

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Methods: 84

Sample # 160411

Statistical Summary

Labs Reporting: 81

Liquid Thio S

Issue Date : 05/31/2016

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
010.60	Total Nitrogen, Combustion (%)	5	4	6.666	13.17	6.666		13.17	6.583	197.52%		0.0780	3.01%
020.20	Total Phosphorus as P2O5, Spectrophotometric Molyb... (%)	1		0.0100									
020.50	Total Phosphorus as P2O5, ICP (%)	1		0.0000									
041.50	Direct Available Phosphorus as P2O5, ICP (%)	1		0.0500									
041.60	Direct Available Phosphorus as P2O5, Citrate-EDTA ... (%)	1		0.0205									
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	11	10	25.01	0.2229	24.99	1.2430	0.1845	0.0583	0.74%	2.49%	0.0960	2.46%
050.30	Soluble Potassium as K2O, AA (Oxalate) (25%)	7	6	27.08	3.339	26.44	1.2430	2.163	0.8832	8.18%	2.35%	0.0688	2.44%
050.31	Soluble Potassium as K2O, AA (Citrate) (25%)	2	2	23.53	1.237								
050.50	Soluble Potassium as K2O, ICP (Oxalate) (25%)	10	10	25.24	0.9165	25.22	1.2430	0.9953	0.3147	3.95%	2.46%	0.6672	2.46%
050.51	Soluble Potassium as K2O, ICP (Citrate) (25%)	4	4	24.70	0.3068	24.70	1.2430	0.3068	0.1534	1.24%	2.52%	0.1150	2.47%
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (25%)	9	9	25.31	1.402	25.08	1.2430	0.5848	0.1949	2.33%	2.48%	0.2016	2.46%
050.60	Soluble Potassium as K2O, Flame Photometric (Oxala... (25%)	7	7	25.59	0.5906	25.56	1.2430	0.5825	0.2202	2.28%	2.43%	0.2357	2.46%
050.61	Soluble Potassium as K2O, Flame Photometric (Citra... (25%)	5	5	25.14	1.222	25.14	1.2430	1.222	0.5466	4.86%	2.47%	0.2680	2.46%
050.62	Soluble Potassium as K2O, Flame Photometric (Citra... (25%)	3	3	24.80	0.3272	24.80	1.2430	0.3272	0.1889	1.32%	2.51%	0.3567	2.47%
050.99	Soluble Potassium as K2O, Other (25%)	26	24	25.25	0.9194	25.18	1.2430	0.7522	0.1535	2.99%	2.47%	0.2827	2.46%
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (%)	1		0.0014									
101.30	Acid Soluble Calcium, ICP, test portion inorganic ... (%)	3	3	0.0257	0.0211	0.0257		0.0211	0.0122	82.13%		0.0047	6.94%
101.32	Acid Soluble Calcium, ICP, test portion 2006.03A-C (%)	1		0.0054									
101.33	Acid Soluble Calcium, ICP, test portion 2006.03A-C... (%)	1		0.0018									
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (%)	1		0.0008									
121.30	Acid Soluble Magnesium, ICP, test portion inorgani... (%)	1		0.0135									
121.32	Acid Soluble Magnesium, ICP, test portion 2006.03A... (%)	1		0.0000									
121.33	Acid Soluble Magnesium, ICP, test portion 2006.03A... (%)	1		0.0003									
143.99	Elemental Sulfur, Other (%)	2	2	15.65	1.131								
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulfur - ... (%)	3	3	17.20	0.6006	17.20		0.6006	0.3467	3.49%		0.2233	2.61%
145.99	Sulfate Sulfur, HCl soluble, Other (%)	1		16.89									
146.00	Total Sulfur in Liquid, Gravimetric - sulfate, sul... (%)	10	10	17.37	0.3299	17.37		0.3170	0.1003	1.83%		0.1203	2.60%
146.99	Total Sulfur in Liquid, Other (%)	3	3	21.21	8.664	21.21		8.664	5.002	40.84%		0.6756	2.53%
148.00	Total Sulfur, Combustion (17%)	9	9	16.80	0.5559	16.79	1.0000	0.6043	0.2014	3.60%	2.98%	0.1867	2.62%
148.01	Total Sulfur, Gravimetric - sulfate and elemental... (17%)	10	9	17.00	0.1147	17.00	1.0000	0.1300	0.0433	0.76%	2.94%	0.0903	2.61%
148.04	Total Sulfur, ICP, w/Br digestion (17%)	1		16.85									

