

- Pass 1 Results for 84 Labs - - Pass 2 Results for 82 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	2.64	0.06	0.04	6	2.64	0.06	0.04
Ammoniacal Nitrogen, Other		001.99	6	2.60	0.08	0.02	6	2.60	0.08	0.02
Method Group 001.XX PCT			12	2.62	0.07	0.03	11	2.61	0.07	0.02
Nitrogen From Urea, Urease (as N)	959.03	005.00	1	0.16	0.04	0.05	1	0.16	0.04	0.05
Ammon & Nitrate N, Devarda	892.01	009.10	2	2.81	0.11	0.03	2	2.81	0.11	0.03
Ammon & Nitrate N, Other		009.99	1	2.70	0.05	0.07	1	2.70	0.05	0.07
Method Group 009.XX PCT			3	2.77	0.10	0.05	3	2.77	0.10	0.05
Total Nitrogen, Modified Comprehensive	978.02	010.11	9	2.66	0.14	0.03	9	2.66	0.14	0.03
Total Nitrogen, Salicylic	955.04D	010.12	2	2.66	0.03	0.03	2	2.66	0.03	0.03
Total Nitrogen, Combustion		010.60	56	2.70	0.12	0.04	50	2.69	0.09	0.03
Total Nitrogen, Other		010.99	7	2.61	0.14	0.06	7	2.61	0.14	0.06
Method Group 010.XX PCT			74	2.68	0.12	0.04	67	2.68	0.11	0.03
Total Phosphate, Grav Quimociac	962.02	020.10	5	7.63	0.18	0.15	5	7.63	0.18	0.15
Total Phosphate, Spectrometric	958.01	020.20	23	7.68	0.23	0.12	22	7.67	0.21	0.08
Total Phosphate, Automated	978.01	020.40	4	7.57	0.19	0.11	4	7.57	0.19	0.11
Total Phosphate, ICP		020.50	8	7.75	0.28	0.08	8	7.75	0.28	0.08
Total Phosphate, Other		020.99	1	7.52	0.00	0.00	1	7.52	0.00	0.00
Method Group 020.XX PCT			41	7.67	0.23	0.11	39	7.67	0.22	0.08
Insoluble Phosphate, Spectrometric	963.03C	030.20	1	0.20	0.01	0.02	1	0.20	0.01	0.02
Insoluble Phosphate, Automated	978.01	030.40	1	0.03	0.01	0.01	1	0.03	0.01	0.01
Insoluble Phosphate, ICP		030.50	1	0.02	0.00	0.01	1	0.02	0.00	0.01
Method Group 030.XX PCT			3	0.08	0.09	0.01	3	0.08	0.09	0.01
InDir Available Phosphate, Spectrometri	960.02	040.20	2	6.61	0.92	0.21	2	6.61	0.92	0.21
InDir Available Phosphate, Automated	960.02	040.40	1	7.60	0.01	0.01	1	7.60	0.01	0.01
InDir Available Phosphate, ICP		040.50	1	7.23	0.02	0.03	1	7.23	0.02	0.03
Method Group 040.XX PCT			4	7.01	0.75	0.12	3	7.41	0.16	0.05
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	17	7.60	0.12	0.06	15	7.58	0.08	0.05
Dir Available Phosphate, Spectrometric	960.03D	041.20	1	7.63	0.14	0.20	1	7.63	0.14	0.20
Dir Available Phosphate, Automated	978.01	041.40	4	7.62	0.19	0.10	5	7.51	0.28	0.09
Dir Available Phosphate, ICP		041.50	8	7.74	0.15	0.07	8	7.76	0.17	0.05
Dir Available Phosphate, EDTA Extract	993.01	041.60	13	7.58	0.11	0.06	12	7.59	0.10	0.05
Dir Available Phosphate, Other		041.99	2	7.55	0.05	0.06	2	7.55	0.05	0.06
Method Group 041.XX PCT			45	7.62	0.14	0.07	41	7.62	0.13	0.05
Water Soluble Phosphate, Spectrometric	970.01	048.20	3	6.15	0.21	0.03	3	6.15	0.21	0.03
Soluble Potash, STPB Oxalate	958.02	050.00	19	29.13	0.50	0.19	19	29.13	0.50	0.19
Soluble Potash, STPB Citrate	969.04	050.10	2	29.84	1.01	0.07	2	29.84	1.01	0.07
Soluble Potash, AA (Oxalate)		050.30	12	28.62	1.35	0.33	11	28.60	1.39	0.23
Soluble Potash, AA (Citrate)		050.31	1	28.33	0.19	0.27	1	28.33	0.19	0.27
Soluble Potash, ICP (Oxalate)		050.50	7	27.33	1.64	0.16	7	27.33	1.64	0.16

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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
Soluble Potash, ICP (Citrate)		050.51	8	29.28	0.84	0.46	7	29.40	0.67	0.15
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	6	29.16	1.52	0.44	6	29.16	1.52	0.44
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	9	29.69	0.72	0.35	9	29.69	0.72	0.35
Soluble Potash, Other		050.99	13	29.39	0.73	0.37	12	29.43	0.70	0.26
Method Group 050.XX PCT			80	29.01	1.23	0.32	74	29.02	1.14	0.23
Free Water, Vacuum Oven	965.08B	060.00	5	0.67	0.29	0.07	5	0.67	0.29	0.07
Acid Soluble Calcium, AA	945.04	101.00	4	2.27	0.11	0.06	4	2.27	0.11	0.06
Acid Soluble Calcium, ICP		101.30	12	2.28	0.10	0.03	11	2.27	0.10	0.02
Method Group 101.XX PCT			16	2.28	0.10	0.04	15	2.29	0.10	0.03
Acid Soluble Magnesium, AA	984.01	121.00	17	3.13	0.14	0.05	16	3.13	0.14	0.04
Acid Soluble Magnesium, ICP		121.30	27	3.18	0.12	0.05	26	3.18	0.12	0.05
Acid Soluble Magnesium, Other		121.99	1	3.37	0.05	0.07	1	3.37	0.05	0.07
Method Group 121.XX PCT			45	3.17	0.13	0.05	43	3.16	0.13	0.04
Water Soluble Magnesium, AA		131.00	2	2.97	0.05	0.05	2	2.97	0.05	0.05
Water Soluble Magnesium, ICP		131.30	1	3.03	0.02	0.04	1	3.03	0.02	0.04
Water Soluble Magnesium, Other		131.99	1	3.03	0.01	0.01	1	3.03	0.01	0.01
Method Group 131.XX PCT			4	3.00	0.04	0.04	4	3.00	0.04	0.04
Sulfur, Gravimetric	980.02a	144.01	20	8.96	0.19	0.09	20	8.96	0.19	0.09
Sulfur, Gravimetric	980.02b	144.02	1	8.96	0.01	0.01	1	8.96	0.01	0.01
Sulfur, Spectrometric		144.70	1	8.97	0.05	0.08	1	8.97	0.05	0.08
Sulfur, Other		144.99	15	8.77	0.33	0.12	15	8.77	0.33	0.12
Method Group 144.XX PCT			37	8.88	0.27	0.10	35	8.90	0.23	0.09
Arsenic, ICP		151.30	8	54.99	6.51	2.72	8	54.99	6.51	2.72
Arsenic, Other		151.99	1	56.00	5.66	8.00	1	56.00	5.66	8.00
Method Group 151.XX PPM			9	55.10	6.27	3.30	9	55.10	6.27	3.30
Acid Soluble Boron, Spectrometric	982.01	165.00	8	0.290	0.017	0.010	8	0.290	0.017	0.010
Acid Soluble Boron, Other		165.99	13	0.290	0.028	0.008	13	0.290	0.028	0.008
Method Group 165.XX PCT			22	0.287	0.028	0.009	21	0.286	0.029	0.008
Water Soluble Boron, Spectrometric	982.01	171.10	2	0.286	0.024	0.005	2	0.286	0.024	0.005
Cadmium, Atomic Absorption		181.00	2	1.39	0.31	0.05	2	1.39	0.31	0.05
Cadmium, ICP		181.30	11	1.95	0.51	0.17	10	1.89	0.48	0.09
Method Group 181.XX PPM			13	1.86	0.52	0.15	12	1.81	0.49	0.08
Water Soluble Chlorine, Titrimetric	928.02	190.00	13	18.48	0.67	0.23	12	18.46	0.68	0.18
Water Soluble Chlorine, Other		190.99	2	18.44	0.38	0.46	2	18.44	0.38	0.46
Method Group 190.XX PCT			15	18.47	0.63	0.26	14	18.45	0.64	0.22
Chromium, Atomic Absorption		191.00	1	104.50	0.71	1.00	1	104.50	0.71	1.00
Chromium, ICP		191.30	12	96.02	8.64	1.77	11	96.17	8.93	1.16
Method Group 191.XX PPM			13	96.68	8.60	1.71	12	96.86	8.85	1.14
Acid Soluble Cobalt, AA		202.00	1	10.50	0.71	1.00	1	10.50	0.71	1.00

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Acid Soluble Cobalt, ICP	965.11	202.30	10	14.31	3.71	1.30	9	14.29	3.74	0.67
Method Group 202.XX PPM			11	13.96	3.71	1.28	10	13.91	3.73	0.70
Acid Soluble Copper, Atomic Absorption	975.01	221.00	5	0.0083	0.0013	0.0007	5	0.0083	0.0013	0.0007
Acid Soluble Copper, ICP		221.30	15	0.0077	0.0018	0.0004	14	0.0076	0.0019	0.0003
Acid Soluble Copper, Other		221.99	1	0.0030	0.0000	0.0000	1	0.0030	0.0000	0.0000
Method Group 221.XX PCT			21	0.0076	0.0020	0.0005	20	0.0076	0.0020	0.0004
