

MAGRUDER - Fertilizer Check Sample No. - 200412 Grade 18-3-16

- Pass 1 Results for 84 Labs - - Pass 2 Results for 84 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	2.07	0.16	0.03	6	2.07	0.16	0.03
Ammoniacal Nitrogen, Other		001.99	3	2.14	0.06	0.05	3	2.14	0.06	0.05
Method Group 001.XX PCT			9	2.10	0.14	0.04	9	2.10	0.14	0.04
Nitrate Nitrogen, Other		002.99	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Water Insoluble Nitrogen, Meth I	945.01	003.10	4	5.02	1.86	0.21	4	5.02	1.86	0.21
Water Insoluble Nitrogen, Other		003.99	1	4.59	0.04	0.05	1	4.59	0.04	0.05
Method Group 003.XX PCT			5	4.93	1.65	0.17	5	4.93	1.65	0.17
Nitrogen From Urea, Urease (as N)	959.03	005.00	1	3.20	0.02	0.03	1	3.20	0.02	0.03
Nitrogen From Urea, Other		005.99	1	14.50	0.62	0.87	1	14.50	0.62	0.87
Method Group 005.XX PCT			2	8.85	6.53	0.45	2	8.85	6.53	0.45
Percent Urea, Urease (as Urea)	959.03	007.00	1	4.34	0.01	0.01	1	4.34	0.01	0.01
Percent Urea, Other		007.99	1	4.07	0.07	0.10	1	4.07	0.07	0.10
Method Group 007.XX PCT			2	4.20	0.16	0.06	2	4.20	0.16	0.06
Ammon & Nitrate N, Devarda	892.01	009.10	1	17.75	0.07	0.10	1	17.75	0.07	0.10
Ammon & Nitrate N, Other		009.99	1	0.04	0.06	0.08	1	0.04	0.06	0.08
Method Group 009.XX PCT			2	8.90	10.23	0.09	2	8.90	10.23	0.09
Total Nitrogen, Reduced Iron		010.10	2	18.96	0.13	0.12	2	18.96	0.13	0.12
Total Nitrogen, Modified Comprehensive	978.02	010.11	7	19.09	0.24	0.06	7	19.09	0.24	0.06
Total Nitrogen, Salicylic	955.04D	010.12	5	19.25	0.32	0.01	5	19.25	0.32	0.01
Total Nitrogen, Combustion		010.60	53	19.26	0.20	0.09	51	19.26	0.20	0.07
Method Group 010.XX PCT			69	19.26	0.25	0.08	65	19.24	0.24	0.07
Total Phosphate, Grav Quimociac	962.02	020.10	7	3.13	0.09	0.07	7	3.13	0.09	0.07
Total Phosphate, Spectrometric	958.01	020.20	23	3.15	0.12	0.05	21	3.13	0.14	0.03
Total Phosphate, Automated	978.01	020.40	4	3.08	0.07	0.04	4	3.08	0.07	0.04
Total Phosphate, ICP		020.50	6	3.07	0.19	0.08	6	3.07	0.19	0.08
Method Group 020.XX PCT			41	3.12	0.13	0.06	39	3.11	0.13	0.05
Insoluble Phosphate, Grav Quimociac ...	963.03C	030.10	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Insoluble Phosphate, Spectrometric	963.03C	030.20	1	0.06	0.00	0.00	1	0.06	0.00	0.00
Insoluble Phosphate, Automated	978.01	030.40	1	0.05	0.02	0.03	1	0.05	0.02	0.03
Insoluble Phosphate, Other		030.99	1	0.05	0.01	0.01	1	0.05	0.01	0.01
Method Group 030.XX PCT			4	0.04	0.03	0.01	4	0.04	0.03	0.01
InDir Available Phosphate, Grav Quim ..	960.02	040.10	1	3.13	0.06	0.08	1	3.13	0.06	0.08
InDir Available Phosphate, Spectrometri	960.02	040.20	3	3.04	0.07	0.03	3	3.04	0.07	0.03
InDir Available Phosphate, Automated ..	960.02	040.40	1	3.12	0.03	0.04	1	3.12	0.03	0.04
InDir Available Phosphate, ICP		040.50	1	2.87	0.06	0.09	1	2.87	0.06	0.09
Method Group 040.XX PCT			6	3.04	0.11	0.05	6	3.04	0.11	0.05
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	17	3.06	0.08	0.04	16	3.05	0.07	0.03
Dir Available Phosphate, Spectrometric	960.03D	041.20	3	3.10	0.25	0.03	3	3.10	0.25	0.03
Dir Available Phosphate, Automated	978.01	041.40	5	2.99	0.13	0.06	5	2.99	0.13	0.06

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Dir Available Phosphate, ICP		041.50	8	3.07	0.17	0.08	7	3.04	0.16	0.05
Dir Available Phosphate, EDTA Extract .	993.01	041.60	13	3.08	0.09	0.06	13	3.08	0.09	0.06
Method Group 041.XX PCT			47	3.05	0.13	0.05	46	3.05	0.13	0.05
Water Soluble Phosphate, Spectrometric	970.01	048.20	3	2.00	0.14	0.03	3	2.00	0.14	0.03
Soluble Potash, STPB Oxalate	958.02	050.00	18	16.16	0.17	0.07	17	16.16	0.17	0.06
Soluble Potash, STPB Citrate	969.04	050.10	1	15.89	0.00	0.01	1	15.89	0.00	0.01
Soluble Potash, AA (Oxalate)		050.30	9	15.84	0.35	0.18	9	15.84	0.35	0.18
Soluble Potash, ICP (Oxalate)		050.50	7	16.13	0.22	0.05	7	16.13	0.22	0.05
Soluble Potash, ICP (Citrate)		050.51	9	15.95	0.36	0.13	8	15.94	0.38	0.10
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	9	16.20	0.33	0.15	9	16.20	0.33	0.15
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	6	16.21	0.15	0.09	5	16.19	0.13	0.04
Soluble Potash, Other		050.99	11	16.01	0.35	0.14	9	15.99	0.33	0.06
Method Group 050.XX PCT			72	16.06	0.33	0.13	67	16.07	0.30	0.09
Free Water, Vacuum Oven	965.08B	060.00	7	1.35	0.27	0.06	7	1.35	0.27	0.06
Acid Soluble Calcium, AA	945.04	101.00	1	0.24	0.01	0.01	1	0.24	0.01	0.01
Acid Soluble Calcium, ICP		101.30	11	0.24	0.04	0.01	11	0.24	0.04	0.01
Method Group 101.XX PCT			12	0.24	0.03	0.01	11	0.23	0.02	0.01
Acid Soluble Magnesium, AA	984.01	121.00	1	0.84	0.10	0.15	1	0.84	0.10	0.15
Acid Soluble Magnesium, ICP		121.30	13	0.93	0.07	0.03	12	0.91	0.05	0.02
Method Group 121.XX PCT			14	0.92	0.07	0.04	12	0.91	0.05	0.02
Sulfur, Gravimetric	980.02a	144.01	15	8.77	0.11	0.05	14	8.75	0.10	0.04
Sulfur, Gravimetric	980.02b	144.02	4	8.91	0.14	0.06	4	8.91	0.14	0.06