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
148.07	Total Sulfur, ICP, test portion as in 2006.03 modi... (17%)	10	9	17.95	1.364	17.82	1.0000	1.228	0.4092	6.89%	2.81%	0.3605	2.59%
148.99	Total Sulfur, Other (17%)	11	10	16.11	2.538	16.75	1.0000	1.016	0.3214	6.07%	2.99%	0.3805	2.62%
149.04	Sulfur - HNO3 soluble, ICP (%)	3	3	19.11	3.876	19.11		3.876	2.238	20.28%		0.5313	2.57%
151.30	Acid Soluble Arsenic , ICP (ppm)	3	3	0.1010	0.1508	0.1010		0.1508	0.0871	149.31%		0.1500	22.59%
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified w/9:3... (ppm)	1		0.0177									
151.34	Acid Soluble Arsenic , ICP, EPA 3050B/6010C (ppm)	1		0.0000									
151.99	Acid Soluble Arsenic , Other (ppm)	3	3	0.0286	0.0297	0.0286		0.0297	0.0172	103.77%		0.0203	27.31%
165.30	Acid Soluble Boron , ICP, test portion in 982.01 (%)	3	1	0.0060		0.0286		0.0297	0.0297	103.77%		0.0000	6.83%
181.30	Acid Soluble Cadmium , ICP (ppm)	3	3	0.0215	0.0103	0.0215		0.0103	0.0060	48.06%		0.0003	28.51%
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified w/9:3... (ppm)	1		0.0995									
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	1		0.0000									
181.99	Acid Soluble Cadmium , Other (ppm)	1		0.0100									
191.30	Acid Soluble Chromium , ICP (ppm)	4	4	0.2104	0.2440	0.2104		0.2440	0.1220	115.98%		0.0533	20.23%
191.33	Acid Soluble Chromium , ICP, 2006.03 modified w/9:... (ppm)	1		0.0056									
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C (ppm)	1		0.0118									
191.99	Acid Soluble Chromium , Other (ppm)	2	2	1.161	1.611								
202.30	Acid Soluble Cobalt , ICP (ppm)	3	3	0.0070	0.0052	0.0070		0.0052	0.0030	74.23%		0.0000	33.76%
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w/9:3 ... (ppm)	1		0.0000									
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	1		0.0000									
202.99	Acid Soluble Cobalt , Other (ppm)	1		0.0100									
221.30	Acid Soluble Copper , ICP, test portion inorganic ... (%)	4	4	0.0038	0.0047	0.0038		0.0047	0.0023	122.37%		0.0005	9.24%
221.32	Acid Soluble Copper , ICP, test portion 2006.03A-C (%)	2	1	0.8625									
221.33	Acid Soluble Copper , ICP, test portion 2006.03A-C... (%)	1		0.0000									
221.99	Acid Soluble Copper , Other (%)	2	1	0.0001									
241.30	Acid Soluble Iron, ICP, test portion inorganic 965... (%)	2	2	0.0061	0.0077								
241.32	Acid Soluble Iron, ICP, test portion 2006.03A-C (%)	1		0.0000									
251.30	Acid Soluble Lead , ICP (ppm)	4	4	0.0658	0.0435	0.0658		0.0435	0.0217	66.10%		0.0150	24.10%
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9:3 HN... (ppm)	1		0.0344									
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	1		0.0432									
251.99	Acid Soluble Lead , Other (ppm)	1		1.900									
261.30	Acid Soluble Manganese , ICP, test portion 972.02a (%)	1		0.0000									
261.34	Acid Soluble Manganese , ICP, test portion 2006.03... (%)	1		0.0000									
281.30	Acid Soluble Mercury , ICP (ppm)	5	4	0.0310	0.0461	0.0310		0.0461	0.0230	148.67%		0.0025	26.98%
281.99	Acid Soluble Mercury , Other (ppm)	1		0.0310									
289.30	Acid Soluble Molybdenum , ICP (ppm)	4	3	2.780	4.435	2.780		4.435	2.561	159.53%		0.0373	13.71%
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modified w/... (ppm)	1		0.0000									
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010C (ppm)	1		0.0000									
289.99	Acid Soluble Molybdenum , Other (ppm)	1		0.0405									
291.30	Acid Soluble Nickel , ICP (ppm)	4	3	0.1270	0.1537	0.1270		0.1537	0.0888	121.06%		0.0100	21.82%
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w/9:3 ... (ppm)	1		0.0000									
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	1		0.0000									
291.99	Acid Soluble Nickel , Other (ppm)	2	2	0.6335	0.8719								

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
301.30	Acid Soluble Selenium , ICP (ppm)	1		0.0800									
301.33	Acid Soluble Selenium , ICP, 2006.03 modified w/9:... (ppm)	1		0.0127									
301.34	Acid Soluble Selenium , ICP, EPA 3050B/6010C (ppm)	1		0.0723									
301.99	Acid Soluble Selenium , Other (ppm)	1		0.0160									
311.32	Sodium, ICP, 2006.03 test portion (%)	2	2	0.0165	0.0033								
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl test ... (%)	1		0.0190									
311.99	Sodium, Other (%)	3	3	0.0412	0.0277	0.0412		0.0277	0.0160	67.29%		0.0059	6.46%
321.30	Acid Soluble Zinc , ICP, test portion inorganic 96... (%)	6	5	0.0031	0.0040	0.0031		0.0040	0.0018	128.58%		0.0005	9.54%
321.32	Acid Soluble Zinc , ICP, test portion 2006.03A-C (%)	2	1	1.233									
321.33	Acid Soluble Zinc , ICP, test portion 2006.03A-C, ... (%)	1		0.0000									
321.99	Acid Soluble Zinc , Other (%)	1		0.0000									

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STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 160411