Acid Soluble Iron, Atomic Absorption	980.01	241.00	2	0.25	0.04	0.03	2	0.25	0.04	0.03
Acid Soluble Iron, ICP		241.30	17	0.24	0.03	0.00	16	0.24	0.03	0.00
Acid Soluble Iron, Other		241.99	1	0.17	0.00	0.00	1	0.17	0.00	0.00
Method Group 241.XX PCT			20	0.24	0.03	0.01	19	0.24	0.03	0.00
Lead, Atomic Absorption		251.00	1	25.00	1.41	2.00	1	25.00	1.41	2.00
Lead, ICP		251.30	12	21.60	4.35	2.75	12	21.60	4.35	2.75
Method Group 251.XX PPM			13	21.86	4.29	2.69	13	21.86	4.29	2.69
Acid Soluble Manganese, AA	972.02a	261.00	14	1.527	0.084	0.040	13	1.519	0.077	0.028
Acid Soluble Manganese, AA	972.02b	261.11	2	1.679	0.112	0.025	2	1.679	0.112	0.025
Acid Soluble Manganese, ICP		261.30	26	1.508	0.132	0.058	26	1.508	0.132	0.058
Acid Soluble Manganese, ICP		261.31	2	1.538	0.055	0.065	2	1.538	0.055	0.065
Acid Soluble Manganese, Other		261.99	2	1.451	0.085	0.043	2	1.451	0.085	0.043
Method Group 261.XX PCT			47	1.513	0.128	0.050	44	1.510	0.129	0.041
Water Soluble Manganese, Atomic Abs	972.03	271.00	1	0.052	0.000	0.000	1	0.052	0.000	0.000
Mercury, Other		281.99	2	0.02	0.00	0.00	2	0.02	0.00	0.00
Molybdenum, ICP		289.30	13	7.51	1.27	0.65	13	7.51	1.27	0.65
Nickel, Atomic Absorption		291.00	1	30.50	0.71	1.00	1	30.50	0.71	1.00
Nickel, ICP		291.30	10	32.10	3.93	1.14	9	31.56	3.69	0.78
Method Group 291.XX PPM			11	31.95	3.77	1.13	10	31.45	3.51	0.80
Selenium, ICP		301.30	4	4.80	1.84	0.47	4	4.80	1.84	0.47
Selenium, Other		301.99	1	0.53	0.39	0.55	1	0.53	0.39	0.55
Method Group 301.XX PPM			5	3.94	2.43	0.49	5	3.94	2.43	0.49
Sodium, Atomic Absorption	983.04	311.00	1	0.71	0.01	0.01	1	0.71	0.01	0.01
Sodium, Other		311.99	5	0.71	0.02	0.01	5	0.71	0.02	0.01
Method Group 311.XX PCT			6	0.71	0.02	0.01	6	0.71	0.02	0.01
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	16	0.302	0.013	0.005	15	0.303	0.013	0.004
Acid Soluble Zinc, ICP		321.30	31	0.301	0.023	0.007	30	0.300	0.022	0.006
Acid Soluble Zinc, Other		321.99	2	0.285	0.030	0.002	2	0.285	0.030	0.002
Method Group 321.XX PCT			49	0.301	0.020	0.006	45	0.300	0.020	0.004

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index			
Meth: 001.10 PCT														
Ammoniacal Nitrogen														
MgO Distillation														
444	2.70	1.33										Meth: 010.12 PCT		
029	2.70	1.11										Total Nitrogen		
416	2.66	.38										Salicylic		
Avg	2.64											254	3.20 S	17.08
452	2.63	-.17										185	2.68	1.16
324	2.58	-1.02										Avg	2.66	
288	2.58	-1.13										397	2.65	-.39
309	2.47 S	-3.31										Meth: 010.60 PCT		
Meth: 009.99 PCT														
Ammon & Nitrate N														
Other														
397	2.65	.76										Total Nitrogen		
255	2.64	.64										Combustion		
371	2.64	.64										023	2.69	-.11
096	2.64	.58										027	2.68	-.14
Avg	2.60											231	2.68	-.17
027	2.55	-.60										029	2.69	-.21
420	2.46	-1.85										102	2.68	-.25
Meth: 009.99 PCT														
Ammon & Nitrate N														
Other														
397	2.70	-.71										022	2.67	-.26
Meth: 009.99 PCT														
Ammon & Nitrate N														
Other														
030	2.90	.83										247	2.68	-.32
Avg	2.81											426	2.67	-.34
257	2.73	-.90										177	2.66	-.35
Meth: 010.11 PCT														
Total Nitrogen														
Modified Comprehensive														
309	2.87	1.51										372	11.61 s	93.88
220	2.77	.77										422	4.07 s	14.49
211	2.77	.76										390	3.25 s	5.87
029	2.69	.23										351	3.05 A	3.71
288	2.66	.14										072	3.02 A	3.47
Avg	2.66											037	3.00 S	3.43
371	2.64	-.20										262	2.94	2.55
105	2.63	-.21										157	2.89	2.08
073	2.54	-.91										131	2.88	2.01
322	2.38	-2.01										095	2.84	1.55
Meth: 001.99 PCT														
Ammoniacal Nitrogen														
444	2.70 R	1.53										043	2.83	1.45
029	2.70	1.37										073	2.82	1.37
416	2.66	.76										291	2.79	1.04
397	2.65	.66										025	2.79	.97
255	2.64	.55										325	2.79	.97
371	2.64	.53										070	2.76	.77
096	2.64	.44										444	2.74	.73
452	2.63	.29										041	2.74	.57
Avg	2.61											096	2.75	.55
324	2.58	-.45										406	2.74	.44
288	2.58	-.57										049	2.73	.34
027	2.55	-.90										028	2.72	.28
420	2.46	-2.32										162	2.71	.16
309	2.47 s	-2.52										296	2.71	.14
Meth: 010.99 PCT														
Total Nitrogen														
Other														
354	2.77	1.37										425	2.43	-2.82
Meth: 010.99 PCT														
Total Nitrogen														
Other														
402	2.76	1.14										354	2.69 R	-1.00
105	2.61	.30										136	2.57	-1.35
234	2.62	.20										009	2.55	-1.54
255	2.61	.08										055	2.59 R	-1.66
Avg	2.61											443	2.57 R	-1.67
420	2.46	-1.08										369	2.53 R	-1.87
072	2.42	-1.42										007	2.50	-2.03
Meth: 010.99 PCT														
Total Nitrogen														
Other														
402	2.76	.78										211	2.77	.82
444	2.74	.74										402	2.76	.78
096	2.75	.63										444	2.74	.74
041	2.70	.06										096	2.75	.63
114	2.70	.06										041	2.74	.63
Avg	2.69											406	2.74	.54

* 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.XX PCT																				
Total Nitrogen																				
049	2.73	.45	234	2.62	-.63	231	7.73	.32	255	7.25	-1.79	096	7.62	-.21						
028	2.72	.38	230	2.61	-.64	220	7.74	.30	255	7.25	-1.79	041	7.61	-.32						
381	2.69	.33	042	2.60	-.72	450	7.68	.26	Meth: 020.99 PCT			105	7.60	-.33						
162	2.71	.29	105	2.61	-.73	451	7.69	.25	Total Phosphate			444	7.60	-.36						
233	2.71	.26	136	2.57	-1.05	425	7.70	.19	Other			371	7.58	-.40						
296	2.71	.26	009	2.55	-1.22	292	7.70	.13	402	7.52	.00	369	7.62	-.49						
029	2.69	.22	073	2.54	-1.34	Avg	7.67		443	8.15 S	.00	288	7.55	-.55						
232	2.70	.17	443	2.57 R	-1.37	371	7.58	-.45	Avg	7.52		402	7.52	-.66						
292	2.70	.17	055	2.59 R	-1.38	369	7.62	-.53	Meth: 020.XX PCT			157	7.51	-.80						
114	2.70	.17	369	2.53 R	-1.52	288	7.55	-.61	Total Phosphate			105	7.47	-.91						
029	2.69	.15	007	2.50	-1.66	372	7.46	-1.05	443	8.15 s	2.98	372	7.46	-.96						
023	2.69	.15	420	2.46	-2.03	262	7.45	-1.09	442	7.77 R	2.23	262	7.45	-1.01						
231	2.68	.10	425	2.43	-2.36	309	7.40	-1.36	426	8.14	2.12	309	7.40	-1.26						
027	2.68	.02	072	2.42	-2.45	193	7.33	-1.64	422	8.10	1.97	193	7.33	-1.52						
AvG	2.68		322	2.38	-2.76	234	7.26	-1.98	030	8.06	1.87	042	7.31	-1.64						
022	2.67	-.12	Meth: 020.10 PCT																	
102	2.68	-.14	Total Phosphate																	
177	2.66	-.18	444	7.78	1.38	Automated														
426	2.67	-.18	114	7.81	1.00	035	7.76	1.21	330	7.87	.98	Meth: 030.20 PCT								
