-.50
029	13.65	1.01	007	13.35	-.76	392	16.61	.93	Avg	16.42		368	16.38	-.57
041	13.51 R	.95	043	13.35	-.79	362	16.59	.86	368	16.38	-.62	313	16.31	-.62
324	13.63	.94	035	13.33	-.86	231	16.55	.73	247	16.26	-1.20	363	16.30	-.77
292	13.61	.88	034	13.33	-.91	391	16.45	.34	275	14.93 S	-9.44	193	16.35 R	-.96
028	13.62	.85	234	13.32	-.91	288	16.44	.31						
024	13.61	.81	233	13.31	-1.00									
* 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.XX PCT			Meth: 030.XX PCT			Meth: 040.XX PCT			Meth: 041.20 PCT			Meth: 041.60 PCT		
<u>Total Phosphate</u>			<u>Insoluble Phosphate</u>			<u>InDir Available Phos</u>			<u>Dir Available Phosph Spectrometric</u>			<u>Dir Available Phosph EDTA Extract</u>		
247	16.26	-1.09	247	0.12	.02	394	16.66	1.82	397	16.24	-.23	296	16.42	1.60
409	16.24	-1.13	Avg	0.12		289	16.44	.89	055	16.15	-.62	028	16.37	.96
420	16.20	-1.27	409	0.11	-.16	090	16.43	.85	362	16.04	-1.26	043	16.34	.77
324	16.17	-1.53	090	0.09	-.32	247	16.25	.08	Meth: 041.30 PCT			095	16.31	.42
220	16.11	-1.79	405	0.08	-.43	Avg	16.23		Dir Available Phosph			351	16.29	.41
405	16.07	-2.04	220	0.07	-.55	096	16.22	-.21	<u>Alka Quim</u>			Avg	16.27	
035	16.14 R	-2.22	320	0.05	-.83	409	16.14	-.56	260	16.37	-.71	377	16.25	-.29
397	15.79 A	-3.66	Meth: 040.10 PCT			220	16.04	-.83	Meth: 041.40 PCT			288	16.22	-.58
275	14.93 s	-8.74	InDir Available Phos			405	15.99	-1.06	Dir Available Phosph			073	16.22	-.87
369	14.45 s	-11.50	<u>Grav Quim</u>			363	15.95	-1.21	<u>Automated</u>			037	16.19	-1.03
Meth: 030.10 PCT			090	16.43	.87	Meth: 041.10 PCT			Meth: 041.50 PCT			177	16.11	-1.68
Insoluble Phosphate			Avg	16.21		Dir Available Phosph			Dir Available Phosph			262	14.10 s	-22.06
<u>Grav Quimociac</u>			405	15.99	-.87	<u>Grav Quimociac</u>			027	16.69	1.11	Meth: 041.XX PCT		
090	0.09	.86	Meth: 040.20 PCT			211	16.78	2.42	072	16.63	.94	<u>Dir Available Phosph</u>		
405	0.08	.39	InDir Available Phos			022	16.60	1.01	131	16.46	.39	105	17.50 s	6.31
Avg	0.07		<u>Spectrometri</u>			105	16.59	.81	Avg	16.34		211	16.78	2.04
Meth: 030.20 PCT			289	16.44	1.28	055	16.58	.72	029	16.29	-.16	027	16.69	1.61
Insoluble Phosphate			Avg	16.14		296	16.55	.40	023	16.15 X	-.63	072	16.63	1.33
<u>Spectrometric</u>			220	16.04	-.44	414	16.51	.14	393	16.24 R	-.74	022	16.62	1.26
363	0.36	.90	363	15.95	-.82	Avg	16.50		025	15.82	-1.67	022	16.60	1.20
Avg	0.21		Meth: 040.40 PCT			102	16.48	-.15	Meth: 041.60 PCT			105	16.59	1.12
220	0.07	-.84	InDir Available Phos			072	16.47	-.32	Dir Available Phosph			055	16.58	1.08
Meth: 030.40 PCT			<u>Automated</u>			322	16.47	-.38	<u>ICP</u>			360	16.50	.94
Insoluble Phosphate			394	16.66	1.25	009	16.43	-.68	360	16.50	1.57	296	16.55	.91
<u>Automated</u>			Avg	16.34		040	16.46	-.87	361	16.28	.27	414	16.51	.71
096	0.32	1.29	096	16.22	-.50	041	16.44	-.95	393	16.26	.23	040	16.46	.66
Avg	0.18		409	16.14	-.84	177	16.40	-.96	Avg	16.23		102	16.48	.61
247	0.12	-.57	Meth: 040.99 PCT			029	16.35	-1.61	325	16.17	-.32	041	16.44	.55
409	0.11	-.71	InDir Available Phos			254	14.20 s	-20.30	007	16.20	-.92	072	16.47	.55
Meth: 030.XX PCT			<u>Other</u>			Meth: 041.20 PCT			Meth: 041.60 PCT			322	16.47	.53
Insoluble Phosphate			247	16.25	.71	Dir Available Phosph			Dir Available Phosph			131	16.46	.49
363	0.36 R	2.73	<u>Spectrometric</u>			<u>Spectrometric</u>			<u>EDTA Extract</u>			131	16.44	.42
096	0.32	2.28	022	16.62	1.50	022	16.62	1.50	296	16.42	.38	296	16.42	.38
* X=Excluded from lab performance			106	16.37	.48	106	16.37	.48	009	16.43	.32	009	16.43	.32
			Avg	16.28		Avg	16.28		106	16.37	.32	106	16.37	.32
									105	17.50 s	13.84	177	16.40	.25
									A=Analysis beyond 3-s limits					