Sulfur, Turbidimetric	63.845	144.50	1	8.51	0.11	0.16	1	8.51	0.11	0.16
Sulfur, Spectrometric		144.70	2	8.64	0.14	0.04	2	8.64	0.14	0.04
Sulfur, Other		144.99	15	8.75	0.24	0.10	15	8.75	0.24	0.10
Method Group 144.XX PCT			37	8.76	0.19	0.07	35	8.75	0.18	0.06
Arsenic, Atomic Absorption		151.00	3	0.70	0.30	0.07	3	0.70	0.30	0.07
Arsenic, ICP		151.30	3	0.65	0.53	0.08	3	0.65	0.53	0.08
Method Group 151.XX PPM			6	0.68	0.41	0.08	6	0.68	0.41	0.08
Acid Soluble Boron, Other		165.99	3	0.003	0.001	0.000	3	0.003	0.001	0.000
Cadmium, Atomic Absorption		181.00	3	1.06	0.75	0.10	3	1.06	0.75	0.10
Cadmium, ICP		181.30	9	1.41	1.36	0.52	8	1.19	1.19	0.28
Method Group 181.XX PPM			12	1.33	1.23	0.41	10	0.96	0.87	0.09
Water Soluble Chlorine, Titrimetric ...	928.02	190.00	2	0.45	0.03	0.00	2	0.45	0.03	0.00
Water Soluble Chlorine, Other		190.99	2	0.44	0.03	0.04	2	0.44	0.03	0.04
Method Group 190.XX PCT			4	0.45	0.03	0.02	3	0.44	0.03	0.00
Chromium, ICP		191.30	8	28.46	2.51	1.73	7	28.05	2.07	1.08
Acid Soluble Cobalt, AA		202.00	1	16.15	1.34	1.90	1	16.15	1.34	1.90
Acid Soluble Cobalt, ICP	965.11	202.30	10	17.04	1.84	0.81	9	17.38	1.43	0.43

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Acid Soluble Cobalt, Other		202.99	1	17.00	0.42	0.60	1	17.00	0.42	0.60
Method Group 202.XX PPM			12	16.97	1.72	0.88	11	17.24	1.37	0.58
Acid Soluble Copper, Atomic Absorption	975.01	221.00	5	0.0006	0.0002	0.0002	4	0.0006	0.0001	0.0000
Acid Soluble Copper, ICP		221.30	15	0.0006	0.0003	0.0001	14	0.0006	0.0003	0.0000
Acid Soluble Copper, Other		221.99	1	0.0005	0.0000	0.0000	1	0.0005	0.0000	0.0000
Method Group 221.XX PCT			21	0.0006	0.0003	0.0001	20	0.0006	0.0003	0.0001
Acid Soluble Iron, Atomic Absorption	980.01	241.00	14	0.75	0.03	0.01	14	0.75	0.03	0.01
Acid Soluble Iron, ICP		241.30	24	0.76	0.05	0.02	24	0.76	0.05	0.02
Acid Soluble Iron, Other		241.99	3	0.76	0.03	0.02	3	0.76	0.03	0.02
Method Group 241.XX PCT			41	0.76	0.05	0.01	39	0.76	0.05	0.01
Lead, Atomic Absorption		251.00	2	2.66	0.63	0.60	2	2.66	0.63	0.60
Lead, ICP		251.30	7	1.72	0.80	0.13	7	1.72	0.80	0.13
Method Group 251.XX PPM			9	1.93	0.85	0.23	8	1.88	0.86	0.11
Acid Soluble Manganese, AA	972.02a	261.00	12	0.702	0.029	0.015	12	0.702	0.029	0.015
Acid Soluble Manganese, AA	972.02b	261.11	3	0.706	0.041	0.020	3	0.706	0.041	0.020
Acid Soluble Manganese, ICP	972.02a	261.30	25	0.705	0.056	0.013	25	0.705	0.056	0.013
Acid Soluble Manganese, ICP	972.02b	261.31	1	0.674	0.001	0.001	1	0.674	0.001	0.001
Acid Soluble Manganese, Other		261.99	4	0.720	0.050	0.008	4	0.720	0.050	0.008
Method Group 261.XX PCT			45	0.705	0.048	0.013	44	0.704	0.047	0.012
Water Soluble Manganese, Atomic Abs	972.03	271.00	2	0.563	0.012	0.012	2	0.563	0.012	0.012
Water Soluble Manganese, ICP	972.03	271.30	2	0.638	0.193	0.026	2	0.638	0.193	0.026
Method Group 271.XX PCT			4	0.601	0.133	0.019	4	0.601	0.133	0.019
Mercury, Atomic Absorption		281.00	1	0.08	0.01	0.01	1	0.08	0.01	0.01
Molybdenum, Atomic Absorption		289.00	2	1.88	0.80	0.64	2	1.88	0.80	0.64
Molybdenum, ICP		289.30	9	3.60	2.46	0.87	8	3.51	2.55	0.60
Method Group 289.XX PPM			11	3.29	2.34	0.83	10	3.18	2.38	0.60
Nickel, Atomic Absorption		291.00	2	17.60	1.78	0.90	2	17.60	1.78	0.90
Nickel, ICP		291.30	4	16.69	6.00	0.98	4	16.69	6.00	0.98
Nickel, Other		291.99	1	19.15	0.07	0.10	1	19.15	0.07	0.10
Method Group 291.XX PPM			7	17.30	4.57	0.83	7	17.30	4.57	0.83
Selenium, Atomic Absorption		301.00	1	0.02	0.01	0.01	1	0.02	0.01	0.01
Selenium, ICP		301.30	2	1.09	1.39	0.74	2	1.09	1.39	0.74
Method Group 301.XX PPM			3	0.73	1.21	0.50	3	0.73	1.21	0.50
Sodium, Other		311.99	7	0.16	0.02	0.00	6	0.16	0.02	0.00
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	6	0.011	0.001	0.000	6	0.011	0.001	0.000
Acid Soluble Zinc, ICP		321.30	18	0.010	0.001	0.001	16	0.010	0.001	0.000
Method Group 321.XX PCT			24	0.010	0.001	0.001	22	0.010	0.001	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: 003.10 PCT			Meth: 007.00 PCT			Meth: 010.11 PCT			Meth: 010.60 PCT		
Ammoniacal Nitrogen			Water Insoluble Nitr			Percent Urea			Total Nitrogen			Total Nitrogen		
<u>MgO Distillation</u>			<u>Meth I</u>			<u>Urease (as Urea)</u>			<u>Modified Comprehensi</u>			<u>Combustion</u>		
220 2.39 2.00			023 7.48 X 1.33			251 4.34 .71			114 19.43 1.38			023 19.36 X .72		
029 2.10 .18			251 5.55 .29						288 19.25 .67			042 19.40 .71		
Avg 2.07			Avg 5.02			Meth: 007.99 PCT			105 19.24 .63			142 19.40 .71		
288 2.03 -.33			029 4.31 -.39			Percent Urea			220 19.19 .39			423 19.40 .69		
324 2.00 -.46			220 2.74 -1.23			<u>Other</u>			Avg 19.09			022 19.37 .56		
251 2.00 -.47						029 4.07 -.71			090 18.98 -.50			330 19.35 .53		
415 1.92 -.95			Meth: 003.99 PCT						029 18.80 -1.25			406 19.36 .52		
