

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 160311

Grade 5-2-0

Statistical Summary

Analytes: 32

Labs Reporting: 84

Issue Date : 04/30/2016

Analyte Code	Analyte	# 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
001	Ammoniacal Nitrogen (%)	6	6	1.718	1.916	1.718		2.173	0.8869	126.45%		0.0190	3.69%
003	Water Insoluble Nitrogen (%)	6	6	3.835	1.697	4.413		0.3697	0.1509	8.38%		0.0773	3.20%
005	Urea Nitrogen (%)	1		0.0000									
009	Ammoniacal Plus Nitrate Nitrogen (%)	1		0.4850									
010	Total Nitrogen (5%)	78	74	5.387	0.4050	5.442	0.5144	0.1440	0.0167	2.65%	4.73%	0.0605	3.10%
020	Total Phosphorus as P2O5 (%)	53	51	4.523	0.8704	4.688		0.4877	0.0683	10.40%		0.0771	3.17%
030	Citrate Insoluble Phosphorus as P2O5 (%)	5	5	1.177	1.328	1.177		1.328	0.5937	112.83%		0.0323	3.90%
040	Indirect Available Phosphorus as P2O5 (2%)	3	3	3.430	2.184	3.430	0.6700	2.184	1.261	63.66%	9.77%	0.0585	3.32%
041	Direct Available Phosphorus as P2O5 (2%)	38	37	4.248	0.4307	4.231	0.6700	0.3027	0.0498	7.16%	7.92%	0.0958	3.22%
048	Water Soluble Phosphorus as P2O5 (%)	4	4	0.4970	0.4930	0.4970		0.4930	0.2465	99.20%		0.0275	4.44%
050	Soluble Potassium as K2O (%)	15	15	0.3889	0.0547	0.3872		0.0554	0.0143	14.30%		0.0193	4.61%
060	Water (Free) (%)	7	7	4.210	1.731	4.210		1.963	0.7420	46.63%		0.0429	3.22%
101	Acid Soluble Calcium (%)	17	16	1.982	0.2455	1.979		0.1961	0.0490	9.91%		0.0569	3.61%
121	Acid Soluble Magnesium (%)	17	16	0.4337	0.0504	0.4306		0.0427	0.0107	9.92%		0.0099	4.54%
143	Elemental Sulfur (%)	3	3	1.403	0.1098	1.403		0.1098	0.0634	7.82%		0.0067	3.80%
148	Total Sulfur (%)	11	10	1.198	0.4974	1.210		0.5382	0.1702	44.49%		0.0212	3.89%
151	Acid Soluble Arsenic (ppm)	15	13	2.287	1.111	2.220		0.9185	0.2547	41.38%		0.2942	14.19%
165	Acid Soluble Boron (%)	9	8	0.0079	0.0081	0.0063		0.0047	0.0017	74.65%		0.0013	8.58%
181	Acid Soluble Cadmium (ppm)	20	18	1.659	0.3281	1.674		0.3355	0.0791	20.04%		0.0713	14.80%
190	Water Soluble Chlorine (%)	1		0.0500									
191	Acid Soluble Chromium (ppm)	22	22	59.51	13.61	58.49		10.49	2.236	17.93%		2.048	8.67%
202	Acid Soluble Cobalt (ppm)	19	18	10.82	3.531	10.82		4.004	0.9437	37.01%		0.5978	11.18%
221	Acid Soluble Copper (%)	32	31	0.0239	0.0047	0.0243		0.0027	0.0005	10.97%		0.0008	7.00%
241	Acid Soluble Iron (%)	17	17	4.345	5.899	2.333		0.2956	0.0717	12.67%		0.1498	3.52%
251	Acid Soluble Lead (ppm)	24	23	34.56	4.411	34.37		4.415	0.9206	12.84%		1.857	9.39%
261	Acid Soluble Manganese (%)	17	16	0.0902	0.0104	0.0898		0.0069	0.0017	7.73%		0.0039	5.75%
281	Acid Soluble Mercury (ppm)	6	5	0.6810	0.2244	0.6810		0.2244	0.1003	32.95%		0.0420	16.95%
289	Acid Soluble Molybdenum (ppm)	18	17	9.390	1.499	9.282		1.415	0.3433	15.25%		0.4586	11.44%
291	Acid Soluble Nickel (ppm)	23	21	28.27	4.900	28.67		4.629	1.010	16.14%		1.556	9.65%
301	Acid Soluble Selenium (ppm)	12	10	3.243	2.018	3.109		1.969	0.6225	63.33%		0.2950	13.49%
311	Sodium (%)	10	9	0.1275	0.1389	0.0890		0.0374	0.0125	41.99%		0.0060	5.76%

Analyte Code	Analyte	# 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
321	Acid Soluble Zinc (%)	36	35	0.1371	0.0255	0.1399		0.0107	0.0018	7.67%		0.0048	5.38%