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: 050.00 PCT			Meth: 050.51 PCT			Meth: 050.99 PCT		
<u>Dir Available Phosph</u>			Water Soluble Phosph			Soluble Potash			Soluble Potash			Soluble Potash		
260	16.37	.08	<u>Spectrometric</u>			<u>STPB Oxalate</u>			<u>ICP (Citrate)</u>			<u>Other</u>		
028	16.37	.03	Avg	13.67		090	13.31	-.35	361	13.78	1.60	260	13.86	1.88
Avg	16.36		420	13.62	-.23	418	13.27 X	-.51	377	13.66	1.18	300	13.51	.96
043	16.34	-.18	363	13.50	-.69	350	13.25	-.57	023	13.34	.34	177	13.46	.84
095	16.31	-.26	247	13.45	-.75	231	13.23	-.64	Avg	13.32		042	13.42	.76
029	16.29	-.35	193	13.45	-.75	220	13.24	-.68	393	13.19	-.50	072	13.31 R	.67
351	16.29	-.37	415	11.36 S	-7.77	072	12.99	-1.49	389	13.18	-.51	325	13.37	.62
361	16.28	-.43	Meth: 048.XX PCT			Meth: 050.10 PCT			Meth: 050.60 PCT			376		
029	16.35	-.48	<u>Water Soluble Phosph</u>			Soluble Potash			Soluble Potash			394		
393	16.26	-.52	096	14.22	2.01	<u>STPB Citrate</u>			Flame (Oxalate)			Avg		
377	16.25	-.56	362	13.77	.51	322	13.45	-.71	055	13.56	1.18	027	12.87	-.68
397	16.24	-.61	Avg	13.65		Meth: 050.30 PCT			406			232		
288	16.22	-.72	420	13.62	-.21	Soluble Potash			390			360		
073	16.22	-.79	363	13.50	-.68	<u>AA (Oxalate)</u>			Avg			275		
037	16.19	-.91	247	13.45	-.73	114	15.08 s	5.07	415	13.32	-.57	289	12.69	-1.12
325	16.17	-.97	193	13.45	-.73	095	13.61	1.17	024	13.23	-.89	397	12.54	-1.51
055	16.15	-1.07	405	13.58	-.81	262	13.60	1.15	288	13.17	-1.28	330	10.85 s	-5.84
023	16.15 X	-1.08	415	11.36 s	-7.96	363	13.31	.59	Meth: 050.XX PCT					
007	16.20 R	-1.19	Meth: 050.00 PCT			369	13.30	.58	<u>Soluble Potash</u>					
393	16.24 R	-1.20	Soluble Potash			Avg	13.15		114					
177	16.11	-1.25	<u>STPB Oxalate</u>			234	13.14	-.08	15.08 s					
362	16.04	-1.74	022	14.06	2.30	420	12.91	-.65	022					
023	15.96	-2.00	257	13.99	2.04	040	12.93	-.65	14.06					
025	15.82	-2.69	095	13.66	.86	351	12.45	-1.81	13.99					
354	15.15 s	-5.99	009	13.64	.81	Meth: 050.50 PCT			260					
254	14.20 s	-10.65	049	13.56 R	.67	Soluble Potash			13.86					
262	14.10 s	-11.15	345	13.55	.49	<u>ICP (Oxalate)</u>			13.81					
Meth: 048.10 PCT			029	13.48	.38	292	13.81	1.67	13.78					
Water Soluble Phosph			055	13.45	.16	324	13.34	.52	13.70					
<u>Grav Quimociac</u>			043	13.44	.10	247	13.22	.33	13.55					
405	13.58	.71	Avg	13.41		106	13.05	-.29	13.66					
Meth: 048.20 PCT			131	13.39	-.08	354	12.88	-.72	13.64					
Water Soluble Phosph			391	13.37	-.14	157	12.64	-1.32	13.61					
<u>Spectrometric</u>			392	13.40	-.16	* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits								
096	14.22	1.91	102	13.35	-.20									
362	13.77	.46	211	13.32	-.32									

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 050.XX PCT			Meth: 050.XX PCT			Meth: 101.30 PCT			Meth: 121.00 PCT			Meth: 121.99 PCT		
<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Acid Soluble Calcium</u>			<u>Acid Soluble Magnesi</u>			<u>Acid Soluble Magnesi</u>		
300	13.51	.63	037	13.10	-.63	ICP			AA			Other		
035	13.50	.63	007	13.10	-.66	035	2.46	1.12	040	1.69	-.96	234	2.44 S	.00
029	13.48	.59	106	13.05	-.75	320	2.43	.90	390	1.69	-.99			
072	13.31 R	.57	368	13.01	-.87	361	2.41	.78	397	1.68	-1.10	Meth: 121.XX PCT		
363	13.31 R	.52	072	12.99	-.94	Avg	2.30		Meth: 121.30 PCT			<u>Acid Soluble Magnesi</u>		
369	13.30 R	.51	040	12.93	-1.15	102	2.21	-.59	234	2.44 s	5.75			
322	13.45	.48	420	12.91	-1.17	009	2.14	-1.05	415	2.10 R	2.98			
177	13.46	.48	354	12.88	-1.26	288	2.13	-1.17	ICP			193	2.08	2.73
055	13.45	.46	027	12.87	-1.29				231	1.91	1.80	055	2.00	2.04
042	13.42	.44	232	12.85	-1.35	Meth: 101.XX PCT			035	1.90	1.72	231	1.91	1.31
043	13.44	.42	193	12.83	-1.42	<u>Acid Soluble Calcium</u>			330	1.89	1.65	391	1.91	1.30
