

- Pass 1 Results for 88 Labs - - Pass 2 Results for 87 Labs -

Method	AOAC Ref.	Method Code	No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups	No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups
Ammoniacal Nitrogen, MgO Distillation	920.03	001.10	7	1.96	0.27	0.03	7	1.96	0.27	0.03
Ammoniacal Nitrogen, Other		001.99	7	1.71	0.76	0.03	7	1.71	0.76	0.03
Method Group 001.XX PCT			14	1.84	0.58	0.03	14	1.84	0.58	0.03
Nitrate Nitrogen, Other		002.99	1	0.01	0.00	0.00	1	0.01	0.00	0.00
Water Insoluble Nitrogen, Meth I	945.01	003.10	7	5.81	2.28	0.34	7	5.81	2.28	0.34
Water Insoluble Nitrogen, Other		003.99	1	6.32	0.03	0.04	1	6.32	0.03	0.04
Method Group 003.XX PCT			8	5.88	2.13	0.30	8	5.88	2.13	0.30
Nitrogen From Urea, Urease (as N)	959.03	005.00	3	7.42	3.52	0.13	3	7.42	3.52	0.13
Nitrogen From Urea, Other		005.99	3	13.00	5.92	0.19	3	13.00	5.92	0.19
Method Group 005.XX PCT			6	10.21	5.48	0.16	6	10.21	5.48	0.16
Ammon & Nitrate N, Devarda	892.01	009.10	2	15.42	12.92	0.03	2	15.42	12.92	0.03
Total Nitrogen, Modified Comprehensive	978.02	010.11	9	21.19	0.17	0.07	9	21.19	0.17	0.07
Total Nitrogen, Salicylic	955.04D	010.12	3	21.39	0.36	0.03	3	21.39	0.36	0.03
Total Nitrogen, Combustion		010.60	58	21.42	0.24	0.13	55	21.41	0.22	0.11
Total Nitrogen, Other		010.99	4	21.24	0.32	0.18	4	21.24	0.32	0.18
Method Group 010.XX PCT			76	21.40	0.29	0.12	68	21.38	0.25	0.08
Total Phosphate, Grav Quimociac	962.02	020.10	5	3.85	0.05	0.03	5	3.85	0.05	0.03
Total Phosphate, Spectrometric	958.01	020.20	17	3.79	0.20	0.06	16	3.82	0.15	0.04
Total Phosphate, Automated	978.01	020.40	4	3.80	0.19	0.14	4	3.80	0.19	0.14
Total Phosphate, ICP		020.50	14	3.76	0.15	0.07	14	3.76	0.15	0.07
Total Phosphate, Other		020.99	1	3.87	0.00	0.00	1	3.87	0.00	0.00
Method Group 020.XX PCT			43	3.79	0.18	0.08	39	3.80	0.14	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	2	0.13	0.07	0.02	2	0.13	0.07	0.02
Insoluble Phosphate, Automated	978.01	030.40	1	0.04	0.00	0.00	1	0.04	0.00	0.00
Insoluble Phosphate, ICP		030.50	1	0.03	0.00	0.00	1	0.03	0.00	0.00
Method Group 030.XX PCT			5	0.06	0.07	0.01	4	0.03	0.03	0.00
InDir Available Phosphate, Grav Quim	960.02	040.10	1	3.85	0.04	0.06	1	3.85	0.04	0.06
InDir Available Phosphate, Spectrometri	960.02	040.20	1	3.99	0.01	0.02	1	3.99	0.01	0.02
InDir Available Phosphate, Automated	960.02	040.40	2	3.55	0.03	0.03	2	3.55	0.03	0.03
InDir Available Phosphate, ICP		040.50	1	3.77	0.00	0.00	1	3.77	0.00	0.00
Method Group 040.XX PCT			5	3.74	0.18	0.03	5	3.74	0.18	0.03
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	13	3.75	0.11	0.06	12	3.76	0.10	0.04
Dir Available Phosphate, Automated	978.01	041.40	2	3.82	0.03	0.03	2	3.82	0.03	0.03
Dir Available Phosphate, ICP		041.50	13	3.79	0.12	0.05	13	3.79	0.12	0.05
Dir Available Phosphate, EDTA Extract	993.01	041.60	11	3.73	0.08	0.06	10	3.74	0.07	0.04
Dir Available Phosphate, Other		041.99	1	3.84	0.04	0.05	1	3.84	0.04	0.05
Method Group 041.XX PCT			41	3.76	0.11	0.06	38	3.77	0.10	0.04
Water Soluble Phosphate, Spectrometric	970.01	048.20	3	2.63	0.18	0.03	3	2.63	0.18	0.03

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Water Soluble Phosphate, Other		048.99	1	2.63	0.01	0.01	1	2.63	0.01	0.01
Method Group 048.XX PCT			4	2.63	0.15	0.02	4	2.63	0.15	0.02
Soluble Potash, STPB Oxalate	958.02	050.00	15	14.68	0.29	0.11	15	14.68	0.29	0.11
Soluble Potash, STPB Citrate	969.04	050.10	1	13.77	0.00	0.00	1	13.77	0.00	0.00
Soluble Potash, AA (Oxalate)		050.30	10	14.85	0.40	0.32	10	14.85	0.40	0.32
Soluble Potash, AA (Citrate)		050.31	1	14.93	0.01	0.01	1	14.93	0.01	0.01
Soluble Potash, ICP (Oxalate)		050.50	8	14.30	0.71	0.09	8	14.30	0.71	0.09
Soluble Potash, ICP (Citrate)		050.51	12	14.70	0.61	0.18	12	14.70	0.61	0.18
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	7	14.75	0.53	0.17	7	14.75	0.53	0.17
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	11	15.03	0.37	0.17	11	15.03	0.37	0.17
Soluble Potash, Other		050.99	17	14.50	0.74	0.27	16	14.48	0.75	0.23
Method Group 050.XX PCT			83	14.66	0.60	0.20	79	14.69	0.57	0.16
Free Water, Vacuum Oven	965.08B	060.00	5	1.13	0.12	0.05	5	1.13	0.12	0.05
Free Water, Vacuum Desiccate	965.08A	060.10	1	1.42	0.01	0.02	1	1.42	0.01	0.02
Method Group 060.XX PCT			6	1.18	0.15	0.05	6	1.18	0.15	0.05
Acid Soluble Calcium, AA	945.04	101.00	1	0.32	0.01	0.01	1	0.32	0.01	0.01
Acid Soluble Calcium, ICP		101.30	15	0.32	0.03	0.01	14	0.32	0.04	0.01
Method Group 101.XX PCT			16	0.32	0.03	0.01	15	0.32	0.03	0.01
Acid Soluble Magnesium, ICP		121.30	18	0.44	0.03	0.01	16	0.44	0.03	0.01
Method Group 121.XX PCT			18	0.44	0.03	0.01	16	0.44	0.03	0.01
Sulfur, Gravimetric	980.02a	144.01	15	6.76	0.13	0.06	14	6.76	0.13	0.05
Sulfur, Gravimetric	980.02b	144.02	1	6.10	0.06	0.08	1	6.10	0.06	0.08
Sulfur, Other		144.99	27	6.75	0.32	0.10	27	6.75	0.32	0.10
Method Group 144.XX PCT			43	6.74	0.29	0.09	42	6.74	0.29	0.08
Arsenic, Atomic Absorption		151.00	2	0.71	0.06	0.04	2	0.71	0.06	0.04
Arsenic, ICP		151.30	6	1.81	1.94	0.77	5	1.77	2.04	0.37
Arsenic, Other		151.99	1	0.91	0.00	0.00	1	0.91	0.00	0.00
Method Group 151.XX PPM			9	1.47	1.64	0.52	8	1.40	1.66	0.24
Acid Soluble Boron, Other		165.99	6	0.003	0.004	0.001	5	0.002	0.003	0.000
Cadmium, Atomic Absorption		181.00	1	0.65	0.07	0.10	1	0.65	0.07	0.10
Cadmium, ICP		181.30	10	0.68	0.18	0.15	10	0.68	0.18	0.15
Cadmium, Other		181.99	1	0.72	0.01	0.01	1	0.72	0.01	0.01
Method Group 181.XX PPM			12	0.68	0.17	0.13	12	0.68	0.17	0.13
Water Soluble Chlorine, Other		190.99	1	0.49	0.00	0.00	1	0.49	0.00	0.00
Chromium, Atomic Absorption		191.00	1	23.50	0.71	1.00	1	23.50	0.71	1.00
Chromium, ICP		191.30	17	20.91	4.44	1.04	16	20.93	4.56	0.88
Chromium, Other		191.99	1	27.70	2.83	4.00	1	27.70	2.83	4.00
Method Group 191.XX PPM			19	21.41	4.52	1.19	18	21.06	4.36	1.04
Acid Soluble Cobalt, AA		202.00	1	12.00	1.41	2.00	1	12.00	1.41	2.00