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Analytes: 32

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Lab Values

Labs Reporting: 84

Grade 5-2-0

Issue Date : 04/30/2016

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001	Ammoniacal Nitrogen (%)	0368	0.2400	0.0000	1.718	2.173	0.0190	6	-0.63	001.99	0
001	Ammoniacal Nitrogen (%)	0444	0.4500	0.0200	1.718	2.173	0.0190	6	-0.54	001.10	0
001	Ammoniacal Nitrogen (%)	0506	0.7000	0.0000	1.718	2.173	0.0190	6	-0.43	001.99	0
001	Ammoniacal Nitrogen (%)	0405	0.7840	0.0040	1.718	2.173	0.0190	6	-0.40	001.10	0
001	Ammoniacal Nitrogen (%)	0500	3.170	0.0600	1.718	2.173	0.0190	6	0.62	001.10	0
001	Ammoniacal Nitrogen (%)	0503	4.965	0.0300	1.718	2.173	0.0190	6	1.38	001.99	0
003	Water Insoluble Nitrogen (%)	0519	0.3900	0.1200	4.413	0.3697	0.0773	6	-10.08	003.99	0
003	Water Insoluble Nitrogen (%)	0029	4.239	0.0570	4.413	0.3697	0.0773	6	-0.44	003.10	0
003	Water Insoluble Nitrogen (%)	0220	4.465	0.1300	4.413	0.3697	0.0773	6	0.13	003.10	0
003	Water Insoluble Nitrogen (%)	0027	4.485	0.0700	4.413	0.3697	0.0773	6	0.18	003.10	0
003	Water Insoluble Nitrogen (%)	0486	4.685	0.0700	4.413	0.3697	0.0773	6	0.68	003.99	0
003	Water Insoluble Nitrogen (%)	0117	4.748	0.0170	4.413	0.3697	0.0773	6	0.84	003.10	0
005	Urea Nitrogen (%)	0368	0.0000	0.0000				0		005.00	4
009	Ammoniacal Plus Nitrate Nitrogen (%)	0444	0.4850	0.1500				1		009.10	0
010	Total Nitrogen (5%)	0506	2.350*	0.1200	5.442	0.1440	0.0605	74	-21.47	010.99	0
010	Total Nitrogen (5%)	0487	4.850*	0.1000	5.442	0.1440	0.0605	74	-4.11	010.99	0
010	Total Nitrogen (5%)	0456	4.900*	0.2000	5.442	0.1440	0.0605	74	-3.76	010.11	0
010	Total Nitrogen (5%)	0421	4.915*	0.0300	5.442	0.1440	0.0605	74	-3.66	010.60	0
010	Total Nitrogen (5%)	0510	5.005	0.0700	5.442	0.1440	0.0605	74	-3.04	010.11	0
010	Total Nitrogen (5%)	0513	5.060	0.0800	5.442	0.1440	0.0605	74	-2.65	010.99	0
010	Total Nitrogen (5%)	0211	5.060	0.0600	5.442	0.1440	0.0605	74	-2.65	010.12	0
010	Total Nitrogen (5%)	0042	5.100	0.0000	5.442	0.1440	0.0605	74	-2.38	010.60	0
010	Total Nitrogen (5%)	0397	5.255	0.1115	5.442	0.1440	0.0605	74	-1.30	010.12	0
010	Total Nitrogen (5%)	0023	5.265	0.0685	5.442	0.1440	0.0605	74	-1.23	010.60	0
010	Total Nitrogen (5%)	0114	5.275	0.0300	5.442	0.1440	0.0605	74	-1.16	010.11	0
010	Total Nitrogen (5%)	0136	5.280	0.1400	5.442	0.1440	0.0605	74	-1.13	010.60	0
010	Total Nitrogen (5%)	0041	5.300	0.0000	5.442	0.1440	0.0605	74	-0.99	010.60	0
010	Total Nitrogen (5%)	0300	5.340	0.0400	5.442	0.1440	0.0605	74	-0.71	010.16	0
010	Total Nitrogen (5%)	0035	5.350	0.1600	5.442	0.1440	0.0605	74	-0.64	010.60	0
010	Total Nitrogen (5%)	0451	5.351	0.1600	5.442	0.1440	0.0605	74	-0.63	010.60	0
010	Total Nitrogen (5%)	0090	5.355	0.0100	5.442	0.1440	0.0605	74	-0.61	010.11	0
010	Total Nitrogen (5%)	0356	5.360	0.0800	5.442	0.1440	0.0605	74	-0.57	010.60	0
010	Total Nitrogen (5%)	0481	5.380	0.0200	5.442	0.1440	0.0605	74	-0.43	010.12	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010	Total Nitrogen (5%)	0027	5.380	0.0600	5.442	0.1440	0.0605	74	-0.43	010.60	0
010	Total Nitrogen (5%)	0117	5.389	0.0670	5.442	0.1440	0.0605	74	-0.37	010.12	0
010	Total Nitrogen (5%)	0095	5.390	0.0000	5.442	0.1440	0.0605	74	-0.36	010.60	0
010	Total Nitrogen (5%)	0389	5.395	0.0500	5.442	0.1440	0.0605	74	-0.33	010.60	0
010	Total Nitrogen (5%)	0233	5.399	0.0510	5.442	0.1440	0.0605	74	-0.30	010.60	0
010	Total Nitrogen (5%)	0486	5.400	0.0200	5.442	0.1440	0.0605	74	-0.29	010.60	0
010	Total Nitrogen (5%)	0516	5.400	0.0400	5.442	0.1440	0.0605	74	-0.29	010.60	0
010	Total Nitrogen (5%)	0368	5.403	0.2190	5.442	0.1440	0.0605	74	-0.28	010.60	0
010	Total Nitrogen (5%)	0185	5.405	0.2100	5.442	0.1440	0.0605	74	-0.26	010.12	0
010	Total Nitrogen (5%)	0420	5.405	0.1700	5.442	0.1440	0.0605	74	-0.26	010.99	0
010	Total Nitrogen (5%)	0034	5.408	0.0920	5.442	0.1440	0.0605	74	-0.24	010.60	0
010	Total Nitrogen (5%)	0043	5.410	0.0400	5.442	0.1440	0.0605	74	-0.22	010.60	0
010	Total Nitrogen (5%)	0521	5.410	0.0600	5.442	0.1440	0.0605	74	-0.22	010.60	0
010	Total Nitrogen (5%)	0105	5.420	0.0200	5.442	0.1440	0.0605	74	-0.15	010.11	0
010	Total Nitrogen (5%)	0485	5.420	0.0060	5.442	0.1440	0.0605	74	-0.15	010.60	0
010	Total Nitrogen (5%)	0234	5.425	0.0100	5.442	0.1440	0.0605	74	-0.12	010.60	0
010	Total Nitrogen (5%)	0405	5.430	0.0200	5.442	0.1440	0.0605	74	-0.08	010.60	0
010	Total Nitrogen (5%)	0354	5.435	0.0110	5.442	0.1440	0.0605	74	-0.05	010.60	0
010	Total Nitrogen (5%)	0402	5.435	0.0300	5.442	0.1440	0.0605	74	-0.05	010.60	0
010	Total Nitrogen (5%)	0324	5.440	0.1200	5.442	0.1440	0.0605	74	-0.02	010.60	0
010	Total Nitrogen (5%)	0483	5.445	0.0500	5.442	0.1440	0.0605	74	0.02	010.60	0
010	Total Nitrogen (5%)	0508	5.445	0.0300	5.442	0.1440	0.0605	74	0.02	010.99	0
010	Total Nitrogen (5%)	0009	5.450	0.1000	5.442	0.1440	0.0605	74	0.05	010.60	0
010	Total Nitrogen (5%)	0481	5.450	0.0000	5.442	0.1440	0.0605	74	0.05	010.60	0
010	Total Nitrogen (5%)	0493	5.450	0.1000	5.442	0.1440	0.0605	74	0.05	010.99	0
010	Total Nitrogen (5%)	0177	5.464	0.0280	5.442	0.1440	0.0605	74	0.15	010.60	0
010	Total Nitrogen (5%)	0390	5.465	0.0300	5.442	0.1440	0.0605	74	0.16	010.60	0
010	Total Nitrogen (5%)	0105	5.470	0.0200	5.442	0.1440	0.0605	74	0.19	010.60	0
010	Total Nitrogen (5%)	0073	5.475	0.0900	5.442	0.1440	0.0605	74	0.23	010.60	0
010	Total Nitrogen (5%)	0157	5.475	0.1100	5.442	0.1440	0.0605	74	0.23	010.60	0
010	Total Nitrogen (5%)	0452	5.475	0.0100	5.442	0.1440	0.0605	74	0.23	010.60	0
010	Total Nitrogen (5%)	0307	5.490	0.0200	5.442	0.1440	0.0605	74	0.33	010.60	0
010	Total Nitrogen (5%)	0377	5.500	0.0800	5.442	0.1440	0.0605	74	0.40	010.60	0
010	Total Nitrogen (5%)	0231	5.530	0.0400	5.442	0.1440	0.0605	74	0.61	010.60	0
010	Total Nitrogen (5%)	0292	5.530	0.0200	5.442	0.1440	0.0605	74	0.61	010.60	0
010	Total Nitrogen (5%)	0360	5.535	0.0500	5.442	0.1440	0.0605	74	0.64	010.60	0
010	Total Nitrogen (5%)	0457	5.540	0.0000	5.442	0.1440	0.0605	74	0.68	010.60	0
010	Total Nitrogen (5%)	0040	5.550	0.1000	5.442	0.1440	0.0605	74	0.75	010.60	0
010	Total Nitrogen (5%)	0096	5.550	0.0200	5.442	0.1440	0.0605	74	0.75	010.60	0
010	Total Nitrogen (5%)	0025	5.565	0.0100	5.442	0.1440	0.0605	74	0.85	010.60	0
010	Total Nitrogen (5%)	0291	5.570	0.0200	5.442	0.1440	0.0605	74	0.89	010.60	0
010	Total Nitrogen (5%)	0422	5.575	0.0700	5.442	0.1440	0.0605	74	0.92	010.60	0
010	Total Nitrogen (5%)	0472	5.580	0.0000	5.442	0.1440	0.0605	74	0.96	010.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010	Total Nitrogen (5%)	0325	5.595	0.0700	5.442	0.1440	0.0605	74	1.06	010.60	0
010	Total Nitrogen (5%)	0450	5.600	0.2000	5.442	0.1440	0.0605	74	1.10	010.60	0
010	Total Nitrogen (5%)	0131	5.605	0.0695	5.442	0.1440	0.0605	74	1.13	010.60	0
010	Total Nitrogen (5%)	0482	5.615	0.0100	5.442	0.1440	0.0605	74	1.20	010.60	0
010	Total Nitrogen (5%)	0055	5.630	0.0600	5.442	0.1440	0.0605	74	1.30	010.60	0
010	Total Nitrogen (5%)	0230	5.640	0.1000	5.442	0.1440	0.0605	74	1.37	010.60	0
010	Total Nitrogen (5%)	0406	5.650	0.0200	5.442	0.1440	0.0605	74	1.44	010.60	0
010	Total Nitrogen (5%)	0029	5.693	0.0340	5.442	0.1440	0.0605	74	1.74	010.60	0
010	Total Nitrogen (5%)	0498	5.700	0.0000	5.442	0.1440	0.0605	74	1.79	010.12	0
010	Total Nitrogen (5%)	0260	5.725	0.0300	5.442	0.1440	0.0605	74	1.96	010.60	0
010	Total Nitrogen (5%)	0309	5.800	0.0400	5.442	0.1440	0.0605	74	2.48	010.11	0
010	Total Nitrogen (5%)	0520	5.895	0.0700	5.442	0.1440	0.0605	74	3.14	010.99	0
010	Total Nitrogen (5%)	0220	5.345	0.4300	5.442	0.1440	0.0605	74	-0.67	010.11	1
010	Total Nitrogen (5%)	0007	5.600	0.4000	5.442	0.1440	0.0605	74	1.10	010.60	1
010	Total Nitrogen (5%)	0102	5.625	0.4500	5.442	0.1440	0.0605	74	1.27	010.60	1
010	Total Nitrogen (5%)	0444	1.540*	0.0200	5.442	0.1440	0.0605	74	-27.09	010.60	2
020	Total Phosphorus as P2O5 (%)	0220	1.495	0.1500	4.688	0.4877	0.0771	51	-6.55	020.20	0
020	Total Phosphorus as P2O5 (%)	0114	1.960	0.0400	4.688	0.4877	0.0771	51	-5.59	020.10	0
020	Total Phosphorus as P2O5 (%)	0508	2.055	0.0100	4.688	0.4877	0.0771	51	-5.40	020.50	0
020	Total Phosphorus as P2O5 (%)	0389	2.280	0.0000	4.688	0.4877	0.0771	51	-4.94	020.50	0
020	Total Phosphorus as P2O5 (%)	0260	3.310	0.1200	4.688	0.4877	0.0771	51	-2.82	020.50	0
020	Total Phosphorus as P2O5 (%)	0211	4.140	0.0400	4.688	0.4877	0.0771	51	-1.12	020.10	0
020	Total Phosphorus as P2O5 (%)	0503	4.185	0.0300	4.688	0.4877	0.0771	51	-1.03	020.20	0
020	Total Phosphorus as P2O5 (%)	0500	4.250	0.0600	4.688	0.4877	0.0771	51	-0.90	020.10	0
020	Total Phosphorus as P2O5 (%)	0450	4.305	0.0900	4.688	0.4877	0.0771	51	-0.78	020.20	0
020	Total Phosphorus as P2O5 (%)	0090	4.315	0.0300	4.688	0.4877	0.0771	51	-0.76	020.10	0
020	Total Phosphorus as P2O5 (%)	0457	4.340	0.0000	4.688	0.4877	0.0771	51	-0.71	020.20	0
020	Total Phosphorus as P2O5 (%)	0042	4.350	0.1000	4.688	0.4877	0.0771	51	-0.69	020.40	0
020	Total Phosphorus as P2O5 (%)	0456	4.350	0.1000	4.688	0.4877	0.0771	51	-0.69	020.40	0
020	Total Phosphorus as P2O5 (%)	0481	4.355	0.0300	4.688	0.4877	0.0771	51	-0.68	020.20	0
020	Total Phosphorus as P2O5 (%)	0510	4.375	0.0100	4.688	0.4877	0.0771	51	-0.64	020.20	0
020	Total Phosphorus as P2O5 (%)	0519	4.405	0.2100	4.688	0.4877	0.0771	51	-0.58	020.99	0
020	Total Phosphorus as P2O5 (%)	0157	4.425	0.0700	4.688	0.4877	0.0771	51	-0.54	020.10	0