			Water Insoluble Nitr			Meth: 007.XX PCT			322 18.77 -1.34			296 19.28 .49		
Meth: 001.99 PCT			<u>Other</u>			Percent Urea			415 18.16 S -3.83			251 19.35 .47		
Ammoniacal Nitrogen			393 4.59 X .71			251 4.34 .84						325 19.34 .41		
<u>Other</u>						Avg 4.20			Total Nitrogen			009 19.29 .39		
393 7.35 S 82.78			Meth: 003.XX PCT			029 4.07 -.89			<u>Salicylic</u>			037 19.28 .23		
096 2.21 1.20			<u>Water Insoluble Nitr</u>						137 19.82 1.79			136 19.29 .15		
Avg 2.14			023 7.48 X 1.55			Meth: 009.10 PCT			Avg 19.25			177 19.27 .08		
289 2.12 -.69			251 5.55 .38			Ammon & Nitrate N			102 19.22 -.10			131 19.27 .04		
105 2.10 -.77			Avg 4.93			<u>Devarda</u>			254 19.19 -.20			Avg 19.26		
			393 4.59 X -.21			030 17.75 .71			416 19.09 -.50			231 19.24 -.17		
Meth: 001.XX PCT			029 4.31 -.39						211 18.94 -.99			422 19.23 -.19		
<u>Ammoniacal Nitrogen</u>			220 2.74 -1.33			Meth: 009.99 PCT						106 19.22 -.22		
393 7.35 s 38.87						Ammon & Nitrate N			Meth: 010.60 PCT			034 19.22 -.23		
220 2.39 2.17			Meth: 005.00 PCT			<u>Other</u>			Total Nitrogen			040 19.22 -.25		
096 2.21 .87			Nitrogen From Urea			105 0.04 .71			<u>Combustion</u>			043 19.22 -.28		
289 2.12 .32			<u>Urease (as N)</u>						041 20.02 s 3.87			426 19.20 -.30		
029 2.10 .08			288 3.20 -.71			Meth: 009.XX PCT			292 20.02 s 3.83			425 19.25 -.31		
Avg 2.10						<u>Ammon & Nitrate N</u>			157 19.94 s 3.43			381 19.20 -.32		
105 2.10 -.11			Meth: 005.99 PCT			030 17.75 .87			095 19.69 2.18			049 19.20 -.36		
288 2.03 -.53			Nitrogen From Urea			Avg 8.90			102 19.65 1.95			291 19.19 -.37		
324 2.00 -.71			<u>Other</u>			105 0.04 -.87			035 19.56 1.59			411 19.18 -.40		
251 2.00 -.71			105 14.50 -.71						096 19.55 1.48			369 19.17 -.46		
415 1.92 -1.28						Meth: 010.10 PCT			393 19.45 R 1.40			162 19.16 -.51		
			Meth: 005.XX PCT			Total Nitrogen			073 19.52 1.34			324 19.15 -.58		
Meth: 002.99 PCT			<u>Nitrogen From Urea</u>			<u>Reduced Iron</u>			025 19.51 1.27			028 19.13 -.68		
Nitrate Nitrogen			105 14.50 .87			072 19.05 .66			234 19.50 1.22			377 19.13 -.69		
<u>Other</u>			Avg 8.85			Avg 18.96			007 19.38 R 1.05			360 19.20 -.72		
105 0.00 .00			288 3.20 -.86			405 18.88 -1.03			389 19.45 1.00			055 19.15 -.78		
									307 19.44 .95			029 19.07 -1.02		

* 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			Meth: 010.XX PCT			Meth: 010.XX PCT			Meth: 020.20 PCT			Meth: 020.50 PCT		
<u>Total Nitrogen</u>			<u>Total Nitrogen</u>			<u>Total Nitrogen</u>			<u>Total Phosphate</u>			<u>Total Phosphate</u>		
<u>Combustion</u>									<u>Spectrometric</u>			<u>ICP</u>		
428	19.05	-1.08	022	19.37	.54	416	19.09	-.64	292	3.24	.80	389	3.08	.13
390	19.01	-1.34	330	19.35	.50	029	19.07	-.78	234	3.22	.69	Avg	3.07	
351	18.90	-1.80	406	19.36	.50	072	19.05	-.81	381	3.20	.51	368	3.02	-.29
072	18.87	-1.99	251	19.35	.46	428	19.05	-.84	406	3.15	.23	423	2.92	-.84
262	18.80	-2.32	296	19.28	.42	390	19.01	-1.05	363	3.14	.18	307	2.85	-1.18
027	18.77	-2.48	325	19.34	.41	090	18.98	-1.13	392	3.13	.15	Meth: 020.XX PCT		
			009	19.29	.36	211	18.94	-1.29	231	3.14	.10	<u>Total Phosphate</u>		
Meth: 010.99 PCT			425	19.25	.26	351	18.90	-1.43	Avg	3.14		042	4.92 s	14.19
<u>Total Nitrogen</u>			024	19.29	.24	072	18.87	-1.59	220	3.10	-.20	422	3.78 s	5.08
<u>Other</u>			037	19.28	.23	405	18.88	-1.61	288	3.10	-.24	362	3.44	2.49
105	16.84 S	.00	136	19.29	.19	262	18.80	-1.86	200	3.10	-.24	425	3.39	2.08
354	20.28 S	.00	288	19.25	.19	029	18.80	-1.90	177	3.09	-.29	426	3.36	1.85
368	18.72 S	.00	177	19.27	.13	027	18.77	-2.00	418	3.08 X	-.35	030	3.30 R	1.62
Avg	0.00		131	19.27	.10	322	18.77	-2.01	416	3.07	-.42	405	3.28	1.31
Meth: 010.XX PCT			Avg	19.24		368	18.72 s	-3.74	257	3.07	-.46	142	3.27	1.24
<u>Total Nitrogen</u>			422	19.23	-.10	415	18.16 s	-4.55	169	3.03	-.75	390	3.23 R	1.17
354	20.28 s	4.52	102	19.22	-.10	105	16.84 s	-10.17	324	3.07 R	-.79	292	3.24	.94
041	20.02 s	3.30	231	19.24	-.11	Meth: 020.10 PCT			369	2.99	-1.08	234	3.22	.82
292	20.02 A	3.26	106	19.22	-.12	<u>Total Phosphate</u>			397	2.97	-1.25	095	3.17	.81
157	19.94	2.93	105	19.24	-.13	<u>Grav Quimociac</u>			428	2.81 s	-2.36	330	3.15	.67
137	19.82	2.42	034	19.22	-.13	405	3.28	1.75	Meth: 020.40 PCT			381	3.20	.63
095	19.69	1.89	040	19.22	-.15	095	3.17	1.12	<u>Total Phosphate</u>			096	3.17	.40
102	19.65	1.70	426	19.20	-.18	Avg	3.13		<u>Automated</u>			090	3.13	.33
035	19.56	1.39	043	19.22	-.19	105	3.12	-.21	042	4.92 s	26.91	406	3.15	.33
096	19.55	1.31	381	19.20	-.20	114	3.12	-.45	096	3.17	1.26	114	3.12	.27
393	19.45 R	1.22	254	19.19	-.24	090	3.13	-.46	320	3.08	.15	363	3.14	.26
073	19.52	1.18	220	19.19	-.24	411	3.07	-.72	Avg	3.08		231	3.14	.21
025	19.51	1.13	291	19.19	-.24	157	3.05	-1.10	105	3.07	-.30	392	3.13	.20
234	19.50	1.09	049	19.20	-.24	Meth: 020.20 PCT			035	2.99	-1.34	105	3.12	.04