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Acid Soluble Cobalt, ICP	965.11	202.30	13	4.11	2.39	0.14	12	3.95	2.41	0.11
Acid Soluble Cobalt, Other		202.99	1	7.06	0.51	0.72	1	7.06	0.51	0.72
Method Group 202.XX PPM			15	4.84	3.06	0.31	14	4.32	2.42	0.19
Acid Soluble Copper, Atomic Absorption	975.01	221.00	4	0.0006	0.0005	0.0001	4	0.0006	0.0005	0.0001
Acid Soluble Copper, ICP		221.30	20	0.0012	0.0007	0.0003	20	0.0012	0.0007	0.0003
Acid Soluble Copper, Other		221.99	1	0.0010	0.0000	0.0000	1	0.0010	0.0000	0.0000
Method Group 221.XX PCT			25	0.0011	0.0007	0.0003	20	0.0009	0.0005	0.0001
Acid Soluble Iron, Atomic Absorption	980.01	241.00	17	0.72	0.05	0.03	16	0.72	0.04	0.02
Acid Soluble Iron, ICP		241.30	33	0.73	0.07	0.02	32	0.73	0.07	0.02
Acid Soluble Iron, Other		241.99	4	0.68	0.10	0.05	4	0.68	0.10	0.05
Method Group 241.XX PCT			54	0.72	0.07	0.02	52	0.72	0.06	0.02
Lead, ICP		251.30	8	0.90	0.63	0.29	7	0.82	0.60	0.18
Lead, Other		251.99	1	1.26	0.04	0.06	1	1.26	0.04	0.06
Method Group 251.XX PPM			9	0.94	0.61	0.26	8	0.87	0.58	0.17
Acid Soluble Manganese, AA	972.02a	261.00	12	0.247	0.010	0.003	11	0.247	0.010	0.002
Acid Soluble Manganese, AA	972.02b	261.11	3	0.237	0.009	0.005	3	0.237	0.009	0.005
Acid Soluble Manganese, ICP		261.30	29	0.237	0.022	0.007	29	0.237	0.022	0.007
Acid Soluble Manganese, ICP		261.31	2	0.231	0.024	0.003	2	0.231	0.024	0.003
Acid Soluble Manganese, Other		261.99	6	0.237	0.025	0.010	5	0.241	0.024	0.004
Method Group 261.XX PCT			53	0.239	0.020	0.006	51	0.238	0.019	0.005
Water Soluble Manganese, Atomic Abs	972.03	271.00	1	0.135	0.021	0.030	1	0.135	0.021	0.030
Water Soluble Manganese, ICP		271.30	2	0.106	0.025	0.031	2	0.106	0.025	0.031
Method Group 271.XX PCT			3	0.116	0.026	0.031	3	0.116	0.026	0.031
Mercury, ICP		281.30	2	0.00	0.00	0.00	2	0.00	0.00	0.00
Molybdenum, ICP		289.30	14	1.76	0.48	0.31	13	1.70	0.43	0.25
Molybdenum, Other		289.99	1	2.07	0.11	0.16	1	2.07	0.11	0.16
Method Group 289.XX PPM			15	1.78	0.47	0.30	14	1.73	0.43	0.25
Nickel, Atomic Absorption		291.00	2	11.50	3.04	1.60	2	11.50	3.04	1.60
Nickel, ICP		291.30	10	9.74	2.27	1.02	9	9.22	1.40	0.50
Nickel, Other		291.99	1	12.70	1.41	2.00	1	12.70	1.41	2.00
Method Group 291.XX PPM			13	10.24	2.46	1.19	12	9.89	2.06	0.81
Selenium, ICP		301.30	5	0.66	0.55	0.27	4	0.71	0.55	0.09
Sodium, Other		311.99	7	0.10	0.01	0.00	7	0.10	0.01	0.00
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	5	0.006	0.001	0.001	5	0.006	0.001	0.001
Acid Soluble Zinc, ICP		321.30	22	0.006	0.001	0.000	21	0.006	0.001	0.000
Method Group 321.XX PCT			27	0.006	0.001	0.000	25	0.006	0.001	0.000
Water Soluble Zinc, ICP		325.30	1	0.016	0.000	0.001	1	0.016	0.000	0.001

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 010.60 PCT														
Total Nitrogen														
230	22.05 R	2.85	Meth: 010.XX PCT											
Total Nitrogen			Total Nitrogen											
389	21.25	-.78	377	21.35	-.18	Meth: 010.XX PCT								
043	21.29	-.96	291	21.35	-.18	Total Phosphate								
426	21.27	-.98	397	21.35	-.18	Automated								
421	21.25	-1.01	254	21.81	1.69	Meth: 020.10 PCT								
041	21.19	-1.04	360	21.36	-.22	Total Phosphate								
042	21.30	-1.05	040	21.33	-.27	Grav. Quimociac								
406	21.18	-1.07	247	21.33	-.32	114 3.89 .89								
402	21.40 R	-1.10	009	21.37	-.32	041 3.89 .82								
443	21.15	-1.22	022	21.30	-.33	105 3.85 .00								
390	21.13	-1.33	057	21.30	-.34	Avg 3.85								
369	21.31 R	-1.49	136	21.29	-.41	090 3.85								
025	21.08	-1.52	027	21.27	-.45	157 3.78 -1.63								
325	21.00	-1.89	389	21.25	-.57	444 3.48 s -8.31								
073	20.99	-1.97	029	21.26	-.59	Meth: 020.20 PCT								
444	20.98	-2.00	090	21.21	-.71	Total Phosphate								
428	20.75 s	-5.68	105	21.20	-.77	Spectrometric								
Meth: 010.99 PCT														
Total Nitrogen														
102	21.55	.67	372	4.18	2.32	372 4.18 2.32								
231	21.54	.63	043	21.29	-.78	232 3.94 .81								
233	21.52	.58	426	21.27	-.78	292 3.94 .76								
296	21.53	.57	041	21.19	-.80	234 3.93 .66								
234	21.48	.48	421	21.25	-.80	042 3.85 .55								
157	21.47	.45	406	21.18	-.82	450 3.88 .45								
137	21.19	-.14	042	21.30 R	-.87	169 3.89 .40								
255	20.99	-.77	416	21.15	-.93	406 3.88 .35								
454	21.09	-1.01	443	21.15	-.96	220 3.86 .20								
105	19.13 S	-6.60	390	21.13	-1.05	Avg 3.82								
Meth: 010.XX PCT														
Total Nitrogen														
007	21.45	.33	025	21.08	-1.21	371 3.81								
024	21.45	.28	369	21.31 R	-1.27	177 3.80								
034	21.41	.20	309	21.06	-1.30	416 3.74								
415	23.76 s	9.52	114	21.07	-1.31	200 3.71								
455	23.70 s	9.28	185	21.01	-1.49	324 3.66 -1.07								
420	22.99 s	6.43	325	21.00	-1.53	369 3.61 -1.53								
095	22.91 s	6.11	255	20.99	-1.57	415 3.55 -1.79								
351	22.70 s	5.30	073	20.99	-1.61	442 3.27 R -3.68								
117	22.44 A	4.23	444	20.98	-1.64	262 3.15 S -4.40								
211	22.14	3.01	454	21.40	.07	309 3.31 S -4.58								
Meth: 020.50 PCT														
Total Phosphate														
450	21.40	.07	456	20.90	-1.95	420 2.72 S -7.19								
Meth: 020.99 PCT														
Total Phosphate														
421	3.61	-1.19	428	20.75 s	-4.91	428 2.13 s -11.05								
432	3.56	-1.38	Meth: 020.99 PCT											
Total Phosphate														
137	3.87	.00	Other											
443	5.06 S	.00	137 3.87 .00											
455	2.15 S	.00	443 5.06 S .00											
Avg 3.87														