Method Precision Report

Liquid Thio S

Issue Date : 05/31/2016

Method Code	Analyte & Method	# Tests Submitted	# Tests Used in Precision Calcs	Mean	SD	Between Labs sL	Within Labs sr	Reproducibility SR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	11	9	24.96	0.1507	0.1400	0.0789	0.1607	0.56%	0.32%	0.64%	2.037
050.30	Soluble Potassium as K2O, AA (Oxalate) (25%)	7	5	25.79	1.179	1.178	0.0678	1.180	4.57%	0.26%	4.58%	17.40
050.50	Soluble Potassium as K2O, ICP (Oxalate) (25%)	10	10	25.24	0.9165	0.8015	0.6287	1.019	3.18%	2.49%	4.04%	1.620
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (25%)	9	8	24.88	0.6282	0.6118	0.2018	0.6442	2.46%	0.81%	2.59%	3.193
050.60	Soluble Potassium as K2O, Flame Photometric (Oxalate) (25%)	7	7	25.59	0.5906	0.5659	0.2389	0.6143	2.21%	0.93%	2.40%	2.571
050.99	Soluble Potassium as K2O, Other (25%)	26	22	25.16	0.7854	0.7684	0.2297	0.8021	3.05%	0.91%	3.19%	3.491
146.00	Total Sulfur in Liquid, Gravimetric - sulfate, sulfite, thiosulfate, and elemental (%)	10	10	17.37	0.3299	0.3227	0.0969	0.3370	1.86%	0.56%	1.94%	3.479
148.00	Total Sulfur, Combustion (17%)	9	9	16.80	0.5559	0.5406	0.1835	0.5709	3.22%	1.09%	3.40%	3.110
148.01	Total Sulfur, Gravimetric - sulfate and elemental (17%)	10	9	17.00	0.1147	0.0905	0.0995	0.1345	0.53%	0.59%	0.79%	1.352
148.07	Total Sulfur, ICP, test portion as in 2006.03 modified w/9:3 HNO3:HCl (17%)	10	8	17.59	0.8913	0.8751	0.2395	0.9072	4.97%	1.36%	5.16%	3.788
148.99	Total Sulfur, Other (17%)	11	9	16.86	0.8946	0.8671	0.3116	0.9214	5.14%	1.85%	5.46%	2.957
321.30	Acid Soluble Zinc , ICP, test portion inorganic 965.09 (%)	6	4	0.0014	0.0012	0.0012	0.0006	0.0013	84.90%	39.88%	93.80%	2.352

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STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Methods: 84