007	19.38 R	.92	411	19.18	-.26	<u>Total Phosphate</u>			Meth: 020.50 PCT			220	3.10	-.09
389	19.45	.90	369	19.17	-.31	<u>Spectrometric</u>			<u>Total Phosphate</u>			288	3.10	-.13
307	19.44	.86	162	19.16	-.36	362	3.44	2.32	<u>ICP</u>			200	3.10	-.13
114	19.43	.77	324	19.15	-.42	426	3.36	1.69	422	3.78 S	3.84	177	3.09	-.19
042	19.40	.67	028	19.13	-.50	030	3.30 R	1.48	425	3.39	1.71	320	3.08	-.25
142	19.40	.66	377	19.13	-.50	142	3.27	1.10	330	3.15	.62	418	3.08 X	-.25
023	19.36 X	.65	360	19.20 R	-.58	390	3.23 R	1.06	A=Analysis beyond 3-s limits					
* X=Excluded from lab performance			055	19.15	-.60	S/s=Screened Outlier			R=Duplicate Range too large					

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: 041.10 PCT			Meth: 041.50 PCT			Meth: 041.XX PCT		
<u>Total Phosphate</u>			<u>Insoluble Phosphate</u>			<u>Dir Available Phosph</u>			<u>Dir Available Phosph</u>			<u>Dir Available Phosph</u>		
389	3.08	-.29	220	0.06	.76	105	3.21 R	2.60	022	3.26 R	1.61	351	3.18	1.19
416	3.07	-.32	096	0.05	.60	041	3.18	1.90	291	3.23	1.20	041	3.18	1.02
411	3.07	-.32	423	0.05	.56	022	3.12	1.08	360	3.16	.80	043	3.18	.99
105	3.07	-.35	Avg	0.04		211	3.12	.97	043	3.14	.63	360	3.16	.93
257	3.07	-.36	090	0.00	-1.50	137	3.11	.91	251	3.05	.20	025	3.16	.87
157	3.05	-.60	Meth: 040.10 PCT			296	3.09	.63	007	3.05	.10	262	3.14	.72
169	3.03	-.66	InDir Available Phos			072	3.07	.35	Avg	3.04		043	3.14	.71
368	3.02	-.75	<u>Grav Quim</u>			260	3.06	.24	325	2.92	-.84	377	3.13	.65
324	3.07	-.75	090	3.13	.71	029	3.06	.13	354	2.76	-1.81	022	3.12	.57
035	2.99	-.98	Meth: 040.20 PCT			Avg	3.05		393	2.16 s	-5.64	055	3.12	.53
369	2.99	-1.00	InDir Available Phos			102	3.05	-.01	Meth: 041.60 PCT			211	3.12	.51
397	2.97	-1.18	<u>Spectrometri</u>			131	3.05	-.08	Dir Available Phosph			137	3.11	.48
423	2.92	-1.51	289	3.12	1.06	322	3.00	-.65	<u>EDTA Extract</u>			296	3.09	.33
307	2.85	-1.99	Avg	3.04		040	3.00	-.74	023	3.21	1.49	028	3.09	.30
428	2.81	-2.32	220	3.04	.00	055	3.00	-.84	351	3.18	1.48	106	3.07	.28
Meth: 030.10 PCT			363	2.97	-1.17	049	2.99	-1.19	043	3.18	1.10	251	3.05	.23
Insoluble Phosphate			Meth: 040.40 PCT			009	2.96	-1.45	262	3.14	.72	072	3.07	.18
<u>Grav Quimociac</u>			InDir Available Phos			254	2.93	-1.77	377	3.13	.61	296	3.07	.17
090	0.00	.00	Automated			Meth: 041.20 PCT			028	3.09	.18	260	3.06	.13
Meth: 030.20 PCT			096	3.12	.71	Dir Available Phosph			Avg	3.08		027	3.06	.11
Insoluble Phosphate			Meth: 040.50 PCT			<u>Spectrometric</u>			296	3.07	-.26	029	3.06	.06
<u>Spectrometric</u>			InDir Available Phos			362	3.37	1.08	106	3.07	-.37	Avg	3.05	
220	0.06	.00	ICP			055	3.12	.10	034	3.04	-.49	102	3.05	-.02
Meth: 030.40 PCT			423	2.87	-.71	Avg			288	3.04	-.61	131	3.05	-.05
Insoluble Phosphate			Meth: 040.XX PCT			415			037	3.00	-1.10	034	3.04	-.11
<u>Automated</u>			InDir Available Phos			Meth: 041.40 PCT			073	2.99	-1.13	007	3.05	-.12
096	0.05	.71	090	3.13	.94	Dir Available Phosph			037	3.00	-1.10	288	3.04	-.22
Meth: 030.99 PCT			096	3.12	.79	<u>Automated</u>			073	2.99	-1.13	322	3.00	-.36
Insoluble Phosphate			289	3.12	.72	025			095	2.95	-1.63	040	3.00	-.41
<u>Other</u>			220	3.04	.01	027			105	2.72 s	-4.25	055	3.00	-.47
423	0.05	-.71	Avg	3.04		025			Meth: 041.XX PCT			073	2.99	-.51
Meth: 030.99 PCT			363	2.97	-.77	131			Dir Available Phosph			037	3.00	-.55
Insoluble Phosphate			423	2.87	-1.70	029			<u>Dir Available Phosph</u>			131	2.98	-.59
<u>Other</u>			S/s=Screened Outlier			072			362			049	2.99	-.66
423			R=Duplicate Range too large			025			022			009	2.96	-.80
* X=Excluded from lab performance			A=Analysis beyond 3-s limits			027			322			029	2.96	-.84
						Avg			291			095	2.95	-.87
						131			105			254	2.93	-.97
						029			023					
						072			023					
						025			023					
						027			023					
						Avg			023					
						131			023					
						029			023					
						072			023					
						025			023					
						027			023					
						Avg			023					
						131			023					
						029			023					
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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.XX PCT			Meth: 050.00 PCT			Meth: 050.51 PCT			Meth: 050.99 PCT			Meth: 050.XX PCT		
<u>Dir Available Phosph</u>			Soluble Potash			Soluble Potash			Soluble Potash			<u>Soluble Potash</u>		
325	2.92	-1.08	<u>STPB Oxalate</u>			<u>ICP (Citrate)</u>			<u>Other</u>			262	16.15	.56
415	2.81	-1.89	072	14.42 s	-10.30	025	16.57	1.65	027	17.64 s	4.93	422	16.20	.44
072	2.79	-2.06	Meth: 050.10 PCT			377	16.20	.67	390	17.39 s	4.27	330	16.21	.44
354	2.76	-2.26	Soluble Potash			007	15.97 R	.59	131	16.42 R	1.47	035	16.21	.44
105	2.72	-2.61	<u>STPB Citrate</u>			368	16.13	.54	260	16.41	1.24	377	16.20	.41
393	2.16 s	-6.94	322	15.89	.71	043	16.04	.29	330	16.21	.64	072	16.19	.40