020	Total Phosphorus as P2O5 (%)	0231	4.425	0.0500	4.688	0.4877	0.0771	51	-0.54	020.20	0
020	Total Phosphorus as P2O5 (%)	0177	4.438	0.2415	4.688	0.4877	0.0771	51	-0.51	020.20	0
020	Total Phosphorus as P2O5 (%)	0472	4.455	0.0100	4.688	0.4877	0.0771	51	-0.48	020.50	0
020	Total Phosphorus as P2O5 (%)	0307	4.490	0.0570	4.688	0.4877	0.0771	51	-0.41	020.50	0
020	Total Phosphorus as P2O5 (%)	0291	4.500	0.0000	4.688	0.4877	0.0771	51	-0.38	020.50	0
020	Total Phosphorus as P2O5 (%)	0234	4.585	0.0500	4.688	0.4877	0.0771	51	-0.21	020.50	0
020	Total Phosphorus as P2O5 (%)	0368	4.586	0.0640	4.688	0.4877	0.0771	51	-0.21	020.50	0
020	Total Phosphorus as P2O5 (%)	0521	4.603	0.0006	4.688	0.4877	0.0771	51	-0.17	020.50	0
020	Total Phosphorus as P2O5 (%)	0420	4.735	0.1300	4.688	0.4877	0.0771	51	0.10	020.20	0
020	Total Phosphorus as P2O5 (%)	0444	4.755	0.0100	4.688	0.4877	0.0771	51	0.14	020.10	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
020	Total Phosphorus as P2O5 (%)	0402	4.775	0.0100	4.688	0.4877	0.0771	51	0.18	020.50	0
020	Total Phosphorus as P2O5 (%)	0433	4.825	0.0500	4.688	0.4877	0.0771	51	0.28	020.50	0
020	Total Phosphorus as P2O5 (%)	0356	4.855	0.0500	4.688	0.4877	0.0771	51	0.34	020.20	0
020	Total Phosphorus as P2O5 (%)	0482	4.890	0.1200	4.688	0.4877	0.0771	51	0.42	020.50	0
020	Total Phosphorus as P2O5 (%)	0105	4.895	0.0700	4.688	0.4877	0.0771	51	0.43	020.10	0
020	Total Phosphorus as P2O5 (%)	0421	4.915	0.0100	4.688	0.4877	0.0771	51	0.47	020.50	0
020	Total Phosphorus as P2O5 (%)	0428	4.927	0.0363	4.688	0.4877	0.0771	51	0.49	020.20	0
020	Total Phosphorus as P2O5 (%)	0487	4.950	0.1000	4.688	0.4877	0.0771	51	0.54	020.99	0
020	Total Phosphorus as P2O5 (%)	0520	5.000	0.1200	4.688	0.4877	0.0771	51	0.64	020.99	0
020	Total Phosphorus as P2O5 (%)	0157	5.010	0.0400	4.688	0.4877	0.0771	51	0.66	020.50	0
020	Total Phosphorus as P2O5 (%)	0231	5.015	0.0100	4.688	0.4877	0.0771	51	0.67	020.50	0
020	Total Phosphorus as P2O5 (%)	0105	5.030	0.1200	4.688	0.4877	0.0771	51	0.70	020.40	0
020	Total Phosphorus as P2O5 (%)	0324	5.040	0.0000	4.688	0.4877	0.0771	51	0.72	020.20	0
020	Total Phosphorus as P2O5 (%)	0444	5.045	0.0300	4.688	0.4877	0.0771	51	0.73	020.50	0
020	Total Phosphorus as P2O5 (%)	0516	5.110	0.0200	4.688	0.4877	0.0771	51	0.87	020.20	0
020	Total Phosphorus as P2O5 (%)	0406	5.150	0.0200	4.688	0.4877	0.0771	51	0.95	020.20	0
020	Total Phosphorus as P2O5 (%)	0451	5.215	0.1700	4.688	0.4877	0.0771	51	1.08	020.50	0
020	Total Phosphorus as P2O5 (%)	0422	5.225	0.8300	4.688	0.4877	0.0771	51	1.10	020.50	0
020	Total Phosphorus as P2O5 (%)	0309	5.260	0.2400	4.688	0.4877	0.0771	51	1.17	020.20	0
020	Total Phosphorus as P2O5 (%)	0405	5.279	0.0240	4.688	0.4877	0.0771	51	1.21	020.20	0
020	Total Phosphorus as P2O5 (%)	0096	5.295	0.0100	4.688	0.4877	0.0771	51	1.25	020.40	0
020	Total Phosphorus as P2O5 (%)	0483	5.375	0.0700	4.688	0.4877	0.0771	51	1.41	020.50	0
020	Total Phosphorus as P2O5 (%)	0506	5.535	0.0700	4.688	0.4877	0.0771	51	1.74	020.20	0
020	Total Phosphorus as P2O5 (%)	0292	5.575	0.0100	4.688	0.4877	0.0771	51	1.82	020.20	0
020	Total Phosphorus as P2O5 (%)	0035	5.275	1.910	4.688	0.4877	0.0771	51	1.20	020.40	1
020	Total Phosphorus as P2O5 (%)	0390	6.645	1.150	4.688	0.4877	0.0771	51	4.01	020.50	1
030	Citrate Insoluble Phosphorus as P2O5 (%)	0096	0.5400	0.0000	1.177	1.328	0.0323	5	-0.48	030.40	0
030	Citrate Insoluble Phosphorus as P2O5 (%)	0503	0.5550	0.0100	1.177	1.328	0.0323	5	-0.47	030.20	0
030	Citrate Insoluble Phosphorus as P2O5 (%)	0220	0.5850	0.0100	1.177	1.328	0.0323	5	-0.45	030.20	0
030	Citrate Insoluble Phosphorus as P2O5 (%)	0405	0.6528	0.0016	1.177	1.328	0.0323	5	-0.39	030.20	0
030	Citrate Insoluble Phosphorus as P2O5 (%)	0519	3.550	0.1400	1.177	1.328	0.0323	5	1.79	030.99	0
040	Indirect Available Phosphorus as P2O5 (2%)	0220	.9100*	0.1400	3.430	2.184	0.0585	3	-1.15	040.20	0
040	Indirect Available Phosphorus as P2O5 (2%)	0405	4.626	0.0256	3.430	2.184	0.0585	3	0.55	040.20	0
040	Indirect Available Phosphorus as P2O5 (2%)	0096	4.755	0.0100	3.430	2.184	0.0585	3	0.61	040.40	0
041	Direct Available Phosphorus as P2O5 (2%)	0230	2.795*	0.3700	4.231	0.3027	0.0958	37	-4.74	041.60	0
041	Direct Available Phosphorus as P2O5 (2%)	0472	3.735	0.0300	4.231	0.3027	0.0958	37	-1.64	041.60	0
041	Direct Available Phosphorus as P2O5 (2%)	0095	3.780	0.1000	4.231	0.3027	0.0958	37	-1.49	041.40	0
041	Direct Available Phosphorus as P2O5 (2%)	0185	3.915	0.0700	4.231	0.3027	0.0958	37	-1.04	041.11	0
041	Direct Available Phosphorus as P2O5 (2%)	0009	4.000	0.0000	4.231	0.3027	0.0958	37	-0.76	041.10	0
041	Direct Available Phosphorus as P2O5 (2%)	0102	4.000	0.0000	4.231	0.3027	0.0958	37	-0.76	041.10	0
041	Direct Available Phosphorus as P2O5 (2%)	0325	4.000	0.0000	4.231	0.3027	0.0958	37	-0.76	041.50	0
041	Direct Available Phosphorus as P2O5 (2%)	0485	4.010	0.0600	4.231	0.3027	0.0958	37	-0.73	041.11	0
041	Direct Available Phosphorus as P2O5 (2%)	0043	4.030	0.0200	4.231	0.3027	0.0958	37	-0.66	041.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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041	Direct Available Phosphorus as P2O5 (2%)	0041	4.065	0.0700	4.231	0.3027	0.0958	37	-0.55	041.10	0
041	Direct Available Phosphorus as P2O5 (2%)	0397	4.078	0.0234	4.231	0.3027	0.0958	37	-0.50	041.20	0
041	Direct Available Phosphorus as P2O5 (2%)	0117	4.085	0.0100	4.231	0.3027	0.0958	37	-0.48	041.60	0
041	Direct Available Phosphorus as P2O5 (2%)	0493	4.100	0.1000	4.231	0.3027	0.0958	37	-0.43	041.11	0
041	Direct Available Phosphorus as P2O5 (2%)	0007	4.100	0.4000	4.231	0.3027	0.0958	37	-0.43	041.50	0
041	Direct Available Phosphorus as P2O5 (2%)	0136	4.100	0.0400	4.231	0.3027	0.0958	37	-0.43	041.60	0
041	Direct Available Phosphorus as P2O5 (2%)	0055	4.140	0.1600	4.231	0.3027	0.0958	37	-0.30	041.11	0
041	Direct Available Phosphorus as P2O5 (2%)	0034	4.144	0.0100	4.231	0.3027	0.0958	37	-0.29	041.60	0
041	Direct Available Phosphorus as P2O5 (2%)	0040	4.150	0.3000	4.231	0.3027	0.0958	37	-0.27	041.10	0
041	Direct Available Phosphorus as P2O5 (2%)	0368	4.168	0.1565	4.231	0.3027	0.0958	37	-0.21	041.50	0
041	Direct Available Phosphorus as P2O5 (2%)	0073	4.180	0.1000	4.231	0.3027	0.0958	37	-0.17	041.60	0
041	Direct Available Phosphorus as P2O5 (2%)	0105	4.180	0.0600	4.231	0.3027	0.0958	37	-0.17	041.99	0
041	Direct Available Phosphorus as P2O5 (2%)	0105	4.225	0.0900	4.231	0.3027	0.0958	37	-0.02	041.11	0
041	Direct Available Phosphorus as P2O5 (2%)	0029	4.225	0.0700	4.231	0.3027	0.0958	37	-0.02	041.60	0
041	Direct Available Phosphorus as P2O5 (2%)	0377	4.355	0.0500	4.231	0.3027	0.0958	37	0.41	041.51	0
041	Direct Available Phosphorus as P2O5 (2%)	0131	4.360	0.0400	4.231	0.3027	0.0958	37	0.43	041.40	0
041	Direct Available Phosphorus as P2O5 (2%)	0025	4.383	0.0170	4.231	0.3027	0.0958	37	0.50	041.51	0
041	Direct Available Phosphorus as P2O5 (2%)	0354	4.406	0.0060	4.231	0.3027	0.0958	37	0.58	041.60	0
041	Direct Available Phosphorus as P2O5 (2%)	0231	4.415	0.2100	4.231	0.3027	0.0958	37	0.61	041.60	0
041	Direct Available Phosphorus as P2O5 (2%)	0360	4.420	0.1600	4.231	0.3027	0.0958	37	0.62	041.51	0
041	Direct Available Phosphorus as P2O5 (2%)	0486	4.460	0.0200	4.231	0.3027	0.0958	37	0.76	041.60	0
041	Direct Available Phosphorus as P2O5 (2%)	0231	4.475	0.1500	4.231	0.3027	0.0958	37	0.81	041.50	0
041	Direct Available Phosphorus as P2O5 (2%)	0452	4.615	0.0100	4.231	0.3027	0.0958	37	1.27	041.50	0
041	Direct Available Phosphorus as P2O5 (2%)	0023	4.815	0.1300	4.231	0.3027	0.0958	37	1.93	041.51	0
041	Direct Available Phosphorus as P2O5 (2%)	0105	4.815	0.1100	4.231	0.3027	0.0958	37	1.93	041.60	0
041	Direct Available Phosphorus as P2O5 (2%)	0498	5.100	0.2000	4.231	0.3027	0.0958	37	2.87	041.20	0
041	Direct Available Phosphorus as P2O5 (2%)	0055	5.170	0.0000	4.231	0.3027	0.0958	37	3.10	041.21	0
041	Direct Available Phosphorus as P2O5 (2%)	0506	5.200	0.2000	4.231	0.3027	0.0958	37	3.20	041.99	0
041	Direct Available Phosphorus as P2O5 (2%)	0040	4.650	0.5000	4.231	0.3027	0.0958	37	1.38	041.50	1
048	Water Soluble Phosphorus as P2O5 (%)	0503	0.0350	0.0100	0.4970	0.4930	0.0275	4	-0.94	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0096	0.3150	0.0100	0.4970	0.4930	0.0275	4	-0.37	048.40	0
048	Water Soluble Phosphorus as P2O5 (%)	0405	0.4480	0.0100	0.4970	0.4930	0.0275	4	-0.10	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0519	1.190	0.0800	0.4970	0.4930	0.0275	4	1.41	048.99	0
050	Soluble Potassium as K2O (%)	0503	0.2950	0.0100	0.3872	0.0554	0.0193	15	-1.66	050.99	0
050	Soluble Potassium as K2O (%)	0521	0.3069	0.0002	0.3872	0.0554	0.0193	15	-1.45	050.99	0
050	Soluble Potassium as K2O (%)	0105	0.3600	0.0000	0.3872	0.0554	0.0193	15	-0.49	050.60	0
050	Soluble Potassium as K2O (%)	0105	0.3600	0.0200	0.3872	0.0554	0.0193	15	-0.49	050.99	0
050	Soluble Potassium as K2O (%)	0354	0.3615	0.0050	0.3872	0.0554	0.0193	15	-0.46	050.52	0
050	Soluble Potassium as K2O (%)	0472	0.3700	0.0000	0.3872	0.0554	0.0193	15	-0.31	050.31	0
050	Soluble Potassium as K2O (%)	0185	0.3750	0.0300	0.3872	0.0554	0.0193	15	-0.22	050.32	0
050	Soluble Potassium as K2O (%)	0421	0.3750	0.0500	0.3872	0.0554	0.0193	15	-0.22	050.99	0
050	Soluble Potassium as K2O (%)	0096	0.4000	0.0600	0.3872	0.0554	0.0193	15	0.23	050.99	0
050	Soluble Potassium as K2O (%)	0325	0.4000	0.0000	0.3872	0.0554	0.0193	15	0.23	050.99	0