Sample # 160411

Lab Values

Labs Reporting: 81

Liquid Thio S

Issue Date : 05/31/2016

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010.60	Total Nitrogen, Combustion (%)	0292	0.0200	0.0000	6.666	13.17	0.0780	4	-0.50	50%	0
010.60	Total Nitrogen, Combustion (%)	0472	0.0680	0.0020	6.666	13.17	0.0780	4	-0.50	49%	0
010.60	Total Nitrogen, Combustion (%)	0325	0.1600	0.0600	6.666	13.17	0.0780	4	-0.49	49%	0
010.60	Total Nitrogen, Combustion (%)	0422	26.42	0.2500	6.666	13.17	0.0780	4	1.50	148%	0
010.60	Total Nitrogen, Combustion (%)	0354	0.0000	0.0000	6.666	13.17	0.0780	4			4
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0292	0.0100	0.0000				1			0
020.50	Total Phosphorus as P2O5, ICP (%)	0521	0.0000	0.0000				0			4
041.50	Direct Available Phosphorus as P2O5, ICP (%)	0325	0.0500	0.0000				1			0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (%)	0354	0.0205	0.0010				1			0
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	0072	24.67	0.1900	24.99	0.1845	0.0960	10	-1.70	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	0231	24.89	0.1100	24.99	0.1845	0.0960	10	-0.56	0%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	0211	24.90	0.0500	24.99	0.1845	0.0960	10	-0.51	0%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	0090	24.92	0.1600	24.99	0.1845	0.0960	10	-0.38	0%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	0416	24.94	0.1000	24.99	0.1845	0.0960	10	-0.27	0%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	0102	25.00	0.0000	24.99	0.1845	0.0960	10	0.04	0%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	0220	25.04	0.0000	24.99	0.1845	0.0960	10	0.24	0%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	0405	25.05	0.0100	24.99	0.1845	0.0960	10	0.27	0%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	0055	25.22	0.1600	24.99	0.1845	0.0960	10	1.17	0%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	0114	25.50	0.1800	24.99	0.1845	0.0960	10	2.62	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (25%)	0049	24.79	0.7200	24.99	0.1845	0.0960	10	-1.05	0%	1
050.30	Soluble Potassium as K2O, AA (Oxalate) (25%)	0356	24.66	0.0000	26.44	2.163	0.0688	6	-0.76	3%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (25%)	0136	25.03	0.0300	26.44	2.163	0.0688	6	-0.61	3%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (25%)	0428	25.43	0.0129	26.44	2.163	0.0688	6	-0.43	2%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (25%)	0157	26.20	0.2000	26.44	2.163	0.0688	6	-0.10	0%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (25%)	0073	27.64	0.0700	26.44	2.163	0.0688	6	0.51	2%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (25%)	0516	33.55	0.1000	26.44	2.163	0.0688	6	3.04	13%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (25%)	0040	25.35	0.7000	26.44	2.163	0.0688	6	-0.47	2%	1
050.31	Soluble Potassium as K2O, AA (Citrate) (25%)	0472	22.65*	0.1000				2			0
050.31	Soluble Potassium as K2O, AA (Citrate) (25%)	0498	24.40	0.2000				2			0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (25%)	0397	24.23	0.0130	25.22	0.9953	0.6672	10	-0.94	2%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (25%)	0390	24.27	0.8400	25.22	0.9953	0.6672	10	-0.91	2%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (25%)	0292	24.28	0.2300	25.22	0.9953	0.6672	10	-0.90	2%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (25%)	0055	24.67	0.0400	25.22	0.9953	0.6672	10	-0.52	1%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050.50	Soluble Potassium as K2O, ICP (Oxalate) (25%)	0420	25.25	0.1720	25.22	0.9953	0.6672	10	0.03	0%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (25%)	0444	25.26	0.2000	25.22	0.9953	0.6672	10	0.04	0%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (25%)	0324	25.30	1.200	25.22	0.9953	0.6672	10	0.08	0%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (25%)	0157	25.90	1.800	25.22	0.9953	0.6672	10	0.66	1%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (25%)	0230	26.30	1.200	25.22	0.9953	0.6672	10	1.04	2%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (25%)	0086	26.91	0.9773	25.22	0.9953	0.6672	10	1.62	3%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (25%)	0072	24.38	0.0100	24.70	0.3068	0.1150	4	-1.07	1%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (25%)	0483	24.51	0.1200	24.70	0.3068	0.1150	4	-0.63	0%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (25%)	0043	24.93	0.1300	24.70	0.3068	0.1150	4	0.73	0%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (25%)	0007	25.00	0.2000	24.70	0.3068	0.1150	4	0.97	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (25%)	0377	23.51*	0.5700	25.08	0.5848	0.2016	9	-2.55	3%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (25%)	0233	24.65	0.1400	25.08	0.5848	0.2016	9	-0.70	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (25%)	0025	24.74	0.1940	25.08	0.5848	0.2016	9	-0.56	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (25%)	0360	25.10	0.0800	25.08	0.5848	0.2016	9	0.03	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (25%)	0485	25.10	0.5000	25.08	0.5848	0.2016	9	0.03	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (25%)	0023	25.12	0.0200	25.08	0.5848	0.2016	9	0.07	