Meth: 048.20 PCT			Meth: 050.30 PCT			389	15.95	.13	072	16.19	.60	169	16.18	.40
Water Soluble Phosph			Soluble Potash			Avg	15.94		177	16.03	.26	131	16.19	.40
<u>Spectrometric</u>			<u>AA (Oxalate)</u>			423	15.75	-.66	325	16.06	.21	288	16.19	.39
362	2.18	1.28	262	16.15	.98	096	15.60	-.90	426	16.01	.09	381	16.17	.37
Avg	2.00		381	16.17	.95	291	15.32	-1.64	Avg	15.99		043	16.19	.37
096	1.94	-.47	040	16.10	.76	393	14.76 S	-3.15	425	15.96	-.22	368	16.13	.36
363	1.89	-.80	142	16.08	.74	Meth: 050.60 PCT			289	15.89	-.30	142	16.08	.33
Meth: 050.00 PCT			369	15.96	.48	Soluble Potash			360	15.73 R	-1.06	418	16.16 X	.29
Soluble Potash			Avg	15.84		<u>Flame (Oxalate)</u>			397	15.18	-2.44	040	16.10	.26
<u>STPB Oxalate</u>			234	15.79	-.16	406	16.81	1.83	041	14.45 s	-4.70	220	16.13	.23
257	16.54	2.31	428	15.71	-.38	055	16.71	1.57	Meth: 050.XX PCT			251	16.11	.13
023	16.39	1.36	095	15.39	-1.46	Avg	16.20		<u>Soluble Potash</u>			030	16.10	.09
095	16.32	1.13	137	15.25	-1.73	288	16.19	-.12	027	17.64 s	5.16	114	16.07	-.01
055	16.26 R	.99	351	14.57 S	-3.67	169	16.18	-.22	390	17.39 s	4.45	416	16.06	-.04
009	16.27	.68	Meth: 050.50 PCT			200	16.06	-.53	406	16.81	2.43	325	16.06	-.05
102	16.26	.62	Soluble Potash			131	16.02	-.58	055	16.71	2.14	211	16.06	-.06
231	16.25	.55	<u>ICP (Oxalate)</u>			042	16.04	-.65	025	16.57	1.62	354	16.05	-.07
131	16.19	.23	324	16.36	1.08	105	15.97	-.76	257	16.54	1.56	090	16.06	-.07
043	16.19	.17	292	16.36	1.01	415	15.88	-1.01	131	16.42 R	1.39	392	16.07	-.13
Avg	16.16		422	16.20	.38	Meth: 050.61 PCT			260	16.41	1.10	029	16.03	-.15
220	16.13	-.33	418	16.16 X	.14	Soluble Potash			023	16.39	1.04	043	16.04	-.22
114	16.07	-.51	Avg	16.13		<u>Flame (Citrate)</u>			037	16.34	1.01	131	16.02	-.22
392	16.07	-.57	251	16.11	-.10	037	16.34 R	1.65	028	16.37	1.00	426	16.01	-.23
416	16.06	-.57	354	16.05	-.35	028	16.37	1.48	324	16.36	.97	177	16.03	-.27
211	16.06	-.60	106	15.68	-2.01	034	16.24	.46	292	16.36	.93	029	15.99	-.31
090	16.06	-.61	307	14.44 S	-7.63	035	16.21	.18	095	16.32	.87	200	16.06	-.33
029	15.99	-1.04	420	10.13 s	-26.76	Avg	16.19		055	16.26	.75	389	15.95	-.43
022	15.95	-1.30	Meth: 050.50 PCT			030	16.10	-.68	009	16.27	.65	425	15.96	-.44
049	15.91	-1.52	Soluble Potash			029	16.03	-1.26	102	16.26	.62	105	15.97	-.45
411	15.31 s	-5.02	<u>ICP (Oxalate)</u>			105	15.80 s	-6.86	231	16.25	.58	022	15.95	-.45
* X=Excluded from lab performance			S/s=Screened Outlier			R=Duplicate Range too large			A=Analysis beyond 3-s limits			042	16.04	-.47

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 050.XX PCT			Meth: 101.00 PCT			Meth: 121.00 PCT			Meth: 121.XX PCT			Meth: 144.70 PCT		
<u>Soluble Potash</u>			Acid Soluble Calcium			Acid Soluble Magnesi			<u>Acid Soluble Magnesi</u>			Sulfur		
369	15.96	-.54				AA			307	0.84	-1.43	<u>Spectrometric</u>		
049	15.91	-.57	105	0.24	.71	105	0.84	-.71	105	0.84 R	-1.96	231	8.76	.88
322	15.89	-.58										Avg	8.64	
289	15.89	-.59	Meth: 101.30 PCT			Meth: 121.30 PCT			Meth: 144.01 PCT			393	8.52	-.85
415	15.88	-.69	Acid Soluble Calcium			Acid Soluble Magnesi			Sulfur			200	7.44 S	-8.51
007	15.97 R	-.80	<u>ICP</u>			<u>ICP</u>			<u>Gravimetric</u>					
234	15.79	-.93	422	1.73 s	41.80	422	1.46 s	10.21	288	8.97 R	2.54	Meth: 144.99 PCT		
428	15.71	-1.19	420	0.33	2.67	420	1.08 R	3.32	029	8.88	1.37	Sulfur		
423	15.75	-1.19	131	0.25	.26	292	1.04	2.28	073	8.86	1.13	<u>Other</u>		
106	15.68	-1.29	009	0.25	.22	102	0.96	.76	296	8.85	1.04	220	9.20	1.85
360	15.73 R	-1.37	035	0.24	.16	330	0.95	.64	095	8.78	.69	037	9.09	1.52
096	15.60	-1.55	Avg	0.24		035	0.94	.46	137	8.80	.50	320	9.00	1.11
095	15.39 R	-2.37	320	0.24	-.12	131	0.94	.39	040	8.77	.29	354	8.89	.81
291	15.32	-2.47	102	0.23	-.15	065	0.92	.23	324	8.77	.22	177	8.88	.53
411	15.31	-2.51	288	0.24	-.18	096	0.92	.09	105	8.77	.15	360	8.83	.38
137	15.25	-2.73	307	0.23	-.40	Avg	0.91		043	8.76	.14	131	8.82	.30
105	15.80 R	-2.77	065	0.23	-.40	288	0.88	-.74	Avg	8.75		Avg	8.75	
397	15.18	-2.95	423	0.21	-.97	320	0.89	-.81	102	8.75	-.59	035	8.70	-.25
393	14.76 s	-4.35	292	0.19	-1.38	009	0.87	-.89	028	8.69	-.64	023	8.66	-.40
351	14.57 s	-4.95				423	0.87	-.93	397	8.68	-.79	009	8.66	-.55
041	14.45 s	-5.44	Meth: 101.XX PCT			Meth: 121.XX PCT			Meth: 144.02 PCT			Meth: 144.XX PCT		
072	14.42 s	-5.44	Acid Soluble Calcium			Acid Soluble Magnesi			Sulfur			Sulfur		
307	14.44 s	-5.44	422	1.73 s	81.56	422	1.46 s	10.21	292	9.05	1.04	422	8.45	-1.26
420	10.13 s	-19.57	420	0.33 A	5.63	420	1.08 R	3.32	029	8.96	.52	096	8.38	-1.57
			131	0.25	.97	292	1.04	2.28	330	8.93	.15	368	8.15 S	-2.58
			009	0.25	.87	102	0.96	.76	Avg	8.91		423	7.81 s	-3.92
			035	0.24	.74	330	0.95	.64	022	8.71	-1.46			
			065	0.23	.66	035	0.94	.46	Meth: 144.50 PCT					
