

MAGRUDER - Fertilizer Check Sample No. - 200308 Grade 18-3-18

- Pass 1 Results for 89 Labs - - Pass 2 Results for 85 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	10	5.95	0.26	0.03	9	5.93	0.27	0.02
Ammoniacal Nitrogen, Other .....		001.99	10	6.00	0.20	0.09	9	5.99	0.20	0.06
Method Group 001.XX PCT			20	5.97	0.23	0.06	19	5.97	0.23	0.04
Water Insoluble Nitrogen, Meth I .....	945.01	003.10	5	4.06	0.17	0.04	5	4.06	0.17	0.04
Nitrogen From Urea, Urease (as N) .....	959.03	005.00	2	4.73	1.47	0.08	2	4.73	1.47	0.08
Nitrogen From Urea, Other .....		005.99	2	3.27	0.43	0.52	2	3.27	0.43	0.52
Method Group 005.XX PCT			4	4.00	1.27	0.30	3	4.22	1.38	0.06
Percent Urea, Other .....		007.99	1	3.42	0.01	0.01	1	3.42	0.01	0.01
Ammon & Nitrate N, Devarda .....	892.01	009.10	3	7.92	3.60	0.05	3	7.92	3.60	0.05
Ammon & Nitrate N, Other .....		009.99	1	5.73	0.05	0.07	1	5.73	0.05	0.07
Method Group 009.XX PCT			4	7.37	3.21	0.05	4	7.37	3.21	0.05
Total Nitrogen, Modified Comprehensive	978.02	010.11	6	15.84	0.16	0.10	6	15.84	0.16	0.10
Total Nitrogen, Salicylic .....	955.04D	010.12	5	15.81	0.20	0.08	5	15.81	0.20	0.08
Total Nitrogen, Combustion .....		010.60	47	15.83	0.11	0.07	46	15.84	0.10	0.07
Total Nitrogen, Other .....		010.99	2	15.60	0.14	0.12	2	15.60	0.14	0.12
Method Group 010.XX PCT			63	15.83	0.16	0.08	61	15.83	0.15	0.07
Total Phosphate, Grav Quimociac .....	962.02	020.10	7	4.76	0.06	0.07	7	4.76	0.06	0.07
Total Phosphate, Spectrometric .....	958.01	020.20	22	4.75	0.18	0.06	20	4.74	0.19	0.05
Total Phosphate, Automated .....	978.01	020.40	8	4.74	0.08	0.04	8	4.74	0.08	0.04
Total Phosphate, ICP .....		020.50	6	4.73	0.22	0.09	6	4.73	0.22	0.09
Method Group 020.XX PCT			43	4.75	0.16	0.07	40	4.75	0.14	0.06
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	2	0.30	0.29	0.00	2	0.30	0.29	0.00
Insoluble Phosphate, Automated .....	978.01	030.40	3	0.11	0.12	0.03	3	0.11	0.12	0.03
Method Group 030.XX PCT			6	0.15	0.21	0.02	5	0.13	0.22	0.01
InDir Available Phosphate, Grav Quim ..	960.02	040.10	1	4.80	0.00	0.00	1	4.80	0.00	0.00
InDir Available Phosphate, Spectrometri	960.02	040.20	2	4.71	0.04	0.06	2	4.71	0.04	0.06
InDir Available Phosphate, Automated ..	960.02	040.40	3	4.67	0.10	0.03	3	4.67	0.10	0.03
InDir Available Phosphate, Other .....		040.99	1	4.75	0.02	0.03	1	4.75	0.02	0.03
Method Group 040.XX PCT			7	4.71	0.08	0.03	7	4.71	0.08	0.03
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	14	4.72	0.06	0.03	14	4.72	0.06	0.03
Dir Available Phosphate, Spectrometric	960.03D	041.20	1	4.75	0.03	0.04	1	4.75	0.03	0.04
Dir Available Phosphate, Alka Quim ....	960.03C	041.30	1	4.60	0.11	0.16	1	4.60	0.11	0.16
Dir Available Phosphate, Automated ....	978.01	041.40	4	4.79	0.08	0.06	4	4.79	0.08	0.06
Dir Available Phosphate, ICP .....		041.50	6	4.66	0.11	0.07	6	4.66	0.11	0.07
Dir Available Phosphate, EDTA Extract .	993.01	041.60	11	4.69	0.12	0.04	11	4.69	0.12	0.04
Dir Available Phosphate, Other .....		041.99	1	4.70	0.04	0.06	1	4.70	0.04	0.06
Method Group 041.XX PCT			38	4.71	0.10	0.05	36	4.71	0.09	0.04
Water Soluble Phosphate, Spectrometric	970.01	048.20	2	3.61	0.08	0.01	2	3.61	0.08	0.01

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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
Water Soluble Phosphate, Other		048.99	2	3.73	0.37	0.08	2	3.73	0.37	0.08
Method Group 048.XX PCT			4	3.67	0.26	0.04	3	3.54	0.12	0.01
Soluble Potash, STPB Oxalate	958.02	050.00	22	18.44	0.19	0.10	21	18.43	0.19	0.09
Soluble Potash, STPB Citrate	969.04	050.10	2	18.31	0.53	0.07	2	18.31	0.53	0.07
Soluble Potash, AA (Oxalate)		050.30	13	18.12	0.49	0.19	12	18.10	0.49	0.14
Soluble Potash, ICP (Oxalate)		050.50	5	18.30	0.39	0.18	5	18.30	0.39	0.18
Soluble Potash, ICP (Citrate)		050.51	6	18.29	0.46	0.08	5	18.23	0.48	0.04
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	9	18.40	0.26	0.12	8	18.39	0.25	0.06
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	7	18.70	0.28	0.13	7	18.70	0.28	0.13
Soluble Potash, Other		050.99	10	18.26	0.31	0.14	10	18.26	0.31	0.14
Method Group 050.XX PCT			75	18.37	0.39	0.13	72	18.35	0.37	0.11
Free Water, Vacuum Oven	965.08B	060.00	7	1.19	0.24	0.08	7	1.19	0.24	0.08
Acid Soluble Calcium, ICP		101.30	11	1.12	0.08	0.03	10	1.12	0.09	0.02
Acid Soluble Calcium, Other		101.99	1	1.05	0.07	0.10	1	1.05	0.07	0.10
Method Group 101.XX PCT			12	1.11	0.08	0.03	12	1.11	0.08	0.03
Acid Soluble Magnesium, AA	984.01	121.00	2	0.98	0.02	0.01	2	0.98	0.02	0.01
Acid Soluble Magnesium, ICP		121.30	11	0.95	0.04	0.01	11	0.95	0.04	0.01