247	2.68	-.23	AvG	7.63		096	7.62	.26	381	7.85	.84	Insoluble Phosphate								
288	2.66	-.25	041	7.61	-.25	105	7.60	.22	035	7.76	.77	Spectrometric								
450	2.65	-.26	157	7.51	-.81	AvG	7.57		114	7.81	.67	220	0.20	-.71						
397	2.65	-.26	105	7.47	-.93	042	7.31	-1.38	428	7.77	.67	Meth: 030.40 PCT								
040	2.65	-.27	Meth: 020.20 PCT																	
255	2.65	-.29	Total Phosphate																	
451	2.65	-.31	442	7.77 R	2.36	Spectrometric														
185	2.68	-.33	030	8.06	1.95	426	8.14	1.36	231	7.73	.33	Meth: 030.50 PCT								
452	2.64	-.36	232	7.99	1.54	330	7.87	.50	220	7.74	.31	Insoluble Phosphate								
057	2.64	-.36	324	7.91	1.13	AvG	7.75		450	7.68	.30	ICP								
371	2.64	-.40	381	7.85	.86	247	7.68	-.28	451	7.69	.25	255	0.02	.71						
106	2.64	-.40	428	7.77	.69	432	7.72	-.34	425	7.70	.20	Meth: 030.XX PCT								
442	2.64	-.42	416	7.80	.61	390	7.68	-.36	292	7.70	.14	Insoluble Phosphate								
105	2.63	-.44	406	7.79	.56	444	7.60	-.57	247	7.68	.08	220	0.20	1.29						
377	2.64	-.51	257	7.77	.44	Avg														
035	2.68	-.51	Avg 0.08																	
330	2.65	-.53																		
324	2.62	-.54																		
255	2.61	-.61																		

* 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: 030.XX PCT												
<u>Insoluble Phosphate</u>												
096	0.03	-.62										Meth: 041.50 PCT
255	0.02	-.67										Dir Available Phosph
Meth: 040.20 PCT												
<u>InDir Available Phos</u>												
<u>Spectrometri</u>												
372	7.40	.85										ICP
Avg	6.61											360
220	5.82	-.88										354
Meth: 040.40 PCT												
<u>InDir Available Phos</u>												
<u>Automated</u>												
096	7.60	.71										055
Meth: 041.20 PCT												
<u>InDir Available Phosph</u>												
<u>Spectrometric</u>												
055	7.23	.71										024
Meth: 041.40 PCT												
<u>InDir Available Phos</u>												
<u>Automated</u>												
027	7.90	1.38										037
029	7.55	.14										106
131	7.53	.07										028
Avg	7.62											Avg
072	7.49	-.58										043
025	7.10	-1.49										043
Meth: 041.50 PCT												
<u>Dir Available Phosph</u>												
<u>ICP</u>												
022	7.96	2.13										105
452	8.06	1.76										Avg
070	7.97	2.70										070
322	7.96	2.64										322
007	7.92	2.53										007
027	7.90	2.16										027
397	7.81	1.45										397
377	7.76	1.14										377
360	7.76	1.10										360
354	7.73	.86										354
055	7.63	.79										055
233	7.69	.56										233
057	7.69	.55										057
211	7.69	.51										211
057	7.67	.50										057
105	7.63	.40										105
296	7.65	.39										296
291	7.66	.39										291
043	7.64	.28										043
177	7.62	.05										177
Avg	7.57											Avg
043	7.57	-.24										043
073	7.56	-.56										073
288	7.54	-.57										288
351	7.51	-.73										351
037	7.46	-1.39										037
106	7.44	-1.43										106
028	7.47	-1.69										028
Meth: 041.99 PCT												
<u>Dir Available Phosph</u>												
<u>Other</u>												
105	7.58	.97										105
Avg	7.55											Avg
230	7.52	-.74										230
Meth: 041.10 PCT												
<u>Dir Available Phosph</u>												
<u>Grav Quimociac</u>												
296	7.60	.22										296
131	7.58	.13										131
136	7.59	.10										136
Avg	7.58											Avg
040	7.57	-.29										040
086	7.55	-.45										086
177	7.55	-.57										177
102	7.54	-.62										102
072	7.57	-.73										072
105	7.54	-.84										105
185	7.54	-.95										185
029	7.41	-2.27										029
049	7.30	-4.28										049
Meth: 041.60 PCT												
<u>Dir Available Phosph</u>												
<u>EDTA Extract</u>												
397	7.81	2.07										397
057	7.69	.97										057
296	7.65	.70										296
105	7.63	.62										105
177	7.62	.32										177
024	7.61	.28										024
Avg	7.59											Avg
043	7.57	-.24										043
073	7.56	-.56										073
288	7.54	-.57										288
351	7.51	-.73										351
037	7.46	-1.39										037
106	7.44	-1.43										106
028	7.47	-1.69										028
Meth: 041.10 PCT												
<u>Dir Available Phosph</u>												
<u>Grav Quimociac</u>												
254	8.06	6.40										254
322	7.96	5.00										322
260	7.58	1.72										260
233	7.69	1.46										233
211	7.69	1.40										211
057	7.67	1.28										057
055	7.62	.60										055
Meth: 041.10 PCT												
<u>Dir Available Phosph</u>												
<u>Grav Quimociac</u>												
254	8.06	6.40										254
322	7.96	5.00										322
260	7.58	1.72										260
233	7.69	1.46										233
211	7.69	1.40										211
057	7.67	1.28										057
055	7.62	.60										055
Meth: 041.10 PCT												
<u>Dir Available Phosph</u>												
<u>ICP</u>												
296	7.60	.22										296
131	7.58	.13										131
136	7.59	.10										136
Avg	7.58											Avg
040	7.57	-.29										040
086	7.55	-.45										086
177	7.55	-.57										177
102	7.54	-.62										102
072	7.57	-.73										072
105	7.54	-.84										105
185	7.54	-.95										185
029	7.41	-2.27										029
049	7.30	-4.28										049
Meth: 041.50 PCT												
<u>Dir Available Phosph</u>												
<u>ICP</u>												
360	7.76	1.10										360
354	7.73	.86										354
055	7.63	.79										055
233	7.69	.56										233
057	7.69	.55										057
211	7.69	.51										211
057	7.67	.50										057
105	7.63	.40										105
296	7.65	.39										296
291	7.66	.39										291
043	7.64	.28										043
177	7.62	.05										177
Avg	7.57											Avg
043	7.57	-.44										043
105	7.58	-.45										105
086	7.55	-.55										086
029	7.55	-.56										029
072	7.57	-.56										072
073	7.56	-.61										073
177	7.55	-.62										177
102	7.54	-.68										102
288	7.54	-.70										288
105	7.54	-.74										105
131	7.53	-.76										131
185	7.54	-.79										185
Meth: 041.10 PCT												
<u>Dir Available Phosph</u>												
<u>Grav Quimociac</u>												
254	8.06	6.40										254
322	7.96	5.00										322
260	7.58	1.72										260
233	7.69	1.46										233
211	7.69	1.40										211
057	7.67	1.28										057
055	7.62	.60										055
Meth: 041.10 PCT												
<u>Dir Available Phosph</u>												
<u>ICP</u>												
296	7.60	.22										296
131	7.58	.13										131
136	7.59	.10										136
Avg	7.58											Avg
040	7.57	-.29										040
086	7.55	-.45										086
177	7.55	-.57										177
102	7.54	-.62										102