* 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
Meth: 020.XX PCT											
<u>Total Phosphate</u>											
443	5.06 s	8.84	096	3.60	-1.41	Meth: 030.XX PCT					
444	4.07 R	2.74	421	3.61	-1.49	<u>Insoluble Phosphate</u>					
372	4.18	2.68	369	3.61	-1.49	372	0.19 R	6.26	Meth: 041.10 PCT		
247	4.03 R	2.01	432	3.56	-1.71	Avg	0.03	.30	Dir Available Phosph		
452	4.04	1.77	415	3.55	-1.75	255	0.03	-.30	ICP		
426	4.00	1.38	444	3.48 R	-2.51	090	0.00	-1.28	Meth: 041.50 PCT		
389	3.96	1.17	442	3.27 A	-3.80	Meth: 040.10 PCT					
232	3.94	1.03	262	3.15 s	-4.58	InDir Available Phos					
292	3.94	1.00	309	3.31 s	-4.82	<u>Grav Quim</u>					
234	3.93	.89	420	2.72 s	-7.59	090	3.85	.71	Meth: 041.60 PCT		
330	3.80	.70	455	2.15 s	-11.60	Meth: 040.20 PCT					
042	3.85	.67	428	2.13 s	-11.75	InDir Available Phos					
041	3.89	.64	Meth: 030.10 PCT								
450	3.88	.64	Insoluble Phosphate								
114	3.89	.63	<u>Grav Quimociac</u>								
169	3.89	.61	090	0.00	.00	Meth: 041.20 PCT					
406	3.88	.55	Meth: 040.40 PCT								
137	3.87	.50	InDir Available Phos								
090	3.85	.42	<u>Automated</u>								
220	3.86	.40	096	3.56	1.18	Meth: 041.40 PCT					
105	3.85	.36	Avg	3.55	.89	Dir Available Phosph					
105	3.83	.26	372	0.19	.89	<u>Spectrometric</u>					
371	3.81	.11	Avg	0.13	-.34	Meth: 041.99 PCT					
Avg	3.80		220	0.07	-.85	Dir Available Phosph					
255	3.79	-.04	Meth: 040.50 PCT								
177	3.80	-.04	InDir Available Phos								
157	3.78	-.24	<u>ICP</u>								
402	3.75	-.37	255	3.77	.71	Meth: 041.50 PCT					
416	3.74	-.41	096	0.04	.00	Dir Available Phosph					
368	3.73	-.49	Meth: 040.XX PCT								
422	3.72	-.59	InDir Available Phos								
456	3.73	-.64	372	3.99	1.37	Meth: 041.99 PCT					
425	3.72	-.66	090	3.85	.62	Dir Available Phosph					
200	3.71	-.66	255	3.77	.14	<u>Other</u>					
393	3.71	-.67	Avg	3.74		Meth: 041.50 PCT					
324	3.66	-.98	096	3.56	-1.02	Dir Available Phosph					
307	3.68	-1.05	027	3.55	-1.09	<u>ICP</u>					
390	3.64	-1.12	255	0.03	.00	Meth: 041.50 PCT					
			200	3.71	-.66	Dir Available Phosph					
			393	3.71	-.67	<u>ICP</u>					
			324	3.66	-.98	Meth: 041.50 PCT					
			307	3.68	-1.05	Dir Available Phosph					
			390	3.64	-1.12	<u>ICP</u>					
						Meth: 041.50 PCT					
						Dir Available Phosph					
						<u>ICP</u>					
						Meth: 041.50 PCT					
						Dir Available Phosph					
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						<u>ICP</u>					
						Meth: 041.50 PCT					
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						Meth: 041.50 PCT					
						Dir Available Phosph					
						<u>ICP</u>					
						Meth: 041.50 PCT					