			105	0.24	.60	131	0.94	.39	Sulfur					
			320	0.24	.44	065	0.92	.23	Turbidimetric					
			288	0.24	.36	096	0.92	.09	Sulfur					
			102	0.23	.19	Avg	0.91		Sulfur					
			Avg	0.23		288	0.88	-.74	Sulfur					
			307	0.23	-.33	320	0.89	-.81	Sulfur					
			423	0.21	-1.43	009	0.87	-.89	Sulfur					
			292	0.19	-2.23	423	0.87	-.93	Sulfur					

* 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.XX PCT			Meth: 151.00 PPM			Meth: 181.30 PPM			Meth: 190.99 PCT			Meth: 202.30 PPM		
<u>Sulfur</u>			<u>Arsenic</u>			<u>Cadmium</u>			<u>Water Soluble Chlori</u>			<u>Acid Soluble Cobalt</u>		
029	8.88	.73	<u>Atomic Absorption</u>			<u>ICP</u>			<u>Other</u>			<u>ICP</u>		
177	8.88	.73	040	0.73	.08	368	3.21 R	1.97	288	0.46	1.15	037	18.45	.79
073	8.86	.61	Avg	0.70		102	3.09	1.74	Avg	0.44		009	18.20	.57
296	8.85	.56	200	0.36 X	-1.14	291	2.86	1.40	009	0.43	-.43	102	18.15	.57
360	8.83	.52	Meth: 151.30 PPM			Avg			Meth: 190.XX PCT			040		
131	8.82	.42	<u>Arsenic</u>			065			<u>Water Soluble Chlori</u>			Avg		
095	8.78	.37	<u>ICP</u>			106			288			324		
137	8.80	.28	065	1.15	.97	009	0.45	-.62	105	0.48	1.29	320	15.50	-1.37
231	8.76	.17	096	0.80	.28	035	0.14	-.88	Avg	0.44		106	15.00	-1.67
040	8.77	.16	Avg	0.65		393	0.00	-1.00	102	0.43	-.62	368	13.99 R	-2.81
324	8.77	.13	368	0.00	-1.22	Meth: 181.XX PPM			009			Meth: 202.99 PPM		
105	8.77	.09	Meth: 151.XX PPM			<u>Cadmium</u>			Meth: 191.30 PPM			<u>Acid Soluble Cobalt</u>		
043	8.76	.08	<u>Arsenic</u>			368			<u>Chromium</u>			<u>Other</u>		
Avg	8.75		065	1.15	1.19	102	3.09 R	2.62	<u>ICP</u>			035		
022	8.71	-.24	220	1.02	.85	291	2.86	2.17	009	31.35 R	2.21	Meth: 202.XX PPM		
035	8.70	-.31	096	0.80	.30	200	2.00 X	1.19	096	30.00	1.06	<u>Acid Soluble Cobalt</u>		
102	8.75	-.31	040	0.73	.12	324	1.45	.56	393	30.00	.94	096		
028	8.69	-.33	Avg	0.68		Avg	0.96		102	29.43	.77	037		
397	8.68	-.41	200	0.36 X	-.78	296	0.77	-.25	324	28.30	.50	009		
055	8.66	-.49	368	0.00	-1.63	065	0.82	-.29	Avg	28.05		102		
023	8.66	-.51	Meth: 165.99 PCT			106			035			291		
009	8.66	-.71	<u>Acid Soluble Boron</u>			009			368			040		
393	8.64	-.75	<u>Other</u>			040			291			Avg		
291	8.61	-.78	422	0.004	1.03	035	0.14	-.94	065			035		
393	8.52	-1.26	423	0.003	.13	393	0.00	-1.10	Meth: 202.00 PPM			324		
106	8.52	-1.30	Avg	0.003		Meth: 190.00 PCT			<u>Acid Soluble Cobalt</u>			296		
389	8.50	-1.37	288	0.002	-1.19	<u>Water Soluble Chlori</u>			<u>AA</u>			320		
289	8.51	-1.39	Meth: 181.00 PPM			<u>Titrimetric</u>			296			106		
422	8.45	-1.65	<u>Cadmium</u>			105			Avg			368		
096	8.38	-2.06	<u>Atomic Absorption</u>			Avg			220			220		
368	8.15 s	-3.40	200	2.00 X	1.26	102			Meth: 202.30 PPM			Meth: 221.00 PCT		
423	7.81 s	-5.18	Avg	1.06		040			<u>Acid Soluble Cobalt</u>			<u>Acid Soluble Copper</u>		
200	7.44 s	-7.21	296	0.77	-.41	296			<u>ICP</u>			<u>Atomic Absorption</u>		
Meth: 151.00 PPM			200			105			096			029		
Arsenic			Avg			Avg			19.30			0.0007		
<u>Atomic Absorption</u>			040			043			1.35			.84		
220	1.02	1.09	040	0.42	-.87	009			A=Analysis beyond 3-s limits					
* X=Excluded from lab performance			S/s=Screened Outlier			R=Duplicate Range too large								

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 221.00 PCT			Meth: 221.XX PCT			Meth: 241.00 PCT			Meth: 241.99 PCT			Meth: 241.XX PCT		
<u>Acid Soluble Copper</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>		
<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			<u>Other</u>					
095	0.0007	.84	423	0.0014	2.65	381	0.74	-.41	362	1.05 S	10.04	426	0.74	-.36
Avg	0.0006		095	0.0011	1.58	177	0.72	-.80	234	0.78	.84	055	0.74	-.37
105	0.0005	-.59	291	0.0010	1.22	040	0.70	-1.47	220	0.77	.41	428	0.74	-.46
428	0.0005	-1.32	037	0.0010	1.22	397	0.67 X	-2.25	Avg	0.76		042	0.74	-.49
043	0.0005 R	-2.38	292	0.0008	.57	Meth: 241.30 PCT			390	0.73	-1.28	288	0.74	-.49
Meth: 221.30 PCT			095	0.0007	.24	Acid Soluble Iron			393	0.58 S	-6.24	381	0.74	-.49
<u>Acid Soluble Copper</u>			029	0.0007	.24	<u>ICP</u>			Meth: 241.XX PCT			035	0.74	-.61
<u>ICP</u>			389	0.0007	.17	422	1.00 s	4.61	<u>Acid Soluble Iron</u>			390	0.73	-.77
422	0.0035 s	9.71	Avg	0.0006		389	0.87	1.98	362	1.05 s	6.36	177	0.72	-.79
368	0.0020 s	4.43	330	0.0005	-.30	330	0.85	1.74	422	1.00 s	5.46	095	0.71	-.96
423	0.0014	2.47	105	0.0005	-.30	102	0.82	1.19	137	0.99 s	5.14	157	0.71	-1.11
095	0.0011 R	1.49	220	0.0005	-.50	354	0.82	1.12	389	0.87	2.39	040	0.70	-1.27
291	0.0010	1.16	035	0.0005	-.50	324	0.81	1.03	330	0.85	2.10	368	0.70 R	-1.47
037	0.0010	1.16	009	0.0005	-.51	231	0.79	.57	102	0.82	1.46	307	0.69	-1.48
292	0.0008	.56	428	0.0005	-.60	023	0.77	.55	354	0.82	1.38	423	0.68	-1.70
389	0.0007	.21	096	0.0005	-.60	291	0.79	.47	324	0.81	1.27	397	0.67 X	-1.84
Avg	0.0006		324	0.0004	-.74	360	0.78	.42	231	0.79	.73	292	0.67	-2.03