Method Group 121.XX PCT			13	0.95	0.04	0.01	13	0.95	0.04	0.01
Water Soluble Magnesium, AA		131.00	1	0.41	0.00	0.00	1	0.41	0.00	0.00
Sulfur, Gravimetric	980.02a	144.01	6	12.71	0.07	0.07	6	12.71	0.07	0.07
Sulfur, Gravimetric	980.02b	144.02	1	13.19	0.04	0.05	1	13.19	0.04	0.05
Sulfur, Turbidimetric	63.845	144.50	1	13.13	0.05	0.07	1	13.13	0.05	0.07
Sulfur, Spectrometric		144.70	2	12.68	0.13	0.18	2	12.68	0.13	0.18
Sulfur, Other		144.99	23	12.68	0.39	0.15	22	12.70	0.37	0.11
Method Group 144.XX PCT			33	12.72	0.34	0.13	30	12.67	0.25	0.08
Arsenic, Atomic Absorption		151.00	4	0.96	0.24	0.02	4	0.96	0.24	0.02
Arsenic, ICP		151.30	2	0.80	0.51	0.41	2	0.80	0.51	0.41
Arsenic, Other		151.99	2	0.89	0.14	0.08	2	0.89	0.14	0.08
Method Group 151.XX PPM			8	0.90	0.30	0.13	7	0.87	0.26	0.04
Acid Soluble Boron, Other		165.99	1	3.400	1.131	1.600	1	3.400	1.131	1.600
Cadmium, Atomic Absorption		181.00	7	2.25	0.47	0.22	7	2.25	0.47	0.22
Cadmium, ICP		181.30	9	2.17	0.39	0.27	8	2.13	0.35	0.18
Cadmium, Other		181.99	2	1.44	0.65	0.09	2	1.44	0.65	0.09
Method Group 181.XX PPM			18	2.12	0.51	0.23	16	2.09	0.50	0.15
Water Soluble Chlorine, Other		190.99	2	4.15	4.28	0.64	2	4.15	4.28	0.64
Chromium, Atomic Absorption		191.00	1	82.00	1.41	2.00	1	82.00	1.41	2.00
Chromium, ICP		191.30	10	54.19	12.94	3.19	10	54.19	12.94	3.19
Chromium, Other		191.99	1	57.50	0.71	1.00	1	57.50	0.71	1.00
Method Group 191.XX PPM			12	56.78	14.13	2.91	11	56.94	14.70	2.26

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Acid Soluble Cobalt, AA .....		202.00	1	10.85	1.91	2.70	1	10.85	1.91	2.70
Acid Soluble Cobalt, Colormetric .....	965.11	202.20	1	11.50	0.71	1.00	1	11.50	0.71	1.00
Acid Soluble Cobalt, ICP .....	965.11	202.30	9	6.91	1.99	0.39	9	6.91	1.99	0.39
Acid Soluble Cobalt, Other .....		202.99	1	9.50	0.71	1.00	1	9.50	0.71	1.00
Method Group 202.XX PPM			12	7.84	2.45	0.68	11	7.56	2.33	0.50
Acid Soluble Copper, Atomic Absorption	975.01	221.00	7	0.0041	0.0003	0.0001	7	0.0041	0.0003	0.0001
Acid Soluble Copper, ICP .....		221.30	17	0.0039	0.0007	0.0003	16	0.0039	0.0007	0.0002
Acid Soluble Copper, Other .....		221.99	1	0.0038	0.0000	0.0000	1	0.0038	0.0000	0.0000
Method Group 221.XX PCT			25	0.0040	0.0006	0.0003	23	0.0040	0.0006	0.0002
Acid Soluble Iron, Atomic Absorption ..	980.01	241.00	17	0.93	0.16	0.02	17	0.93	0.16	0.02
Acid Soluble Iron, ICP .....		241.30	23	0.86	0.17	0.04	22	0.87	0.17	0.03
Acid Soluble Iron, Other .....		241.99	2	1.12	0.13	0.03	2	1.12	0.13	0.03
Method Group 241.XX PCT			42	0.90	0.18	0.03	39	0.90	0.18	0.02
Lead, Atomic Absorption .....		251.00	3	8.40	1.15	1.34	3	8.40	1.15	1.34
Lead, ICP .....		251.30	8	8.63	1.13	1.14	8	8.63	1.13	1.14
Lead, Other .....		251.99	1	8.00	0.00	0.00	1	8.00	0.00	0.00
Method Group 251.XX PPM			12	8.52	1.07	1.09	12	8.52	1.07	1.09
Acid Soluble Manganese, AA .....	972.02a	261.00	1	0.155	0.007	0.010	1	0.155	0.007	0.010
Acid Soluble Manganese, ICP .....	972.02a	261.30	10	0.156	0.014	0.005	10	0.156	0.014	0.005
Method Group 261.XX PCT			11	0.156	0.013	0.006	11	0.156	0.013	0.006
Water Soluble Manganese, Atomic Abs ...	972.03	271.00	1	0.068	0.000	0.000	1	0.068	0.000	0.000
Mercury, Atomic Absorption .....		281.00	1	0.01	0.00	0.00	1	0.01	0.00	0.00
Mercury, ICP .....		281.30	1	20.60	1.13	1.60	1	20.60	1.13	1.60
Method Group 281.XX PPM			2	10.31	11.91	0.80	2	10.31	11.91	0.80
Molybdenum, Atomic Absorption .....		289.00	1	2.90	0.57	0.80	1	2.90	0.57	0.80
Molybdenum, ICP .....		289.30	7	4.75	1.49	0.41	7	4.75	1.49	0.41
Molybdenum, Other .....		289.99	1	5.50	0.71	1.00	1	5.50	0.71	1.00
Method Group 289.XX PPM			9	4.63	1.48	0.52	9	4.63	1.48	0.52
Nickel, ICP .....		291.30	8	26.28	4.33	0.89	7	27.11	3.92	0.59
Nickel, Other .....		291.99	2	19.48	9.36	2.15	2	19.48	9.36	2.15
Method Group 291.XX PPM			10	24.92	6.04	1.14	10	24.92	6.04	1.14
Selenium, Atomic Absorption .....		301.00	1	0.04	0.03	0.04	1	0.04	0.03	0.04
Selenium, ICP .....		301.30	1	1.79	0.45	0.64	1	1.79	0.45	0.64
Method Group 301.XX PPM			2	0.91	1.04	0.34	2	0.91	1.04	0.34
Sodium, Atomic Absorption .....	983.04	311.00	1	0.10	0.00	0.00	1	0.10	0.00	0.00
Sodium, Flame Photometric .....	974.01	311.30	1	0.10	0.01	0.01	1	0.10	0.01	0.01
Sodium, Other .....		311.99	6	0.11	0.02	0.01	5	0.11	0.02	0.00
Method Group 311.XX PCT			8	0.10	0.02	0.01	7	0.11	0.01	0.00
Acid Soluble Zinc, Atomic Absorption ..	975.02	321.00	6	0.024	0.001	0.001	5	0.024	0.001	0.000

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Acid Soluble Zinc, ICP .....		321.30	18	0.024	0.003	0.001	16	0.024	0.003	0.001