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index					
Meth: 041.XX PCT																			
<u>Dir Available Phosph</u>																			
325	3.95	1.85	354	3.58	-1.93	Meth: 050.00 PCT									Meth: 050.60 PCT				
360	3.92	1.45	211	3.58	-1.93	Soluble Potash									Soluble Potash				
452	3.88	1.13	009	3.64 R	-1.97	<u>STPB Oxalate</u>									<u>Flame (Oxalate)</u>				
105	3.87	.97	231	3.66 R	-2.42	090	14.80	.41	254	14.93	-.71	Avg	14.75	.45					
023	3.86	.95	095	3.25 s	-5.20	416	14.78	.34	Meth: 050.50 PCT					Avg					
043	3.87	.94	055	3.21 s	-5.63	397	14.68	.34	Soluble Potash					055					
377	3.85	.94	025	3.18 s	-5.89	049	14.73	.22	<u>ICP (Oxalate)</u>					157					
291	3.86	.86	230	2.68 s	-11.06	Avg	14.68		422	15.06	1.07	200	14.25	-.94					
296	3.85	.79				055	14.64	-.24	324	14.90	.86	309	14.30	-.98					
057	3.85	.78				029	14.53	-.58	292	14.85	.78	Meth: 050.61 PCT							
296	3.84	.72	Meth: 048.20 PCT			102	14.39	-1.07	106	14.78	.69	Soluble Potash							
105	3.84	.69	Water Soluble Phosph			043	14.35	-1.14	Avg	14.30		<u>Flame (Citrate)</u>							
055	3.79	.66	<u>Spectrometric</u>			372	14.28	-1.37	454	14.13	-.24	095	15.69	1.75					
131	3.84	.65	372	2.86	1.28	022	14.23	-1.55	426	13.89	-.59	028	15.49	1.30					
007	3.83	.60	Avg	2.63		420	2.52	-.64	420	13.86	-.62	025	15.37	.91					
029	3.83	.57	096	2.51	-.67	230	13.40 s	-4.69	425	12.92	-1.94	029	15.14	.50					
131	3.83	.55	Meth: 050.10 PCT			Meth: 050.51 PCT									041				
029	3.81	.50	Soluble Potash			Soluble Potash									024				
034	3.77	.48	<u>STPB Citrate</u>			444	13.77	.00	ICP (Citrate)									Avg	
022	3.80	.35	Meth: 048.99 PCT			Meth: 050.30 PCT									057				
040	3.77	.30	Water Soluble Phosph			Soluble Potash									131				
351	3.80	.26	247	2.63	.71	<u>AA (Oxalate)</u>									034				
073	3.78	.14	Meth: 048.XX PCT			450	16.22 s	4.04	432	15.14	.72	456	14.65	-1.07					
Avg	3.77		<u>Water Soluble Phosph</u>			369	15.49	1.69	007	14.83	.48	105	14.64	-1.13					
102	3.75	-.20	372	2.86	1.52	262	15.26	1.18	291	14.87	.28	Meth: 050.99 PCT							
043	3.75	-.29	Avg	2.63		040	15.04	.56	Avg	14.70		Soluble Potash							
057	3.74	-.36	247	2.63	-.04	442	14.86	.35	377	14.60	-.24	<u>Other</u>							
454	3.73	-.56	420	2.52	-.75	234	14.96	.27	444	14.34	-.64	307	15.98	2.01					
024	3.71	-.59	096	2.51	-.79	136	14.90	.22	393	14.30	-.69	027	15.49	1.35					
022	3.70	-.69	Meth: 050.00 PCT			Avg	14.85		009	14.28	-.70	325	15.15	.89					
106	3.69	-.80	Soluble Potash			351	14.49	-.89	043	14.02	-1.14	042	14.81 R	.77					
028	3.68	-.94	<u>STPB Oxalate</u>			073	14.63	-.92	022	13.70	-1.65	232	14.99	.68					
254	3.67	-1.13	220	15.28	2.06	428	14.51	-1.19	Meth: 050.60 PCT					177					
009	3.66	-1.17	114	15.06	1.29	185	14.35	-1.28	Soluble Potash					131					
393	3.61	-1.59	009	14.83	.66	Meth: 050.50 PCT									402				
397	3.62	-1.60	057	14.84	.62	<u>Flame (Oxalate)</u>									247				
105	3.66 R	-1.83	211	14.81	.43	443	16.36 S	3.09	415	15.47	1.35	421	14.50	.14					
049	3.59	-1.84	* 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: 050.99 PCT														
Soluble Potash														
Other														
Avg	14.48													
390	14.45	- .34												
255	13.87	- .82												
354	13.83	- .88												
368	13.74	- 1.00												
137	13.60	- 1.18												
360	13.61	- 1.22												
330	13.50	- 1.42												
455	11.80 s	- 3.60												
Meth: 050.99 PCT														
Soluble Potash														
105	14.99	.53												
007	14.83	.52												
177	14.96	.49												
234	14.96	.47												
254	14.93	.41												
057	14.88	.41												
324	14.90	.41												
442	14.86	.39												
136	14.90	.38												
131	14.85	.36												
009	14.83	.32												
291	14.87	.32												
057	14.84	.31												
292	14.85	.28												
106	14.78	.21												
211	14.81	.20												
090	14.80	.20												
416	14.78	.16												
049	14.73	.10												
131	14.71	.03												
Avg	14.69													
034	14.65	-.07												
055	14.64	-.14												
247	14.68	-.14												
397	14.68	-.18												
456	14.65	-.22												
377	14.60	-.24												
105	14.64	-.31												
029	14.53	-.31												
351	14.49	-.36												
421	14.50	-.38												
055	14.44	-.46												
073	14.63	-.54												
402	14.56	-.55												
102	14.39	-.57												
043	14.35	-.61												
390	14.45	-.61												
157	14.39	-.63												
Meth: 050.99 PCT														
Soluble Potash														
185	14.35	-.65												
444	14.34	-.67												
428	14.51 R	-.68												
393	14.30	-.71												
009	14.28	-.72												
372	14.28	-.72												
200	14.25	-.77												
022	14.23	-.82												
309	14.30	-.83												
454	14.13	-.98												
043	14.02	- 1.19												
426	13.89	- 1.42												
255	13.87	- 1.43												
420	13.86	- 1.47												
354	13.83	- 1.51												
444	13.77	- 1.62												
368	13.74	- 1.67												
022	13.70	- 1.74												
137	13.60	- 1.91												
360	13.61	- 1.95												
330	13.50 R	- 2.20												
230	13.40 R	- 2.43												
425	12.92	- 3.12												
455	11.80 s	- 5.08												
Meth: 060.00 PCT														
Free Water														
247	1.30	1.42												
131	1.30	1.42												
105	1.22	1.37												
Avg	1.18	1.56												
416	1.06	1.79												
096	1.06	1.82												
007	1.03	1.01												
Meth: 060.10 PCT														
Free Water														
372	1.42	.71												
Meth: 060.99 PCT														
Free Water														
372	1.42	1.56												
247	1.30	.77												
105	1.22	.37												
Avg	1.18	.37												
416	1.06	-.79												
096	1.06	-.82												
007	1.03	- 1.01												
Meth: 101.00 PCT														
Acid Soluble Calcium														
AA														
105	0.32	.71												
Meth: 101.30 PCT														
Acid Soluble Calcium														
ICP														
422	0.68 s	10.54												
232	0.32	-.29												
433	0.30	-.59												
454	0.30	-.66												
389	0.30	-.66												
027	0.25	- 2.19												
368	0.01 s	- 9.27												
041	0.00 s	- 9.50												
Meth: 101.99 PCT														
Acid Soluble Calcium														
AA														
105	0.32	.08												
Avg	0.32	.08												
307	0.32	-.17												
105	0.32	-.19												
065	0.32	-.29												
232	0.32	-.29												
433	0.30	-.59												
454	0.30	-.66												
389	0.30	-.66												
027	0.25	- 2.19												
368	0.01 s	- 9.27												
041	0.00 s	- 9.50												
Meth: 121.00 PCT														
Acid Soluble Magnesi														
AA														
105	0.36 s	.00												
Meth: 121.30 PCT														
Acid Soluble Magnesi														
ICP														
422	0.54 s	3.79												