072	7.57	-.73										072
105	7.54	-.84										105
185	7.54	-.95										185
029	7.41	-2.27										029
049	7.30	-4.28										049
Meth: 041.10 PCT												
<u>Dir Available Phosph</u>												
<u>ICP</u>												
296	7.60	.22										296
131	7.58	.13										131
136	7.59	.10										136
Avg	7.58											Avg
040	7.57	-.29										040
086	7.55	-.45										086
177	7.55	-.57										177
102	7.54	-.62										102
072	7.57	-.73										072
105	7.54	-.84										105
185	7.54	-.95										185
029	7.41	-2.27										029
049	7.30	-4.28										049
Meth: 041.10 PCT												
<u>Dir Available Phosph</u>												
<u>ICP</u>												
296	7.60	.22										296
131	7.58	.13										131
136	7.59	.10										136
Avg	7.58											Avg
040	7.57	-.29										040
086	7.55	-.45										086
177	7.55	-.57										177
102	7.54	-.62										102
072	7.57	-.73										072
105	7.54	-.84										105
185	7.54	-.95										185
029	7.41	-2.27										029
049	7.30	-4.28										049
Meth: 041.10 PCT												
<u>Dir Available Phosph</u>												
<u>ICP</u>												
296	7.60	.22										296
131	7.58	.13										131
136	7.59	.10										136
Avg	7.58											Avg
040	7.57	-.29										040
086	7.55	-.45										086
177	7.55	-.57										177
102	7.54	-.62										102
072	7.57	-.73										072
105	7.54	-.84										105
185	7.54	-.95										185
029	7.41	-2.27										029
049	7.30	-4.28										049
Meth: 041.10 PCT												
<u>Dir Available Phosph</u>												
<u>ICP</u>												
296	7.60	.22										296
131	7.58	.13										131
136	7.59	.10										136
Avg	7.58											Avg
040	7.57	-.29										040
086	7.55	-.45										086
177	7.55	-.57										177
102	7.54	-.62										102
072	7.57	-.73										072
105	7.54	-.84										105
185	7.54	-.95										185
029	7.41	-2.27										029
049	7.30	-4.28										049
Meth: 041.10 PCT												
<u>Dir Available Phosph</u>												
<u>ICP</u>												
296	7.60	.22										296
131	7.58	.13										131
136	7.59	.10										136
Avg	7.58											Avg
040	7.57	-.29										040
086	7.55	-.45										086
177	7.55	-.57										177
102	7.54	-.62										102
072	7.57	-.73										072
105	7.54	-.84										105
185	7.54	-.95										185
029												

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index			
Meth: 050.00 PCT														
Soluble Potash														
STPB Oxalate														
114	29.04	-.21										043	29.22	.18
095	29.03	-.32										055	29.18	.17
231	28.92	-.43										105	29.17	.14
296	28.98	-.65										444	29.18	.13
257	28.71	-.84										029	29.05	.13
372	28.39	-1.48										055	29.15	.11
102	27.69	-2.88										095	29.03	.11
397	27.25 s	-3.86										028	29.14	.11
230	26.70 s	-4.86										049	29.06	.07
Meth: 050.10 PCT														
Soluble Potash														
STPB Citrate														
322	30.72	.86										114	29.04	.05
Avq	29.84											022	29.05	.05
444	28.97	-.87										Avq	29.02	
Meth: 050.30 PCT														
Soluble Potash														
AA (Oxalate)														
073	30.79	1.58										420	28.98	-.05
369	30.14	1.11										444	28.97	-.08
451	29.70	.79										360	28.96	-.08
040	29.68	.78										231	28.92	-.10
086	28.87 R	.57										023	28.97	-.16
136	29.25	.47										042	28.99	-.19
351	28.78	.14										351	28.78	-.23
Avq	28.60											296	28.98	-.26
193	27.90	-.55										257	28.71	-.28
428	27.64	-.69										402	28.71	-.33
185	27.05	-1.12										325	28.60	-.46
425	26.84	-1.26										390	28.60	-.51
262	26.82	-1.28										372	28.39	-.56
Meth: 050.50 PCT														
Soluble Potash														
AA (Citrate)														
377	30.21	1.21										254	28.33	-.63
007	30.13	1.10										291	28.29	-.65
452	29.79	.62										086	28.87 R	-.67
Avq	29.40											022	28.95 R	-.75
043	29.22	-.27										193	27.90	-1.02
444	29.18	-.33										255	27.81	-1.07
023	28.97	-.69										102	27.69	-1.17
291	28.29	-1.66										428	27.64	-1.22
432	28.50 R	-2.36										432	28.50 R	-1.23
Meth: 050.60 PCT														
Soluble Potash														
Flame (Oxalate)														
442	30.39	.88										354	27.44	-1.39
406	30.37	.80										397	27.25	-1.61
105	29.32	.42										185	27.05	-1.74
131	29.53	.24										425	26.84	-1.92
055	29.18	.08												
Avq	29.16													
Meth: 050.60 PCT														
Soluble Potash														
Flame (Oxalate)														
254	28.33	-.71												
Meth: 050.61 PCT														
Soluble Potash														
Flame (Oxalate)														
041	31.28	2.20												
035	30.21	.92												
057	29.86	.60												
Avq	29.69													
024	29.59	-.14												
037	29.47	-.33												
025	29.30	-.54												
028	29.14	-.77												
105	29.32	-.77												
029	29.05	-.91												
030	25.15 s	-6.28												
Meth: 050.99 PCT														
Soluble Potash														
Other														
027	30.65	1.74												
177	30.27	1.20												
131	30.12	.98												
232	29.83	.56												
072	29.71	.43												
234	29.55	.22												
Avq	29.43													
105	29.17	-.38												
360	28.96	-.67												
042	28.99	-.70												
402	28.71	-1.07												
325	28.60	-1.25												
390	28.60	-1.31												
022	28.95 R	-1.39												
330	26.65 s	-4.78												

* 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: 050.XX PCT												
<u>Soluble Potash</u>												
262	26.82	-1.94										Meth: 121.00 PCT
230	26.70	-2.04	AA	028	3.37	1.68	Meth: 121.30 PCT		Meth: 121.XX PCT			
309	26.19	-2.50	028	028	3.37	1.68	ICP	023	023	3.18	Acid Soluble Magnesi	
422	26.06	-2.61	Avg	450	3.29	1.09	Avg	096	096	3.19	Acid Soluble Magnesi	
330	26.65 s	-2.67	292	220	3.25	.86	292	Avg	Avg	3.18	ICP	
324	25.88	-2.78	131	029	3.23	.71	131	354	354	3.16	360	
426	25.29 A	-3.29	102	177	3.22	.61	102	444	444	3.15	029	
030	25.15 s	-3.41	035	043	3.18	.36	035	288	288	3.13	009	
Meth: 060.00 PCT												
<u>Free Water</u>												
096	1.08	1.46	288	105	3.16	.30	288	057	057	3.12	177	
105	0.84	.66	232	262	3.14	.18	232	106	106	3.10	096	
Avg	0.67		433	040	3.14	.17	433	102	102	3.10	023	
007	0.56	-.38	422	095	3.14	.07	422	426	426	3.08	043	
416	0.56	-.38	Meth: 101.XX PCT									Avg
193	0.30	-1.28	057	257	3.11	-.20	057	255	255	3.07	3.16	
<u>Vacuum Oven</u>												
096	1.08	1.46	Avg	397	3.09	-.29	Avg	232	232	3.07	3.16	