Acid Soluble Zinc, Other .....		321.99	2	0.022	0.001	0.001	2	0.022	0.001	0.001
Method Group 321.XX PCT			26	0.024	0.003	0.001	23	0.024	0.002	0.001
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: 005.99 PCT			Meth: 010.11 PCT			Meth: 010.60 PCT				
<u>Ammoniacal Nitrogen</u>			<u>Ammoniacal Nitrogen</u>			<u>Nitrogen From Urea</u>			<u>Total Nitrogen</u>			<u>Total Nitrogen</u>				
<u>MgO Distillation</u>						<u>Other</u>			<u>Modified Comprehensi</u>			<u>Combustion</u>				
415	7.31 s	7.55	363	6.45	2.09	220	3.32	1.22	322	17.76 s	11.77	028	15.92	.86		
405	6.36	1.57	405	6.36	1.68	Avg	3.27		029	16.07	1.44	177	15.93	.86		
040	6.20	1.00	040	6.20	1.01	394	3.21	-.13	211	16.01	1.07	073	15.92	.80		
220	6.10 R	.66	418	6.12 R	.99	Meth: 005.XX PCT			Avg	15.84		025	15.92	.78		
200	6.06	.46	220	6.10	.62	<u>Nitrogen From Urea</u>			288	15.79	-.56	096	15.90	.72		
090	6.04	.43	193	6.07	.51	309			405	15.72	-.75	007	15.89	.65		
029	6.03	.35	200	6.06	.38	Avg			090	15.72	-.75	142	15.89	.60		
Avg	5.93		090	6.04	.36	220			363	15.71	-.92	330	15.85	.50		
389	5.80	-.48	397	6.02	.28	394			415	15.08 S	-4.66	292	15.88	.44		
351	5.79	-.51	029	6.03	.25	220			309	14.40 S	-8.76	037	15.88	.44		
262	5.61	-1.21	320	6.02	.24	394			Meth: 010.12 PCT			024	15.87	.38		
309	5.50	-1.60	Avg	5.97		220			Total Nitrogen			324	15.86	.37		
Meth: 001.99 PCT			096	5.96	-.12	Meth: 007.99 PCT			<u>Salicylic</u>			029	15.87	.32		
<u>Ammoniacal Nitrogen</u>			289	5.93	-.16	Percent Urea			254			16.35 S	2.84	361	15.86	.31
<u>Other</u>			409	5.89	-.45	<u>Other</u>			137			16.06	1.29	394	15.85	.29
376	8.15 S	10.90	394	5.80	-.71	029			416			15.90	.45	Avg	15.84	.09
393	7.64 S	8.36	389	5.80	-.72	Meth: 009.10 PCT			351			15.84	.26	131	15.82	-.24
414	7.20 S	6.13	351	5.79	-.75	<u>Ammon &amp; Nitrate N</u>			Avg			15.81		409	15.81	-.24
363	6.45	2.34	420	5.77	-.89	<u>Devarda</u>			102			15.73	-.42	296	15.81	-.26
418	6.12 R	1.09	262	5.61	-1.56	030			185			15.53	-1.55	351	15.81	-.29
193	6.07	.51	309	5.50	-2.02	Avg			Meth: 010.60 PCT			040			15.79	-.45
397	6.02	.24	Meth: 003.10 PCT			392			Total Nitrogen			231			15.78	-.57
320	6.02	.17	Water Insoluble Nitr			372			<u>Combustion</u>			325			15.78	-.60
Avg	5.99		<u>Meth I</u>			Meth: 009.99 PCT			422			18.14 s	22.15	360	15.78	-.72
096	5.96	-.21	029	4.26	1.15	<u>Ammon &amp; Nitrate N</u>			372			18.03 s	21.09	247	15.77	-.72
289	5.93	-.29	090	4.14	.47	420			042			16.37 s	5.48	106	15.76	-.77
409	5.89	-.62	023	4.11	.28	Meth: 009.XX PCT			022			16.41 s	5.48	220	15.84	-.91
394	5.80	-.94	Avg	4.06		<u>Ammon &amp; Nitrate N</u>			023			16.25 s	3.95	376	15.77	-.92
420	5.77	-1.14	220	4.02	-.32	420			095			16.07	2.29	389	15.75	-.95
Meth: 001.XX PCT			394	3.77	-1.67	Meth: 009.XX PCT			022			16.07	2.21	041	15.80	-1.02
<u>Ammoniacal Nitrogen</u>			Meth: 005.00 PCT			<u>Ammon &amp; Nitrate N</u>			275			16.07	2.21	262	15.80	-1.02
376	8.15 s	9.43	Nitrogen From Urea			030			232			16.00	1.57	307	15.76	-1.13
415	7.31 s	8.71	<u>Urease (as N)</u>			Avg			043			15.98	1.38	406	15.72	-1.17
393	7.64 s	7.26	309	6.00	.87	392			049			15.95	1.06	233	15.72	-1.20
414	7.20 s	5.34	Avg	4.73		420			035			15.89	.95	234	15.71	-1.21
* X=Excluded from lab performance			220	3.46	-.87	372			136			15.93	.92	055	15.72	-1.30
			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>			028	15.92	.67	090	15.72	-.76	<u>Spectrometric</u>			<u>ICP</u>		
377	15.71	-1.30	220	15.84	.65	233	15.72	-.78	142	4.86	.63	247	4.81	.38
034	15.67	-1.60	073	15.92	.63	234	15.71	-.78	324	4.74 R	.59	Avg 4.73		
157	15.73 R	-1.60	025	15.92	.62	377	15.71	-.85	416	4.81	.38	389	4.68	-.25
009	15.64	-1.99	096	15.90	.56	055	15.72	-.85	363	4.80	.34	393	4.30 X	-1.92
393	15.40 s	-4.24	007	15.89	.52	363	15.71	-.96	220	4.76	.25			
			416	15.90	.51	362	15.70	-1.01	200	4.76	.09	Meth: 020.XX PCT		
Meth: 010.99 PCT			142	15.89	.48	034	15.67	-1.06	Avg 4.74			<u>Total Phosphate</u>		
<u>Total Nitrogen</u>			330	15.85	.38	157	15.73 R	-1.08	177	4.74	-.06	292	5.08	2.28
<u>Other</u>			292	15.88	.38	009	15.64	-1.34	406	4.72	-.15	362	4.99	1.62
368	18.42 S	20.54	037	15.88	.38	185	15.53	-2.15	234	4.66	-.45	418	4.93 R	1.44
354	16.62 S	7.33	024	15.87	.33	397	15.49	-2.26	030	4.59	-.94	392	4.93	1.27
362	15.70	.93	324	15.86	.31	393	15.40 X	-2.92	397	4.53	-1.12	231	4.90	1.24
Avg	15.60		351	15.84	.30	415	15.08 s	-5.10	169	4.53	-1.13	330	4.90	1.23
397	15.49	-.79	029	15.87	.29	309	14.40 s	-9.65	372	4.51	-1.23	361	4.89	.92