390	13.40	.39	360	12.83	-1.44	035	2.46	1.12	360	1.78 R	1.02	035	1.90	1.23
028	13.43	.39	275	12.78 X	-1.56	320	2.43	.89	376	1.80	.80	330	1.89	1.18
376	13.33	.34	289	12.69	-1.81	361	2.41	.76	023	1.80	.75	028	1.89	1.14
392	13.40	.33	157	12.64	-1.95	105	2.36	.58	102	1.77	.48	257	1.88	1.05
023	13.34	.31	397	12.54	-2.27	Avg	2.30		361	1.75	.33	360	1.78 R	.78
324	13.34	.27	351	12.45	-2.53	102	2.21	-.69	389	1.73	.25	029	1.77	.57
131	13.39	.27	254	12.10 s	-3.57	009	2.14	-1.17	157	1.73	.19	037	1.82	.55
415	13.32	.25	330	10.85 s	-7.35	288	2.13	-1.30	288	1.73	.11	376	1.80	.39
391	13.37	.22							394	1.73	.11	023	1.80	.35
325	13.37	.22	Meth: 060.00 PCT			Meth: 121.00 PCT			Avg	1.71		177	1.79	.34
102	13.35	.16	Free Water			Acid Soluble Magnesi			292	1.70	-.18	043	1.76	.17
211	13.32	.09	<u>Vacuum Oven</u>			<u>AA</u>			232	1.67	-.44	102	1.77	.12
090	13.31	.07	193	2.11	1.32	193	2.08	2.37	106	1.63	-.77	095	1.76	.10
Avg	13.30		096	2.06	1.00	055	2.00	1.66	009	1.63	-.79	Avg	1.75	
350	13.25	-.16	105	1.98	.61	391	1.91	.92	324	1.62	-.86	361	1.75	-.04
418	13.27 X	-.17	363	1.90	.17	028	1.89	.74	300	1.61	-1.00	105	1.74	-.15
231	13.23	-.21	Avg	1.87		257	1.88	.65	368	1.60	-1.10	157	1.73	-.17
024	13.23	-.22	320	1.72	-.78	037	1.82	.14	354	1.66 R	-1.11	220	1.75	-.22
394	13.21	-.28	007	1.68	-1.03	Avg	1.80		320	1.59	-1.11	288	1.73	-.25
220	13.24	-.31	362	1.63	-1.29	177	1.79	-.18	393	1.52	-1.82	394	1.73	-.25
393	13.19	-.36				095	1.76	-.38	247	1.05 s	-6.12	289	1.72	-.29
389	13.18	-.37	Meth: 101.00 PCT			043	1.76	-.41	Meth: 121.70 PCT			389	1.73	-.32
247	13.22	-.40	Acid Soluble Calcium			220	1.75	-.55	Acid Soluble Magnesi			292	1.70	-.50
288	13.17	-.41	<u>AA</u>			105	1.74	-.55	<u>Titrimetric</u>			296	1.72	-.50
041	13.27	-.45	105	2.36	.71	029	1.77 R	-.62	415	2.10	.71	040	1.69	-.53
029	13.26	-.46				289	1.72	-.72				390	1.69	-.56
234	13.14	-.49				296	1.72	-.85				397	1.68	-.66

* 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: 121.XX PCT			Meth: 144.01 PCT			Meth: 144.99 PCT			Meth: 144.XX PCT			Meth: 151.99 PPM		
<u>Acid Soluble Magnesi</u>			Sulfur			Sulfur			<u>Sulfur</u>			Arsenic		
232	1.67	-.73	<u>Gravimetric</u>			<u>Other</u>			296	4.17	-.81	<u>Other</u>		
106	1.63	-1.04	055	4.21	-.67	361	4.33	-.49	324	4.12	-.99	409	179.50	-.80
009	1.63	-1.06	324	4.12	-.92	354	4.26	-.71	106	4.11	-1.03	Meth: 151.XX PPM		
324	1.62	-1.12	106	4.11	-.97	394	4.26	-.71	193	4.10	-1.05	<u>Arsenic</u>		
354	1.66 R	-1.20	193	4.10	-.98	296	4.17	-.97	177	4.09	-1.07	040	254.69	1.23
300	1.61	-1.25	095	4.05	-1.15	177	4.09	-1.21	360	4.08	-1.08	009	233.80	.96
368	1.60	-1.33	Meth: 144.02 PCT			360	4.08	-1.22	095	4.05	-1.19	220	209.50	.65
320	1.59	-1.35	Sulfur			409	3.97	-1.57	409	3.97	-1.45	247	198.50	.50
393	1.52	-2.00	<u>Gravimetric</u>			363	3.81 R	-2.21	393	3.79	-2.00	102	196.60	.48
247	1.05 s	-5.93	028	4.59	.87	368	0.45 s	-12.01	363	3.81 R	-2.14	394	193.00	.43
Meth: 131.00 PCT			Avg	4.54		Meth: 144.XX PCT			368	0.45 s	-12.49	106	185.00	.32
Water Soluble Magnes			029	4.49	-.86	<u>Sulfur</u>			Meth: 151.00 PPM			409	179.50	.25
<u>AA</u>			Meth: 144.50 PCT			035	5.63 s	3.78	Arsenic			368	170.82	.14
193	0.80	.00	Sulfur			023	4.98	1.73	<u>Atomic Absorption</u>			Avg	160.32	
Meth: 131.70 PCT			<u>Turbidimetric</u>			220	4.97	1.70	040	254.69	.87	232	151.00	-.13
Water Soluble Magnes			289	4.67	.71	131	4.96	1.68	Avg	131.30		288	101.50	-.77
<u>Titrimetric</u>			Meth: 144.70 PCT			330	4.86	1.34	231	7.92	-.87	231	7.92	-1.99
415	1.95	-.71	Sulfur			102	4.74	.99	Meth: 151.30 PPM			376	2.39	-2.06
Meth: 131.XX PCT			<u>Spectrometric</u>			288	4.73	.98	Arsenic			Meth: 165.00 PCT		
Water Soluble Magnes			393	3.79	.71	009	4.72	.94	<u>ICP</u>			Acid Soluble Boron		
