

Analyte PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Analytes: 28

Sample # 220611

Regular PT Scheme

Labs Reporting: 78

Organic w/humic acids

Statistical Summary

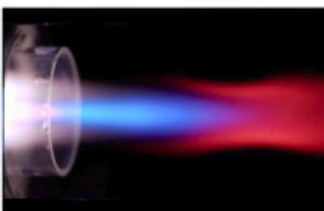
Issue Date : 07/31/2022

Analyte Code	Analyte Sample # 220611	# 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	Analyte IA Ratio	Average Range (R-bar)	Horwitz %RSD
001	Ammoniacal N (%)	1		0.0539									
010	Total N (%)	10	8	0.2380	0.1374	0.2300	0.4900	0.0725	0.0321	31.54%	0.34	0.0302	4.99%
020	Total P2O5 (%)	5	1	0.0805	0.1786	0.2300		0.0725	0.0907	31.54%		0.0003	4.99%
041	Direct Available P2O5 (%)	3	1	0.0400	0.0520	0.2300	0.6700	0.0725	0.0907	31.54%	0.25	0.0000	4.99%
048	Water Soluble P2O5 (%)	1		0.0100									
050	Soluble K2O (2%)	80	77	3.736	0.7501	3.762	0.4100	0.3886	0.0554	10.33%	2.21	0.0949	3.28%
101	Acid Soluble Ca (%)	8	7	0.2082	0.0797	0.1808	0.2090	0.0229	0.0108	12.68%	0.26	0.0053	5.17%
121	Acid Soluble Mg (%)	10	8	0.0266	0.0048	0.0264	0.2013	0.0059	0.0026	22.40%	0.07	0.0006	6.91%
143	Elemental S (%)	1		0.0580									
148	Total S (%)	5	3	0.0611	0.0334	0.0652	0.2033	0.0117	0.0084	17.94%	0.13	0.0038	6.03%
149	S - HNO3 soluble (%)	2	2	0.0726	0.0048								
151	Acid Soluble As (ppm)	18	9	1.222	1.758	0.3283		0.0843	0.0351	25.68%		0.0246	18.92%
165	Acid Soluble B (%)	8	5	0.0024	0.0032	0.0013	0.0032	0.0010	0.0006	73.42%	0.72	0.0000	10.82%
181	Acid Soluble Cd (ppm)	20	9	0.6462	1.144	0.0843		0.1146	0.0478	135.95%		0.0567	22.00%
191	Acid Soluble Cr (ppm)	21	15	3.437	6.167	0.7986		0.4206	0.1358	52.67%		0.0918	16.55%
202	Acid Soluble Co (ppm)	20	14	4.622	9.752	0.5523	1.1657	0.1839	0.0614	33.30%	0.37	0.1997	17.49%
221	Acid Soluble Cu (%)	18	7	0.0013	0.0025	0.0004	0.0050	0.0005	0.0002	118.03%	0.22	0.0000	12.98%
241	Acid Soluble Fe (%)	11	10	0.0619	0.0042	0.0624	0.0112	0.0038	0.0015	6.10%	0.79	0.0014	6.07%
251	Acid Soluble Pb (ppm)	20	11	2.326	3.768	0.4984		0.1786	0.0673	35.83%		0.1664	17.76%
261	Acid Soluble Mn (%)	8	5	0.0029	0.0032	0.0016	0.0052	0.0003	0.0001	16.72%	0.12	0.0000	10.58%
281	Acid Soluble Hg (ppm)	13	5	0.3582	0.6173	0.0062		0.0023	0.0013	37.70%		0.0002	22.00%
289	Acid Soluble Mo (ppm)	18	7	6.207	23.43	0.3290	1.0987	0.1998	0.0944	60.74%	0.42	0.0439	18.91%
291	Acid Soluble Ni (ppm)	20	14	5.614	12.20	1.258		0.4442	0.1484	35.32%		0.4434	15.45%
301	Acid Soluble Se (ppm)	16	9	3.202	5.776	0.4585		0.2819	0.1174	61.47%		0.2075	17.99%
311	Sodium (%)	5	5	0.0662	0.0471	0.0662	0.0116	0.0471	0.0263	71.21%	9.45	0.0012	6.02%
321	Acid Soluble Zn (%)	20	9	0.2499	1.107	0.0010	0.0051	0.0014	0.0006	144.65%	0.65	0.0012	11.34%
325	Water Soluble Zn (%)	1		0.0009									
441	Humic Acids (12%)	24	24	12.07	1.474	12.07		0.9047	0.2308	7.50%		0.1866	2.75%