			361	15.86	.26	Meth: 020.10 PCT			415	4.48	-1.38	381	4.88	.86
Meth: 010.XX PCT			394	15.85	.24	<u>Total Phosphate</u>			309	4.40	-1.82	232	4.87	.83
<u>Total Nitrogen</u>			086	15.84	.10	<u>Grav Quimociac</u>			Meth: 020.40 PCT			422	4.79	.74
368	18.42 s	17.98	Avg	15.83		405	4.77	1.70	<u>Total Phosphate</u>			142	4.86	.72
422	18.14 s	15.68	409	15.81	-.10	414	4.77	.76	<u>Automated</u>			405	4.77	.71
372	18.03 s	14.93	131	15.82	-.12	090	4.80	.62	096	4.82	.96	096	4.82	.44
322	17.76 s	13.14	296	15.81	-.12	095	4.79	.48	247	4.81	.41	247	4.81	.41
354	16.62 s	5.41	351	15.81	-.14	114	4.79	.44	394	4.79	.64	416	4.81	.41
042	16.37 s	3.93	040	15.79	-.25	Avg	4.76		193	4.78	.64	363	4.80	.34
022	16.41 A	3.93	231	15.78	-.33	313	4.71	-.97	035	4.76	.60	090	4.80	.33
254	16.35 s	3.70	325	15.78	-.35	300	4.73	-1.14	247	4.77	.41	414	4.77	.33
023	16.25	2.85	247	15.77	-.44	Meth: 020.20 PCT			320	4.74	.38	035	4.76	.31
095	16.07	1.68	360	15.78	-.46	<u>Total Phosphate</u>			Avg	4.74		193	4.78	.29
029	16.07	1.67	106	15.76	-.48	<u>Spectrometric</u>			409	4.70	-.71	220	4.76	.28
275	16.07	1.63	288	15.79	-.59	292	5.08	1.84	376	4.57	-2.14	095	4.79	.27
137	16.06	1.63	376	15.77	-.60	362	4.99	1.33	042	3.92 s	-11.63	394	4.79	.26
211	16.01	1.26	389	15.75	-.61	418	4.93 R	1.18	Meth: 020.50 PCT			114	4.79	.25
232	16.00	1.17	102	15.73	-.66	392	4.93	1.06	<u>Total Phosphate</u>			247	4.77	.14
043	15.98	1.04	041	15.80	-.70	231	4.90	1.02	<u>ICP</u>			200	4.76	.04
049	15.95	.82	262	15.80	-.70	381	4.88	.74	330	4.90	.89	Avg	4.75	
136	15.93	.72	307	15.76	-.75	232	4.87	.72	361	4.89	.71	177	4.74	-.13
035	15.89	.70	406	15.72	-.75	Meth: 020.20 PCT			320	4.74	-.22	320	4.74	-.22
177	15.93	.68	405	15.72	-.76	<u>Total Phosphate</u>			422	4.79	.53	406	4.72	-.28
* X=Excluded from lab performance			S/s=Screened Outlier			R=Duplicate Range too large			A=Analysis beyond 3-s limits					

Laboratory Averages & Accuracy Indexes

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: 041.40 PCT			Meth: 041.99 PCT				
<u>Total Phosphate</u>			<u>Insoluble Phosphate</u>			<u>InDir Available Phos</u>			<u>Dir Available Phosph</u>			<u>Dir Available Phosph</u>				
313	4.71	-.32	363	0.55	1.89	220	4.71	.49	025	4.85	1.02	131	4.70	.71		
300	4.73	-.43	096	0.26 R	.59	247	4.75	.48	034	4.81	.75	Meth: 041.XX PCT				
409	4.70	-.46	Avg	0.13		289	4.71	.24	131	4.80	.36	<u>Dir Available Phosph</u>				
389	4.68	-.56	220	0.05	-.37	Avg	4.71		Avg	4.78		025	4.85	1.65		
234	4.66	-.67	409	0.04	-.44	409	4.66	-.64	029	4.69	-1.33	034	4.81	1.26		
324	4.74 R	-.77	247	0.03	-.48	096	4.56	-1.89	393	4.40 s	-6.67	041	4.82	1.21		
376	4.57	-1.27	090	0.00	-.60	363	4.25 s	-5.58	Meth: 041.50 PCT			220	4.81	1.07		
030	4.59	-1.30	Meth: 040.10 PCT			Meth: 041.10 PCT			Meth: 041.50 PCT			131	4.80	.98		
397	4.53	-1.54	InDir Available Phos			Dir Available Phosph			Dir Available Phosph			095	4.79	.97		
169	4.53	-1.55	<u>Grav Quim</u>			<u>Grav Quimociac</u>			<u>ICP</u>			296	4.79	.89		
372	4.51	-1.68	090	4.80	.00	041	4.82	1.67	361	4.75	.88	377	4.79	.89		
415	4.48	-1.87	Meth: 040.20 PCT			009			4.78	.98	325	4.69	.33	009	4.78	.73
309	4.40	-2.44	InDir Available Phos			055			4.76	.77	007	4.67	.31	028	4.77	.61
393	4.30 A	-3.18	<u>Spectrometri</u>			086			4.75	.49	Avg	4.66		043	4.73	.61
042	3.92 s	-6.47	220	4.71	1.10	137	4.73	.43	360	4.63	-.53	055	4.76	.58		
Meth: 030.10 PCT			289	4.71	.55	040	4.74	.39	393	4.47 X	-1.93	296	4.76	.48		
Insoluble Phosphate			Avg	4.71		029	4.72	.01	354	4.12 S	-4.98	106	4.75	.47		
<u>Grav Quimociac</u>			363	4.25 S	-12.60	Avg	4.72		Meth: 041.60 PCT			023	4.73	.43		
090	0.00	.00	Meth: 040.40 PCT			102			4.70	-.45	361			4.75	.41	
Meth: 030.20 PCT			InDir Available Phos			049			4.70	-.72	Dir Available Phosph			086	4.75	.40
Insoluble Phosphate			<u>Automated</u>			028			4.67	-.93	<u>EDTA Extract</u>			040	4.74	.32
<u>Spectrometric</u>			394	4.78	1.12	211	4.67	-.93	220	4.81	.97	137	4.73	.32		
363	0.55	.87	Avg	4.67		185	4.64	-1.51	095	4.79	.88	351	4.72	.13		
Avg	0.30		409	4.66	-.20	414	4.64	-1.55	377	4.79	.84	029	4.72	.06		
220	0.05	-.87	096	4.56	-1.10	254	4.50 s	-5.03	028	4.77	.64	073	4.72	.06		
Meth: 030.40 PCT			Meth: 040.99 PCT			Meth: 041.20 PCT			296	4.76	.54	Avg	4.71			
Insoluble Phosphate			InDir Available Phos			Dir Available Phosph			043	4.73	.53	102	4.70	-.27		
<u>Automated</u>			<u>Other</u>			<u>Spectrometric</u>			351	4.72	.26	325	4.69	-.31		
096	0.26	1.29	247	4.75	.71	106	4.75	.71	073	4.72	.21	029	4.69	-.35		
Avg	0.11		Meth: 040.XX PCT			Meth: 041.30 PCT			Avg	4.69		131	4.70	-.39		