105	0.84	.66	057	296	3.09	-.35	057	324	324	3.07	3.14	
Avg	0.67		247	030	3.11 R	-.69	247	035	035	3.06	3.16	
007	0.56	-.38	041	381	3.02	-.78	041	292	292	3.00	3.14	
416	0.56	-.38	390	055	2.87	-1.87	390	422	422	3.00	3.14	
193	0.30	-1.28	105	309	2.81	-2.29	105	433	433	2.60 s	3.13	
Meth: 101.00 PCT												
<u>Acid Soluble Calcium</u>												
AA	2.38	.99	420	351	2.45 s	-4.79	420	Meth: 121.99 PCT				
220	2.33	.55	009	009	2.37	.85	009	Acid Soluble Magnesi				
Avg	2.27		096	096	2.37	.78	096	Other				
450	2.25	-.20	106	106	2.35	.70	106	042	042	3.37	.71	
029	2.13	-1.47	220	220	2.33	.45	220	Meth: 121.30 PCT				
<u>Acid Soluble Calcium</u>												
AA	2.38	.99	Avg	247	5.40 s	18.06	Avg	Meth: 121.XX PCT				
220	2.33	.55	292	041	3.73 s	4.52	292	Acid Soluble Magnesi				
Avg	2.27		102	027	3.53	2.88	102	247	247	5.40 s	16.64	
450	2.25	-.20	131	231	3.38	1.62	131	041	041	3.73 s	4.23	
029	2.13	-1.47	450	233	3.30 R	1.30	450	027	027	3.53	2.73	
Meth: 101.30 PCT												
<u>Acid Soluble Calcium</u>												
ICP	22.55 s	207.17	035	131	3.30	1.01	035	231	231	3.38	1.58	
057	22.55 s	207.17	288	452	3.28	.84	288	028	028	3.37	1.54	
247	3.17 S	9.11	232	390	3.26	.84	232	042	042	3.37	1.53	
041	2.98 S	7.17	029	037	3.27	.77	029	233	233	3.30 R	1.27	
390	2.41 R	1.46	433	432	3.20	.68	433	131	131	3.30	1.01	
420	2.38	1.10	422	114	3.23	.54	422	450	450	3.29	.91	
009	2.37	1.01	009	420	3.24	.53	009	452	452	3.28	.87	
096	2.37	.94	009	360	3.24	.48	009	390	390	3.26	.85	
* 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: 131.00 PCT														
Water Soluble Magnes														
AA			Meth: 144.01 PCT											
220	2.99	.43	Sulfur			Meth: 144.99 PCT								
Avg	2.97		Gravimetric			Sulfur			Meth: 144.00 PCT					
029	2.95	-1.15	371	9.00	.26	Other			Meth: 151.00 PCT					
Meth: 131.30 PCT														
Water Soluble Magnes														
ICP			041	8.98	.14	351	8.73	-1.15	Arsenic					
452	3.03	.71	Avg	8.96		023	8.63	-1.42	220	56.00	.65			
Avg	3.03		040	8.95	-.11	035	8.63	-1.46	106	59.00	.62			
432	2.74 S	-13.45	029	8.95	-.52	096	8.62	-1.59	Avg	55.10				
Meth: 131.99 PCT														
Water Soluble Magnes														
Other			230	8.92	-.63	255	8.56	-.64	247	54.50	-.12			
027	3.03	.71	102	8.84	-.65	422	8.07	-2.11	102	53.87	-.45			
Meth: 144.02 PCT														
Sulfur														
Gravimetric			114	8.84	-.67	131	6.87 s	-5.71	233	50.11	-.80			
029	8.96	.71	193	8.78	-.95	Meth: 144.00 PCT								
Avg	8.96		372	8.75	-1.09	Acid Soluble Boron								
292	6.98 S	-281.03	444	8.61	-1.94	Spectrometric								
Meth: 144.70 PCT														
Sulfur														
Spectrometric			106	8.57	-2.06	055	9.17	1.25	023	0.299	.53			
452	8.97	.71	Meth: 151.30 PCT											
Meth: 144.99 PCT														
Sulfur														
Gravimetric			029	8.96	.71	Arsenic								
055	9.17	1.25	Avg	8.96		ICP								
288	3.03	.80	292	6.98 S	-281.03	037	67.84	1.99	055	0.290	-.02			
027	3.03	.60	Meth: 144.00 PCT											
Avg	3.00		Water Soluble Magnes											
220	2.99	-.19	452	8.97	.71	029	0.290	-.60	029	0.290	-.60			
029	2.95	-1.57	Meth: 144.70 PCT											
432	2.74 s	-6.88	Sulfur											
Meth: 144.01 PCT														
Sulfur														
Gravimetric			Meth: 144.99 PCT											
055	9.17	1.25	Sulfur			041	8.98	.37	Other					
288	9.18	1.25	Other			452	8.97	.35	432	0.495 s	7.97			
233	9.17	1.13	360	9.38	1.86	390	8.95	.32	354	0.328	1.39			
262	9.15	1.08	220	9.15	1.27	029	8.96	.26	360	0.323	1.18			
296	9.13	.98	450	9.05	.87	040	8.95	.25	452	0.315	.91			
057	9.09	.76	390	8.95	.55	027	8.92	.10	255	0.311	.80			
324	9.04	.53	027	8.92	.10	Meth: 151.99 PCT								
043	9.02	.47	Avg	8.90		Sulfur								
105	9.00	.50	027	8.92	.45	Meth: 151.00 PCT								
432	2.74 s	-6.88	009	8.85	.44	Arsenic								
Meth: 144.01 PCT														
Sulfur														
Gravimetric			Meth: 144.99 PCT											
055	9.17	1.25	Sulfur			041	8.98	.37	Other					
288	9.18	1.25	Other			452	8.97	.35	432	0.495 s	7.97			
233	9.17	1.13	360	9.38	1.86	390	8.95	.32	354	0.328	1.39			
262	9.15	1.08	220	9.15	1.27	029	8.96	.26	360	0.323	1.18			
296	9.13	.98	450	9.05	.87	040	8.95	.25	452	0.315	.91			
057	9.09	.76	390	8.95	.55	027	8.92	.10	255	0.311	.80			
324	9.04	.53	027	8.92	.10	Meth: 165.99 PCT								
043	9.02	.47	Avg	8.90		Acid Soluble Boron								
105	9.00	.50	009	8.85	.44	Sulfur								
432	2.74 s	-6.88	009	8.85	.44	Meth: 151.99 PCT								
Meth: 144.01 PCT														
Sulfur														
Gravimetric			Meth: 144.99 PCT											
055	9.17	1.25	Sulfur			041	8.98	.37	Other					
288	9.18	1.25	Other			452	8.97	.35	432	0.495 s	7.97			
233	9.17	1.13	360	9.38	1.86	390	8.95	.32	354	0.328	1.39			
262	9.15	1.08	220	9.15	1.27	029	8.96	.26	360	0.323	1.18			
296	9.13	.98	450	9.05	.87	040	8.95	.25	452	0.315	.91			
057	9.09	.76	390	8.95	.55	027	8.92	.10	255	0.311	.80			
324	9.04	.53	027	8.92	.10	Meth: 165.99 PCT								
043	9.02	.47	Avg	8.90		Acid Soluble Boron								
105	9.00	.50	009	8.85	.44	Sulfur								
432	2.74 s	-6.88	009	8.85	.44	Meth: 151.99 PCT								
Meth: 144.01 PCT														
Sulfur														
Gravimetric			Meth: 144.99 PCT											
055	9.17	1.25	Sulfur			041	8.98	.37	Other					
288	9.18	1.25	Other			452	8.97	.35	432	0.495 s	7.97			
233	9.17	1.13	360	9.38	1.86	390	8.95	.32	354	0.328	1.39			
262	9.15	1.08	220	9.15	1.27	029	8.96	.26	360	0.323	1.18			
296	9.13	.98	450	9.05	.87	040	8.95	.25	452	0.315	.91			
057	9.09	.76	390	8.95	.55	027	8.92	.10	255	0.311	.80			
324	9.04	.53	027	8.92	.10	Meth: 165.99 PCT								
043	9.02	.47	Avg	8.90		Acid Soluble Boron								
105	9.00	.50	009	8.85	.44	Sulfur								
432	2.74 s	-6.88	009	8.85	.44	Meth: 151.99 PCT								
Meth: 144.01 PCT														
Sulfur														
Gravimetric			Meth: 144.99 PCT											
055	9.17	1.25	Sulfur			041	8.98	.37	Other					
288	9.18	1.25	Other			452	8.97	.35	432	0.495 s	7.97			
233	9.17	1.13	360	9.38	1.86	390	8.95	.32	354	0.328	1.39			
262	9.15	1.08	220	9.15	1.27	029	8.96	.26	360	0.323	1.18			
296	9.13	.98	450	9.05	.87	040	8.95	.25	452	0.315	.91			
057	9.09	.76	390	8.95	.55	027	8.92	.10	255	0.311	.80			
324	9.04	.53	027	8.92	.10	Meth: 165.99 PCT								
043	9.02	.47	Avg	8.90		Acid Soluble Boron								
105	9.00	.50	009	8.85	.44	Sulfur								
432	2.74 s	-6.88	009	8.85	.44	Meth: 151.99 PCT								
Meth: 144.01 PCT														
Sulfur														
Gravimetric			Meth: 144.99 PCT											
055	9.17	1.25	Sulfur			041	8.98	.37	Other					
288	9.18	1.25	Other			452	8.97	.35	432	0.495 s	7.97			