415	1.95	.87	Meth: 144.99 PCT			289	4.67	.74	009	233.80	1.11	<u>Spectrometric</u>		
Avg	1.38		Sulfur			157	4.62	.62	247	198.50	.59	292	0.125	1.69
193	0.80	-.87	<u>Other</u>			043	4.60	.56	102	196.60	.56	040	0.124	1.58
Meth: 144.01 PCT			035	5.63 S	3.38	232	4.60	.54	394	193.00	.50	257	0.113	.75
Sulfur			023	4.98	1.44	028	4.59	.51	106	185.00	.39	391	0.104	.05
<u>Gravimetric</u>			220	4.97	1.41	393	4.57	.46	368	170.82	.17	028	0.104	.04
102	4.74	1.47	131	4.96	1.40	389	4.55	.41	Avg	159.18		Avg	0.103	
288	4.73	1.45	330	4.86	1.07	105	4.56	.41	232	151.00	-.13	029	0.102	-.15
157	4.62	1.02	009	4.72	.70	029	4.50	.23	288	101.50	-.86	289	0.103	-.16
043	4.60	.95	232	4.60	.32	Avg	4.43		376	2.39	-2.33	220	0.096	-.60
029	4.50	.55	393	4.57	.24	361	4.33	-.31	Meth: 151.99 PPM			023	0.096	-.62
Avg	4.35		389	4.55	.22	073	4.29 X	-.43	Arsenic			393	0.090	-1.05
073	4.29 X	-.24	105	4.56	.21	354	4.26	-.54	<u>Other</u>			055	0.083	-1.64
220	4.19	-.66	Avg	4.49		394	4.26	-.54	220	209.50	.93			
* X=Excluded from lab performance			S/s=Screened Outlier			055	4.21	-.76	Avg	194.50				
						220	4.19	-.77	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: 165.99 PCT			Meth: 165.XX PCT			Meth: 181.30 PPM			Meth: 190.99 PCT			Meth: 191.XX PPM		
<u>Acid Soluble Boron</u>			<u>Acid Soluble Boron</u>			<u>Cadmium</u>			<u>Water Soluble Chlori</u>			<u>Chromium</u>		
<u>Other</u>			<u>ICP</u>			<u>Other</u>								
368	0.502 s	57.62	289	0.103	-.19	288	15.10	-.84	288	4.78	.88	368	195.88	.53
376	0.123 R	1.91	029	0.102	-.21	232	14.75	-.96	Avg	4.67		393	194.00	.47
409	0.119	1.43	288	0.101	-.26	231	12.03	-1.93	009	4.57	-.85	232	194.00	.47
354	0.118	1.42	247	0.100	-.34	Meth: 181.99 PPM			Meth: 191.00 PPM			376	193.00	.46
360	0.116	1.10	300	0.100	-.34	<u>Cadmium</u>			<u>Chromium</u>			102	185.31	.21
330	0.110	.50	220	0.096	-.72	<u>Other</u>			<u>Atomic Absorption</u>			Avg	179.06	
231	0.110	.50	023	0.096	-.74	409	16.50	.68	220	215.00	1.21	288	165.50	-.42
394	0.107	.20	043	0.095	-.79	Avg	15.82		Avg	213.50		035	152.00	-.91
232	0.105	.19	393	0.090	-1.24	362	15.14	-1.02	247	113.00	-.20	231	129.10	-1.58
Avg	0.105		009	0.082	-1.95	Meth: 181.00 PPM			Meth: 191.30 PPM			247	113.00	-2.06
324	0.103	-.20	<u>Atomic Absorption</u>			<u>Cadmium</u>			<u>Chromium</u>			Meth: 202.00 PPM		
288	0.101	-.44	296	205.00 s	62.71	296	205.00 s	62.71	009	215.40	1.19	<u>Acid Soluble Cobalt</u>		
106	0.105	-.51	289	31.56 S	5.91	289	31.56 s	5.17	368	195.88	.60	<u>AA</u>		
300	0.100	-.52	040	17.07	1.03	368	20.98	1.70	232	194.00	.54	193	35.00	.94
247	0.100	-.52	193	15.00	.34	389	21.00	1.68	393	194.00	.54	Avg	28.28	
043	0.095	-1.04	220	15.00	.34	035	20.35 R	1.53	376	193.00	.53	296	21.55	-.78
009	0.082	-2.35	363	15.00	.34	106	19.00	1.04	102	185.31	.29	Meth: 202.30 PPM		
Meth: 165.XX PCT			Meth: 181.30 PPM			Meth: 181.XX PPM			Meth: 191.99 PPM			Meth: 202.30 PPM		
<u>Acid Soluble Boron</u>			<u>Cadmium</u>			<u>Cadmium</u>			<u>Chromium</u>			<u>Acid Soluble Cobalt</u>		
<u>ICP</u>			<u>ICP</u>			<u>ICP</u>			<u>Other</u>			<u>ICP</u>		
368	0.502 s	50.72	368	20.98	1.36	288	15.10	-.32	409	199.50	.71	009	57.07	1.78
292	0.125	1.92	389	21.00	1.33	193	15.00	-.34	Avg	176.13		232	54.00	1.55
040	0.124	1.80	035	20.35	1.18	220	15.00	-.34	288	165.50	-.32	040	42.75	.77
376	0.123 R	1.79	106	19.00	.67	363	15.00	-.34	035	152.00 R	-.80	040	42.75	.77
409	0.119	1.38	247	19.00	.56	232	14.75	-.43	231	129.10	-1.44	368	32.38	.32
354	0.118 R	1.36	Avg	17.43		009	16.70	.23	247	113.00	-1.90	Avg	31.63	
360	0.116	1.08	393	17.00	-.15	376	16.40	.16	Meth: 191.99 PPM			102	28.77	-.21
257	0.113	.84	009	16.70	-.26	Avg	16.02		<u>Chromium</u>			247	21.50	-.70
330	0.110	.57	102	16.81	-.37	288	15.10	-.32	<u>Other</u>			288	21.15	-.74