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050	Soluble Potassium as K2O (%)	0389	0.4050	0.0040	0.3872	0.0554	0.0193	15	0.32	050.99	0
050	Soluble Potassium as K2O (%)	0105	0.4200	0.0200	0.3872	0.0554	0.0193	15	0.59	050.62	0
050	Soluble Potassium as K2O (%)	0482	0.4300	0.0600	0.3872	0.0554	0.0193	15	0.77	050.99	0
050	Soluble Potassium as K2O (%)	0483	0.4700	0.0200	0.3872	0.0554	0.0193	15	1.50	050.51	0
050	Soluble Potassium as K2O (%)	0292	0.5050	0.0100	0.3872	0.0554	0.0193	15	2.13	050.50	0
060	Water (Free) (%)	0007	2.055	0.0100	4.210	1.963	0.0429	7	-1.03	060.00	0
060	Water (Free) (%)	0456	2.450	0.1000	4.210	1.963	0.0429	7	-0.84	060.00	0
060	Water (Free) (%)	0510	3.140	0.0000	4.210	1.963	0.0429	7	-0.51	060.99	0
060	Water (Free) (%)	0096	4.090	0.1400	4.210	1.963	0.0429	7	-0.06	060.00	0
060	Water (Free) (%)	0513	5.400	0.0400	4.210	1.963	0.0429	7	0.57	060.99	0
060	Water (Free) (%)	0503	6.135	0.0100	4.210	1.963	0.0429	7	0.92	060.30	0
060	Water (Free) (%)	0055	6.200	0.0000	4.210	1.963	0.0429	7	0.95	060.30	0
101	Acid Soluble Calcium (%)	0521	1.524	0.0002	1.979	0.1961	0.0569	16	-2.32	101.32	0
101	Acid Soluble Calcium (%)	0307	1.588	0.2420	1.979	0.1961	0.0569	16	-1.99	101.30	0
101	Acid Soluble Calcium (%)	0035	1.860	0.0600	1.979	0.1961	0.0569	16	-0.61	101.30	0
101	Acid Soluble Calcium (%)	0503	1.870	0.0200	1.979	0.1961	0.0569	16	-0.56	101.30	0
101	Acid Soluble Calcium (%)	0421	1.870	0.0200	1.979	0.1961	0.0569	16	-0.56	101.33	0
101	Acid Soluble Calcium (%)	0482	1.900	0.0000	1.979	0.1961	0.0569	16	-0.40	101.30	0
101	Acid Soluble Calcium (%)	0105	1.971	0.0790	1.979	0.1961	0.0569	16	-0.04	101.00	0
101	Acid Soluble Calcium (%)	0354	1.995	0.0530	1.979	0.1961	0.0569	16	0.08	101.30	0
101	Acid Soluble Calcium (%)	0472	1.995	0.0100	1.979	0.1961	0.0569	16	0.08	101.30	0
101	Acid Soluble Calcium (%)	0034	1.998	0.0420	1.979	0.1961	0.0569	16	0.10	101.33	0
101	Acid Soluble Calcium (%)	0025	2.004	0.0190	1.979	0.1961	0.0569	16	0.13	101.33	0
101	Acid Soluble Calcium (%)	0102	2.035	0.0800	1.979	0.1961	0.0569	16	0.29	101.30	0
101	Acid Soluble Calcium (%)	0096	2.045	0.0500	1.979	0.1961	0.0569	16	0.34	101.30	0
101	Acid Soluble Calcium (%)	0389	2.235	0.0100	1.979	0.1961	0.0569	16	1.31	101.99	0
101	Acid Soluble Calcium (%)	0086	2.244	0.0144	1.979	0.1961	0.0569	16	1.35	101.03	0
101	Acid Soluble Calcium (%)	0483	2.575	0.2100	1.979	0.1961	0.0569	16	3.04	101.30	0
101	Acid Soluble Calcium (%)	0390	2.715	0.4100	1.979	0.1961	0.0569	16	3.75	101.99	1
121	Acid Soluble Magnesium (%)	0521	0.3430	0.0001	0.4306	0.0427	0.0099	16	-2.05	121.32	0
121	Acid Soluble Magnesium (%)	0307	0.3820	0.0180	0.4306	0.0427	0.0099	16	-1.14	121.30	0
121	Acid Soluble Magnesium (%)	0503	0.3900	0.0000	0.4306	0.0427	0.0099	16	-0.95	121.30	0
121	Acid Soluble Magnesium (%)	0105	0.3920	0.0208	0.4306	0.0427	0.0099	16	-0.90	121.00	0
121	Acid Soluble Magnesium (%)	0482	0.4050	0.0300	0.4306	0.0427	0.0099	16	-0.60	121.30	0
121	Acid Soluble Magnesium (%)	0034	0.4280	0.0140	0.4306	0.0427	0.0099	16	-0.06	121.33	0
121	Acid Soluble Magnesium (%)	0421	0.4300	0.0000	0.4306	0.0427	0.0099	16	-0.01	121.33	0
121	Acid Soluble Magnesium (%)	0035	0.4315	0.0130	0.4306	0.0427	0.0099	16	0.02	121.30	0
121	Acid Soluble Magnesium (%)	0354	0.4325	0.0090	0.4306	0.0427	0.0099	16	0.05	121.30	0
121	Acid Soluble Magnesium (%)	0025	0.4329	0.0124	0.4306	0.0427	0.0099	16	0.05	121.33	0
121	Acid Soluble Magnesium (%)	0472	0.4350	0.0100	0.4306	0.0427	0.0099	16	0.10	121.30	0
121	Acid Soluble Magnesium (%)	0389	0.4415	0.0070	0.4306	0.0427	0.0099	16	0.26	121.99	0
121	Acid Soluble Magnesium (%)	0096	0.4600	0.0000	0.4306	0.0427	0.0099	16	0.69	121.30	0
121	Acid Soluble Magnesium (%)	0102	0.4730	0.0180	0.4306	0.0427	0.0099	16	0.99	121.30	0