* 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: 121.30 PCT																	
Acid Soluble Magnesi																	
ICP			232	0.43	-0.86	Meth: 144.99 PCT			Meth: 144.99 PCT			Meth: 144.99 PCT					
444	0.50	2.26	450	0.43 R	-0.86	Other			Sulfur			291	7.19	1.57			
096	0.48	1.50	065	0.42	-0.94	393	8.16 s	4.37	360	6.95	0.72	360	6.95	0.72			
102	0.46	0.77	421	0.44 R	-0.98	307	7.40	2.02	262	6.93	0.66	262	6.93	0.66			
131	0.46	0.68	247	0.42	-0.99	157	7.36	1.94	029	6.89	0.63	029	6.89	0.63			
389	0.46	0.58	454	0.40	-1.48	389	7.23	1.47	324	6.89	0.54	324	6.89	0.54			
390	0.45	0.33	105	0.36 s	-3.54	220	7.20	1.41	232	6.80	0.49	232	6.80	0.49			
307	0.45	0.26	041	0.30 s	-5.35	291	7.19	1.36	296	6.86	0.46	296	6.86	0.46			
420	0.44	0.06				360	6.95	0.62	330	6.85	0.42	330	6.85	0.42			
Avg	0.44		Meth: 144.01 PCT			232	6.80	0.43	105	6.86	0.42	105	6.86	0.42			
027	0.43	-0.44	Sulfur			330	6.85	0.35	354	6.84	0.40	354	6.84	0.40			
106	0.43	-0.62	Gravimetric			354	6.84	0.33	037	6.75	0.28	037	6.75	0.28			
433	0.42	-0.71	262	6.93	1.37	037	6.75	0.25	136	6.82	0.27	136	6.82	0.27			
057	0.42	-0.80	029	6.89 R	1.32	136	6.82	0.22	057	6.81	0.25	057	6.81	0.25			
232	0.43	-0.86	324	6.89	1.11	137	6.81	0.19	137	6.81	0.24	137	6.81	0.24			
450	0.43 R	-0.86	296	6.86	0.94	452	6.75	0.12	043	6.81	0.24	043	6.81	0.24			
065	0.42	-0.94	105	6.86	0.83	Avg	6.75		028	6.79	0.17	028	6.79	0.17			
421	0.44 R	-0.98	057	6.81	0.44	027	6.74	-0.02	452	6.75	0.14	452	6.75	0.14			
247	0.42	-0.99	043	6.81	0.43	390	6.73	-0.11	095	6.75	0.08	095	6.75	0.08			
454	0.40	-1.48	028	6.79	0.26	454	6.67	-0.24	102	6.74	0.00	102	6.74	0.00			
041	0.30 s	-5.35	Avg	6.76		422	6.59	-0.50	027	6.74	0.00	027	6.74	0.00			
Meth: 121.30 PCT																	
Acid Soluble Magnesi																	
422	0.54 s	3.79	117	6.68	-0.62	023	6.61	-0.51	Avg	6.74		Avg	6.74				
444	0.50	2.26	055	6.69	-0.71	368	6.66	-0.55	372	6.72	-0.09	372	6.72	-0.09			
096	0.48	1.50	114	6.64	-0.95	131	6.56	-0.59	390	6.73	-0.11	390	6.73	-0.11			
102	0.46	0.77	444	6.44	-2.54	421	6.52	-0.72	117	6.68	-0.22	117	6.68	-0.22			
131	0.46	0.68	397	5.76 s	-7.89	247	6.52	-0.73	454	6.67	-0.24	454	6.67	-0.24			
389	0.46	0.58	200	5.04 s	-13.58	351	6.48	-0.84	055	6.69	-0.27	055	6.69	-0.27			
390	0.45	0.33				450	6.45	-0.94	114	6.64	-0.36	114	6.64	-0.36			
307	0.45	0.26	Meth: 144.02 PCT			177	6.41	-1.05	422	6.59	-0.55	422	6.59	-0.55			
420	0.44	0.06	Sulfur			255	6.22	-1.64	023	6.61	-0.56	023	6.61	-0.56			
Avg	0.44		Gravimetric			049	6.10	-2.01	368	6.66 R	-0.61	368	6.66 R	-0.61			
027	0.43	-0.44	292	6.10	0.71	Meth: 144.99 PCT			Meth: 144.99 PCT			Meth: 144.99 PCT					
106	0.43	-0.62				Sulfur			131	6.56	-0.64	131	6.56	-0.64			
433	0.42	-0.71	292	6.10	0.71	393	8.16 s	4.96	421	6.52	-0.78	421	6.52	-0.78			
057	0.42	-0.80	307	7.40	2.30	307	7.40	2.30	247	6.52	-0.80	247	6.52	-0.80			
232	0.43	-0.86	157	7.36	2.21	450	6.45	-1.04	351	6.48	-0.92	351	6.48	-0.92			
454	0.40	-1.48	389	7.23	1.69	444	6.44	-1.07	450	6.45	-1.04	450	6.45	-1.04			
041	0.30 s	-5.35	220	7.20	1.61	177	6.41	-1.17	444	6.44	-1.07	444	6.44	-1.07			
Meth: 151.30 PPM																	
Arsenic																	
220	0.76	0.81	Meth: 151.99 PPM			Meth: 151.99 PPM			Meth: 151.99 PPM			Meth: 151.99 PPM					
Avg	0.71		Arsenic			Arsenic			Arsenic			Arsenic					
136	0.66	-0.92	ICP			Other			Other			Other					
			232	10.95 S	4.53	409	0.91	0.00	409	0.91	0.00	409	0.91	0.00			
			368	5.25	1.75	Meth: 151.30 PPM			Meth: 151.30 PPM			Meth: 151.30 PPM					
			065	2.04 R	0.70	Arsenic			Arsenic			Arsenic					
			393	2.33	0.28	ICP			ICP			ICP					
			Avg	1.77		232			232			232					
			230	0.68	-0.54	368			368			368					
			372	0.59	-0.58	065			065			065					
			450	0.00	-0.87	393			393			393					
			Meth: 151.00 PPM														
			Atomic Absorption														
			220	0.76	0.81	220			220			220					
			Avg	0.71		Avg			Avg			Avg					
			136	0.66	-0.92	136			136			136					

* 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
Meth: 151.XX PPM											
<u>Arsenic</u>											
230	0.68	-.44									
136	0.66	-.44									
372	0.59	-.49									
450	0.00	-.84									
Meth: 165.99 PCT											
Acid Soluble Boron											
<u>Other</u>											
368	0.008 R	2.46									
454	0.007 X	1.86									
Avg											
422	0.002	-.06									
433	0.001	-.56									
232	0.001	-.61									
409	0.001	-.61									
Meth: 181.00 PPM											
<u>Cadmium</u>											
<u>Atomic Absorption</u>											
136	0.65	.71									
Meth: 181.30 PPM											
<u>Cadmium</u>											
<u>ICP</u>											
393	28.67 s	151.60									
444	0.85	1.42									
247	0.88	1.06									
065	0.83 X	.97									
255	0.73	.28									
452	0.70	.26									
102	0.72	.26									
409	0.72	.26									
Avg	0.68	.71									
136	0.65	-.35									
009	0.65	-.35									
230	0.51	-1.02									
450	0.55	-1.41									
368	0.40	-1.76									
372	0.00 s	-4.03									
Meth: 190.99 PCT											
<u>Water Soluble Chlori</u>											
<u>Other</u>											
009	0.49	.00									
Meth: 191.00 PPM											
<u>Chromium</u>											
<u>Atomic Absorption</u>											
220	23.50	.71									
Meth: 191.30 PPM											
<u>Chromium</u>											
<u>ICP</u>											
009	0.65	-.32									
230	0.51	-.93									
450	0.55	-1.29									
368	0.40	-1.61									
372	0.00 S	-3.69									
Meth: 181.99 PPM											
<u>Chromium</u>											
<u>ICP</u>											
368	22.75	.40									
037	22.19	.39									
247	22.50	.36									
065	22.35	.33									
096	22.00	.32									
009	21.45	.15									
232	21.40	.14									
Avg	20.93										
231	19.71	-.29									
444	20.67 R	-.40									
255	16.25	-1.03									
230	14.45	-1.42									
027	14.16	-1.48									
372	12.29	-1.89									
Meth: 191.99 PPM											
<u>Chromium</u>											
<u>Other</u>											
409	27.70	.71									
Meth: 191.XX PPM											
<u>Chromium</u>											
393	28.67 X	1.75									
409	27.70 R	1.59									
452	27.80	1.56									
450	24.00	.71									
220	23.50	.57									
102	22.89	.42									
368	22.75	.39									
037	22.19	.39									
247	22.50	.35									
065	22.35	.32									
096	22.00	.32									
009	21.45	.14									
232	21.40	.12									
Avg	21.06										
231	19.71	-.33									
Meth: 191.30 PPM											
<u>Chromium</u>											
<u>ICP</u>											
065	20.67	-.42									
255	16.25	-1.10									
230	14.45	-1.52									
027	14.16	-1.58									
372	12.29	-2.01									
Meth: 202.00 PPM											
<u>Acid Soluble Cobalt</u>											
<u>AA</u>											
136	12.00	.71									
Meth: 202.30 PPM											
<u>Acid Soluble Cobalt</u>											
<u>ICP</u>											
450	6.10 R	.90									
009	6.05	.87									
102	5.68	.72									
065	5.57	.67									
057	5.55	.67									
231	5.51	.65									
247	5.50	.65									
393	5.36	.59									
452	4.60	.28									
Avg	3.95										
230	3.57	-.17									
368	0.00	-1.64									
232	0.00	-1.64									
372	0.00	-1.64									
Meth: 202.99 PPM											
<u>Acid Soluble Cobalt</u>											
<u>Other</u>											
409	7.06	-.71									
Meth: 202.XX PPM											
<u>Acid Soluble Cobalt</u>											
136	12.00 R	3.19									
409	7.06	1.14									
Meth: 202.XX PPM											
<u>Acid Soluble Cobalt</u>											
450	6.10	.74									
009	6.05	.71									
102	5.68	.56									
065	5.57	.51									
057	5.55	.51									
231	5.51	.49									
247	5.50	.49									
393	5.36	.43									
452	4.60	.13									
Avg	4.32										
230	3.57	-.32									
368	0.00	-1.78									
232	0.00	-1.78									
372	0.00	-1.78									
Meth: 221.00 PCT											
<u>Acid Soluble Copper</u>											
<u>Atomic Absorption</u>											
043	0.0012	1.25									
220	0.0008	.29									
Avg	0.0006										
022	0.0005	-.19									
428	0.0000	-1.35									
Meth: 221.30 PCT											
<u>Acid Soluble Copper</u>											
<u>ICP</u>											
065	0.0034 s	4.98									
354	0.0025	1.97									
444	0.0025	1.97									
255	0.0021	1.27									
452	0.0020	1.09									
402	0.0015	.83									
422	0.0015	.83									
057	0.0013	.71									
368	0.0014	.32									
095	0.0013	.24									
Avg	0.0012										