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (25%)	0486	25.27	0.0200	25.08	0.5848	0.2016	9	0.31	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (25%)	0354	25.58	0.1100	25.08	0.5848	0.2016	9	0.81	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (25%)	0423	28.70	0.1800	25.08	0.5848	0.2016	9	5.87	7%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (25%)	0169	24.90	0.0500	25.56	0.5825	0.2357	7	-1.06	1%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (25%)	0105	25.10	0.3100	25.56	0.5825	0.2357	7	-0.74	1%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (25%)	0117	25.43	0.0000	25.56	0.5825	0.2357	7	-0.21	0%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (25%)	0309	25.45	0.4300	25.56	0.5825	0.2357	7	-0.18	0%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (25%)	0041	25.72	0.7000	25.56	0.5825	0.2357	7	0.26	0%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (25%)	0510	25.89	0.0000	25.56	0.5825	0.2357	7	0.53	1%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (25%)	0520	26.69	0.1600	25.56	0.5825	0.2357	7	1.82	2%	0
050.61	Soluble Potassium as K2O, Flame Photometric ... (25%)	0456	24.22	0.2700	25.14	1.222	0.2680	5	-0.76	2%	0
050.61	Soluble Potassium as K2O, Flame Photometric ... (25%)	0035	24.52	0.2500	25.14	1.222	0.2680	5	-0.51	1%	0
050.61	Soluble Potassium as K2O, Flame Photometric ... (25%)	0519	24.56	0.3000	25.14	1.222	0.2680	5	-0.48	1%	0
050.61	Soluble Potassium as K2O, Flame Photometric ... (25%)	0513	25.18	0.1900	25.14	1.222	0.2680	5	0.03	0%	0
050.61	Soluble Potassium as K2O, Flame Photometric ... (25%)	0131	27.24	0.3300	25.14	1.222	0.2680	5	1.71	4%	0
050.62	Soluble Potassium as K2O, Flame Photometric ... (25%)	0029	24.57	0.0900	24.80	0.3272	0.3567	3	-0.72	0%	0
050.62	Soluble Potassium as K2O, Flame Photometric ... (25%)	0095	24.67	0.8500	24.80	0.3272	0.3567	3	-0.42	0%	0
050.62	Soluble Potassium as K2O, Flame Photometric ... (25%)	0105	25.18	0.1300	24.80	0.3272	0.3567	3	1.14	1%	0
050.99	Soluble Potassium as K2O, Other (25%)	0096	23.47*	0.3200	25.18	0.7522	0.2827	24	-2.27	3%	0
050.99	Soluble Potassium as K2O, Other (25%)	0433	24.06	0.3800	25.18	0.7522	0.2827	24	-1.48	2%	0
050.99	Soluble Potassium as K2O, Other (25%)	0394	24.29	0.3490	25.18	0.7522	0.2827	24	-1.18	2%	0
050.99	Soluble Potassium as K2O, Other (25%)	0455	24.55	0.1000	25.18	0.7522	0.2827	24	-0.83	1%	0
050.99	Soluble Potassium as K2O, Other (25%)	0482	24.70	1.000	25.18	0.7522	0.2827	24	-0.63	1%	0
050.99	Soluble Potassium as K2O, Other (25%)	0042	24.71	0.3300	25.18	0.7522	0.2827	24	-0.63	1%	0
050.99	Soluble Potassium as K2O, Other (25%)	0307	24.75	0.3770	25.18	0.7522	0.2827	24	-0.57	1%	0
050.99	Soluble Potassium as K2O, Other (25%)	0043	24.87	0.1000	25.18	0.7522	0.2827	24	-0.41	1%	0
050.99	Soluble Potassium as K2O, Other (25%)	0518	24.93	0.0600	25.18	0.7522	0.2827	24	-0.33	0%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050.99	Soluble Potassium as K2O, Other (25%)	0177	24.97	0.0992	25.18	0.7522	0.2827	24	-0.27	0%	0
050.99	Soluble Potassium as K2O, Other (25%)	0105	25.04	0.3200	25.18	0.7522	0.2827	24	-0.18	0%	0
050.99	Soluble Potassium as K2O, Other (25%)	0234	25.12	0.4300	25.18	0.7522	0.2827	24	-0.08	0%	0
050.99	Soluble Potassium as K2O, Other (25%)	0481	25.14	0.5200	25.18	0.7522	0.2827	24	-0.05	0%	0
050.99	Soluble Potassium as K2O, Other (25%)	0421	25.20	0.4000	25.18	0.7522	0.2827	24	0.03	0%	0
050.99	Soluble Potassium as K2O, Other (25%)	0493	25.20	0.1000	25.18	0.7522	0.2827	24	0.03	0%	0
050.99	Soluble Potassium as K2O, Other (25%)	0450	25.22	0.0000	25.18	0.7522	0.2827	24	0.06	0%	0
050.99	Soluble Potassium as K2O, Other (25%)	0444	25.38	0.1100	25.18	0.7522	0.2827	24	0.27	0%	0
050.99	Soluble Potassium as K2O, Other (25%)	0457	25.40	0.2100	25.18	0.7522	0.2827	24	0.29	0%	0
050.99	Soluble Potassium as K2O, Other (25%)	0389	25.80	0.4000	25.18	0.7522	0.2827	24	0.83	1%	0
050.99	Soluble Potassium as K2O, Other (25%)	0451	25.93	0.2800	25.18	0.7522	0.2827	24	1.00	1%	0
050.99	Soluble Potassium as K2O, Other (25%)	0027	26.02	0.0790	25.18	0.7522	0.2827	24	1.12	2%	0
050.99	Soluble Potassium as K2O, Other (25%)	0506	26.30	0.8000	25.18	0.7522	0.2827	24	1.49	2%	0
050.99	Soluble Potassium as K2O, Other (25%)	0300	27.17	0.0200	25.18	0.7522	0.2827	24	2.65	4%	0
050.99	Soluble Potassium as K2O, Other (25%)	0487	27.70	0.0000	25.18	0.7522	0.2827	24	3.36	5%	0
050.99	Soluble Potassium as K2O, Other (25%)	0521	24.92	3.714	25.18	0.7522	0.2827	24	-0.34	1%	1
050.99	Soluble Potassium as K2O, Other (25%)	0325	25.20	4.600	25.18	0.7522	0.2827	24	0.03	0%	1
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (%)	0105	0.0014	0.0016				1			0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0096	0.0080	0.0040	0.0257	0.0211	0.0047	3	-0.84	34%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0049	0.0200	0.0060	0.0257	0.0211	0.0047	3	-0.27	11%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0354	0.0490	0.0040	0.0257	0.0211	0.0047	3	1.11	45%	0