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121	Acid Soluble Magnesium (%)	0483	0.5045	0.0010	0.4306	0.0427	0.0099	16	1.73	121.30	0
121	Acid Soluble Magnesium (%)	0086	0.5577	0.0045	0.4306	0.0427	0.0099	16	2.97	121.03	0
121	Acid Soluble Magnesium (%)	0390	0.5930	0.1040	0.4306	0.0427	0.0099	16	3.80	121.30	1
143	Elemental Sulfur (%)	0503	1.335	0.0100	1.403	0.1098	0.0067	3	-0.62	143.99	0
143	Elemental Sulfur (%)	0472	1.345	0.0100	1.403	0.1098	0.0067	3	-0.53	143.99	0
143	Elemental Sulfur (%)	0389	1.530	0.0000	1.403	0.1098	0.0067	3	1.15	143.99	0
148	Total Sulfur (%)	0086	0.2863	0.0174	1.210	0.5382	0.0212	10	-1.64	148.07	0
148	Total Sulfur (%)	0096	0.6210	0.0180	1.210	0.5382	0.0212	10	-1.04	148.99	0
148	Total Sulfur (%)	0354	0.6600	0.0120	1.210	0.5382	0.0212	10	-0.97	148.99	0
148	Total Sulfur (%)	0307	1.202	0.0390	1.210	0.5382	0.0212	10	-0.01	148.99	0
148	Total Sulfur (%)	0292	1.400	0.0000	1.210	0.5382	0.0212	10	0.34	148.07	0
148	Total Sulfur (%)	0483	1.450	0.0200	1.210	0.5382	0.0212	10	0.43	148.07	0
148	Total Sulfur (%)	0421	1.485	0.0300	1.210	0.5382	0.0212	10	0.49	148.07	0
148	Total Sulfur (%)	0102	1.509	0.0650	1.210	0.5382	0.0212	10	0.53	148.07	0
148	Total Sulfur (%)	0482	1.595	0.0100	1.210	0.5382	0.0212	10	0.68	148.99	0
148	Total Sulfur (%)	0521	1.775	0.0002	1.210	0.5382	0.0212	10	1.00	148.07	0
148	Total Sulfur (%)	0390	1.955	0.3100	1.210	0.5382	0.0212	10	1.32	148.99	1
151	Acid Soluble Arsenic (ppm)	0486	0.3750	0.0100	2.220	0.9185	0.2942	13	-2.01	151.30	0
151	Acid Soluble Arsenic (ppm)	0481	1.080	0.0600	2.220	0.9185	0.2942	13	-1.24	151.99	0
151	Acid Soluble Arsenic (ppm)	0136	1.450	0.5000	2.220	0.9185	0.2942	13	-0.84	151.00	0
151	Acid Soluble Arsenic (ppm)	0096	1.800	0.0000	2.220	0.9185	0.2942	13	-0.46	151.30	0
151	Acid Soluble Arsenic (ppm)	0519	1.905	0.1500	2.220	0.9185	0.2942	13	-0.34	151.30	0
151	Acid Soluble Arsenic (ppm)	0450	2.000	0.2000	2.220	0.9185	0.2942	13	-0.24	151.30	0
151	Acid Soluble Arsenic (ppm)	0230	2.425	0.1700	2.220	0.9185	0.2942	13	0.22	151.34	0
151	Acid Soluble Arsenic (ppm)	0520	2.500	0.0800	2.220	0.9185	0.2942	13	0.31	151.30	0
151	Acid Soluble Arsenic (ppm)	0368	2.550	0.3000	2.220	0.9185	0.2942	13	0.36	151.30	0
151	Acid Soluble Arsenic (ppm)	0042	2.560	0.0600	2.220	0.9185	0.2942	13	0.37	151.99	0
151	Acid Soluble Arsenic (ppm)	0037	2.895	0.4700	2.220	0.9185	0.2942	13	0.74	151.33	0
151	Acid Soluble Arsenic (ppm)	0220	3.250	0.1000	2.220	0.9185	0.2942	13	1.12	151.99	0
151	Acid Soluble Arsenic (ppm)	0515	4.940	1.724	2.220	0.9185	0.2942	13	2.96	151.34	0
151	Acid Soluble Arsenic (ppm)	0515	4.016	2.204	2.220	0.9185	0.2942	13	1.96	151.33	1
151	Acid Soluble Arsenic (ppm)	0009	0.3000	0.6000	2.220	0.9185	0.2942	13	-2.09	151.33	4
165	Acid Soluble Boron (%)	0009	0.0027	0.0000	0.0063	0.0047	0.0013	8	-0.72	165.99	0
165	Acid Soluble Boron (%)	0389	0.0032	0.0001	0.0063	0.0047	0.0013	8	-0.63	165.30	0
165	Acid Soluble Boron (%)	0521	0.0035	0.0000	0.0063	0.0047	0.0013	8	-0.56	165.30	0
165	Acid Soluble Boron (%)	0421	0.0035	0.0030	0.0063	0.0047	0.0013	8	-0.56	165.99	0
165	Acid Soluble Boron (%)	0483	0.0042	0.0003	0.0063	0.0047	0.0013	8	-0.43	165.99	0
165	Acid Soluble Boron (%)	0472	0.0100	0.0000	0.0063	0.0047	0.0013	8	0.74	165.99	0
165	Acid Soluble Boron (%)	0482	0.0100	0.0000	0.0063	0.0047	0.0013	8	0.74	165.99	0
165	Acid Soluble Boron (%)	0354	0.0265	0.0070	0.0063	0.0047	0.0013	8	4.06	165.30	0
165	Acid Soluble Boron (%)	0086	1.500	0.1815	0.0063	0.0047	0.0013	8	299.93	165.30	2
181	Acid Soluble Cadmium (ppm)	0009	0.9000	0.0000	1.674	0.3355	0.0713	18	-2.31	181.33	0
181	Acid Soluble Cadmium (ppm)	0486	1.250	0.0600	1.674	0.3355	0.0713	18	-1.26	181.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
181	Acid Soluble Cadmium (ppm)	0520	1.310	0.0600	1.674	0.3355	0.0713	18	-1.09	181.30	0
181	Acid Soluble Cadmium (ppm)	0519	1.345	0.0700	1.674	0.3355	0.0713	18	-0.98	181.30	0
181	Acid Soluble Cadmium (ppm)	0444	1.515	0.0500	1.674	0.3355	0.0713	18	-0.47	181.30	0
181	Acid Soluble Cadmium (ppm)	0482	1.550	0.1000	1.674	0.3355	0.0713	18	-0.37	181.30	0
181	Acid Soluble Cadmium (ppm)	0481	1.555	0.0100	1.674	0.3355	0.0713	18	-0.35	181.99	0
181	Acid Soluble Cadmium (ppm)	0042	1.560	0.0200	1.674	0.3355	0.0713	18	-0.34	181.99	0
181	Acid Soluble Cadmium (ppm)	0035	1.620	0.1000	1.674	0.3355	0.0713	18	-0.16	181.30	0
181	Acid Soluble Cadmium (ppm)	0450	1.700	0.0000	1.674	0.3355	0.0713	18	0.08	181.30	0
181	Acid Soluble Cadmium (ppm)	0136	1.750	0.1000	1.674	0.3355	0.0713	18	0.23	181.00	0
181	Acid Soluble Cadmium (ppm)	0230	1.760	0.0200	1.674	0.3355	0.0713	18	0.26	181.34	0
181	Acid Soluble Cadmium (ppm)	0102	1.793	0.0840	1.674	0.3355	0.0713	18	0.35	181.30	0
181	Acid Soluble Cadmium (ppm)	0096	2.000	0.2000	1.674	0.3355	0.0713	18	0.97	181.30	0
181	Acid Soluble Cadmium (ppm)	0368	2.050	0.1000	1.674	0.3355	0.0713	18	1.12	181.30	0
181	Acid Soluble Cadmium (ppm)	0220	2.050	0.1000	1.674	0.3355	0.0713	18	1.12	181.99	0
181	Acid Soluble Cadmium (ppm)	0037	2.055	0.0100	1.674	0.3355	0.0713	18	1.14	181.33	0
181	Acid Soluble Cadmium (ppm)	0389	2.100	0.2000	1.674	0.3355	0.0713	18	1.27	181.30	0
181	Acid Soluble Cadmium (ppm)	0515	2.442	1.112	1.674	0.3355	0.0713	18	2.29	181.33	1
181	Acid Soluble Cadmium (ppm)	0515	0.5080	1.016	1.674	0.3355	0.0713	18	-3.48	181.34	4
190	Water Soluble Chlorine (%)	0009	0.0500	0.1000				0		190.99	4
191	Acid Soluble Chromium (ppm)	0486	38.70	1.600	58.49	10.49	2.048	22	-1.89	191.30	0
191	Acid Soluble Chromium (ppm)	0520	39.18	0.2100	58.49	10.49	2.048	22	-1.84	191.30	0
191	Acid Soluble Chromium (ppm)	0230	44.60	7.600	58.49	10.49	2.048	22	-1.32	191.34	0
191	Acid Soluble Chromium (ppm)	0506	45.25	5.500	58.49	10.49	2.048	22	-1.26	191.99	0
191	Acid Soluble Chromium (ppm)	0519	49.46	2.710	58.49	10.49	2.048	22	-0.86	191.30	0
191	Acid Soluble Chromium (ppm)	0220	53.50	1.000	58.49	10.49	2.048	22	-0.48	191.99	0
191	Acid Soluble Chromium (ppm)	0042	54.71	1.580	58.49	10.49	2.048	22	-0.36	191.99	0
191	Acid Soluble Chromium (ppm)	0035	55.35	0.5000	58.49	10.49	2.048	22	-0.30	191.30	0
191	Acid Soluble Chromium (ppm)	0450	55.50	1.000	58.49	10.49	2.048	22	-0.29	191.30	0
191	Acid Soluble Chromium (ppm)	0482	57.90	1.000	58.49	10.49	2.048	22	-0.06	191.30	0
191	Acid Soluble Chromium (ppm)	0368	59.50	0.4000	58.49	10.49	2.048	22	0.10	191.30	0
191	Acid Soluble Chromium (ppm)	0444	60.01	0.7000	58.49	10.49	2.048	22	0.14	191.30	0
191	Acid Soluble Chromium (ppm)	0102	62.26	2.364	58.49	10.49	2.048	22	0.36	191.30	0