* 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: 221.30 PCT																	
Acid Soluble Copper																	
ICP			220	0.0008	-.24	454	0.82	1.40	137	0.80	1.25	095	0.73	.01			
372	0.0010	-.22	102	0.0008	-.24	106	0.81	1.31	231	0.72	.47	Avg	0.72				
230	0.0010	-.22	433	0.0007	-.27	432	0.80	1.16	Avg	0.68		177	0.71	-.25			
232	0.0008	-.49	324	0.0005	-.61	389	0.81	1.14	042	0.60	-.76	029	0.71	-.29			
231	0.0008	-.49	022	0.0005	-.61	131	0.77	.68	234	0.59	-1.07	200	0.71	-.33			
102	0.0008	-.57	393	0.0004	-.83	390	0.77	.65				426	0.70	-.40			
450	0.0008	-.57	454	0.0004	-.90	102	0.76	.60	Meth: 241.XX PCT								
433	0.0007	-.60	041	0.0000	-1.64	324	0.77	.56	Acid Soluble Iron								
324	0.0005	-.84	428	0.0000	-1.64	450	0.73 R	.52	330	1.05 s	6.62	255	0.69	-.57			
393	0.0004	-1.00	Meth: 241.00 PCT														
454	0.0004	-1.05	Acid Soluble Iron														
041	0.0000	-1.59	Atomic Absorption														
Meth: 221.99 PCT																	
Acid Soluble Copper																	
Other			055	0.78	1.19	360	0.76	.45	432	0.80	1.31	371	0.68	-.80			
409	0.0010	.71	262	0.77	1.09	452	0.76	.41	389	0.81	1.29	393	0.68 X	-.81			
Meth: 221.XX PCT																	
Acid Soluble Copper																	
065	0.0034 s	7.22	220	0.77	1.07	368	0.75	.39	137	0.80	1.21	040	0.67 X	-.86			
354	0.0025 R	3.23	105	0.76	.92	422	0.74	.17	055	0.78	.81	433	0.67	-.94			
444	0.0025 R	3.23	296	0.76	.92	291	0.74	.13	131	0.77	.79	065	0.66	-1.02			
255	0.0021	2.29	028	0.76	.83	Avg	0.73		390	0.77	.76	402	0.65	-1.15			
452	0.0020	2.05	351	0.74	.37	095	0.73	-.04	262	0.77	.74	247	0.66	-1.16			
402	0.0015 R	1.52	043	0.73	.28	307	0.73	-.36	220	0.77	.73	444	0.65	-1.31			
422	0.0015 R	1.52	Avg	0.72		426	0.70	-.41	102	0.76	.70	442	0.62	-1.73			
057	0.0013 R	1.25	177	0.71	-.28	023	0.70	-.50	324	0.77	.66	428	0.64 R	-1.88			
368	0.0014	.99	029	0.71	-.35	255	0.69	-.56	296	0.76	.62	042	0.60	-1.99			
095	0.0013	.78	452	0.71	-.40	232	0.70	-.60	105	0.76	.62	027	0.59	-2.17			
043	0.0012	.64	200	0.71	-.40	057	0.68	-.74	354	0.76	.59	114	0.59	-2.19			
230	0.0010	.25	397	0.70	-.65	393	0.68 X	-.78	372	0.76	.59	234	0.59 R	-2.43			
372	0.0010	.25	022	0.71	-.76	433	0.67	-.91	450	0.73	.57	230	0.47 s	-4.08			
409	0.0010	.22	371	0.68	-1.05	065	0.66	-.98	096	0.76	.57	157	0.43 s	-4.76			
Avg	0.0009		040	0.67 X	-1.13	402	0.65	-1.10	028	0.76	.56	041	0.36 s	-5.97			
231	0.0008	-.13	442	0.62	-2.33	402	0.65	-1.11	360	0.76	.53	Meth: 251.00 PPM					
232	0.0008	-.13	428	0.64 R	-2.55	247	0.66	-1.25	452	0.76	.49	Lead					
450	0.0008	-.24	157	0.43 s	-6.52	444	0.65	-1.25	368	0.75	.47	Atomic Absorption					
Meth: 241.30 PCT																	
Acid Soluble Iron																	
ICP			027	0.59	-2.04	114	0.59	-2.05	307	0.73	.39	136	8.50 S	.00			
330	1.05 s	6.04	114	0.59	-2.05	230	0.47 s	-3.79	422	0.74	.24						
117	0.89	2.41	041	0.36 s	-5.53	041	0.36 s	-5.53	351	0.74	.22						
			330	1.05 s	6.04	291	0.74	.18	291	0.74	.18						
			117	0.89	2.41	043	0.73	.18	043	0.73	.18						