The Analyte IA Ratio = 2.33 * Robust SD / IA at the Analyte Assigned Value. IA ratios of 1 and less indicate participant data dispersion is as good or less than the IA. Red indicates

Horwitz %RSD
Average Range (R-bar)
Analyte IA Ratio
Robust % RSD
Robust Uncertainty (U)
Robust sd
IA at Analyte Value
Assigned Value Robust Mean
Raw SD
Raw Mean
Tests in Robust Calculations
Tests Submitted
Analyte Sample # 220611
Analyte Code

the IA ratio is significantly greater than 1, Orange indicates marginally greater than 1, Green indicates IA ratio is not significantly greater than 1 and Grey indicates < 6 labs reporting.
The Horwitz %RSD is calculated usin the Thompson Modification, Analyst,2000,125,385-386.



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Magruder Fertilizer Proficiency Testing Program

Analytes: 28

Sample # 220611

Regular PT Scheme

Labs Reporting: 78

Organic w/humic acids

Lab Values

Issue Date : 07/31/2022

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001	Ammoniacal N (%)	0524	0.0539	0.0722				1		001.99	0
010	Total N (%)	0389	0.1538	0.0005	0.2300	0.0725	0.0302	8	-0.96	010.60	0
010	Total N (%)	0034	0.1675	0.0106	0.2300	0.0725	0.0302	8	-0.79	010.60	0
010	Total N (%)	0422	0.1850	0.0100	0.2300	0.0725	0.0302	8	-0.57	010.60	0
010	Total N (%)	0527	0.2130	0.0060	0.2300	0.0725	0.0302	8	-0.21	010.60	0
010	Total N (%)	0325	0.2300	0.1200	0.2300	0.0725	0.0302	8	0.00	010.60	0
010	Total N (%)	0524	0.2594	0.0192	0.2300	0.0725	0.0302	8	0.37	010.99	0
010	Total N (%)	0472	0.2925	0.0250	0.2300	0.0725	0.0302	8	0.79	010.60	0
010	Total N (%)	0354	0.3590	0.0500	0.2300	0.0725	0.0302	8	1.63	010.60	0
010	Total N (%)	0043	0.5200	0.5200	0.2300	0.0725	0.0302	8	3.66	010.60	1
010	Total N (%)	0035	0.0000	0.0000	0.2300	0.0725	0.0302	8		010.60	4
020	Total P2O5 (%)	0524	0.0012	0.0003				1		020.50	0
020	Total P2O5 (%)	0552	0.0000	0.0000				1		020.50	4
020	Total P2O5 (%)	0422	0.0002	0.0004				1		020.50	4
020	Total P2O5 (%)	0527	< 0.001					1		020.50	5
020	Total P2O5 (%)	0035	< 0.4					1		020.40	5
041	Direct Available P2O5 (%)	0472	0.0100	0.0000				1		041.21	0
041	Direct Available P2O5 (%)	0354	< 0.01					1		041.21	5
041	Direct Available P2O5 (%)	0325	< 0.1					1		041.50	5
048	Water Soluble P2O5 (%)	0472	0.0100	0.0000				1		048.20	0
050	Soluble K2O (2%)	0055	1.730†	0.1400	3.762	0.3886	0.0949	77	-5.23	050.00	0
050	Soluble K2O (2%)	0220	1.995†	0.0300	3.762	0.3886	0.0949	77	-4.55	050.00	0
050	Soluble K2O (2%)	0538	1.995†	0.0100	3.762	0.3886	0.0949	77	-4.55	050.99	0
050	Soluble K2O (2%)	0556	2.050†	0.0200	3.762	0.3886	0.0949	77	-4.41	050.99	0
050	Soluble K2O (2%)	0405	2.205†	0.0300	3.762	0.3886	0.0949	77	-4.01	050.00	0
050	Soluble K2O (2%)	0575	2.475†	0.0930	3.762	0.3886	0.0949	77	-3.31	050.99	0
050	Soluble K2O (2%)	0518	2.745†	0.0500	3.762	0.3886	0.0949	77	-2.62	050.99	0