191	Acid Soluble Chromium (ppm)	0009	63.00	0.0000	58.49	10.49	2.048	22	0.43	191.33	0
191	Acid Soluble Chromium (ppm)	0515	63.02	2.043	58.49	10.49	2.048	22	0.43	191.33	0
191	Acid Soluble Chromium (ppm)	0027	63.37	6.733	58.49	10.49	2.048	22	0.46	191.99	0
191	Acid Soluble Chromium (ppm)	0481	64.50	1.000	58.49	10.49	2.048	22	0.57	191.99	0
191	Acid Soluble Chromium (ppm)	0096	67.95	0.9000	58.49	10.49	2.048	22	0.90	191.30	0
191	Acid Soluble Chromium (ppm)	0389	68.30	0.2000	58.49	10.49	2.048	22	0.94	191.30	0
191	Acid Soluble Chromium (ppm)	0515	69.06	4.405	58.49	10.49	2.048	22	1.01	191.34	0
191	Acid Soluble Chromium (ppm)	0037	69.88	0.8900	58.49	10.49	2.048	22	1.09	191.33	0
191	Acid Soluble Chromium (ppm)	0086	104.3	2.710	58.49	10.49	2.048	22	4.37	191.33	0
202	Acid Soluble Cobalt (ppm)	0486	5.850	0.5000	10.82	4.004	0.5978	18	-1.24	202.30	0
202	Acid Soluble Cobalt (ppm)	0519	5.920	0.0600	10.82	4.004	0.5978	18	-1.22	202.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
202	Acid Soluble Cobalt (ppm)	0042	7.350	0.6800	10.82	4.004	0.5978	18	-0.87	202.99	0
202	Acid Soluble Cobalt (ppm)	0096	7.575	0.1900	10.82	4.004	0.5978	18	-0.81	202.30	0
202	Acid Soluble Cobalt (ppm)	0520	7.655	0.1500	10.82	4.004	0.5978	18	-0.79	202.30	0
202	Acid Soluble Cobalt (ppm)	0230	8.080	1.340	10.82	4.004	0.5978	18	-0.68	202.34	0
202	Acid Soluble Cobalt (ppm)	0506	8.350	1.700	10.82	4.004	0.5978	18	-0.62	202.99	0
202	Acid Soluble Cobalt (ppm)	0102	8.921	0.6600	10.82	4.004	0.5978	18	-0.47	202.30	0
202	Acid Soluble Cobalt (ppm)	0220	9.700	0.2000	10.82	4.004	0.5978	18	-0.28	202.99	0
202	Acid Soluble Cobalt (ppm)	0368	10.45	0.1000	10.82	4.004	0.5978	18	-0.09	202.30	0
202	Acid Soluble Cobalt (ppm)	0035	12.50	1.200	10.82	4.004	0.5978	18	0.42	202.30	0
202	Acid Soluble Cobalt (ppm)	0450	13.15	0.3000	10.82	4.004	0.5978	18	0.58	202.30	0
202	Acid Soluble Cobalt (ppm)	0482	13.55	0.1000	10.82	4.004	0.5978	18	0.68	202.30	0
202	Acid Soluble Cobalt (ppm)	0515	14.06	1.966	10.82	4.004	0.5978	18	0.81	202.33	0
202	Acid Soluble Cobalt (ppm)	0515	14.53	0.9640	10.82	4.004	0.5978	18	0.93	202.34	0
202	Acid Soluble Cobalt (ppm)	0389	15.15	0.3000	10.82	4.004	0.5978	18	1.08	202.30	0
202	Acid Soluble Cobalt (ppm)	0037	15.97	0.3500	10.82	4.004	0.5978	18	1.29	202.33	0
202	Acid Soluble Cobalt (ppm)	0009	16.00	0.0000	10.82	4.004	0.5978	18	1.29	202.33	0
202	Acid Soluble Cobalt (ppm)	0086	174.3	9.700	10.82	4.004	0.5978	18	40.82	202.33	2
221	Acid Soluble Copper (%)	0481	0.0027	0.0000	0.0243	0.0027	0.0008	31	-8.10	221.00	0
221	Acid Soluble Copper (%)	0472	0.0200	0.0000	0.0243	0.0027	0.0008	31	-1.62	221.30	0
221	Acid Soluble Copper (%)	0519	0.0200	0.0000	0.0243	0.0027	0.0008	31	-1.62	221.30	0
221	Acid Soluble Copper (%)	0520	0.0213	0.0003	0.0243	0.0027	0.0008	31	-1.16	221.30	0
221	Acid Soluble Copper (%)	0515	0.0216	0.0010	0.0243	0.0027	0.0008	31	-1.02	221.33	0
221	Acid Soluble Copper (%)	0450	0.0220	0.0000	0.0243	0.0027	0.0008	31	-0.87	221.30	0
221	Acid Soluble Copper (%)	0009	0.0225	0.0010	0.0243	0.0027	0.0008	31	-0.69	221.33	0
221	Acid Soluble Copper (%)	0515	0.0226	0.0002	0.0243	0.0027	0.0008	31	-0.65	221.99	0
221	Acid Soluble Copper (%)	0043	0.0228	0.0015	0.0243	0.0027	0.0008	31	-0.59	221.00	0
221	Acid Soluble Copper (%)	0486	0.0230	0.0020	0.0243	0.0027	0.0008	31	-0.50	221.30	0
221	Acid Soluble Copper (%)	0230	0.0233	0.0002	0.0243	0.0027	0.0008	31	-0.39	221.30	0
221	Acid Soluble Copper (%)	0354	0.0235	0.0010	0.0243	0.0027	0.0008	31	-0.31	221.30	0
221	Acid Soluble Copper (%)	0220	0.0238	0.0001	0.0243	0.0027	0.0008	31	-0.22	221.99	0
221	Acid Soluble Copper (%)	0042	0.0242	0.0002	0.0243	0.0027	0.0008	31	-0.05	221.99	0
221	Acid Soluble Copper (%)	0498	0.0245	0.0010	0.0243	0.0027	0.0008	31	0.06	221.00	0
221	Acid Soluble Copper (%)	0433	0.0245	0.0008	0.0243	0.0027	0.0008	31	0.06	221.30	0
221	Acid Soluble Copper (%)	0105	0.0246	0.0003	0.0243	0.0027	0.0008	31	0.08	221.00	0
221	Acid Soluble Copper (%)	0096	0.0246	0.0018	0.0243	0.0027	0.0008	31	0.10	221.30	0
221	Acid Soluble Copper (%)	0402	0.0250	0.0100	0.0243	0.0027	0.0008	31	0.25	221.30	0
221	Acid Soluble Copper (%)	0037	0.0251	0.0002	0.0243	0.0027	0.0008	31	0.29	221.33	0
221	Acid Soluble Copper (%)	0035	0.0253	0.0001	0.0243	0.0027	0.0008	31	0.34	221.30	0
221	Acid Soluble Copper (%)	0368	0.0255	0.0002	0.0243	0.0027	0.0008	31	0.44	221.30	0
221	Acid Soluble Copper (%)	0421	0.0255	0.0010	0.0243	0.0027	0.0008	31	0.44	221.33	0
221	Acid Soluble Copper (%)	0521	0.0256	0.0000	0.0243	0.0027	0.0008	31	0.47	221.32	0
221	Acid Soluble Copper (%)	0027	0.0260	0.0000	0.0243	0.0027	0.0008	31	0.62	221.99	0
221	Acid Soluble Copper (%)	0444	0.0265	0.0010	0.0243	0.0027	0.0008	31	0.81	221.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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221	Acid Soluble Copper (%)	0483	0.0273	0.0000	0.0243	0.0027	0.0008	31	1.11	221.30	0
221	Acid Soluble Copper (%)	0389	0.0281	0.0001	0.0243	0.0027	0.0008	31	1.39	221.99	0
221	Acid Soluble Copper (%)	0482	0.0300	0.0000	0.0243	0.0027	0.0008	31	2.12	221.30	0
221	Acid Soluble Copper (%)	0506	0.0300	0.0000	0.0243	0.0027	0.0008	31	2.12	221.99	0
221	Acid Soluble Copper (%)	0102	0.0305	0.0010	0.0243	0.0027	0.0008	31	2.31	221.30	0
221	Acid Soluble Copper (%)	0086	3.821	0.4075	0.0243	0.0027	0.0008	31	1422.11	221.33	2
241	Acid Soluble Iron (%)	0503	1.980	0.0000	2.333	0.2956	0.1498	17	-1.20	241.30	0
241	Acid Soluble Iron (%)	0402	2.015	0.0500	2.333	0.2956	0.1498	17	-1.08	241.30	0
241	Acid Soluble Iron (%)	0035	2.045	0.0700	2.333	0.2956	0.1498	17	-0.98	241.30	0
241	Acid Soluble Iron (%)	0472	2.080	0.0200	2.333	0.2956	0.1498	17	-0.86	241.30	0
241	Acid Soluble Iron (%)	0025	2.176	0.1340	2.333	0.2956	0.1498	17	-0.53	241.33	0
241	Acid Soluble Iron (%)	0102	2.207	0.1120	2.333	0.2956	0.1498	17	-0.43	241.30	0
241	Acid Soluble Iron (%)	0096	2.230	0.1600	2.333	0.2956	0.1498	17	-0.35	241.30	0
241	Acid Soluble Iron (%)	0354	2.281	0.0450	2.333	0.2956	0.1498	17	-0.18	241.30	0
241	Acid Soluble Iron (%)	0034	2.287	0.0350	2.333	0.2956	0.1498	17	-0.16	241.33	0
241	Acid Soluble Iron (%)	0482	2.300	0.0200	2.333	0.2956	0.1498	17	-0.11	241.30	0
241	Acid Soluble Iron (%)	0105	2.312	0.1280	2.333	0.2956	0.1498	17	-0.07	241.00	0
241	Acid Soluble Iron (%)	0421	2.435	0.0100	2.333	0.2956	0.1498	17	0.34	241.33	0
241	Acid Soluble Iron (%)	0483	2.460	0.0200	2.333	0.2956	0.1498	17	0.43	241.30	0
241	Acid Soluble Iron (%)	0521	2.532	0.0000	2.333	0.2956	0.1498	17	0.67	241.32	0