231	0.110	.57	376	16.40	-.38	193	15.00	-.34	409	199.50	.71	106	20.50	-.77
106	0.105 R	.46	S/s=Screened Outlier			220	15.00	-.34	Meth: 191.99 PPM			035	20.20	-.82
394	0.107	.30	R=Duplicate			363	15.00	-.34	<u>Chromium</u>			320	18.00	-.94
232	0.105	.22	Range too large			232	14.75	-.43	Meth: 191.99 PPM			Meth: 202.99 PPM		
391	0.104	.03	A=Analysis beyond 3-s limits			362	15.14	-.46	<u>Chromium</u>			<u>Acid Soluble Cobalt</u>		
Avg	0.104					397	13.95	-.69	220 215.00 R 1.22			<u>Other</u>		
028	0.104	-.05				231	12.03	-1.33	009 215.40 1.14			409 55.50 .71		
324	0.103	-.07				394	7.98	-2.67	193 212.00 1.03					
* X=Excluded from lab performance									409 199.50 .64					

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: 221.XX PCT			Meth: 241.00 PCT			Meth: 241.30 PCT		
<u>Acid Soluble Cobalt</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>		
009	57.07	1.67	ICP			389	0.1230	.82	<u>Atomic Absorption</u>			<u>ICP</u>		
409	55.50	1.57	360	0.1335	1.94	037	0.1215	.67	095	3.90	1.31	292	1.97	-2.72
232	54.00	1.43	330	0.1300	1.48	289	0.1210	.63	220	3.80	.76	300	0.80 S	-4.86
040	42.75	.67	035	0.1295	1.43	029	0.1205	.53	043	3.80	.69	247	0.77 S	-4.93
193	35.00	.37	023	0.1255	.94	177	0.1205	.52	055	3.78	.49	393	0.26 S	-5.86
Avg	32.95		102	0.1230	.65	409	0.1205	.52	073	3.72	.34			
102	28.77	-.29	389	0.1230	.64	028	0.1185	.51	037	3.71	.29	Meth: 241.99 PCT		
368	32.38	-.32	409	0.1205	.35	055	0.1200	.48	Avg	3.69		Acid Soluble Iron		
247	21.50	-.78	106	0.1200	.28	231	0.1200	.46	105	3.62	-.42	<u>Other</u>		
296	21.55	-.78	231	0.1200	.28	106	0.1200	.46	390	3.60	-.81	362	5.09 S	3.53
288	21.15	-.82	Avg	0.1177		262	0.1200	.46	029	3.60	-.90	234	3.55	.71
106	20.50	-.84	247	0.1171	-.26	220	0.1200	.46	296	3.53	-.93	Avg	3.55	
035	20.20	-.89	009	0.1152	-.29	376	0.1170	.38	028	3.60	-.94			
320	18.00	-1.02	376	0.1170	-.37	193	0.1175	.34	040	3.50	-1.10	Meth: 241.XX PCT		
			324	0.1143	-.43	247	0.1171	.27	177	3.49	-1.14	<u>Acid Soluble Iron</u>		
			394	0.1130	-.57	390	0.1165	.07	193	1.93 s	-9.98	362	5.09 s	4.53
Meth: 221.00 PCT			288	0.1125	-.62	Avg	0.1162					376	4.27	2.00
<u>Acid Soluble Copper</u>			300	0.1150 R	-.68	009	0.1152	-.12	Meth: 241.30 PCT			360	4.12	1.53
<u>Atomic Absorption</u>			354	0.1120	-.72	324	0.1143	-.27	<u>Acid Soluble Iron</u>			289	4.06	1.37
234	0.2250 s	13.26	393	0.1100	-.92	220	0.1130	-.41	<u>ICP</u>			009	4.01	1.24
105	0.1250 R	1.58	232	0.1100	-.92	394	0.1130	-.41	376	4.27	1.48	330	4.02	1.22
037	0.1215	.85	368	0.1060	-1.42	288	0.1125	-.46	360	4.12	1.20	095	3.90	.92
289	0.1210	.81	292	0.1010	-2.03	354	0.1120	-.56	009	4.01	1.03	220	3.80	.60
029	0.1205	.71				095	0.1115	-.60	330	4.02	1.02	043	3.80	.58
177	0.1205	.71	Meth: 221.99 PCT			300	0.1150	-.62	106	3.74	.52	055	3.78	.49
055	0.1200	.66	<u>Acid Soluble Copper</u>			393	0.1100	-.75	324	3.66	.37	106	3.74	.40
262	0.1200	.65	<u>Other</u>			232	0.1100	-.76	231	3.66	.37	073	3.72	.34
220	0.1200	.65	220	0.1130	.71	040	0.1085	-1.08	394	3.61	.28	037	3.71	.32
028	0.1185	.63	Meth: 221.XX PCT			368	0.1060	-1.26	232	3.52	.14	231	3.66	.20
193	0.1175	.46	<u>Acid Soluble Copper</u>			043	0.1050	-1.49	361	3.53	.13	324	3.66	.15
390	0.1165	.24	234	0.2250 s	13.19	296	0.1020	-1.72	Avg	3.46		105	3.62	.06
Avg	0.1146		360	0.1335	2.14	292	0.1010	-1.88	320	3.24	-.41	Avg	3.62	
095	0.1115	-.41	330	0.1300	1.67	157	0.0956	-2.50	288	3.21	-.50	394	3.61	-.16
040	0.1085	-.91	035	0.1295	1.62	Meth: 241.00 PCT			102	3.18	-.55	361	3.53	-.27
043	0.1050	-1.29	105	0.1250 R	1.44	<u>Acid Soluble Iron</u>			157	3.09	-.71	296	3.53	-.28
296	0.1020	-1.51	023	0.1255	1.13	<u>Atomic Absorption</u>			023	3.06	-.72	232	3.52	-.31