050	Soluble K2O (2%)	0533	2.990†	0.1200	3.762	0.3886	0.0949	77	-1.99	050.99	0
050	Soluble K2O (2%)	0560	3.170†	0.0600	3.762	0.3886	0.0949	77	-1.52	050.99	0
050	Soluble K2O (2%)	0422	3.223†	0.0012	3.762	0.3886	0.0949	77	-1.39	050.50	0
050	Soluble K2O (2%)	0523	3.300†	0.4000	3.762	0.3886	0.0949	77	-1.19	050.99	0
050	Soluble K2O (2%)	0562	3.350†	0.1000	3.762	0.3886	0.0949	77	-1.06	050.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050	Soluble K2O (2%)	0600	3.350†	0.2000	3.762	0.3886	0.0949	77	-1.06	050.99	0
050	Soluble K2O (2%)	0564	3.390	0.0400	3.762	0.3886	0.0949	77	-0.96	050.99	0
050	Soluble K2O (2%)	0325	3.400	0.2000	3.762	0.3886	0.0949	77	-0.93	050.99	0
050	Soluble K2O (2%)	0552	3.410	0.0200	3.762	0.3886	0.0949	77	-0.91	050.99	0
050	Soluble K2O (2%)	0547	3.425	0.1300	3.762	0.3886	0.0949	77	-0.87	050.52	0
050	Soluble K2O (2%)	0580	3.435	0.0100	3.762	0.3886	0.0949	77	-0.84	050.30	0
050	Soluble K2O (2%)	0559	3.445	0.0100	3.762	0.3886	0.0949	77	-0.82	050.99	0
050	Soluble K2O (2%)	0561	3.455	0.1100	3.762	0.3886	0.0949	77	-0.79	050.99	0
050	Soluble K2O (2%)	0567	3.465	0.0300	3.762	0.3886	0.0949	77	-0.76	050.99	0
050	Soluble K2O (2%)	0368	3.507	0.0536	3.762	0.3886	0.0949	77	-0.66	050.51	0
050	Soluble K2O (2%)	0565	3.510	0.0800	3.762	0.3886	0.0949	77	-0.65	050.99	0
050	Soluble K2O (2%)	0354	3.545	0.0500	3.762	0.3886	0.0949	77	-0.56	050.52	0
050	Soluble K2O (2%)	0501	3.560	0.1600	3.762	0.3886	0.0949	77	-0.52	050.99	0
050	Soluble K2O (2%)	0510	3.579	0.0450	3.762	0.3886	0.0949	77	-0.47	050.60	0
050	Soluble K2O (2%)	0220	3.625	0.0100	3.762	0.3886	0.0949	77	-0.35	050.99	0
050	Soluble K2O (2%)	0260	3.625	0.1100	3.762	0.3886	0.0949	77	-0.35	050.99	0
050	Soluble K2O (2%)	0553	3.625	0.2300	3.762	0.3886	0.0949	77	-0.35	050.99	0
050	Soluble K2O (2%)	0102	3.670	0.2400	3.762	0.3886	0.0949	77	-0.24	050.00	0
050	Soluble K2O (2%)	0451	3.713	0.1140	3.762	0.3886	0.0949	77	-0.13	050.99	0
050	Soluble K2O (2%)	0255	3.741	0.2250	3.762	0.3886	0.0949	77	-0.06	050.99	0
050	Soluble K2O (2%)	0055	3.745	0.0300	3.762	0.3886	0.0949	77	-0.04	050.50	0
050	Soluble K2O (2%)	0018	3.745	0.0300	3.762	0.3886	0.0949	77	-0.04	050.62	0
050	Soluble K2O (2%)	0563	3.764	0.0700	3.762	0.3886	0.0949	77	0.01	050.99	0
050	Soluble K2O (2%)	0423	3.800	0.1200	3.762	0.3886	0.0949	77	0.10	050.52	0
050	Soluble K2O (2%)	0549	3.850	0.1000	3.762	0.3886	0.0949	77	0.23	050.99	0
050	Soluble K2O (2%)	0389	3.880	0.0270	3.762	0.3886	0.0949	77	0.30	050.99	0
050	Soluble K2O (2%)	0307	3.885	0.2900	3.762	0.3886	0.0949	77	0.32	050.50	0
050	Soluble K2O (2%)	0035	3.900	0.2000	3.762	0.3886	0.0949	77	0.35	050.61	0
050	Soluble K2O (2%)	0605	3.900	0.0620	3.762	0.3886	0.0949	77	0.35	050.99	0
050	Soluble K2O (2%)	0433	3.915	0.1700	3.762	0.3886	0.0949	77	0.39	050.99	0
050	Soluble K2O (2%)	0230	3.940	0.0400	3.762	0.3886	0.0949	77	0.46	050.50	0