241	Acid Soluble Iron (%)	0390	3.050	0.5600	2.333	0.2956	0.1498	17	2.42	241.30	0
241	Acid Soluble Iron (%)	0086	16.68	0.5820	2.333	0.2956	0.1498	17	48.52	241.33	0
241	Acid Soluble Iron (%)	0389	22.80	0.6000	2.333	0.2956	0.1498	17	69.23	241.99	0
251	Acid Soluble Lead (ppm)	0486	27.10	0.6000	34.37	4.415	1.857	23	-1.65	251.30	0
251	Acid Soluble Lead (ppm)	0519	28.24	0.9700	34.37	4.415	1.857	23	-1.39	251.30	0
251	Acid Soluble Lead (ppm)	0481	28.50	2.200	34.37	4.415	1.857	23	-1.33	251.99	0
251	Acid Soluble Lead (ppm)	0506	29.25	8.500	34.37	4.415	1.857	23	-1.16	251.99	0
251	Acid Soluble Lead (ppm)	0042	29.35	1.300	34.37	4.415	1.857	23	-1.14	251.99	0
251	Acid Soluble Lead (ppm)	0520	31.67	0.1400	34.37	4.415	1.857	23	-0.61	251.30	0
251	Acid Soluble Lead (ppm)	0035	33.35	0.3000	34.37	4.415	1.857	23	-0.23	251.30	0
251	Acid Soluble Lead (ppm)	0503	33.79	0.1800	34.37	4.415	1.857	23	-0.13	251.30	0
251	Acid Soluble Lead (ppm)	0027	34.18	0.0780	34.37	4.415	1.857	23	-0.04	251.99	0
251	Acid Soluble Lead (ppm)	0368	34.20	1.000	34.37	4.415	1.857	23	-0.04	251.30	0
251	Acid Soluble Lead (ppm)	0482	34.40	1.600	34.37	4.415	1.857	23	0.01	251.30	0
251	Acid Soluble Lead (ppm)	0136	34.50	1.000	34.37	4.415	1.857	23	0.03	251.00	0
251	Acid Soluble Lead (ppm)	0230	34.85	0.3000	34.37	4.415	1.857	23	0.11	251.34	0
251	Acid Soluble Lead (ppm)	0450	35.15	0.7000	34.37	4.415	1.857	23	0.18	251.30	0
251	Acid Soluble Lead (ppm)	0096	35.25	3.300	34.37	4.415	1.857	23	0.20	251.30	0
251	Acid Soluble Lead (ppm)	0444	35.41	0.7600	34.37	4.415	1.857	23	0.24	251.30	0
251	Acid Soluble Lead (ppm)	0037	35.98	0.1500	34.37	4.415	1.857	23	0.36	251.33	0
251	Acid Soluble Lead (ppm)	0515	36.55	3.571	34.37	4.415	1.857	23	0.49	251.34	0
251	Acid Soluble Lead (ppm)	0009	37.50	3.000	34.37	4.415	1.857	23	0.71	251.00	0
251	Acid Soluble Lead (ppm)	0389	39.30	0.4000	34.37	4.415	1.857	23	1.12	251.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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251	Acid Soluble Lead (ppm)	0102	39.41	1.519	34.37	4.415	1.857	23	1.14	251.30	0
251	Acid Soluble Lead (ppm)	0515	41.46	8.133	34.37	4.415	1.857	23	1.61	251.33	0
251	Acid Soluble Lead (ppm)	0220	45.50	3.000	34.37	4.415	1.857	23	2.52	251.99	0
251	Acid Soluble Lead (ppm)	0086	678.1	106.0	34.37	4.415	1.857	23	145.82	251.33	2
261	Acid Soluble Manganese (%)	0521	0.0711	0.0001	0.0898	0.0069	0.0039	16	-2.70	261.34	0
261	Acid Soluble Manganese (%)	0483	0.0765	0.0045	0.0898	0.0069	0.0039	16	-1.92	261.32	0
261	Acid Soluble Manganese (%)	0009	0.0820	0.0040	0.0898	0.0069	0.0039	16	-1.12	261.35	0
261	Acid Soluble Manganese (%)	0035	0.0848	0.0030	0.0898	0.0069	0.0039	16	-0.72	261.30	0
261	Acid Soluble Manganese (%)	0025	0.0871	0.0055	0.0898	0.0069	0.0039	16	-0.39	261.35	0
261	Acid Soluble Manganese (%)	0105	0.0888	0.0012	0.0898	0.0069	0.0039	16	-0.14	261.12	0
261	Acid Soluble Manganese (%)	0421	0.0895	0.0010	0.0898	0.0069	0.0039	16	-0.04	261.35	0
261	Acid Soluble Manganese (%)	0472	0.0900	0.0000	0.0898	0.0069	0.0039	16	0.03	261.30	0
261	Acid Soluble Manganese (%)	0402	0.0900	0.0000	0.0898	0.0069	0.0039	16	0.03	261.32	0
261	Acid Soluble Manganese (%)	0354	0.0905	0.0070	0.0898	0.0069	0.0039	16	0.11	261.30	0
261	Acid Soluble Manganese (%)	0102	0.0935	0.0030	0.0898	0.0069	0.0039	16	0.54	261.30	0
261	Acid Soluble Manganese (%)	0389	0.0935	0.0010	0.0898	0.0069	0.0039	16	0.54	261.99	0
261	Acid Soluble Manganese (%)	0482	0.0950	0.0100	0.0898	0.0069	0.0039	16	0.75	261.31	0
261	Acid Soluble Manganese (%)	0096	0.0961	0.0005	0.0898	0.0069	0.0039	16	0.91	261.30	0
261	Acid Soluble Manganese (%)	0043	0.0967	0.0030	0.0898	0.0069	0.0039	16	1.00	261.00	0
261	Acid Soluble Manganese (%)	0390	0.1190	0.0180	0.0898	0.0069	0.0039	16	4.21	261.30	0
261	Acid Soluble Manganese (%)	0086	7.383	0.1310	0.0898	0.0069	0.0039	16	1050.73	261.35	2
281	Acid Soluble Mercury (ppm)	0519	0.3600	0.0600	0.6810	0.2244	0.0420	5	-1.31	281.30	0
281	Acid Soluble Mercury (ppm)	0486	0.5350	0.0700	0.6810	0.2244	0.0420	5	-0.59	281.99	0
281	Acid Soluble Mercury (ppm)	0450	0.7850	0.0300	0.6810	0.2244	0.0420	5	0.42	281.30	0
281	Acid Soluble Mercury (ppm)	0042	0.8500	0.0400	0.6810	0.2244	0.0420	5	0.69	281.99	0
281	Acid Soluble Mercury (ppm)	0520	0.8750	0.0100	0.6810	0.2244	0.0420	5	0.79	281.30	0
281	Acid Soluble Mercury (ppm)	0515	0.0000	0.0000	0.6810	0.2244	0.0420	5	-2.77	281.30	4
289	Acid Soluble Molybdenum (ppm)	0486	7.200	0.4000	9.282	1.415	0.4586	17	-1.47	289.30	0
289	Acid Soluble Molybdenum (ppm)	0220	7.450	0.3000	9.282	1.415	0.4586	17	-1.29	289.99	0
289	Acid Soluble Molybdenum (ppm)	0519	7.690	0.0200	9.282	1.415	0.4586	17	-1.12	289.30	0
289	Acid Soluble Molybdenum (ppm)	0433	8.507	0.1027	9.282	1.415	0.4586	17	-0.55	289.30	0
289	Acid Soluble Molybdenum (ppm)	0035	8.545	0.4700	9.282	1.415	0.4586	17	-0.52	289.30	0
289	Acid Soluble Molybdenum (ppm)	0521	8.617	0.0000	9.282	1.415	0.4586	17	-0.47	289.30	0
289	Acid Soluble Molybdenum (ppm)	0520	8.840	0.5600	9.282	1.415	0.4586	17	-0.31	289.30	0
289	Acid Soluble Molybdenum (ppm)	0515	8.932	1.091	9.282	1.415	0.4586	17	-0.25	289.34	0
289	Acid Soluble Molybdenum (ppm)	0230	9.280	0.5200	9.282	1.415	0.4586	17	0.00	289.34	0
289	Acid Soluble Molybdenum (ppm)	0515	9.447	0.1635	9.282	1.415	0.4586	17	0.12	289.33	0
289	Acid Soluble Molybdenum (ppm)	0042	9.650	0.2400	9.282	1.415	0.4586	17	0.26	289.99	0
289	Acid Soluble Molybdenum (ppm)	0009	10.00	0.0000	9.282	1.415	0.4586	17	0.51	289.33	0
289	Acid Soluble Molybdenum (ppm)	0102	10.03	0.1590	9.282	1.415	0.4586	17	0.53	289.30	0
289	Acid Soluble Molybdenum (ppm)	0450	10.10	0.8000	9.282	1.415	0.4586	17	0.58	289.30	0
289	Acid Soluble Molybdenum (ppm)	0037	10.81	0.2700	9.282	1.415	0.4586	17	1.08	289.33	0
289	Acid Soluble Molybdenum (ppm)	0368	11.30	1.200	9.282	1.415	0.4586	17	1.43	289.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
289	Acid Soluble Molybdenum (ppm)	0506	13.25	1.500	9.282	1.415	0.4586	17	2.80	289.99	0
289	Acid Soluble Molybdenum (ppm)	0086	228.2	48.65	9.282	1.415	0.4586	17	154.64	289.33	2
291	Acid Soluble Nickel (ppm)	0520	17.68	0.4600	28.67	4.629	1.556	21	-2.37	291.30	0
291	Acid Soluble Nickel (ppm)	0486	17.95	1.100	28.67	4.629	1.556	21	-2.32	291.30	0
291	Acid Soluble Nickel (ppm)	0519	20.99	0.1900	28.67	4.629	1.556	21	-1.66	291.30	0
291	Acid Soluble Nickel (ppm)	0230	23.15	4.100	28.67	4.629	1.556	21	-1.19	291.34	0
291	Acid Soluble Nickel (ppm)	0035	26.10	0.6000	28.67	4.629	1.556	21	-0.56	291.30	0
291	Acid Soluble Nickel (ppm)	0042	26.42	0.3500	28.67	4.629	1.556	21	-0.49	291.99	0