101.32	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0521	0.0054	0.0021				1			0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0086	0.0018	0.0002				1			0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (%)	0105	0.0008	0.0007				1			0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0354	0.0135	0.0010				1			0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (%)	0521	0.0000	0.0000				0			4
121.33	Acid Soluble Magnesium, ICP, test portion 200... (%)	0086	0.0003	0.0000				1			0
143.99	Elemental Sulfur, Other (%)	0389	14.85	0.3000				2			0
143.99	Elemental Sulfur, Other (%)	0472	16.45	0.1000				2			0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0027	16.61	0.0600	17.20	0.6006	0.2233	3	-0.97	2%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0233	17.17	0.1900	17.20	0.6006	0.2233	3	-0.05	0%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0043	17.81	0.4200	17.20	0.6006	0.2233	3	1.02	2%	0
145.99	Sulfate Sulfur, HCl soluble, Other (%)	0518	16.89	0.0300				1			0
146.00	Total Sulfur in Liquid, Gravimetric - sulfate... (%)	0444	16.76	0.0900	17.37	0.3170	0.1203	10	-1.85	2%	0
146.00	Total Sulfur in Liquid, Gravimetric - sulfate... (%)	0211	17.17	0.0700	17.37	0.3170	0.1203	10	-0.62	1%	0
146.00	Total Sulfur in Liquid, Gravimetric - sulfate... (%)	0520	17.18	0.0300	17.37	0.3170	0.1203	10	-0.59	1%	0
146.00	Total Sulfur in Liquid, Gravimetric - sulfate... (%)	0324	17.25	0.1000	17.37	0.3170	0.1203	10	-0.36	0%	0
146.00	Total Sulfur in Liquid, Gravimetric - sulfate... (%)	0397	17.27	0.0300	17.37	0.3170	0.1203	10	-0.32	0%	0
146.00	Total Sulfur in Liquid, Gravimetric - sulfate... (%)	0485	17.39	0.1700	17.37	0.3170	0.1203	10	0.04	0%	0
146.00	Total Sulfur in Liquid, Gravimetric - sulfate... (%)	0114	17.46	0.1200	17.37	0.3170	0.1203	10	0.27	0%	0
146.00	Total Sulfur in Liquid, Gravimetric - sulfate... (%)	0028	17.61	0.2300	17.37	0.3170	0.1203	10	0.70	1%	0
146.00	Total Sulfur in Liquid, Gravimetric - sulfate... (%)	0405	17.66	0.2025	17.37	0.3170	0.1203	10	0.87	1%	0
146.00	Total Sulfur in Liquid, Gravimetric - sulfate... (%)	0055	17.96	0.1600	17.37	0.3170	0.1203	10	1.77	2%	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
146.99	Total Sulfur in Liquid, Other (%)	0131	15.33	0.0000	21.21	8.664	0.6756	3	-0.68	14%	0
146.99	Total Sulfur in Liquid, Other (%)	0508	17.15	0.1000	21.21	8.664	0.6756	3	-0.47	10%	0
146.99	Total Sulfur in Liquid, Other (%)	0521	31.16	1.927	21.21	8.664	0.6756	3	1.15	23%	0
148.00	Total Sulfur, Combustion (17%)	0377	16.00*	0.0000	16.79	0.6043	0.1867	9	-1.24	2%	0
148.00	Total Sulfur, Combustion (17%)	0157	16.25	0.3000	16.79	0.6043	0.1867	9	-0.85	2%	0
148.00	Total Sulfur, Combustion (17%)	0360	16.28	0.0000	16.79	0.6043	0.1867	9	-0.80	2%	0
148.00	Total Sulfur, Combustion (17%)	0025	16.74	0.1400	16.79	0.6043	0.1867	9	-0.08	0%	0
148.00	Total Sulfur, Combustion (17%)	0231	16.90	0.0000	16.79	0.6043	0.1867	9	0.18	0%	0
148.00	Total Sulfur, Combustion (17%)	0136	17.01	0.0200	16.79	0.6043	0.1867	9	0.35	1%	0
148.00	Total Sulfur, Combustion (17%)	0049	17.04	0.4000	16.79	0.6043	0.1867	9	0.40	1%	0
148.00	Total Sulfur, Combustion (17%)	0029	17.18	0.4200	16.79	0.6043	0.1867	9	0.61	1%	0
148.00	Total Sulfur, Combustion (17%)	0451	17.80	0.4000	16.79	0.6043	0.1867	9	1.59	3%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (17%)	0457	16.81	0.1900	17.00	0.1300	0.0903	9	-1.41	1%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (17%)	0040	16.90	0.0000	17.00	0.1300	0.0903	9	-0.72	0%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (17%)	0481	16.91	0.2200	17.00	0.1300	0.0903	9	-0.64	0%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (17%)	0029	16.99	0.3000	17.00	0.1300	0.0903	9	-0.06	0%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (17%)	0073	17.00	0.0400	17.00	0.1300	0.0903	9	0.01	0%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (17%)	0157	17.00	0.0000	17.00	0.1300	0.0903	9	0.01	0%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (17%)	0510	17.11	0.0000	17.00	0.1300	0.0903	9	0.81	0%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (17%)	0102	17.12	0.0426	17.00	0.1300	0.0903	9	0.89	0%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (17%)	0095	17.15	0.0200	17.00	0.1300	0.0903	9	1.11	0%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (17%)	0230	15.90*	2.600	17.00	0.1300	0.0903	9	-8.01	3%	1
148.04	Total Sulfur, ICP, w/Br digestion (17%)	0394	16.85	0.0000				1			0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (17%)	0421	16.15	0.7000	17.82	1.228	0.3605	9	-1.29	5%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (17%)	0023	17.07	0.0000	17.82	1.228	0.3605	9	-0.58	2%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (17%)	0519	17.28	0.3000	17.82	1.228	0.3605	9	-0.42	2%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (17%)	0177	17.32	0.1407	17.82	1.228	0.3605	9	-0.39	1%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (17%)	0292	17.67	0.0200	17.82	1.228	0.3605	9	-0.12	0%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (17%)	0486	17.80	0.0300	17.82	1.228	0.3605	9	-0.02	0%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (17%)	0483	18.25	0.3000	17.82	1.228	0.3605	9	0.33	1%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (17%)	0086	19.19	0.4760	17.82	1.228	0.3605	9	1.06	4%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (17%)	0515	20.83	1.277	17.82	1.228	0.3605	9	2.33	8%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (17%)	0325	17.80	2.200	17.82	1.228	0.3605	9	-0.02	0%	1