* 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	
Meth: 251.30 PPM												
Lead			Meth: 261.00 PCT									
ICP			Acid Soluble Manganese									
368	1.70	1.47	AA			ICP			Meth: 261.30 PCT			
450	1.50 R	1.41	450	0.248	.26	368	0.238	.19	Acid Soluble Manganese			
393	1.49	1.12	442	0.249	.23	095	0.241	.16	ICP			
102	0.96	.33	105	0.248	.16	009	0.241	.15	200 5.035 s 257.06			
Avg	0.82		Avg	0.247		Avg	0.237		330 0.350 s 10.03			
230	0.60	-.37	397	0.247	-.20	452	0.235	-.25	432 0.295 A 3.07			
452	0.42	-.67	351	0.245	-.30	023	0.233	-.26	137 0.270 1.72			
255	0.57	-.73	055	0.245 R	-.55	065	0.231	-.29	390 0.265 1.48			
372	0.00	-1.36	296	0.237	-1.03	444	0.230	-.33	220 0.260 1.18			
Meth: 251.99 PPM												
Lead			177	0.224	-2.39	232	0.232	-.43	409 0.257 1.02			
Other			043	0.209 s	-3.86	291	0.225	-.59	157 0.257 .99			
409	1.26	.71	Meth: 261.11 PCT									
Acid Soluble Manganese												
Meth: 251.30 PCT												
Lead			Avg	0.237	-.57	114	0.180	-2.57	Meth: 271.00 PCT			
136	8.50 s	13.19	022	0.231	-.80	041	0.130 s	-4.81	Water Soluble Mangan			
368	1.70	1.43	Acid Soluble Manganese									
450	1.50 R	1.38	ICP									
393	1.49	1.07	324	0.252	.87	Avg	0.231		Atomic Abs			
409	1.26	.67	Avg	0.231		117	0.210	-.86	220 0.135 -.71			
102	0.96	.28	230	0.162 S	-2.84	230	0.162 S	-2.84	Meth: 271.30 PCT			
Avg	0.87		Meth: 261.31 PCT									
230	0.60	-.48	Acid Soluble Manganese									
452	0.42	-.79	324	0.252	.87	Avg	0.231		Water Soluble Mangan			
255	0.57	-.82	Avg	0.231		117	0.210	-.86	ICP			
372	0.00	-1.51	230	0.162 S	-2.84	230	0.162 S	-2.84	220 0.135 -.71			
Meth: 261.00 PCT												
Acid Soluble Manganese			Meth: 261.99 PCT									
AA			Acid Soluble Manganese									
200	5.035 s	483.80	022	0.253	.74	Other			Meth: 271.00 PCT			
220	0.260	1.30	022	0.253	.74	137	0.270	1.23	Water Soluble Mangan			
157	0.257	.94	247	0.247	.53	409	0.257	.68	ICP			
028	0.255	.89	102	0.249	.53	Avg	0.241		432 0.110 1.21			
262	0.250	.29	426	0.247	.49	Avg	0.241		Avg 0.106			
Meth: 261.30 PCT												
Acid Soluble Manganese			Meth: 261.30 PCT									
AA			Acid Soluble Manganese									
200	5.035 s	483.80	057	0.247	.46	037	0.239	-.18	255 0.102 -.17			
220	0.260	1.30	454	0.246	.44	255	0.234	-.30	Meth: 271.30 PCT			
157	0.257	.94	402	0.246	.40	234	0.220 R	-1.21	Water Soluble Mangan			
028	0.255	.89	360	0.244	.30	042	0.204	-1.55	ICP			
262	0.250	.29	131	0.243	.27	131	0.243	.14	432 0.110 1.21			
Meth: 261.00 PCT												
Acid Soluble Manganese			Meth: 261.30 PCT									
AA			Acid Soluble Manganese									
200	5.035 s	483.80	057	0.247	.46	037	0.239	-.18	Avg 0.106			
220	0.260	1.30	454	0.246	.44	255	0.234	-.30	255 0.102 -.17			
157	0.257	.94	402	0.246	.40	234	0.220 R	-1.21	Meth: 271.00 PCT			
028	0.255	.89	360	0.244	.30	042	0.204	-1.55	Water Soluble Mangan			
262	0.250	.29	131	0.243	.27	131	0.243	.14	ICP			
Meth: 261.30 PCT												
Acid Soluble Manganese			Meth: 261.30 PCT									
AA			Acid Soluble Manganese									
200	5.035 s	483.80	057	0.247	.46	037	0.239	-.18	Avg 0.106			
220	0.260	1.30	454	0.246	.44	255	0.234	-.30	255 0.102 -.17			
157	0.257	.94	402	0.246	.40	234	0.220 R	-1.21	Meth: 271.30 PCT			
028	0.255	.89	360	0.244	.30	042	0.204	-1.55	Water Soluble Mangan			
262	0.250	.29	131	0.243	.27	131	0.243	.14	ICP			
Meth: 261.30 PCT												
Acid Soluble Manganese			Meth: 261.30 PCT									
AA			Acid Soluble Manganese									
200	5.035 s	483.80	057	0.247	.46	037	0.239	-.18	Avg 0.106			
220	0.260	1.30	454	0.246	.44	255	0.234	-.30	255 0.102 -.17			
157	0.257	.94	402	0.246	.40	234	0.220 R	-1.21	Meth: 271.00 PCT			
028	0.255	.89	360	0.244	.30	042	0.204	-1.55	Water Soluble Mangan			
262	0.250	.29	131	0.243	.27	131	0.243	.14	ICP			
Meth: 261.30 PCT												
Acid Soluble Manganese			Meth: 261.30 PCT									
AA			Acid Soluble Manganese									
200	5.035 s	483.80	057	0.247	.46	037	0.239	-.18	Avg 0.106			
220	0.260	1.30	454	0.246	.44	255	0.234	-.30	255 0.102 -.17			
157	0.257	.94	402	0.246	.40	234	0.220 R	-1.21	Meth: 271.30 PCT			
028	0.255	.89	360	0.244	.30	042	0.204	-1.55	Water Soluble Mangan			
262	0.250	.29	131	0.243	.27	131	0.243	.14	ICP			

* 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			
Meth: 271.XX PCT														
<u>Water Soluble Mangan</u>														
432	0.110	-1.16										Meth: 321.30 PCT		
Meth: 281.30 PPM														
<u>Mercury</u>														
ICP												Acid Soluble Zinc		
372	0.00	.87										ICP		
Avg	0.00											450	0.006	.53
450	0.00	-.87										354	0.006	.49
Meth: 289.30 PPM														
<u>Molybdenum</u>														
ICP												324	0.006	.19
452	2.85	2.69										065	0.006	.07
450	2.50 R	2.19										Avg	0.006	
247	1.90	.66										102	0.006	-.07
231	1.95	.66										037	0.006	-.18
368	1.75	.17										433	0.005	-.27
Avg	1.70											307	0.005	-.32
433	1.66	-.09										454	0.005	-.39
393	1.65	-.20										232	0.005	-.50
102	1.64	-.22										402	0.006	-.59
057	1.55	-.36										372	0.006	-.59
065	1.54 X	-.60										393	0.005 X	-.78
220	1.40	-.69										255	0.005	-1.27
232	1.65	-.82										027	0.004	-1.83
255	1.39	-1.04										230	0.004	-1.83
230	1.17	-1.24										Meth: 321.XX PCT		
454	0.00 S	-3.94										<u>Acid Soluble Zinc</u>		
372	0.00 S	-3.94										368	0.014 s	10.38
Meth: 289.99 PPM														
<u>Molybdenum</u>														
ICP												105	0.010 s	6.30
409	2.07	.71										041	0.008 s	4.55
Meth: 291.99 PPM														
<u>Nickel</u>														
ICP												390	0.008 s	3.72
452	22.63 s	9.57										022	0.007 R	2.25
444	14.41 R	4.22										057	0.007 R	2.11
450	11.00	1.46										409	0.007	1.80
247	10.40	.86										444	0.007	1.69
037	9.84	.60										096	0.007	1.45
368	9.60	.31										043	0.007	1.42
065	9.57	.26										231	0.007	1.26
102	9.46	.17										452	0.006	.59
Avg	9.46											450	0.006	.54
220	9.00	-.85										354	0.006	.51
232	8.80	-.53										324	0.006	.20
231	7.90	-.97										065	0.006	.08
230	6.38	-1.71										Avg	0.006	
372	0.00 s	-4.80										452	0.006	.58
Meth: 301.30 PPM														
<u>Selenium</u>														
ICP												Meth: 321.30 PCT		
452	22.63 s	9.57										<u>Acid Soluble Zinc</u>		
444	14.41 R	4.22										368	0.014 s	10.38
450	11.00	1.46										105	0.010 s	6.30
247	10.40	.86										041	0.008 s	4.55
037	9.84	.60										390	0.008 s	3.72
368	9.60	.31										022	0.007 R	2.25
065	9.57	.26										057	0.007 R	2.11
102	9.46	.17										409	0.007	1.80
Avg	9.46											444	0.007	1.69
220	9.00	-.85										096	0.007	1.45
232	8.80	-.53										043	0.007	1.42
231	7.90	-.97										231	0.007	1.26
230	6.38	-1.71										452	0.006	.59
372	0.00 s	-4.80										450	0.006	.54
Meth: 291.30 PPM														
<u>Nickel</u>														
ICP												354	0.006	.51
452	22.63 s	9.57										324	0.006	.20
444	14.41 R	4.22										065	0.006	.08
450	11.00	1.46										Avg	0.006	
247	10.40	.86										452	0.006	.58
037	9.84	.60										Meth: 301.30 PPM		
368	9.60	.31										<u>Selenium</u>		
065	9.57	.26										ICP		
102	9.46	.17										368	0.014 s	10.23
Avg	9.46											041	0.008 s	4.48
220	9.00	-.85										390	0.008 s	3.66
232	8.80	-.53										057	0.007 R	2.07
231	7.90	-.97										409	0.007	1.76
230	6.38	-1.71										444	0.007	1.65
372	0.00 s	-4.80										096	0.007	1.42
Meth: 291.99 PPM														
<u>Nickel</u>														
ICP												231	0.007	1.24
452	22.63 s	9.57										452	0.006	.58
444	14.41 R	4.22										Meth: 321.30 PCT		
450	11.00	1.46										<u>Acid Soluble Zinc</u>		
247	10.40	.86										368	0.014 s	10.38
037	9.84	.60										105	0.010 s	6.30
368	9.60	.31										041	0.008 s	4.55
065	9.57	.26										390	0.008 s	3.72
102	9.46	.17										022	0.007 R	2.25
Avg	9.46											057	0.007 R	2.11
220	9.00	-.85										409	0.007	1.80
232	8.80	-.53										444	0.007	1.69
231	7.90	-.97										096	0.007	1.45
230	6.38	-1.71										043	0.007	1.42
372	0.00 s	-4.80										231	0.007	1.26
Meth: 291.30 PPM														
<u>Nickel</u>														
ICP												452	0.006	.59
452	22.63 s	9.57										450	0.006	.54
444	14.41 R	4.22										354	0.006	.51
450	11.00	1.46										324	0.006	.20
247	10.40	.86										065	0.006	.08
037	9.84	.60										Avg	0.006	
368	9.60	.31										452	0.006	.58
065	9.57	.26										Meth: 321.30 PCT		
102	9.46	.17										<u>Acid Soluble Zinc</u>		
Avg	9.46											368	0.014 s	10.38
220	9.00	-.85										105	0.010 s	6.30
232	8.80	-.53										041	0.008 s	4.55
231	7.90	-.97										390	0.008 s	3.72
230	6.38	-1.71										022	0.007 R	2.25
372	0.00 s	-4.80										057	0.007 R	2.11
Meth: 291.99 PPM														
<u>Nickel</u>														
ICP												409	0.007	1.80
452	22.63 s	9.57										444	0.007	1.69
444	14.41 R	4.22										096	0.007	1.45
450	11.00	1.46										043	0.007	1.42
247	10.40	.86										231	0.007	1.26
037	9.84	.60										452	0.006	.59
368	9.60	.31										450	0.006	.54
065	9.57	.26										354	0.006	.51
102	9.46	.17										324	0.006	.20
Avg	9.46											065	0.006	.08
220	9.00	-.85										Avg	0.006	
232	8.80	-.53										Meth: 321.30 PCT		
231	7.90	-.97										<u>Acid Soluble Zinc</u>		
230	6.38	-1.71										368	0.014 s	10.38
372	0.00 s	-4.80										105	0.010 s	6.30
Meth: 291.30 PPM														
<u>Nickel</u>														
ICP												041	0.008 s	4.55
452	22.63 s	9.57										390	0.008 s	3.72
444	14.41 R	4.22										022	0.007 R	2.25
450	11.00	1.46										057	0.007 R	2.11
247	10.40	.86										409	0.007	1.80
037	9.84	.60										444	0.007	1.69
368	9.60	.31										096	0.007	1.45
065	9.57	.26										043	0.007	1.42
102	9.46	.17										231	0.007	1.26
Avg	9.46											452	0.006	.59
220	9.00	-.85										450	0.006	.54
232	8.80	-.53										354	0.006	.51
231	7.90	-.97										324	0.006	.20
230	6.38	-1.71										065	0.006	.08
372	0.00 s	-4.80										Avg	0.006	