233	9.17	1.13	360	9.38	1.86	390	8.95	.32	354	0.328	1.39			
262	9.15	1.08	220	9.15	1.27	029	8.96	.26	360	0.323	1.18			
296	9.13	.98	450	9.05	.87	040	8.95	.25	452	0.315	.91			
057	9.09	.76	390	8.95	.55	027	8.92	.10	255	0.311	.80			
324	9.04	.53	027	8.92	.10	Meth: 165.99 PCT								
043	9.02	.47	Avg	8.90		Acid Soluble Boron								
105	9.00	.50	009	8.85	.44	Sulfur								
432	2.74 s	-6.88	009	8.85	.44	Meth: 151.99 PCT								
Meth: 144.01 PCT														
Sulfur														
Gravimetric			Meth: 144.99 PCT											
055	9.17	1.25	Sulfur			041	8.98	.37	Other					
288	9.18	1.25	Other			452	8.97	.35	432	0.495 s	7.97			
233	9.17	1.13	360	9.38	1.86	390	8.95	.32	354	0.328	1.39			
262	9.15	1.08	220	9.15	1.27	029	8.96	.26	360	0.323	1.18			
296	9.13	.98	450	9.05	.87	040	8.95	.25	452	0.315	.91			
057	9.09	.76	390	8.95	.55	027	8.92	.10	255	0.311	.80			
324	9.04	.53	027	8.92	.10	Meth: 165.99 PCT								
043	9.02	.47	Avg	8.90		Acid Soluble Boron								
105	9.00	.50	009	8.85	.44	Sulfur								
432	2.74 s	-6.88	009	8.85	.44	Meth: 151.99 PCT								
Meth: 144.01 PCT														
Sulfur														
Gravimetric			Meth: 144.99 PCT											
055	9.17	1.25	Sulfur			041	8.98	.37	Other					
288	9.18	1.25	Other			452	8.97	.35	432	0.495 s	7.97			
233	9.17	1.13	360	9.38	1.86	390	8.95	.32	354	0.328	1.39			
262	9.15	1.08	220	9.15	1.27	029	8.96	.26	360	0.323	1.18			
296	9.13	.98	450	9.05	.87	040	8.95	.25	452	0.315	.91			
057	9.09	.76	390	8.95	.55	027	8.92	.10	255	0.311	.80			
324	9.04	.53	027	8.92	.10	Meth: 165.99 PCT								
043	9.02	.47	Avg	8.90		Acid Soluble Boron								
105	9.00	.50	009	8.85	.44	Sulfur								
432	2.74 s	-6.88	009	8.85	.44	Meth: 151.99 PCT								
Meth: 144.01 PCT														
Sulfur														
Gravimetric			Meth: 144.99 PCT											
055	9.17	1.25	Sulfur			041	8.98	.37	Other					
288	9.18	1.25	Other			452	8.97	.35	432	0.495 s	7.97			
233	9.17	1.13	360	9.38	1.86	390	8.95	.32	354	0.328	1.39			
262	9.15	1.08	220	9.15	1.27	029	8.96	.26	360	0.323	1.18			
296	9.13	.98	450	9.05	.87	040	8.95	.25	452	0.315	.91			
057	9.09	.76	390	8.95	.55	027	8.92	.10	255	0.311	.80			
324	9.04	.53	027	8.92	.10	Meth: 165.99 PCT								
043	9.02	.47	Avg	8.90		Acid Soluble Boron								
105	9.00	.50	009	8.85	.44	Sulfur								
432	2.74 s	-6.88	009	8.85	.44	Meth: 151.99 PCT								

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 165.99 PCT											
Acid Soluble Boron											
Other											
232	0.269	-0.78									
433	0.269	-0.78									
444	0.255	-1.28									
043	0.232	-2.09									
042	0.147 S	-5.17									
422	0.139 S	-5.45									
Meth: 165.XX PCT											
Acid Soluble Boron											
432	0.495 s	7.86									
354	0.328	1.48									
360	0.323	1.27									
105	0.320	1.21									
452	0.315	1.01									
255	0.311	.90									
231	0.305	.64									
296	0.295 R	.60									
324	0.300	.47									
023	0.299	.44									
029	0.290	.37									
288	0.288	.22									
009	0.290	.14									
106	0.290	.13									
055	0.290	.13									
Avg	0.286										
037	0.280	-.22									
292	0.275	-.43									
257	0.273	-.47									
232	0.269	-.62									
433	0.269	-.63									
444	0.255	-1.11									
043	0.232	-1.90									
220	0.215	-2.50									
042	0.147 s	-4.88									
422	0.139 s	-5.16									
Meth: 171.10 PCT											
Water Soluble Boron											
Spectrometric											
027	0.306	.85									
Avg	0.286										
296	0.265	-.88									
Meth: 181.00 PPM											
Cadmium											
220	1.65	.87									
Avg	1.39										
193	1.13	-.86									
Meth: 181.30 PPM											
Cadmium											
009	2.95	2.24									
106	2.50 R	1.65									
450	2.58	1.43									
Avg	1.89										
102	1.89	-.02									
247	1.82	-.15									
037	1.81	-.18									
233	1.62	-.57									
390	1.60	-.62									
324	1.60	-.64									
232	1.60	-.64									
035	1.45	-.92									
452	0.19 S	-3.55									
Meth: 181.XX PPM											
Cadmium											
009	2.95	2.36									
106	2.50 R	1.75									
450	2.58	1.58									
102	1.89	.17									
037	1.81	.06									
247	1.82	.03									
Avg	1.81										
Meth: 181.XX PPM											
Cadmium											
220	1.65	-.34									
233	1.62	-.38									
390	1.60	-.44									
324	1.60	-.47									
232	1.60	-.47									
035	1.45	-.73									
193	1.13	-1.40									
452	0.19 s	-3.31									
Meth: 190.00 PCT											
Water Soluble Chlori											
027	19.55	1.72									
444	19.21	1.23									
230	18.75 R	.85									
105	18.92	.73									
055	18.90	.71									
288	18.60	.67									
057	18.76	.49									
397	18.65	.39									
040	18.47	.22									
Avg	18.45										
102	18.31	-.24									
296	18.27	-.30									
043	18.01	-.69									
029	17.80	-1.02									
028	17.73	-1.14									
220	17.18	-2.03									
422	0.31 s	-28.43									
Meth: 191.00 PPM											
Chromium											
220	104.50	.71									
Meth: 191.30 PPM											
Chromium											
009	112.00	1.78									
450	105.50	1.05									
390	104.00	.91									
247	101.00	.54									
106	100.50	.49									
Avg	96.17										
096	95.50	-.09									
102	92.86	-.37									
037	94.47 R	-.51									
452	88.97	-.81									
324	87.10	-1.02									
232	86.25	-1.11									
Meth: 191.30 PPM											
Acid Soluble Cobalt											
220	10.50	.71									
Meth: 202.30 PPM											
Acid Soluble Cobalt											
452	33.72 s	5.20									
009	19.75	1.47									
450	18.40	1.10									
106	14.50 R	.94									
057	17.55	.89									
035	14.95	.19									
037	14.31	.06									
Avg	14.29										

* 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: 202.30 PPM											
Acid Soluble Cobalt											
ICP											
390	13.90	-1.10									
324	10.55	-1.05									
102	9.96	-1.16									
247	9.20	-1.36									
Meth: 202.XX PPM											
Acid Soluble Cobalt											
452	17.55	.99									
106	14.50	.95									
035	14.95	.29									
037	14.31	.12									
Avg	13.91										
390	13.90	.00									
220	10.50	-.92									
324	10.55	-.96									
102	9.96	-1.06									
247	9.20	-1.26									
Meth: 221.00 PCT											
Acid Soluble Copper											
Atomic Absorption											
262	0.0100	1.38									
043	0.0089	.51									
Avg	0.0083										
220	0.0080	-.39									
095	0.0075	-.71									
105	0.0070	-1.29									
Meth: 221.30 PCT											
Acid Soluble Copper											
ICP											