409	0.04	-.61	InDir Available Phos			Dir Available Phosph			262	4.54	-1.26	049	4.70	-.47		
247	0.03	-.68	090	4.80	1.11	<u>Alka Quim</u>			288	4.50	-1.60	028	4.67	-.58		
* X=Excluded from lab performance			394	4.78	.87	260	4.60	.71	397	4.49	-1.69	211	4.67	-.58		
S/s=Screened Outlier			R=Duplicate Range too large			A=Analysis beyond 3-s limits						007	4.67	-.63		
												185	4.64	-.99		
												414	4.64	-1.01		

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: 050.30 PCT			Meth: 050.60 PCT			Meth: 050.99 PCT				
<u>Dir Available Phosph</u>			Soluble Potash			Soluble Potash			Soluble Potash			Soluble Potash				
360	4.63	-1.14	<u>STPB Oxalate</u>			<u>AA (Oxalate)</u>			<u>Flame (Oxalate)</u>			<u>Other</u>				
260	4.60 R	-1.63	095	18.49 R	1.04	040	18.19	.22	390	18.51 R	1.32	360	17.82	-1.54		
262	4.54	-2.04	193	18.60	1.01	Avg	18.10		024	18.68	1.13					
288	4.50	-2.50	131	18.60	.87	137	18.07	-.06	406	18.67	1.09	Meth: 050.XX PCT				
397	4.49	-2.62	073	18.59	.80	142	18.05	-.16	055	18.60	.83	<u>Soluble Potash</u>				
393	4.47 R	-3.04	345	18.56	.68	157	17.84	-.54	309	18.40	.04	422	21.39 s	8.30		
254	4.50 s	-3.42	231	18.54	.60	262	17.90	-.57	Avg	18.39		307	19.88 s	4.18		
393	4.40 s	-5.23	043	18.52	.58	420	17.66	-.90	288	18.39	-.12	330	19.44 A	2.97		
354	4.12 s	-6.90	055	18.50	.54	351	17.57	-1.08	415	18.33	-.43	157	19.39 s	2.95		
322	2.88 s	-21.34	009	18.48	.44	185	17.35	-1.52	200	18.07	-1.28	030	19.15	2.21		
			416	18.50	.35	397	16.78 S	-2.73	169	18.00	-1.58	234	19.16	2.20		
			350	18.48	.29							035	18.98	1.72		
Meth: 048.20 PCT			029	18.48	.23	Meth: 050.50 PCT			Meth: 050.61 PCT			377	18.95	1.64		
Water Soluble Phosph			392	18.46	.17	Soluble Potash			Soluble Potash			260	18.94	1.61		
<u>Spectrometric</u>			220	18.44	.11	<u>ICP (Oxalate)</u>			<u>Flame (Citrate)</u>			324	18.77	1.28		
193	3.67	.86	Avg	18.43		422	21.39 S	8.05	030	19.15	1.68	025	18.77	1.14		
Avg	3.61		211	18.41	-.23	307	19.88 S	4.11	035	18.98	1.03	363	18.45 R	1.07		
363	3.54	-.87	028	18.28	-.85	157	19.39 S	2.93	Avg	18.70		390	18.51 R	.95		
			418	18.19	-1.27	324	18.77	1.32	024	18.69	-.14	024	18.69	.91		
Meth: 048.99 PCT			296	18.14	-1.54	106	18.51	.53	041	18.67	-.16	024	18.68	.88		
Water Soluble Phosph			049	18.07	-2.01	247	18.41	.28	034	18.64	-.44	041	18.67	.86		
<u>Other</u>			372	18.01	-2.21	Avg	18.30		028	18.45	-.92	406	18.67	.86		
275	4.05 X	.88				292	18.02	-.74	029	18.36	-1.23	034	18.64	.82		
Avg	3.73		Meth: 050.10 PCT			354	17.81	-1.35				102	18.65	.81		
415	3.41	-.85	Soluble Potash						Meth: 050.99 PCT			090	18.64	.79		
			<u>STPB Citrate</u>			Meth: 050.51 PCT			Soluble Potash			193	18.60	.73		
Meth: 048.XX PCT			025	18.77	.86	Soluble Potash			<u>Other</u>			393	18.57 X	.71		
Water Soluble Phosph			Avg	18.31		<u>ICP (Citrate)</u>			330			19.44 s	3.78	131	18.60	.68
275	4.05 R	4.42	322	17.85	-.87	377	18.95	1.50	260	18.94	2.19	055	18.60	.68		
193	3.67	1.12				393	18.57 R	.76	177	18.46	.67	095	18.49	.64		
Avg	3.54		Meth: 050.30 PCT			361	18.51	.58	275	18.37 X	.46	073	18.59	.64		
363	3.54	-.09	Soluble Potash			Avg	18.23		394	18.35	.28	345	18.56	.58		
415	3.41	-1.11	<u>AA (Oxalate)</u>			007	18.16	-.15	325	18.28	.07	231	18.54	.52		
			234	19.16	2.16	023	17.83	-.84	Avg	18.26		043	18.52	.49		
Meth: 050.00 PCT			363	18.45 R	1.05	389	17.70	-1.09	289	18.17	-.30	095	18.52	.48		
Soluble Potash			095	18.52	.86				376	18.06	-.63	055	18.50	.46		
<u>STPB Oxalate</u>			381	18.46	.76				232	18.05	-.66	106	18.51	.44		
102	18.65	1.13	405	18.43	.73				042	18.09	-.81	361	18.51	.44		
090	18.64	1.10														
* 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: 050.XX PCT			Meth: 050.XX PCT			Meth: 101.99 PCT			Meth: 121.30 PCT			Meth: 144.01 PCT		
<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Acid Soluble Calcium</u>			<u>Acid Soluble Magnesi</u>			<u>Sulfur</u>		
381	18.46	.42	157	17.84	-1.40	193	1.05	.71	288	0.93	-.67	043	12.66	-.92
405	18.43	.41	023	17.83	-1.43	<u>Other</u>			320	0.89	-1.57	086	10.80 s	-26.97
416	18.50	.41	354	17.81	-1.53	Meth: 101.XX PCT			422	0.87	-1.99	Meth: 144.02 PCT		
009	18.48	.40	360	17.82	-1.54	<u>Acid Soluble Calcium</u>			393	0.77 S	-4.54	<u>Sulfur</u>		
350	18.48	.36	389	17.70	-1.77	307	1.32	2.42	Meth: 121.XX PCT			<u>Gravimetric</u>		
029	18.48	.34	420	17.66	-1.89	320	1.18	.82	<u>Acid Soluble Magnesi</u>			292	13.19	.71
177	18.46	.33	351	17.57	-2.12	361	1.17	.68	309	1.00	1.28	Meth: 144.50 PCT		
392	18.46	.30	185	17.35	-2.72	131	1.13	.68	307	0.99	1.00	<u>Sulfur</u>		