* 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
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Meth: 321.XX PCT
Acid Soluble Zinc
 102 0.006 - .06
 037 0.006 - .18
 433 0.005 - .26
 296 0.005 - .31
 307 0.005 - .31
 220 0.005 - .31
 454 0.005 - .39
 232 0.005 - .50
 402 0.006 - .59
 372 0.006 - .59
 393 0.005 X - .78
 428 0.005 -1.08
 255 0.005 -1.28
 027 0.004 -1.85
 230 0.004 -1.85

Meth: 325.30 PCT
Water Soluble Zinc
 ICP
 095 0.016 .71

* 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	7	0.00	1.04	0.07	050.99	18	- 0.18	1.27	0.25
001.99	9	1.32	3.00	0.05	050.XX	77	- 0.01	1.26	0.35
001.XX	16	0.95	3.00	0.05	060.00	5	0.00	1.02	0.25
003.10	7	0.00	1.04	0.10	060.XX	6	0.00	1.03	0.17
003.XX	8	0.00	1.03	0.10	101.30	19	- 0.09	4.17	0.20
005.00	3	0.00	1.12	0.03	101.XX	20	- 0.09	4.20	0.20
005.99	3	0.00	1.12	0.02	121.30	20	- 0.11	1.74	0.34
005.XX	6	0.00	1.05	0.02	121.XX	21	- 0.25	1.82	0.49
009.10	2	0.00	1.22	0.00	144.01	17	- 1.20	3.84	0.35
009.XX	2	0.00	1.22	0.00	144.99	28	0.16	1.27	0.20
010.11	10	0.55	1.98	0.23	144.XX	46	- 0.10	1.57	0.20
010.12	5	2.62	3.68	0.18	151.00	2	0.00	1.12	0.35
010.60	64	0.57	2.35	0.74	151.30	7	0.66	1.90	0.34
010.99	5	- 1.32	3.06	0.41	151.XX	10	0.62	2.02	0.35
010.XX	81	0.53	2.42	0.81	165.99	6	0.362	1.293	0.481
020.10	6	- 1.27	3.23	1.40	165.XX	6	0.362	1.293	0.481
020.20	21	- 1.41	3.08	0.73	181.30	12	12.33	43.88	0.51
020.40	4	0.00	0.92	0.49	181.XX	14	11.54	44.36	0.53
020.50	15	0.14	1.06	0.58	191.30	17	0.00	0.98	0.16
020.99	3	0.00	0.00	0.00	191.XX	19	0.08	1.03	0.19
020.XX	47	- 0.70	3.20	0.71	202.30	13	0.07	1.01	0.05
030.20	2	0.00	1.19	0.20	202.XX	15	0.21	1.28	0.12
030.XX	5	1.24	2.93	0.36	221.00	4	0.0000	1.0747	0.0935
040.40	2	0.00	0.40	0.82	221.30	21	0.1496	1.1495	0.9112
040.XX	5	0.00	1.05	0.11	221.XX	26	0.5482	1.5200	1.1274
041.10	13	- 0.09	1.00	0.49	241.00	18	- 0.46	1.81	0.51
041.40	4	- 10.66	12.36	0.54	241.30	36	- 0.13	1.67	0.64
041.50	13	0.00	0.99	0.24	241.99	4	0.00	1.01	0.32
041.60	12	- 0.20	0.96	1.15	241.XX	58	- 0.23	1.65	0.61
041.99	2	- 16.40	23.20	4.33	251.30	8	0.14	1.01	0.38
041.XX	35	- 0.85	2.39	0.82	251.XX	10	1.42	4.23	0.44
048.20	3	0.00	1.11	0.10	261.00	14	34.266	129.39	0.457
048.XX	4	0.00	1.07	0.11	261.11	3	0.000	1.060	0.291
050.00	16	- 0.27	1.45	0.48	261.30	31	0.008	1.593	1.222
050.30	11	0.31	1.33	0.81	261.31	3	- 0.944	1.848	0.159
050.50	8	0.00	1.03	0.08	261.99	6	- 0.145	1.007	0.358
050.51	12	0.00	1.01	0.18	261.XX	56	4.555	34.394	1.108
050.60	8	0.38	1.42	0.32	271.30	2	0.000	0.230	0.851
050.61	11	0.00	0.98	0.29	271.XX	3	0.000	0.657	0.738

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
281.30	2	0.00	1.22	0.00					
281.XX	2	0.00	1.22	0.00					
289.30	16	- 0.38	1.69	0.45					
289.XX	17	- 0.37	1.68	0.45					
291.00	2	0.00	1.16	0.27					
291.30	12	0.56	3.72	0.65					
291.XX	15	0.24	2.33	0.44					
301.30	5	- 0.07	0.94	0.42					
301.XX	5	- 0.07	0.94	0.42					
311.99	7	0.00	0.98	0.32					
311.XX	7	0.00	0.98	0.32					
321.00	6	0.614	1.728	1.155					
321.30	25	0.690	2.298	0.983					
321.XX	31	0.796	2.292	1.120					