330	0.0005	-.24	102	0.0004	-.74	251	0.77	.27	037	0.79	.72	393	0.58 s	-3.90
035	0.0005	-.41	065	0.0004	-.82	320	0.77	.20	023	0.77 R	.67	Meth: 251.00 PPM		
009	0.0005	-.42	288	0.0004	-.89	096	0.77	.19	028	0.79	.63	Lead		
096	0.0005	-.50	043	0.0005 R	-.96	131	0.76	.11	291	0.79	.62	<u>Atomic Absorption</u>		
102	0.0004	-.63	307	0.0002	-1.52	009	0.76	.02	029	0.78	.60	200	3.00 X	.55
324	0.0004	-.63	Meth: 241.00 PCT			009	0.76	.02	360	0.78	.56	Avg	2.66	
065	0.0004	-.70	<u>Acid Soluble Iron</u>			096	0.77	.19	234	0.78	.56	296	2.31 X	-1.10
288	0.0004	-.77	<u>Atomic Absorption</u>			131	0.76	.11	043	0.77	.37	Meth: 251.30 PPM		
307	0.0002	-1.35	137	0.99 s	7.31	009	0.76	.02	251	0.77	.37	Lead		
Meth: 221.99 PCT			037	0.79	1.26	426	0.74	-.35	320	0.77	.31	<u>ICP</u>		
<u>Acid Soluble Copper</u>			028	0.79	1.14	042	0.74	-.47	105	0.77	.31	291	14.50 s	16.02
<u>Other</u>			029	0.78	1.05	288	0.74	-.48	096	0.77	.29	368	6.90 S	6.65
220	0.0005	.71	043	0.77	.74	035	0.74	-.56	220	0.77	.29	035	2.83	1.39
Meth: 221.XX PCT			105	0.77	.69	095	0.71	-.88	131	0.76	.18	096	2.80	1.35
<u>Acid Soluble Copper</u>			296	0.76	.37	157	0.71	-1.01	296	0.76	.12	102	1.78	.08
422	0.0035 s	10.58	425	0.76	.36	368	0.70	-1.31	425	0.76	.10	Avg	1.72	
368	0.0020 s	4.79	095	0.75	.07	307	0.69	-1.32	009	0.76	.10	065	1.52	-.26
* X=Excluded from lab performance			Avg	0.75		423	0.68	-1.51	Avg	0.76		043	1.35	-.50
			055	0.74	-.23	292	0.67	-1.79	095	0.75	-.16	324	1.15	-.74
			428	0.74	-.35	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: 251.30 PPM			Meth: 261.11 PCT			Meth: 261.31 PCT			Meth: 261.XX PCT			Meth: 271.XX PCT		
Lead			Acid Soluble Mangane			Acid Soluble Mangane			Acid Soluble Mangane			Water Soluble Mangan		
ICP			AA			ICP								
393 0.64 -1.36			029 0.753 1.36			095 0.674 .71			428 0.710 .16			393 0.805 1.54		
			Avg 0.706						137 0.705 .11			Avg 0.601		
Meth: 251.XX PPM			095 0.685 -.52			Meth: 261.99 PCT			422 0.708 .10			029 0.571 -.23		
Lead			040 0.680 -.63			Acid Soluble Mangane			Avg 0.704			220 0.555 -.35		
291 14.50 s 14.65						Other			131 0.700 -.09			291 0.472 -.98		
368 6.90 s 5.98			Meth: 261.30 PCT			393 0.855 S 2.81			037 0.698 -.15					
200 3.00 X 1.30			Acid Soluble Mangane			234 0.770 1.01			177 0.695 -.25			Meth: 281.00 PPM		
035 2.83 1.10			ICP			220 0.735 .32			288 0.698 -.30			Mercury		
096 2.80 1.07			102 0.783 1.41			390 0.730 .29			320 0.698 -.34			Atomic Absorption		
296 2.31 R .86			330 0.780 1.36			Avg 0.720			392 0.695 -.37			363 0.08 -.71		
Avg 1.88			035 0.765 1.08			426 0.645 -1.52			095 0.685 -.41					
102 1.78 -.13			354 0.762 1.06						040 0.680 -.51			Meth: 289.00 PPM		
065 1.52 -.43			023 0.750 .85			Meth: 261.XX PCT			397 0.678 -.54			Molybdenum		
043 1.35 -.64			291 0.746 .73			Acid Soluble Mangane			043 0.675 -.62			Atomic Absorption		
324 1.15 -.87			324 0.741 .65			393 0.855 s 3.28			055 0.675 -.62			296 2.40 .65		
393 0.64 -1.45			106 0.735 .55			102 0.783 1.68			095 0.674 -.64			Avg 1.88		
			251 0.735 .55			330 0.780 1.62			157 0.671 -.70			220 1.36 -1.04		
Meth: 261.00 PCT			009 0.727 .39			234 0.770 1.40			257 0.670 -.73					
Acid Soluble Mangane			042 0.706 .37			381 0.765 1.33			368 0.645 -1.25			Meth: 289.30 PPM		
AA			389 0.725 .37			035 0.765 1.30			426 0.645 -1.26			Molybdenum		
381 0.765 2.23			231 0.720 .27			354 0.762 1.27			307 0.644 -1.26			ICP		
105 0.732 1.14			360 0.715 .20			029 0.753 R 1.21			423 0.600 -2.21			288 8.60 2.02		
296 0.722 .68			422 0.708 .06			023 0.750 1.02			065 0.594 -2.35			096 5.30 .70		
028 0.707 .48			Avg 0.705			291 0.746 .89			292 0.580 -2.62			368 4.31 R .68		
428 0.710 .31			131 0.700 -.10			324 0.741 .79						291 4.90 .55		
137 0.705 .19			037 0.698 -.15			105 0.732 .67			Meth: 271.00 PCT			Avg 3.51		
Avg 0.702			288 0.698 -.26			220 0.735 .67			Water Soluble Mangan			037 2.49 -.42		
177 0.695 -.38			320 0.698 -.29			106 0.735 .67			Atomic Abs			102 2.48 -.48		
392 0.695 -.58			157 0.671 -.62			251 0.735 .67			029 0.571 .91			324 2.20 -.52		
397 0.678 -.84			368 0.645 -1.08			390 0.730 .59			Avg 0.563			065 1.51 -.79		
055 0.675 -.97			307 0.644 -1.09			009 0.727 .49			220 0.555 -.81			106 0.60 -1.14		
043 0.675 -.97			423 0.600 -1.89			389 0.725 .46								
257 0.670 -1.15			065 0.594 -2.01			042 0.706 .44			Water Soluble Mangan			Meth: 289.XX PPM		
			292 0.580 -2.24			296 0.722 .38			ICP			Molybdenum		
						231 0.720 .34			393 0.805 .87			288 8.60 2.30		
						028 0.707 .28			Avg 0.638			096 5.30 .89		
						360 0.715 .26			291 0.472 -.87			368 4.31 R .80		
												291 4.90 .72		

* 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: 289.XX PPM			Meth: 291.XX PPM			Meth: 321.00 PCT			Meth: 321.99 PCT					
<u>Molybdenum</u>			<u>Nickel</u>			Acid Soluble Zinc			Acid Soluble Zinc					