148.99	Total Sulfur, Other (17%)	0307	9.294*	1.283	16.75	1.016	0.3805	10	-6.99	22%	0
148.99	Total Sulfur, Other (17%)	0450	14.76*	0.0000	16.75	1.016	0.3805	10	-1.86	6%	0
148.99	Total Sulfur, Other (17%)	0096	16.47	0.2400	16.75	1.016	0.3805	10	-0.26	1%	0
148.99	Total Sulfur, Other (17%)	0482	16.75	1.100	16.75	1.016	0.3805	10	0.00	0%	0
148.99	Total Sulfur, Other (17%)	0072	16.76	0.1100	16.75	1.016	0.3805	10	0.01	0%	0
148.99	Total Sulfur, Other (17%)	0493	17.15	0.1000	16.75	1.016	0.3805	10	0.38	1%	0
148.99	Total Sulfur, Other (17%)	0354	17.24	0.0220	16.75	1.016	0.3805	10	0.47	1%	0
148.99	Total Sulfur, Other (17%)	0422	17.39	0.3100	16.75	1.016	0.3805	10	0.60	2%	0
148.99	Total Sulfur, Other (17%)	0506	17.40	0.6000	16.75	1.016	0.3805	10	0.61	2%	0
148.99	Total Sulfur, Other (17%)	0220	17.87	0.0400	16.75	1.016	0.3805	10	1.05	3%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
148.99	Total Sulfur, Other (17%)	0390	13.35*	4.500	16.75	1.016	0.3805	10	-3.19	10%	1
149.04	Sulfur - HNO3 soluble, ICP (%)	0040	16.83	0.0100	19.11	3.876	0.5313	3	-0.59	6%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0423	16.93	0.1500	19.11	3.876	0.5313	3	-0.56	6%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0521	23.59	1.434	19.11	3.876	0.5313	3	1.15	12%	0
151.30	Acid Soluble Arsenic, ICP (ppm)	0394	0.0080	0.0000	0.1010	0.1508	0.1500	3	-0.62	46%	0
151.30	Acid Soluble Arsenic, ICP (ppm)	0450	0.0200	0.0000	0.1010	0.1508	0.1500	3	-0.54	40%	0
151.30	Acid Soluble Arsenic, ICP (ppm)	0519	0.2750	0.4500	0.1010	0.1508	0.1500	3	1.15	86%	0
151.33	Acid Soluble Arsenic, ICP, 2006.03 modified ... (ppm)	0515	0.0177	0.0353				0			4
151.34	Acid Soluble Arsenic, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
151.99	Acid Soluble Arsenic, Other (ppm)	0220	0.0100	0.0000	0.0286	0.0297	0.0203	3	-0.63	33%	0
151.99	Acid Soluble Arsenic, Other (ppm)	0042	0.0130	0.0040	0.0286	0.0297	0.0203	3	-0.53	27%	0
151.99	Acid Soluble Arsenic, Other (ppm)	0521	0.0629	0.0570	0.0286	0.0297	0.0203	3	1.15	60%	0
165.30	Acid Soluble Boron, ICP, test portion in 982... (%)	0354	0.0060	0.0000				1			0
165.30	Acid Soluble Boron, ICP, test portion in 982... (%)	0521	0.0000	0.0000				1			4
165.30	Acid Soluble Boron, ICP, test portion in 982... (%)	0086	0.0001	0.0001				1			4
181.30	Acid Soluble Cadmium, ICP (ppm)	0450	0.0100	0.0000	0.0215	0.0103	0.0003	3	-1.11	27%	0
181.30	Acid Soluble Cadmium, ICP (ppm)	0520	0.0245	0.0010	0.0215	0.0103	0.0003	3	0.29	7%	0
181.30	Acid Soluble Cadmium, ICP (ppm)	0519	0.0300	0.0000	0.0215	0.0103	0.0003	3	0.82	20%	0
181.33	Acid Soluble Cadmium, ICP, 2006.03 modified ... (ppm)	0515	0.0995	0.1470				1			0
181.34	Acid Soluble Cadmium, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
181.99	Acid Soluble Cadmium, Other (ppm)	0220	0.0100	0.0000				1			0
191.30	Acid Soluble Chromium, ICP (ppm)	0520	0.0490	0.0020	0.2104	0.2440	0.0533	4	-0.66	38%	0
191.30	Acid Soluble Chromium, ICP (ppm)	0450	0.0500	0.0000	0.2104	0.2440	0.0533	4	-0.66	38%	0
191.30	Acid Soluble Chromium, ICP (ppm)	0394	0.1775	0.0210	0.2104	0.2440	0.0533	4	-0.13	8%	0
191.30	Acid Soluble Chromium, ICP (ppm)	0519	0.5650	0.1900	0.2104	0.2440	0.0533	4	1.45	84%	0
191.33	Acid Soluble Chromium, ICP, 2006.03 modified... (ppm)	0515	0.0056	0.0112				0			4
191.34	Acid Soluble Chromium, ICP, EPA 3050B/6010C (ppm)	0515	0.0118	0.0235				0			4
191.99	Acid Soluble Chromium, Other (ppm)	0042	0.0215	0.0190				2			0
191.99	Acid Soluble Chromium, Other (ppm)	0220	2.300	0.4000				2			0
202.30	Acid Soluble Cobalt, ICP (ppm)	0520	0.0010	0.0000	0.0070	0.0052	0.0000	3	-1.15	43%	0
202.30	Acid Soluble Cobalt, ICP (ppm)	0450	0.0100	0.0000	0.0070	0.0052	0.0000	3	0.58	21%	0
202.30	Acid Soluble Cobalt, ICP (ppm)	0519	0.0100	0.0000	0.0070	0.0052	0.0000	3	0.58	21%	0
202.33	Acid Soluble Cobalt, ICP, 2006.03 modified w... (ppm)	0515	0.0000	0.0000				0			4
202.34	Acid Soluble Cobalt, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
202.99	Acid Soluble Cobalt, Other (ppm)	0220	0.0100	0.0000				1			0
221.30	Acid Soluble Copper, ICP, test portion inorg... (%)	0433	0.0002	0.0001	0.0038	0.0047	0.0005	4	-0.79	48%	0
221.30	Acid Soluble Copper, ICP, test portion inorg... (%)	0450	0.0002	0.0000	0.0038	0.0047	0.0005	4	-0.77	47%	0
221.30	Acid Soluble Copper, ICP, test portion inorg... (%)	0354	0.0050	0.0020	0.0038	0.0047	0.0005	4	0.25	15%	0
221.30	Acid Soluble Copper, ICP, test portion inorg... (%)	0519	0.0100	0.0000	0.0038	0.0047	0.0005	4	1.31	80%	0
221.32	Acid Soluble Copper, ICP, test portion 2006.... (%)	0394	0.8625	0.1970				1			0
221.32	Acid Soluble Copper, ICP, test portion 2006.... (%)	0521	0.0000	0.0000				1			4
221.33	Acid Soluble Copper, ICP, test portion 2006.... (%)	0515	0.0000	0.0000				0			4
221.99	Acid Soluble Copper, Other (%)	0220	0.0001	0.0000				1			0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
221.99	Acid Soluble Copper , Other (%)	0515	0.2538	0.5075				1			4