291	Acid Soluble Nickel (ppm)	0482	26.95	0.3000	28.67	4.629	1.556	21	-0.37	291.30	0
291	Acid Soluble Nickel (ppm)	0450	27.00	0.0000	28.67	4.629	1.556	21	-0.36	291.30	0
291	Acid Soluble Nickel (ppm)	0506	27.50	2.000	28.67	4.629	1.556	21	-0.25	291.99	0
291	Acid Soluble Nickel (ppm)	0220	28.10	0.4000	28.67	4.629	1.556	21	-0.12	291.99	0
291	Acid Soluble Nickel (ppm)	0368	29.80	1.200	28.67	4.629	1.556	21	0.24	291.30	0
291	Acid Soluble Nickel (ppm)	0102	30.54	1.354	28.67	4.629	1.556	21	0.40	291.30	0
291	Acid Soluble Nickel (ppm)	0515	30.66	2.440	28.67	4.629	1.556	21	0.43	291.34	0
291	Acid Soluble Nickel (ppm)	0009	31.00	2.000	28.67	4.629	1.556	21	0.50	291.33	0
291	Acid Soluble Nickel (ppm)	0521	31.81	0.0000	28.67	4.629	1.556	21	0.68	291.30	0
291	Acid Soluble Nickel (ppm)	0444	32.12	1.960	28.67	4.629	1.556	21	0.74	291.30	0
291	Acid Soluble Nickel (ppm)	0037	32.12	0.2400	28.67	4.629	1.556	21	0.74	291.33	0
291	Acid Soluble Nickel (ppm)	0027	32.62	2.761	28.67	4.629	1.556	21	0.85	291.99	0
291	Acid Soluble Nickel (ppm)	0136	33.50	3.000	28.67	4.629	1.556	21	1.04	291.00	0
291	Acid Soluble Nickel (ppm)	0515	33.68	8.222	28.67	4.629	1.556	21	1.08	291.33	0
291	Acid Soluble Nickel (ppm)	0096	33.90	0.0000	28.67	4.629	1.556	21	1.13	291.30	0
291	Acid Soluble Nickel (ppm)	0481	33.00	12.00	28.67	4.629	1.556	21	0.93	291.99	1
291	Acid Soluble Nickel (ppm)	0086	129.7	8.876	28.67	4.629	1.556	21	21.82	291.33	2
301	Acid Soluble Selenium (ppm)	0503	0.4650	0.0300	3.109	1.969	0.2950	10	-1.34	301.30	0
301	Acid Soluble Selenium (ppm)	0009	0.6500	0.1000	3.109	1.969	0.2950	10	-1.25	301.33	0
301	Acid Soluble Selenium (ppm)	0520	2.605	0.1300	3.109	1.969	0.2950	10	-0.26	301.30	0
301	Acid Soluble Selenium (ppm)	0037	3.015	0.5500	3.109	1.969	0.2950	10	-0.05	301.33	0
301	Acid Soluble Selenium (ppm)	0519	3.120	0.0200	3.109	1.969	0.2950	10	0.01	301.30	0
301	Acid Soluble Selenium (ppm)	0481	3.150	0.1400	3.109	1.969	0.2950	10	0.02	301.99	0
301	Acid Soluble Selenium (ppm)	0230	3.240	1.060	3.109	1.969	0.2950	10	0.07	301.34	0
301	Acid Soluble Selenium (ppm)	0485	3.440	0.1200	3.109	1.969	0.2950	10	0.17	301.99	0
301	Acid Soluble Selenium (ppm)	0042	5.340	0.0000	3.109	1.969	0.2950	10	1.13	301.99	0
301	Acid Soluble Selenium (ppm)	0368	7.400	0.8000	3.109	1.969	0.2950	10	2.18	301.30	0
301	Acid Soluble Selenium (ppm)	0515	0.0000	0.0000	3.109	1.969	0.2950	10	-1.58	301.33	4
301	Acid Soluble Selenium (ppm)	0515	0.0000	0.0000	3.109	1.969	0.2950	10	-1.58	301.34	4
311	Sodium (%)	0503	0.0600	0.0000	0.0890	0.0374	0.0060	9	-0.74	311.99	0
311	Sodium (%)	0482	0.0650	0.0100	0.0890	0.0374	0.0060	9	-0.61	311.99	0
311	Sodium (%)	0102	0.0682	0.0023	0.0890	0.0374	0.0060	9	-0.53	311.33	0
311	Sodium (%)	0096	0.0700	0.0000	0.0890	0.0374	0.0060	9	-0.48	311.99	0
311	Sodium (%)	0035	0.0745	0.0070	0.0890	0.0374	0.0060	9	-0.37	311.33	0
311	Sodium (%)	0025	0.0750	0.0040	0.0890	0.0374	0.0060	9	-0.36	311.32	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
311	Sodium (%)	0521	0.1021	0.0002	0.0890	0.0374	0.0060	9	0.33	311.32	0
311	Sodium (%)	0354	0.1415	0.0230	0.0890	0.0374	0.0060	9	1.33	311.99	0
311	Sodium (%)	0086	0.4917	0.0077	0.0890	0.0374	0.0060	9	10.22	311.33	0
311	Sodium (%)	0390	0.2330	0.0980	0.0890	0.0374	0.0060	9	3.65	311.99	1
321	Acid Soluble Zinc (%)	0042	0.0140	0.0000	0.1399	0.0107	0.0048	35	-11.73	321.99	0
321	Acid Soluble Zinc (%)	0520	0.1076	0.0004	0.1399	0.0107	0.0048	35	-3.01	321.30	0
321	Acid Soluble Zinc (%)	0230	0.1160	0.0000	0.1399	0.0107	0.0048	35	-2.23	321.30	0
321	Acid Soluble Zinc (%)	0444	0.1215	0.0070	0.1399	0.0107	0.0048	35	-1.72	321.30	0
321	Acid Soluble Zinc (%)	0220	0.1285	0.0010	0.1399	0.0107	0.0048	35	-1.06	321.99	0
321	Acid Soluble Zinc (%)	0433	0.1296	0.0004	0.1399	0.0107	0.0048	35	-0.96	321.30	0
321	Acid Soluble Zinc (%)	0482	0.1300	0.0000	0.1399	0.0107	0.0048	35	-0.92	321.30	0
321	Acid Soluble Zinc (%)	0450	0.1315	0.0050	0.1399	0.0107	0.0048	35	-0.78	321.30	0
321	Acid Soluble Zinc (%)	0521	0.1339	0.0003	0.1399	0.0107	0.0048	35	-0.57	321.32	0
321	Acid Soluble Zinc (%)	0472	0.1350	0.0100	0.1399	0.0107	0.0048	35	-0.46	321.30	0
321	Acid Soluble Zinc (%)	0519	0.1350	0.0100	0.1399	0.0107	0.0048	35	-0.46	321.30	0
321	Acid Soluble Zinc (%)	0009	0.1350	0.0100	0.1399	0.0107	0.0048	35	-0.46	321.33	0
321	Acid Soluble Zinc (%)	0105	0.1377	0.0004	0.1399	0.0107	0.0048	35	-0.21	321.00	0
321	Acid Soluble Zinc (%)	0037	0.1377	0.0018	0.1399	0.0107	0.0048	35	-0.21	321.33	0
321	Acid Soluble Zinc (%)	0035	0.1385	0.0030	0.1399	0.0107	0.0048	35	-0.13	321.30	0
321	Acid Soluble Zinc (%)	0486	0.1395	0.0050	0.1399	0.0107	0.0048	35	-0.04	321.30	0
321	Acid Soluble Zinc (%)	0481	0.1400	0.0000	0.1399	0.0107	0.0048	35	0.01	321.00	0
321	Acid Soluble Zinc (%)	0292	0.1400	0.0000	0.1399	0.0107	0.0048	35	0.01	321.30	0
321	Acid Soluble Zinc (%)	0515	0.1403	0.0034	0.1399	0.0107	0.0048	35	0.03	321.33	0
321	Acid Soluble Zinc (%)	0025	0.1406	0.0093	0.1399	0.0107	0.0048	35	0.06	321.33	0
321	Acid Soluble Zinc (%)	0368	0.1420	0.0040	0.1399	0.0107	0.0048	35	0.19	321.30	0
321	Acid Soluble Zinc (%)	0498	0.1430	0.0000	0.1399	0.0107	0.0048	35	0.29	321.00	0
321	Acid Soluble Zinc (%)	0402	0.1435	0.0030	0.1399	0.0107	0.0048	35	0.33	321.30	0
321	Acid Soluble Zinc (%)	0354	0.1450	0.0040	0.1399	0.0107	0.0048	35	0.47	321.30	0
321	Acid Soluble Zinc (%)	0506	0.1450	0.0100	0.1399	0.0107	0.0048	35	0.47	321.99	0
321	Acid Soluble Zinc (%)	0389	0.1460	0.0000	0.1399	0.0107	0.0048	35	0.57	321.99	0
321	Acid Soluble Zinc (%)	0102	0.1465	0.0050	0.1399	0.0107	0.0048	35	0.61	321.30	0
321	Acid Soluble Zinc (%)	0420	0.1475	0.0008	0.1399	0.0107	0.0048	35	0.71	321.30	0
321	Acid Soluble Zinc (%)	0096	0.1483	0.0101	0.1399	0.0107	0.0048	35	0.78	321.30	0
321	Acid Soluble Zinc (%)	0027	0.1484	0.0005	0.1399	0.0107	0.0048	35	0.78	321.99	0
321	Acid Soluble Zinc (%)	0515	0.1525	0.0158	0.1399	0.0107	0.0048	35	1.17	321.99	0
321	Acid Soluble Zinc (%)	0421	0.1545	0.0010	0.1399	0.0107	0.0048	35	1.36	321.33	0
321	Acid Soluble Zinc (%)	0483	0.1555	0.0010	0.1399	0.0107	0.0048	35	1.45	321.30	0
321	Acid Soluble Zinc (%)	0043	0.1559	0.0223	0.1399	0.0107	0.0048	35	1.48	321.00	0
321	Acid Soluble Zinc (%)	0390	0.1925	0.0230	0.1399	0.0107	0.0048	35	4.90	321.30	0
321	Acid Soluble Zinc (%)	0086	7.497	0.1070	0.1399	0.0107	0.0048	35	685.17	321.33	2

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

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				

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.