157	0.0956	-2.28	102	0.1230	.83	289	4.06	2.10	035	2.94	-.97	390	3.60	-.34
									368	2.89 R	-1.16	040	3.50	-.37

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

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 241.XX PCT			Meth: 251.30 PPM			Meth: 261.00 PCT			Meth: 261.30 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>		
177	3.49	-.39	ICP			AA			ICP			035	0.306	.50
029	3.60	-.40	232	238.00	-.63	289	0.325	1.52	376	0.295	.31	105	0.304	.49
028	3.60	-.42	009	236.45	-.72	028	0.311	.94	Avg	0.285		231	0.305	.47
234	3.55 R	-.97	288	235.50	-.82	105	0.304	.75	389	0.268	-.49	043	0.305	.47
320	3.24	-1.17	106	228.00	-1.30	043	0.305	.74	232	0.267	-.59	292	0.305	.47
288	3.21	-1.29	231	36.97 s	-11.24	037	0.304	.67	320	0.258	-.78	106	0.300	.43
102	3.18	-1.38				296	0.301	.59	157	0.248	-1.07	037	0.304	.40
157	3.09	-1.66	Meth: 251.99 PPM			029	0.300	.50	247	0.240	-1.28	394	0.303	.37
023	3.06	-1.70	<u>Lead</u>			177	0.289	.25	300	0.195	-2.56	296	0.301	.34
035	2.94	-2.10	<u>Other</u>			Avg	0.287		393	0.130 s	-4.40	029	0.300	.25
368	2.89 R	-2.38	376	253.50	1.04	262	0.280	-.28				040	0.299	.24
292	1.97 A	-5.05	Avg	249.50		390	0.278	-.43	Meth: 261.31 PCT			009	0.299	.24
193	1.93 s	-5.19	409	245.50	-.64	193	0.277	-.68	<u>Acid Soluble Manganese</u>			376	0.295	.20
300	0.80 s	-8.62				055	0.255	-1.28	<u>ICP</u>			324	0.297	.18
247	0.77 s	-8.74	Meth: 251.XX PPM			391	0.250	-1.52	288	0.302	.85	023	0.297	.17
393	0.26 s	-10.30	<u>Lead</u>			257	0.241	-1.85	324	0.297	.52	Avg	0.292	
			393	365.00 s	4.67				Avg	0.284		177	0.289	-.24
Meth: 251.00 PPM			040	295.81	1.81	Meth: 261.11 PCT			368	0.252	-1.23	262	0.280	-.43
<u>Lead</u>			363	284.00 R	1.62	<u>Acid Soluble Manganese</u>						390	0.278	-.54
<u>Atomic Absorption</u>			296	291.00	1.60	<u>AA</u>			Meth: 261.99 PCT			193	0.277	-.72
040	295.81	1.04	102	277.38	1.02	095	0.310	1.09	<u>Acid Soluble Manganese</u>			389	0.268	-.84
363	284.00	.98	035	271.00	.82	Avg	0.304		<u>Other</u>			232	0.267	-.94
296	291.00	.88	394	269.00	.64	040	0.299	-.55	234	0.375	.87	320	0.258	-1.20
394	269.00	.16	247	259.50	.40				Avg	0.343		055	0.255	-1.30
Avg	263.97		220	254.00	.08	Meth: 261.30 PCT			220	0.310	-.86	368	0.252	-1.41
220	254.00	-.32	Avg	253.67		<u>Acid Soluble Manganese</u>						391	0.250	-1.50
193	247.50	-.52	368	250.13	-.16	<u>ICP</u>			Meth: 261.XX PCT			157	0.248	-1.54
397	206.50	-1.81	376	253.50	-.27	354	1.726 s	57.35	<u>Acid Soluble Manganese</u>			257	0.241	-1.80
Meth: 251.30 PPM			193	247.50	-.28	330	0.340	1.55	354	1.726 s	69.83	247	0.240	-1.80
<u>Lead</u>			409	245.50	-.36	102	0.322	1.14	234	0.375	2.86	300	0.195 A	-3.37
<u>ICP</u>			232	238.00	-.67	360	0.303	.62	330	0.340	1.65	393	0.130 s	-5.61
393	365.00 s	6.12	009	236.45	-.74	035	0.306	.60	102	0.322	1.17			
102	277.38	1.50	288	235.50	-.81	292	0.305	.58	289	0.325	1.14	Meth: 271.00 PCT		
035	271.00	1.23	106	228.00	-1.19	231	0.305	.58	095	0.310	.74	<u>Water Soluble Mangan</u>		
247	259.50	.66	397	206.50	-2.00	394	0.303	.50	028	0.311	.64	<u>Atomic Abs</u>		
368	250.13	.07	231	36.97 s	-9.08	106	0.300	.50	220	0.310	.61	193	0.028	.71
Avg	249.49					009	0.299	.39	360	0.303	.58			
* X=Excluded from lab performance						023	0.297	.32	288	0.302	.56			
			S/s=Screened Outlier											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: 281.00 PPM			Meth: 289.00 PPM			Meth: 289.XX PPM			Meth: 291.XX PPM			Meth: 301.XX PPM		
Mercury			Molybdenum			Molybdenum			Nickel			Selenium		
<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			389 15.00 - .82			409 125.00 1.14			231 0.15 -1.47		
193	1.85	1.42	040	18.30	-.85	106	15.00	-.82	193	120.50	.95	Meth: 311.00 PCT		
Avg	1.71		Meth: 289.30 PPM			324	14.35	-1.01	102	117.21	.82	Sodium		