028	18.45	.27	397	16.78 s	-4.32	247	1.13	.16	247	0.98	.80	<u>Turbidimetric</u>		
275	18.37 X	.25	Meth: 060.00 PCT			Avg	1.11		361	0.98	.64	289	13.13	.71
220	18.44	.25	<u>Free Water</u>			009	1.10	-.12	035	0.97	.57	Meth: 144.70 PCT		
247	18.41	.18	<u>Vacuum Oven</u>			288	1.10	-.37	193	0.96	.35	<u>Sulfur</u>		
211	18.41	.18	247	1.45	1.13	035	1.07	-.52	131	0.96	.27	<u>Spectrometric</u>		
288	18.39	.14	363	1.35	.72	102	1.07	-.57	376	0.96	.16	200	12.71 X	.29
309	18.40	.14	320	1.31	.60	193	1.05	-.96	Avg	0.95		Avg	12.68	
029	18.36	.04	361	1.31	.50	376	1.03	-1.05	102	0.95	-.22	231	12.65	-1.19
Avg	18.35		Avg	1.19		422	1.02	-1.11	009	0.94	-.41	393	9.73 S	-22.97
394	18.35	-.04	007	1.11	-.37	Meth: 121.00 PCT			288	0.93	-.77	Meth: 144.99 PCT		
325	18.28	-.21	362	1.06	-.61	<u>Acid Soluble Magnesi</u>			320	0.89	-1.71	<u>Sulfur</u>		
028	18.28	-.24	416	0.74	-1.90	<u>AA</u>			422	0.87	-2.13	<u>Other</u>		
415	18.33	-.25	Meth: 101.30 PCT			309	1.00	.82	393	0.77 s	-4.68	393	19.47 s	18.16
418	18.19	-.44	<u>Acid Soluble Calcium</u>			Avg	0.98		Meth: 131.00 PCT			275	15.64 s	7.88
040	18.19	-.48	<u>ICP</u>			193	0.96	-.91	<u>Water Soluble Magnes</u>			354	15.37 s	7.26
289	18.17	-.50	307	1.32	2.30	Meth: 121.30 PCT			<u>AA</u>			389	14.20 S	4.04
007	18.16	-.53	320	1.18	.75	<u>Acid Soluble Magnesi</u>			193	0.41	.71	330	13.60	2.48
296	18.14	-.59	131	1.13 R	.65	<u>ICP</u>			Meth: 144.01 PCT			360	13.54	2.34
137	18.07	-.76	361	1.17	.61	307	0.99	1.14	<u>Sulfur</u>			035	13.05	.96
200	18.07	-.76	247	1.13	.11	247	0.98	.93	<u>Gravimetric</u>			351	12.99	.83
376	18.06	-.79	Avg	1.12		361	0.98	.77	055	12.78	1.57	070	12.97	.72
232	18.05	-.82	009	1.10	-.16	035	0.97	.71	324	12.79	1.10	376	12.87	.47
142	18.05	-.83	288	1.10	-.39	131	0.96	.40	Avg	12.71		296	12.84	.38
049	18.07	-.85	035	1.07	-.56	376	0.96	.27	095	12.69	-.35	220	12.81	.32
042	18.09	-.88	102	1.07	-.60	102	0.95	.25	102	12.68	-.43	Avg	12.70	
292	18.02	-.90	376	1.03	-1.07	Avg	0.95		288	12.68	-.83	* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits		
372	18.01	-.94	422	1.02	-1.13	009	0.94	-.28						
169	18.00	-.97												
262	17.90	-1.34												
322	17.85	-1.36												

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: 151.30 PPM			Meth: 181.00 PPM			Meth: 181.XX PPM		
Sulfur			Sulfur			Arsenic			Cadmium			Cadmium		
<u>Other</u>			<u>Other</u>			<u>ICP</u>			<u>Atomic Absorption</u>			<u>Atomic Absorption</u>		
040	12.70	-.01	288	12.68	.20	376	1.15	1.02	300	2.09	-.33	102	2.31	.49
232	12.67	-.09	200	12.71 X	.17	Avg	0.80		363	2.00	-.52	106	2.20	.23
136	12.68	-.09	136	12.68	.13	102	0.46	-.68	220	1.85	-.85	300	2.09	.02
397	12.64	-.16	040	12.70	.10	Meth: 151.99 PPM			289	1.68	-1.22	Avg	2.09	
028	12.60	-.27	095	12.69	.09	Arsenic			Meth: 181.30 PPM			409	2.00	-.17
029	12.48	-.61	102	12.68	.05	<u>Other</u>			Cadmium			363	2.00	-.17
193	12.45	-.68	Avg	12.67		409	1.00	.77	393	2.50 R	1.76	232	1.89	-.42
372	12.43	-.73	232	12.67	-.03	Avg	0.89		376	2.30	1.23	220	1.85	-.48
137	12.41	-.77	397	12.64	-.14	220	0.78	-.95	247	2.50	1.04	288	1.84	-.50
106	12.41	-.81	043	12.66	-.17	Meth: 151.XX PPM			009	2.45	.91	289	1.68	-.84
247	12.39	-.87	028	12.60	-.31	Arsenic			102	2.31	.57	035	1.59	-1.02
361	12.35	-.95	231	12.65	-.61	376	1.15 R	1.83	106	2.20	.19	362	0.88	-2.43
131	12.29	-1.10	029	12.48	-.81	193	1.30	1.66	Avg	2.13		Meth: 190.99 PCT		
023	12.21	-1.31	193	12.45	-.91	040	1.03	.60	232	1.89	-.73	Water Soluble Chlori		
009	12.40 R	-1.70	372	12.43	-.99	409	1.00	.51	288	1.84	-.85	<u>Other</u>		
363	11.28 s	-4.80	137	12.41	-1.05	Avg	0.87		035	1.59	-1.57	288	7.83	.87
177	9.29 s	-9.15	106	12.41	-1.11	231	0.77	-.38	Meth: 181.99 PPM			009	0.47	-.86
254	4.05 s	-23.19	247	12.39	-1.21	220	0.78	-.46	Cadmium			Meth: 191.00 PPM		
			361	12.35	-1.31	136	0.75	-.46	<u>Other</u>			Chromium		
			131	12.29	-1.54	102	0.46	-1.60	409	2.00	.86	Atomic Absorption		
			023	12.21	-1.85	Meth: 165.99 PCT			Avg	1.44		193	82.00	.71
			009	12.40 R	-2.50	Acid Soluble Boron			362	0.88	-.87	Meth: 191.30 PPM		
			363	11.28 s	-7.09	<u>Other</u>			Meth: 181.XX PPM			Chromium		
			086	10.80 s	-7.66	009	3.400	-.71	Cadmium			ICP		
			393	9.73 s	-11.78	Meth: 181.00 PPM			136	4.24 s	4.32	389	72.50	1.43
			177	9.29 s	-13.57	Cadmium			231	3.60 s	3.06	247	66.20	.93
			254	4.05 s	-34.56	<u>Atomic Absorption</u>			233	2.95	1.87	009	63.65	.73
						136	4.24 S	4.22	233	2.95	1.87	376	60.35	.51
						231	3.60 S	2.89	393	2.50 R	1.30	393	55.00	.39
						233	2.95	1.66	193	2.60	1.05	102	56.90	.21