035	75.850	s0007.40									
247	0.0841	s 40.33									
422	0.0135	s 3.61									
Meth: 221.XX PCT											
Acid Soluble Copper											
ICP											
247	0.0105	1.54									
106	0.0100	1.26									
009	0.0088	.63									
450	0.0087	.59									
330	0.0083	R .52									
057	0.0081	.29									
102	0.0080	.20									
433	0.0080	.19									
233	0.0079	.15									
Avg	0.0076										
232	0.0075	-.17									
420	0.0074	-.32									
444	0.0074	-.32									
324	0.0070	-.32									
288	0.0069	-.39									
288	0.0050	-1.38									
041	0.0029	-2.51									
Meth: 221.99 PCT											
Acid Soluble Copper											
Other											
402	0.0030	.00									
Meth: 221.XX PCT											
Acid Soluble Copper											
ICP											
247	0.29	1.68									
390	0.29	1.53									
106	0.27	.93									
057	0.27	.84									
450	0.26	.76									
009	0.26	.61									
096	0.26	.56									
131	0.25	.06									
Avg	0.24										
433	0.24	.08									
420	0.23	-.21									
220	0.23	-.29									
102	0.22	-.50									
232	0.22	-.59									
292	0.22	-.62									
041	0.22	-.62									
444	0.22	-.79									
035	0.21	-.82									
288	0.20	-1.29									
402	0.17	-2.22									
233	0.06	s -5.86									
422	0.06	s -6.05									
Meth: 241.00 PCT											
Acid Soluble Iron											
ICP											
247	0.29	1.69									
105	0.28	R 1.61									
390	0.29	1.56									
106	0.27	1.03									
057	0.27	.95									
450	0.26	.87									
009	0.26	.74									
096	0.26	.70									
131	0.25	.23									
433	0.24	.08									
Avg	0.24										
420	0.23	-.21									
220	0.23	-.29									
106	0.22	-.50									
232	0.22	-.59									
292	0.22	-.62									
041	0.22	-.62									
444	0.22	-.79									
035	0.21	-.82									
288	0.20	-1.29									
402	0.17	-2.22									
233	0.06	s -5.86									
422	0.06	s -6.05									
Meth: 241.99 PCT											
Acid Soluble Iron											
Other											
402	0.17	.71									
Meth: 251.00 PPM											
Lead											
ICP											
450	25.50	1.13									
247	26.00	1.04									
037	25.92	.99									
452	24.44	.65									
102	23.33	.48									
106	22.00	.47									
Avg	21.60										
233	21.32	-.19									
324	20.80	-.33									
232	21.00	-.59									
009	18.90	-.76									
035	18.60	-.84									
444	11.40	-2.35									
Meth: 251.30 PPM											
Lead											
ICP											
450	25.50	1.13									
247	26.00	1.04									
037	25.92	.99									
452	24.44	.65									
102	23.33	.48									
106	22.00	.47									
Avg	21.60										
233	21.32	-.19									
324	20.80	-.33									
232	21.00	-.59									
009	18.90	-.76									
035	18.60	-.84									
444	11.40	-2.35									
Meth: 251.XX PPM											
Lead											
ICP											
450	25.50	1.10									
247	26.00	.99									
037	25.92	.95									
220	25.00	.77									
452	24.44	.60									
106	22.00	.47									
102	23.33	.44									
Avg	21.86										
233	21.32	-.22									
324	20.80	-.37									
232	21.00	-.62									
009	18.90	-.82									
035	18.60	-.90									
444	11.40	-2.45									

* 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: 291.XX PPM												
<u>Nickel</u>												
220	30.50	-.31										Meth: 321.XX PCT
232	29.05	-.68										Acid Soluble Zinc
324	28.00	-.98										ICP
035	26.00	-1.55										035 0.269 -1.42
Meth: 301.30 PPM												
<u>Selenium</u>												
193	0.83 S	14.15										433 0.264 -1.67
057	0.71	.71										232 0.260 -1.86
Avg	0.71											422 0.251 -2.25
Meth: 311.99 PCT												
<u>Sodium</u>												
009	0.73	1.05										Meth: 321.99 PCT
102	0.72	.97										Acid Soluble Zinc
Avg	0.71											ICP
288	0.71	-.25										035 0.269 -1.42
232	0.69	-.56										433 0.264 -1.67
035	0.68	-1.45										232 0.260 -1.86
422	0.16 s	-27.50										422 0.251 -2.25
Meth: 301.99 PPM												
<u>Selenium</u>												
037	7.59	1.51										Meth: 321.99 PCT
Avg	4.80											Acid Soluble Zinc
009	4.45	-.23										Other
247	4.15	-.36										402 0.311 .86
450	3.00	-1.01										Avg 0.285
Meth: 301.99 PPM												
<u>Selenium</u>												
220	0.53 X	.71										042 0.259 -.87
Meth: 321.00 PCT												
<u>Atomic Absorption</u>												
030	0.325 s	5.99										Meth: 321.XX PCT
029	0.366 s	4.82										Acid Soluble Zinc
381	0.330	2.10										ICP
105	0.326	1.87										450 0.346 2.33
055	0.310	.57										233 0.334 R 2.13
040	0.310	.54										381 0.330 1.53
177	0.309	.53										105 0.326 1.37
028	0.309	.52										131 0.324 R 1.35
Avg	0.303											426 0.325 1.30
193	0.300	-.20										102 0.323 1.19
257	0.300	-.20										330 0.320 1.14
351	0.299	-.32										041 0.320 1.03
220	0.295	-.69										057 0.313 .67
043	0.291	-.93										360 0.311 .57
Meth: 311.00 PCT												
<u>Sodium</u>												
037	7.59	1.50										402 0.311 .57
009	4.45	.23										354 0.311 .56
247	4.15	.11										324 0.310 .52
Avg	3.94											106 0.310 .47
450	3.00	-.44										324 0.310 .47
220	0.53 X	-1.41										009 0.310 .46
Meth: 321.00 PCT												
<u>Atomic Absorption</u>												
030	0.325 s	5.99										390 0.304 .30
029	0.366 s	4.82										231 0.306 .30
381	0.330	2.10										023 0.305 .22
105	0.326	1.87										037 0.303 .13
055	0.310	.57										Avg 0.300
040	0.310	.54										450 0.346 2.33
177	0.309	.53										233 0.334 R 2.13
028	0.309	.52										381 0.330 1.53
Avg	0.303											105 0.326 1.37
193	0.300	-.20										131 0.324 R 1.35
257	0.300	-.20										426 0.325 1.30
351	0.299	-.32										102 0.323 1.19
220	0.295	-.69										330 0.320 1.14
043	0.291	-.93										041 0.320 1.03
Meth: 301.99 PPM												
<u>Selenium</u>												
037	7.59	1.50										057 0.313 .61
009	4.45	.23										360 0.311 .52
247	4.15	.11										354 0.311 .50
Avg	3.94											324 0.310 .47
450	3.00	-.44										027 0.310 .47
220	0.53 X	-1.41										106 0.310 .47
Meth: 321.30 PCT												
<u>Atomic Absorption</u>												
030	0.325 s	3.99										009 0.310 .46
029	0.366 s	3.32										390 0.304 .30
450	0.346	2.33										231 0.306 .30
233	0.334 R	2.13										023 0.305 .22
381	0.330	1.53										037 0.303 .13
105	0.326	1.37										Avg 0.300
131	0.324 R	1.35										450 0.346 2.33
426	0.325	1.30										233 0.334 R 2.13
102	0.323	1.19										381 0.330 1.53
330	0.320	1.14										105 0.326 1.37