040	1.70	-.17	Molybdenum			247	12.00	-1.68	232	113.50	.65	<u>Atomic Absorption</u>		
232	1.66	-.70	<u>ICP</u>			Meth: 291.00 PPM			368	112.71	.62	193 0.39 .71		
363	1.62	-.98	393	30.00 s	5.34	Nickel			009	110.85	.53			
231	0.01 S	-15.74	009	20.70	1.65	<u>Atomic Absorption</u>			220	105.00 R	.44	Meth: 311.30 PCT		
Meth: 281.30 PPM			368	19.70	1.26	193	120.50	.93	376	106.50	.35	Sodium		
Mercury			232	17.90	.55	220	105.00	.43	393	106.00	.32	<u>Flame Photometric</u>		
<u>ICP</u>			394	17.25	.30	Avg	98.57		040	103.10	.20	320 0.41 -.71		
376	2.03	-.71	288	16.60	.20	296	70.20	-1.20	Avg	98.45		Meth: 311.99 PCT		
Meth: 281.99 PPM			102	16.86	.18	Meth: 291.30 PPM			106	97.50	-.11	Sodium		
Mercury			Avg	16.54		Nickel			288	94.50	-.17	<u>Other</u>		
<u>Other</u>			389	15.00	-.61	<u>ICP</u>			035	93.95	-.26	102 0.42 1.15		
409	2.80 S	7.91	106	15.00	-.61	102	117.21	1.07	296	70.20	-1.21	288 0.40 .54		
Avg	1.70		324	14.35	-.87	232	113.50	.76	247	69.00	-1.26	Avg 0.38		
220	1.70	-.71	247	12.00	-1.80	368	112.71	.73	231	36.30	-2.66	009 0.37 -.44		
Meth: 281.XX PPM			Meth: 289.99 PPM			009	110.85	.57	Meth: 301.00 PPM			035 0.34 -1.30		
Mercury			Molybdenum			376	106.50	.25	<u>Atomic Absorption</u>			Meth: 311.XX PCT		
409	2.80 s	6.67	<u>Other</u>			393	106.00	.21	040	1.54	.87	<u>Sodium</u>		
376	2.03	1.71	220	19.50	.71	040	103.10	.04	Avg	0.84		102 0.42 1.16		
193	1.85	.66	Meth: 289.XX PPM			Avg	103.09		231	0.15	-.86	320 0.41 .73		
Avg	1.76		Molybdenum			106	97.50	-.45	Meth: 301.99 PPM			288 0.40 .44		
040	1.70	-.41	<u>Other</u>			288	94.50	-.63	Selenium			193 0.39 .11		
232	1.66	-.72	393	30.00 s	3.51	247	69.00	-2.49	<u>Other</u>			Avg 0.39		
220	1.70	-.73	289	26.50	2.51	231	36.30 s	-4.88	409	2.55	.91	009 0.37 -.69		
363	1.62	-.96	009	20.70	.83	Meth: 291.99 PPM			Avg	2.22		035 0.34 -1.71		
231	0.01 s	-10.99	220	20.00	.69	Nickel			296	1.89	-.82	Meth: 321.00 PCT		
Meth: 289.00 PPM			368	19.70	.54	<u>Other</u>			Meth: 301.XX PPM			Acid Soluble Zinc		
Molybdenum			220	19.50	.50	409	125.00	.85	<u>Selenium</u>			<u>Atomic Absorption</u>		
<u>Atomic Absorption</u>			040	18.30	.22	Avg	109.48		409	2.55	1.09	193 0.323 1.85		
289	26.50	1.25	232	17.90	.06	035	93.95	-.88	296	1.89	.38	105 0.312 1.02		
Avg	21.60		Avg	17.83		Meth: 291.99 PPM			040	1.54	.07	177 0.311 .88		
220	20.00	-.48	394	17.25	-.18	Nickel			Avg	1.53		028 0.309 .77		
* X=Excluded from lab performance			102	16.86	-.30	<u>Other</u>			A=Analysis beyond 3-s limits					
			288	16.60	-.38	409	125.00	.85						
			S/s=Screened Outlier			Avg	109.48							
			R=Duplicate Range too large			035	93.95	-.88						

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 321.00 PCT			Meth: 321.30 PCT			Meth: 321.XX PCT								
Acid Soluble Zinc			Acid Soluble Zinc			<u>Acid Soluble Zinc</u>								
<u>Atomic Absorption</u>			<u>ICP</u>											
037	0.308	.72	232	0.273	-.95	288	0.281	-1.05						
220	0.305	.60	393	0.270	-1.06	106	0.280	-1.05						
289	0.305	.60	368	0.266	-1.22	043	0.280	-1.08						
391	0.305	.60	300	0.230	-2.43	296	0.280	-1.09						
055	0.303	.45				257	0.275	-1.32						
029	0.301	.42	Meth: 321.XX PCT			390	0.274	-1.36						
157	0.300	.14	<u>Acid Soluble Zinc</u>			232	0.273	-1.39						
Avg	0.298		330	0.350	2.45	393	0.270	-1.55						
095	0.296	-.32	394	0.343	2.03	368	0.266	-1.77						
262	0.295	-.41	360	0.325	1.30	300	0.230 A	-3.52						
040	0.298	-.49	102	0.326	1.20	Meth: 325.00 PCT								
234	0.285	-.98	023	0.326	1.20	Water Soluble Zinc								
043	0.280	-1.32	193	0.323	1.14	<u>Atomic Absorption</u>								
296	0.280	-1.33	231	0.320	.92	193	0.003	.00						
257	0.275	-1.66	389	0.315	.72									
390	0.274	-1.72	354	0.311	.69									
			409	0.310	.65									