241.30	Acid Soluble Iron, ICP, test portion inorgani... (%)	0035	0.0007	0.0001				2			0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (%)	0354	0.0115	0.0010				2			0
241.32	Acid Soluble Iron, ICP, test portion 2006.03A... (%)	0521	0.0000	0.0000				0			4
251.30	Acid Soluble Lead , ICP (ppm)	0520	0.0030	0.0000	0.0658	0.0435	0.0150	4	-1.44	48%	0
251.30	Acid Soluble Lead , ICP (ppm)	0450	0.0700	0.0000	0.0658	0.0435	0.0150	4	0.10	3%	0
251.30	Acid Soluble Lead , ICP (ppm)	0394	0.0950	0.0300	0.0658	0.0435	0.0150	4	0.67	22%	0
251.30	Acid Soluble Lead , ICP (ppm)	0519	0.0950	0.0300	0.0658	0.0435	0.0150	4	0.67	22%	0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0515	0.0344	0.0688				0			4
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	0515	0.0432	0.0864				0			4
251.99	Acid Soluble Lead , Other (ppm)	0220	1.900	0.4000				1			0
261.30	Acid Soluble Manganese , ICP, test portion 97... (%)	0354	0.0000	0.0000				0			4
261.34	Acid Soluble Manganese , ICP, test portion 20... (%)	0521	0.0000	0.0000				0			4
281.30	Acid Soluble Mercury , ICP (ppm)	0394	0.0040	0.0040	0.0310	0.0461	0.0025	4	-0.59	44%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0450	0.0100	0.0000	0.0310	0.0461	0.0025	4	-0.46	34%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0519	0.0100	0.0000	0.0310	0.0461	0.0025	4	-0.46	34%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0520	0.1000	0.0060	0.0310	0.0461	0.0025	4	1.50	111%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0515	0.0000	0.0000	0.0310	0.0461	0.0025	4			4
281.99	Acid Soluble Mercury , Other (ppm)	0042	0.0310	0.0120				1			0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0433	0.0962	0.0020	2.780	4.435	0.0373	3	-0.61	48%	0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0519	0.3450	0.1100	2.780	4.435	0.0373	3	-0.55	44%	0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0450	7.900	0.0000	2.780	4.435	0.0373	3	1.15	92%	0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0521	0.0000	0.0000	2.780	4.435	0.0373	3			4
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (ppm)	0515	0.0000	0.0000				0			4
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010... (ppm)	0515	0.0000	0.0000				0			4
289.99	Acid Soluble Molybdenum , Other (ppm)	0042	0.0405	0.0190				1			0
291.30	Acid Soluble Nickel , ICP (ppm)	0394	0.0060	0.0000	0.1270	0.1537	0.0100	3	-0.79	48%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0519	0.0750	0.0300	0.1270	0.1537	0.0100	3	-0.34	20%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0450	0.3000	0.0000	0.1270	0.1537	0.0100	3	1.13	68%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0521	0.0000	0.0000	0.1270	0.1537	0.0100	3			4
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0515	0.0000	0.0000				0			4
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
291.99	Acid Soluble Nickel , Other (ppm)	0042	0.0170	0.0020				2			0
291.99	Acid Soluble Nickel , Other (ppm)	0220	1.250	0.7000				2			0
301.30	Acid Soluble Selenium , ICP (ppm)	0519	0.0800	0.0400				1			0
301.33	Acid Soluble Selenium , ICP, 2006.03 modified... (ppm)	0515	0.0127	0.0253				0			4
301.34	Acid Soluble Selenium , ICP, EPA 3050B/6010C (ppm)	0515	0.0723	0.1445				0			4
301.99	Acid Soluble Selenium , Other (ppm)	0042	0.0160	0.0060				1			0
311.32	Sodium, ICP, 2006.03 test portion (%)	0025	0.0142	0.0018				2			0
311.32	Sodium, ICP, 2006.03 test portion (%)	0521	0.0188	0.0048				2			0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0423	0.0190	0.0020				1			0
311.99	Sodium, Other (%)	0096	0.0100	0.0000	0.0412	0.0277	0.0059	3	-1.13	38%	0
311.99	Sodium, Other (%)	0521	0.0506	0.0158	0.0412	0.0277	0.0059	3	0.34	11%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
311.99	Sodium, Other (%)	0354	0.0630	0.0020	0.0412	0.0277	0.0059	3	0.79	26%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0450	0.0001	0.0000	0.0031	0.0040	0.0005	5	-0.69	48%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0433	0.0006	0.0001	0.0031	0.0040	0.0005	5	-0.58	41%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0096	0.0024	0.0012	0.0031	0.0040	0.0005	5	-0.16	11%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0354	0.0025	0.0010	0.0031	0.0040	0.0005	5	-0.14	10%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0519	0.0100	0.0000	0.0031	0.0040	0.0005	5	1.57	111%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0292	0.0000	0.0000	0.0031	0.0040	0.0005	5			4
321.32	Acid Soluble Zinc , ICP, test portion 2006.03... (%)	0394	1.233	0.7540				1			0
321.32	Acid Soluble Zinc , ICP, test portion 2006.03... (%)	0521	0.0000	0.0000				1			4
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (%)	0515	0.0000	0.0000				0			4
321.99	Acid Soluble Zinc , Other (%)	0515	0.0000	0.0000				0			4

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier and a 4 flag indicates rejected due to 0 value submitted. Robust statistics not used if < 6 labs used in calculations, in this case the Z Scores are included for information only (Grey). An offset lab value with an astrix indicates that the value is lower than the Analyte value less the IA. Method or Analyte codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely for the purpose of this Proficiency Testing program.