041	0.320	1.03										131 0.324 R 1.35
057	0.313	.67										426 0.325 1.30
360	0.311	.57										102 0.323 1.19
402	0.311	.57										330 0.320 1.14
354	0.311	.56										041 0.320 1.03
324	0.310	.52										057 0.313 .67
106	0.310	.47										360 0.311 .57
324	0.310	.47										402 0.311 .57
009	0.310	.46										354 0.311 .56
390	0.304	.30										324 0.310 .52
231	0.306	.30										106 0.310 .47
023	0.305	.22										324 0.310 .52
037	0.303	.13										106 0.310 .47
Avg	0.300											055 0.310 .52
450	0.346	2.33										114 0.290 .52
233	0.334 R	2.13										027 0.310 .52
381	0.330	1.53										009 0.310 .51
105	0.326	1.37										040 0.310 .50
131	0.324 R	1.35										177 0.309 .49
426	0.325	1.30										028 0.309 .48
102	0.323	1.19										
330	0.320	1.14										
041	0.320	1.03										
057	0.313	.67										
360	0.311	.57										
402	0.311	.57										
354	0.311	.56										
324	0.310	.52										
106	0.310	.47										
324	0.310	.47										
009	0.310	.46										
390	0.304	.30										
231	0.306	.30										
023	0.305	.22										
037	0.303	.13										
Avg	0.300											
450	0.346	2.33										
233	0.334 R	2.13										
381	0.330	1.53										
105	0.326	1.37										
131	0.324 R	1.35										
426	0.325	1.30										
102	0.323	1.19										
330	0.320	1.14										
041	0.320	1.03										
057	0.313	.67										
360	0.311	.57										
402	0.311	.57										
354	0.311	.56										
324	0.310	.52										
106	0.310	.47										
324	0.310	.47										
009	0.310	.46										
390	0.304	.30										
231	0.306	.30										
023	0.305	.22										
037	0.303	.13										
Avg	0.300											
450	0.346	2.33										
233	0.334 R	2.13										
381	0.330	1.53										
105	0.326	1.37										
131	0.324 R	1.35										
426	0.325	1.30										
102	0.323	1.19										
330	0.320	1.14										
041	0.320	1.03										
057	0.313	.67										
360	0.311	.57										
402	0.311	.57										
354	0.311	.56										
324	0.310	.52										
106	0.310	.47										
324	0.310	.47										
009	0.310	.46										
390	0.304	.30										
231	0.306	.30										
023	0.305	.22										
037	0.303	.13										
Avg	0.300											
450	0.346	2.33										
233	0.334 R	2.13										
381	0.330	1.53										
105	0.326	1.37										
131	0.324 R	1.35										
426	0.325	1.30										
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106	0.310	.47										
324	0.310	.47										
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390	0.304	.30										
231	0.306	.30										
023	0.305	.22										
037	0.303	.13										
Avg	0.300											
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233	0.334 R	2.13										
381	0.330	1.53										
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131	0.324 R	1.35										
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102	0.323	1.19										
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324	0.310	.47										
009	0.310	.46										
390	0.304	.30										
231	0.306	.30										
023	0.305	.22										
037	0.303	.13										
Avg	0.300											
450	0.346	2.33										
233	0.334 R	2.13										
381	0.330	1.53										
105	0.326	1.37										
131	0.324 R	1.35										
426	0.325	1.30										
102	0.323	1.19										
330	0.320	1.14										
041	0.320	1.03										
057	0.313	.67										
360	0.311	.57										
402	0.311	.57										
354	0.311	.56										
324	0.310	.52										
106	0.310	.47										
324	0.310	.47										
009	0.310	.46										
390	0.304	.30										
231	0.306	.30										
023	0.305	.22										
037	0.303	.13										
Avg	0.300		</									

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	- 0.43	1.41	0.68	101.30	16	13.41	51.81	1.42
001.99	6	0.00	1.03	0.20	101.XX	20	10.82	47.61	1.32
001.XX	13	- 0.06	1.17	0.47	121.00	18	- 0.28	1.47	0.22
009.10	2	0.00	1.18	0.24	121.30	30	0.63	3.63	0.28
009.XX	3	0.00	1.07	0.28	121.XX	49	0.24	2.81	0.25
010.11	9	0.00	1.02	0.15	131.00	2	0.00	0.60	0.75
010.12	3	5.60	9.70	1.91	131.30	2	- 5.95	8.41	4.46
010.60	60	2.01	12.29	0.37	131.XX	5	- 1.19	2.75	1.65
010.99	7	0.00	1.00	0.28	144.01	20	0.00	0.97	0.29
010.XX	74	1.55	9.84	0.49	144.02	2	- 139.6	197.50	22.01
020.10	5	0.00	0.86	0.56	144.99	16	- 0.36	1.71	0.26
020.20	24	- 0.21	1.48	0.53	144.XX	38	- 0.52	2.23	0.33
020.40	4	0.00	0.98	0.39	151.30	9	- 0.72	2.36	0.27
020.50	8	0.00	1.02	0.18	151.XX	10	- 0.68	2.32	0.34
020.99	2	0.00	0.00	0.00	165.00	9	- 0.506	1.744	0.431
020.XX	41	- 0.04	1.30	0.54	165.99	16	- 0.203	2.853	0.781
030.XX	3	0.00	1.11	0.07	165.XX	25	- 0.098	2.264	0.624
040.20	2	0.00	1.21	0.15	171.10	2	0.000	1.207	0.147
040.XX	4	- 2.41	4.91	0.61	171.XX	2	0.000	1.207	0.147
041.10	19	0.40	2.21	0.76	181.00	2	0.00	1.21	0.12
041.40	5	0.00	1.02	0.26	181.30	12	- 0.19	1.45	0.33
041.50	11	- 0.15	1.51	0.61	181.XX	14	- 0.14	1.36	0.30
041.60	13	- 0.09	0.99	0.44	190.00	14	- 1.88	7.23	0.24
041.99	2	0.00	0.85	0.62	190.99	2	0.00	0.61	0.75
041.XX	41	0.04	1.67	0.59	190.XX	16	- 1.75	7.17	0.29
048.20	3	0.00	1.11	0.08	191.30	13	- 0.30	1.39	0.17
048.XX	3	0.00	1.11	0.08	191.XX	14	- 0.29	1.38	0.17
050.00	22	- 0.15	1.98	0.45	202.30	11	0.48	1.81	0.31
050.10	2	0.00	1.22	0.05	202.XX	12	0.46	1.79	0.30
050.30	12	0.02	0.97	0.18	221.00	5	0.0000	0.9584	0.4065
050.50	8	0.66	2.09	0.07	221.30	18	2224.3	9426.1	242.37
050.51	8	- 0.17	1.07	0.70	221.XX	24	1575.5	7709.7	198.23
050.60	6	0.00	1.02	0.22	241.00	2	0.00	0.94	0.55
050.61	10	- 0.63	2.19	0.32	241.30	19	- 0.79	2.37	0.11
050.99	14	- 0.33	1.40	0.82	241.XX	22	- 0.48	2.02	0.22
050.XX	73	- 0.05	1.39	0.31	251.30	12	0.00	0.94	0.38
060.00	5	0.00	1.04	0.17	251.XX	13	0.00	0.94	0.37
060.XX	5	0.00	1.04	0.17	261.00	15	- 0.215	1.571	0.423
101.00	4	0.00	1.00	0.36	261.11	2	0.000	1.214	0.112

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	27	- 0.157	1.248	0.310					
261.31	2	0.000	0.321	0.836					
261.99	3	- 4.956	8.623	0.233					
261.XX	49	- 0.275	1.842	0.286					
281.99	2	0.00	1.20	0.17					
281.XX	2	0.00	1.20	0.17					
289.30	15	0.42	1.49	0.71					
289.XX	15	0.42	1.49	0.71					
291.30	10	0.15	1.06	0.25					
291.XX	11	0.14	1.07	0.25					
301.30	4	0.00	1.06	0.16					
301.XX	5	0.00	1.05	0.12					
311.00	2	7.07	10.00	0.65					
311.99	6	- 4.58	11.26	0.18					
311.XX	8	- 2.94	11.24	0.23					
321.00	18	0.331	1.501	1.382					
321.30	31	0.051	1.011	0.284					
321.99	2	0.000	1.223	0.045					
321.XX	50	0.147	1.102	0.594					