						193	2.60	.77	040	2.57	1.00	Avg	54.19	
						040	2.57	.74	376	2.30 R	.91	288	50.00	-.36
						Avg	2.25		247	2.50	.83	231	48.85	-.42
						* X=Excluded from lab performance			009	2.45	.74	232	40.89	-1.03
						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: 191.30 PPM			Meth: 202.30 PPM			Meth: 221.00 PCT			Meth: 221.XX PCT			Meth: 241.00 PCT		
Chromium			Acid Soluble Cobalt			Acid Soluble Copper			Acid Soluble Copper			Acid Soluble Iron		
<u>ICP</u>			<u>ICP</u>			<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			<u>Atomic Absorption</u>		
035 27.55 -2.06			040 8.70 .90			043 0.0042 .38			086 0.0065 s 4.41			086 0.97 .23		
			247 8.40 .75			028 0.0042 .17			376 0.0050 1.76			040 0.96 .19		
Meth: 191.99 PPM			393 7.30 X .22			Avg 0.0041			040 0.0048 1.58			043 0.96 .17		
Chromium			102 6.96 .08			095 0.0040 -.50			307 0.0041 R 1.56			220 0.96 .13		
<u>Other</u>			Avg 6.91			296 0.0036 -1.84			354 0.0045 R 1.25			351 0.95 .09		
409 57.50 .71			232 5.99 -.46						324 0.0046 1.08			Avg 0.93		
			389 5.50 -.75			Meth: 221.30 PCT			330 0.0046 1.02			177 0.92 -.07		
Meth: 191.XX PPM			320 4.50 -1.24			Acid Soluble Copper			389 0.0044 .70			397 0.92 -.12		
Chromium			288 4.40 -1.26			<u>ICP</u>			193 0.0043 .59			262 0.66 -1.69		
193 82.00 1.71						376 0.0050 1.54			043 0.0042 .43			381 0.60 -2.06		
389 72.50 1.07			Meth: 202.99 PPM			040 0.0048 1.39			028 0.0042 .38			193 0.59 -2.12		
247 66.20 .63			Acid Soluble Cobalt			307 0.0041 R 1.33			073 0.0042 .32					
009 63.65 .46			<u>Other</u>			354 0.0045 1.09			102 0.0041 .22			Meth: 241.30 PCT		
376 60.35 .29			409 9.50 .71			324 0.0046 .96			422 0.0040 .12			Acid Soluble Iron		
409 57.50 .05						330 0.0046 .92			095 0.0040 .05			<u>ICP</u>		
Avg 56.94			Meth: 202.XX PPM			389 0.0044 .64			Avg 0.0040			324 1.08 1.27		
102 56.90 -.04			Acid Soluble Cobalt			102 0.0041 .24			409 0.0038 -.29			330 1.08 1.23		
393 55.00 R -.37			106 11.50 1.70			422 0.0040 .15			393 0.0038 X -.29			361 1.06 1.13		
288 50.00 -.49			193 10.85 R 1.52			Avg 0.0039			232 0.0038 -.30			360 1.05 1.11		
231 48.85 -.55			009 10.45 1.24			393 0.0038 X -.20			247 0.0037 -.57			354 1.04 1.01		
232 40.89 -1.09			409 9.50 .86			232 0.0038 -.21			296 0.0036 -.64			409 1.02 .87		
035 27.55 -2.00			040 8.70 .49			247 0.0037 -.45			288 0.0035 -.79			157 0.97 .59		
			247 8.40 .36			288 0.0035 -.62			035 0.0033 -1.16			009 0.96 .56		
Meth: 202.00 PPM			Avg 7.56			035 0.0033 -.94			231 0.0033 -1.24			106 0.95 .49		
Acid Soluble Cobalt			393 7.30 X -.14			231 0.0033 -1.00			300 0.0030 -1.66			231 0.95 .47		
<u>AA</u>			102 6.96 -.27			300 0.0030 -1.36			009 0.0027 -2.22			131 0.93 .39		
193 10.85 .71			232 5.99 -.67			009 0.0027 -1.83						376 0.90 .17		
			389 5.50 -.91						Meth: 241.00 PCT			102 0.87 .03		
Meth: 202.20 PPM			320 4.50 -1.33			Meth: 221.99 PCT			Acid Soluble Iron			Avg 0.87		
Acid Soluble Cobalt			288 4.40 -1.35			Acid Soluble Copper			<u>Atomic Absorption</u>			232 0.83 -.32		
<u>Colormetric</u>						<u>Other</u>			289 1.17 1.43			320 0.81 -.46		
106 11.50 .71			Meth: 221.00 PCT			409 0.0038 .00			137 1.08 .90			389 0.75 -.70		
			Acid Soluble Copper						095 1.08 .87			035 0.72 -.89		
Meth: 202.30 PPM			<u>Atomic Absorption</u>						028 1.06 .75			422 0.71 -.93		
Acid Soluble Cobalt			086 0.0065 s 8.07						029 1.01 .50			023 0.70 -.97		
<u>ICP</u>			029 0.0046 1.51						073 1.01 .45			288 0.70 R -1.06		
009 10.45 1.78			193 0.0043 .61						055 1.00 .38			247 0.64 -1.34		
* X=Excluded from lab performance			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: 241.30 PCT			Meth: 241.XX PCT			Meth: 251.30 PPM			Meth: 261.30 PCT			Meth: 281.30 PPM		
<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>			<u>Lead</u>			<u>Acid Soluble Manganese</u>			<u>Mercury</u>		
ICP			231	0.95	.24	ICP			ICP			ICP		
307	0.55	-1.85	131	0.93	.16	102	8.87	.21	361	0.175	1.45	040	20.60	-.71
300	0.52	-2.04	177	0.92	.11	Avg	8.63		102	0.168	1.03			
393	0.00 s	-5.02	397	0.92	.09	376	8.55	-.41	131	0.168	.89	Meth: 281.XX PPM		
			Avg	0.90		231	7.79	-1.26	009	0.165	.69	<u>Mercury</u>		
Meth: 241.99 PCT			376	0.90	-.06	232	7.11	-1.92	288	0.158	.21	040	20.60	.87
<u>Acid Soluble Iron</u>			102	0.87	-.20	035	2.40 s	-5.53	Avg	0.156		Avg	10.31	
<u>Other</u>			232	0.83	-.48	Meth: 251.99 PPM			247	0.151	-.43	231	0.01	-.86
362	1.23	.87	320	0.81 R	-.62	<u>Lead</u>			035	0.152	-.48	Meth: 289.00 PPM		
Avg	1.12		389	0.75	-.91	<u>Other</u>			320	0.147	-.67	<u>Molybdenum</u>		