Avg	3.18		065	13.35	-.91	<u>Atomic Absorption</u>			<u>Other</u>					
037	2.49	-.32	106	9.45	-1.72	428	0.014	2.04	220	0.017 s	.00			
296	2.40	-.33	Meth: 301.00 PPM			Avg	0.011		Meth: 321.XX PCT					
102	2.48	-.41	Selenium			095	0.011	-.06	<u>Acid Soluble Zinc</u>					
324	2.20	-.42	<u>Atomic Absorption</u>			043	0.011	-.46	422	0.020 s	8.29			
065	1.51	-.70	040	0.02	.71	029	0.010	-.51	251	0.020 s	8.25			
220	1.36	-.81	Meth: 301.30 PPM			028	0.010	-.64	220	0.017 s	8.09			
106	0.60	-1.09	Selenium			296	0.010	-.68	037	0.018 s	7.22			
Meth: 291.00 PPM			ICP			Meth: 321.30 PCT			428			0.014		
Nickel			<u>ICP</u>			Acid Soluble Zinc			095			0.012		
<u>Atomic Absorption</u>			065	2.18	.94	<u>ICP</u>			330			0.012		
220	19.00	.79	Avg	1.09		422	0.020 s	9.43	131	0.012	1.28			
Avg	17.60		368	0.00	-.78	251	0.020 s	9.38	035	0.011	.54			
296	16.20	-.94	Meth: 301.XX PPM			037	0.018 s	8.21	043	0.011	.44			
Meth: 291.30 PPM			Selenium			330	0.012	1.69	354	0.011	.44			
Nickel			<u>Selenium</u>			095	0.012	1.69	095	0.011	.33			
<u>ICP</u>			065	2.18	1.34	131	0.012	1.59	Avg	0.010				
096	23.50	1.14	Avg	0.73		035	0.011	.74	102	0.010	-.14			
102	20.45	.63	040	0.02	-.59	354	0.011	.54	096	0.010	-.20			
Avg	16.69		368	0.00	-.60	096	0.010	.20	009	0.010	-.25			
065	13.35	-.59	Meth: 311.99 PCT			102	0.010	.11	028	0.010	-.36			
106	9.45	-1.21	Sodium			Avg	0.010		291	0.010	-.36			
Meth: 291.99 PPM			<u>Other</u>			009	0.010	-.11	393	0.010	-.36			
Nickel			422	0.32 s	7.76	291	0.010	-.24	029	0.010	-.39			
<u>Other</u>			251	0.20	1.96	393	0.010	-.24	296	0.010	-.41			
035	19.15	.71	288	0.16	.03	389	0.010	-.54	389	0.010	-.62			
Meth: 291.XX PPM			Avg	0.16		288	0.010	-.54	288	0.010	-.63			
Nickel			102	0.16	-.05	065	0.010	-.83	065	0.010	-.88			
096	23.50	1.36	009	0.15	-.28	423	0.009	-.90	423	0.009	-.95			
102	20.45	.69	035	0.15	-.55	324	0.009	-1.07	324	0.009	-1.10			
035	19.15	.40	307	0.14	-1.13	292	0.009	-1.75	292	0.009	-1.71			
220	19.00	.37	423	0.14 R	-1.20	320	0.009 R	-1.79	320	0.009 R	-1.73			
Avg	17.30					307	0.009 R	-1.96	307	0.009 R	-1.88			
296	16.20	-.31												

* 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	0.15	060.XX	7	0.00	1.03	0.14
001.99	4	20.67	41.36	1.91	101.30	12	3.48	12.10	0.17
001.XX	10	3.88	12.32	0.58	101.XX	13	6.70	22.56	0.33
003.10	4	0.00	1.08	0.06	121.30	14	0.94	2.93	0.43
003.XX	5	0.00	1.06	0.06	121.XX	15	0.79	2.89	0.55
005.XX	2	0.00	1.22	0.05	144.01	15	0.15	1.10	0.41
007.XX	2	0.00	1.18	0.22	144.02	4	0.00	1.04	0.24
009.XX	2	0.00	1.22	0.00	144.70	3	- 2.84	4.99	0.15
010.10	2	0.00	0.93	0.56	144.99	17	- 0.38	1.43	0.31
010.11	8	- 0.48	1.66	0.14	144.XX	38	- 0.34	1.80	0.32
010.12	5	0.00	1.06	0.02	151.00	3	0.00	1.10	0.16
010.60	56	0.23	1.26	0.31	151.30	3	0.00	1.11	0.14
010.99	3	0.00	0.00	0.00	151.XX	6	0.00	1.04	0.15
010.XX	70	0.03	1.47	0.77	165.99	3	0.000	1.094	0.188
020.10	7	0.00	0.87	0.53	165.XX	3	0.000	1.094	0.188
020.20	24	0.07	0.98	0.30	181.00	3	0.00	1.11	0.08
020.40	5	5.22	11.70	2.99	181.30	9	0.19	1.09	0.41
020.50	7	0.55	1.72	0.22	181.XX	12	0.42	1.34	0.49
020.XX	42	0.51	2.43	0.63	190.00	2	0.00	1.22	0.01
030.XX	4	0.00	1.03	0.29	190.99	2	0.00	0.60	0.75
040.20	3	0.00	1.06	0.29	190.XX	4	0.09	0.93	0.65
040.XX	6	0.00	1.00	0.28	191.30	9	- 0.39	2.03	0.69
041.10	17	0.14	1.09	0.43	191.XX	9	- 0.39	2.03	0.69
041.20	3	0.00	1.11	0.09	202.00	2	- 2.10	2.97	2.94
041.40	5	0.00	1.02	0.26	202.30	10	- 0.24	1.21	0.51
041.50	9	- 0.47	2.17	0.35	202.XX	13	- 0.56	1.71	1.22
041.60	14	- 0.30	1.44	0.41	221.00	5	- 0.125	0.9307	1.0624
041.XX	40	- 0.13	1.41	0.47	221.30	17	0.8416	2.4445	1.1369
048.20	3	0.00	1.11	0.11	221.XX	22	0.5787	2.3822	1.1188
048.XX	3	0.00	1.11	0.11	241.00	15	0.49	2.11	0.22
050.00	20	- 0.74	2.68	0.29	241.30	25	0.18	1.33	0.22
050.30	10	- 0.37	1.48	0.31	241.99	5	0.77	5.88	0.52
050.50	9	- 3.81	9.00	0.43	241.XX	44	0.29	1.84	0.25
050.51	10	- 0.31	1.34	0.26	251.00	2	0.00	0.77	0.67
050.60	9	0.00	0.99	0.26	251.30	9	2.50	5.58	0.50
050.61	7	- 0.27	1.54	2.38	251.XX	11	1.91	4.65	0.47
050.99	14	0.36	2.35	0.44	261.00	12	0.000	0.969	0.312
050.XX	72	- 0.52	2.85	0.56	261.11	3	0.000	0.995	0.417
060.00	7	0.00	1.03	0.14	261.30	25	0.000	0.998	0.154

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
261.99	5	0.544	1.529	0.331					
261.XX	45	0.106	1.094	0.225					
271.00	2	0.000	0.976	0.524					
271.30	2	0.000	1.221	0.069					
271.XX	4	0.000	1.076	0.078					
289.00	2	0.00	0.92	0.57					
289.30	9	0.03	0.96	0.25					
289.XX	11	0.04	0.97	0.26					
291.00	2	0.00	1.11	0.36					
291.30	4	0.00	1.07	0.11					
291.XX	7	0.00	1.03	0.13					
301.30	2	0.00	1.10	0.37					
301.XX	3	0.00	1.03	0.35					
311.99	8	0.82	2.97	0.10					
311.XX	8	0.82	2.97	0.10					
321.00	6	0.000	1.025	0.201					
321.30	21	1.077	3.316	1.043					
321.XX	26	0.820	2.842	1.444					