			105	0.312	.56									
			035	0.312	.53									
			177	0.311	.45									
			028	0.309	.38									
			376	0.308	.36									
			037	0.308	.34									
			391	0.305	.30									
			289	0.305	.30									
			220	0.305	.30									
			055	0.303	.23									
			Avg	0.301										
			157	0.300	-.07									
			324	0.298	-.20									
			029	0.301	-.26									
			095	0.296	-.33									
			040	0.298	-.38									
			262	0.295	-.40									
			320	0.290	-.61									
			009	0.288	-.71									
			288	0.281	-.71									
			106	0.280	-.72									
			234	0.285	-.84									

* 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	5	0.00	0.83	0.59	050.51	8	- 0.53	1.78	0.20
001.99	9	0.68	2.37	0.42	050.60	6	0.00	0.99	0.32
001.XX	14	0.52	2.23	0.47	050.61	8	0.00	0.93	0.43
002.99	5	0.00	0.89	0.51	050.99	15	- 0.36	1.78	0.25
002.XX	6	0.49	1.44	0.86	050.XX	69	- 0.10	1.52	0.28
003.10	4	0.00	0.88	0.54	060.00	7	0.00	1.02	0.20
003.XX	4	0.00	0.88	0.54	060.XX	7	0.00	1.02	0.20
009.10	4	0.00	1.07	0.12	101.30	6	0.00	1.04	0.14
009.XX	5	0.00	1.05	0.15	101.XX	7	0.00	1.02	0.21
010.11	9	0.69	2.24	0.37	121.00	17	- 0.02	0.97	0.22
010.12	3	- 123.6	107.43	3.72	121.30	23	- 0.26	1.59	0.30
010.17	2	48.20	68.17	11.34	121.XX	42	0.05	1.66	0.27
010.60	51	0.15	1.13	0.41	131.XX	2	0.00	1.22	0.03
010.99	3	- 15.62	17.36	1.09	144.01	12	0.00	1.00	0.20
010.XX	65	- 0.09	2.51	0.53	144.02	2	0.00	1.21	0.12
020.10	9	- 0.46	1.65	0.32	144.99	19	- 0.56	3.06	0.24
020.20	19	- 0.43	2.12	0.21	144.XX	32	- 0.33	2.50	0.38
020.40	7	0.00	0.79	0.63	151.00	2	0.00	1.22	0.01
020.50	6	- 0.65	4.88	1.47	151.30	9	0.00	1.03	0.04
020.XX	41	- 0.49	2.61	0.63	151.99	2	0.00	1.11	0.36
030.10	3	0.00	1.11	0.08	151.XX	13	0.00	1.02	0.05
030.20	2	0.00	1.18	0.23	165.00	11	0.000	1.020	0.095
030.40	3	0.00	1.11	0.11	165.99	16	2.655	10.194	10.203
030.XX	8	0.33	1.34	0.23	165.XX	27	1.443	6.955	6.903
040.10	2	0.00	1.20	0.15	181.00	8	8.76	22.51	0.61
040.20	3	0.00	1.11	0.10	181.30	12	0.00	0.98	0.28
040.40	3	0.00	1.08	0.23	181.99	2	0.00	0.78	0.67
040.XX	9	0.00	1.01	0.18	181.XX	22	3.15	13.38	0.42
041.10	16	- 1.27	5.15	0.41	190.99	2	0.00	1.20	0.18
041.20	5	0.00	1.00	0.32	190.XX	2	0.00	1.20	0.18
041.40	7	- 0.05	0.96	0.27	191.00	2	0.00	0.17	0.86
041.50	7	- 0.79	2.26	0.47	191.30	10	- 0.07	0.99	0.14
041.60	12	- 0.80	7.64	1.78	191.XX	13	0.09	1.02	0.19
041.XX	38	- 0.72	2.82	0.63	202.00	2	0.00	1.07	0.42
048.20	7	- 1.11	3.08	0.25	202.30	10	0.00	1.01	0.18
048.XX	8	- 1.00	2.95	0.36	202.XX	13	0.00	1.00	0.21
050.00	21	0.02	0.98	0.17	221.00	17	0.8527	3.3358	0.3720
050.30	9	0.55	1.90	0.44	221.30	21	- 0.015	0.9718	0.2254
050.50	6	0.00	1.03	0.16	221.XX	38	0.3739	2.3447	0.3111

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
241.00	15	- 0.67	2.72	0.41					
241.30	21	- 0.79	2.08	0.16					
241.99	2	1.75	2.48	0.58					
241.XX	38	- 0.94	2.98	0.30					
251.00	7	0.00	0.98	0.34					
251.30	10	- 0.51	4.32	0.34					
251.99	2	0.00	0.77	0.67					
251.XX	19	- 0.17	2.58	0.34					
261.00	14	0.000	0.985	0.251					
261.11	2	0.000	0.668	0.726					
261.30	19	1.915	9.514	9.251					
261.31	3	0.000	1.062	0.285					
261.99	2	0.000	1.218	0.094					
261.XX	40	1.014	7.991	7.784					
281.00	5	- 3.15	7.09	0.40					
281.99	2	3.89	5.50	1.12					
281.XX	8	- 0.56	4.87	0.54					
289.00	3	0.00	1.09	0.19					
289.30	11	0.49	1.88	0.09					
289.XX	14	0.21	1.38	0.11					
291.00	3	0.00	1.09	0.20					
291.30	11	- 0.44	1.76	0.13					
291.99	2	0.00	1.20	0.18					
291.XX	16	0.02	0.98	0.12					
301.00	2	0.00	1.22	0.06					
301.99	2	0.00	1.17	0.27					
301.XX	4	0.00	1.08	0.09					
311.99	4	0.00	1.07	0.11					
311.XX	6	0.00	1.04	0.12					
321.00	19	0.000	0.954	0.334					
321.30	20	0.000	0.994	0.190					
321.XX	39	- 0.090	1.112	0.255					