234	1.00	-.86	035	0.72	-1.08	409			307	0.147	-.67	<u>Atomic Absorption</u>		
393	0.00 S	-8.29	422	0.71	-1.13	409			422	0.130	-1.93	040	2.90	.71
			023	0.70	-1.17	Meth: 251.XX PPM			Meth: 261.XX PCT			Meth: 289.30 PPM		
Meth: 241.XX PCT			288	0.70 R	-1.24	<u>Lead</u>			<u>Acid Soluble Manganese</u>			<u>Molybdenum</u>		
<u>Acid Soluble Iron</u>			262	0.66	-1.39	288			361	0.175	1.52	ICP		
362	1.23	1.85	247	0.64	-1.53	106			102	0.168	1.08	389	6.50	1.22
289	1.17	1.48	381	0.60	-1.73	247			131	0.168	.94	247	6.00	.84
324	1.08	1.02	193	0.59	-1.78	136			009	0.165	.73	009	5.45	.47
137	1.08	.99	307	0.55	-2.03	376			288	0.158	.23	102	5.34	.40
330	1.08	.97	300	0.52	-2.21	102			Avg	0.156		Avg	4.75	
095	1.08	.96	393	0.00 s	-5.10	009			193	0.155	-.39	232	4.55	-.16
361	1.06	.88	393	0.00 s	-5.11	Avg			247	0.151	-.44	231	2.75	-1.37
360	1.05 R	.87	Meth: 251.00 PPM			409			035	0.152	-.49	106	2.65	-1.41
028	1.06	.85	<u>Lead</u>			040			320	0.147	-.69	Meth: 289.99 PPM		
354	1.04	.76	<u>Atomic Absorption</u>			231			307	0.147	-.70	<u>Molybdenum</u>		
409	1.02	.63	220	8.50	1.31	220			422	0.130	-2.00	<u>Other</u>		
029	1.01	.62	136	9.02	.55	232			Meth: 271.00 PCT			409		
073	1.01	.58	Avg	8.40		035			<u>Water Soluble Manganese</u>			5.50		
234	1.00	.54	040	7.67	-.70	Meth: 261.00 PCT			<u>Atomic Abs</u>			Meth: 289.XX PPM		
055	1.00	.51	Meth: 251.30 PPM			<u>Acid Soluble Manganese</u>			193			6.50		
086	0.97	.37	<u>Lead</u>			193			0.068			1.31		
157	0.97	.35	<u>ICP</u>			288			Meth: 281.00 PPM			247		
040	0.96	.33	288	9.75	1.19	106			<u>Mercury</u>			6.00		
009	0.96	.33	106	9.20	.50	247			<u>Atomic Absorption</u>			409		
043	0.96	.32	247	9.10	.49	009			231			5.50		
220	0.96	.29	009	8.70	.27	Meth: 281.00 PPM			0.01			.68		
106	0.95	.26	* X=Excluded from lab performance			S/s=Screened Outlier			R=Duplicate Range too large			A=Analysis beyond 3-s limits		
351	0.95	.25												



## 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	11	0.52	1.79	1.68	050.60	9	0.05	0.97	0.44
001.99	13	2.00	3.90	0.33	050.61	7	0.00	0.99	0.29
001.XX	24	1.19	2.86	1.34	050.99	11	0.34	1.46	0.32
003.10	5	0.00	1.05	0.15	050.XX	73	0.16	1.56	0.40
003.XX	5	0.00	1.05	0.15	060.00	7	0.00	1.02	0.19
005.00	2	0.00	1.22	0.04	060.XX	7	0.00	1.02	0.19
005.99	2	0.00	0.18	0.86	101.30	11	0.02	0.97	0.23
005.XX	3	- 0.02	1.13	0.16	101.XX	12	0.00	0.98	0.28
009.10	3	0.00	1.12	0.01	121.00	2	0.00	1.15	0.29
					121.30	12	- 0.38	1.62	0.24
010.11	9	- 0.18	5.49	0.36	121.XX	14	- 0.33	1.57	0.23
010.12	6	0.46	1.44	0.40	144.01	7	- 3.77	10.01	2.14
010.60	53	0.99	4.41	0.55	144.70	3	- 7.65	13.26	0.76
010.99	4	6.86	9.51	2.13	144.99	30	0.01	6.20	0.67
010.XX	70	0.88	4.06	0.63	144.XX	41	- 0.45	6.83	3.18
020.10	7	0.00	0.57	0.80	151.00	4	0.00	1.08	0.05
020.20	22	0.05	0.97	0.26	151.30	2	0.00	0.96	0.54
020.40	9	- 1.15	3.57	1.79	151.99	2	0.00	1.09	0.40
020.50	6	0.00	1.00	0.28	151.XX	8	0.13	1.03	0.54
020.XX	43	- 0.19	1.38	0.55	181.00	9	0.79	1.81	0.32
030.20	2	0.00	1.22	0.00	181.30	9	0.12	0.93	0.63
030.40	3	0.00	1.10	0.16	181.99	2	0.00	1.22	0.10
030.XX	6	0.10	0.98	0.06	181.XX	20	0.43	1.44	0.36
040.20	3	- 4.20	7.27	0.72	190.99	2	0.00	1.22	0.11
040.40	3	0.00	1.10	0.18	190.XX	2	0.00	1.22	0.11
040.XX	8	- 0.70	2.18	0.25	191.30	10	0.00	1.01	0.16
041.10	16	- 2.18	7.82	0.91	191.XX	12	- 0.01	0.97	0.13
041.40	5	- 1.03	2.44	1.95	202.30	9	0.00	1.02	0.13
041.50	7	- 0.71	2.07	0.40	202.XX	12	0.12	1.05	0.21
041.60	11	0.00	1.00	0.20	221.00	8	0.9861	2.9445	0.6202
041.XX	37	- 0.98	3.79	0.69	221.30	17	0.0139	0.9480	0.4117
048.20	2	0.00	1.22	0.09	221.XX	26	0.2099	1.2650	0.4302
048.99	2	0.00	1.21	0.14	241.00	17	0.00	1.01	0.07
048.XX	4	1.09	2.37	0.33	241.30	24	- 0.25	1.41	0.15
050.00	22	0.01	0.95	0.35	241.99	3	- 2.76	4.86	0.10
050.10	2	0.00	1.22	0.08	241.XX	43	- 0.14	1.25	0.12
050.30	14	- 0.14	1.19	0.31	251.00	3	0.00	0.59	0.78
050.50	8	1.86	3.05	0.51	251.30	9	- 0.61	1.97	0.64
050.51	6	0.12	0.99	0.13	251.XX	13	- 0.44	1.72	0.69

## 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
261.30	10	0.000	0.992	0.255					
261.XX	11	0.000	0.982	0.279					
281.XX	2	0.000	1.223	0.048					
289.30	7	0.00	1.02	0.17					
289.XX	9	0.00	1.01	0.21					
291.30	8	- 0.21	1.13	0.16					
291.99	2	0.00	1.21	0.12					
291.XX	11	0.33	1.47	0.13					
301.XX	2	0.00	1.19	0.22					
311.99	6	- 0.23	1.09	0.27					
311.XX	8	- 0.16	1.04	0.31					
321.00	7	1.494	4.079	3.579					
321.30	19	4.397	18.707	0.574					
321.99	2	0.000	0.621	0.746					
321.XX	28	3.605	18.003	0.821					