050	Soluble K2O (2%)	0524	3.950	0.0229	3.762	0.3886	0.0949	77	0.48	050.99	0
050	Soluble K2O (2%)	0481	3.950	0.0400	3.762	0.3886	0.0949	77	0.48	050.99	0
050	Soluble K2O (2%)	0136	3.955	0.1100	3.762	0.3886	0.0949	77	0.50	050.52	0
050	Soluble K2O (2%)	0377	3.955	0.0700	3.762	0.3886	0.0949	77	0.50	050.52	0
050	Soluble K2O (2%)	0587	3.955	0.1300	3.762	0.3886	0.0949	77	0.50	050.99	0
050	Soluble K2O (2%)	0472	3.960	0.0200	3.762	0.3886	0.0949	77	0.51	050.32	0
050	Soluble K2O (2%)	0421	3.960	0.0600	3.762	0.3886	0.0949	77	0.51	050.99	0
050	Soluble K2O (2%)	0106	3.970	0.1000	3.762	0.3886	0.0949	77	0.53	050.50	0
050	Soluble K2O (2%)	0513	3.975	0.0300	3.762	0.3886	0.0949	77	0.55	050.62	0
050	Soluble K2O (2%)	0177	3.977	0.0653	3.762	0.3886	0.0949	77	0.55	050.99	0
050	Soluble K2O (2%)	0029	3.985	0.0100	3.762	0.3886	0.0949	77	0.57	050.62	0
050	Soluble K2O (2%)	0027	3.995	0.0500	3.762	0.3886	0.0949	77	0.60	050.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050	Soluble K2O (2%)	0037	3.997	0.0560	3.762	0.3886	0.0949	77	0.60	050.62	0
050	Soluble K2O (2%)	0360	4.015	0.0300	3.762	0.3886	0.0949	77	0.65	050.52	0
050	Soluble K2O (2%)	0231	4.015	0.0300	3.762	0.3886	0.0949	77	0.65	050.99	0
050	Soluble K2O (2%)	0157	4.025	0.0900	3.762	0.3886	0.0949	77	0.68	050.99	0
050	Soluble K2O (2%)	0073	4.045	0.0500	3.762	0.3886	0.0949	77	0.73	050.30	0
050	Soluble K2O (2%)	0040	4.050	0.1000	3.762	0.3886	0.0949	77	0.74	050.30	0
050	Soluble K2O (2%)	0498	4.050	0.1000	3.762	0.3886	0.0949	77	0.74	050.31	0
050	Soluble K2O (2%)	0577	4.055	0.1500	3.762	0.3886	0.0949	77	0.75	050.99	0
050	Soluble K2O (2%)	0291	4.060	0.0200	3.762	0.3886	0.0949	77	0.77	050.51	0
050	Soluble K2O (2%)	0023	4.090	0.0400	3.762	0.3886	0.0949	77	0.84	050.52	0
050	Soluble K2O (2%)	0043	4.100	0.2000	3.762	0.3886	0.0949	77	0.87	050.52	0
050	Soluble K2O (2%)	0117	4.101	0.0022	3.762	0.3886	0.0949	77	0.87	050.52	0
050	Soluble K2O (2%)	0485	4.125	0.4300	3.762	0.3886	0.0949	77	0.93	050.52	0
050	Soluble K2O (2%)	0095	4.130	0.1000	3.762	0.3886	0.0949	77	0.95	050.62	0
050	Soluble K2O (2%)	0234	4.150	0.0600	3.762	0.3886	0.0949	77	1.00	050.99	0
050	Soluble K2O (2%)	0324	4.175±	0.2900	3.762	0.3886	0.0949	77	1.06	050.50	0
050	Soluble K2O (2%)	0034	4.195±	0.1700	3.762	0.3886	0.0949	77	1.11	050.62	0
050	Soluble K2O (2%)	0292	4.205±	0.0500	3.762	0.3886	0.0949	77	1.14	050.50	0
050	Soluble K2O (2%)	0444	4.265±	0.1100	3.762	0.3886	0.0949	77	1.29	050.99	0
050	Soluble K2O (2%)	0042	4.300±	0.2000	3.762	0.3886	0.0949	77	1.38	050.99	0
050	Soluble K2O (2%)	0527	4.324±	0.0623	3.762	0.3886	0.0949	77	1.45	050.99	0
050	Soluble K2O (2%)	0521	4.779±	0.0000	3.762	0.3886	0.0949	77	2.62	050.99	0
050	Soluble K2O (2%)	0515	3.859	0.8000	3.762	0.3886	0.0949	77	0.25	050.99	1
050	Soluble K2O (2%)	0307	4.125	0.6300	3.762	0.3886	0.0949	77	0.93	050.30	1
050	Soluble K2O (2%)	0049	8.055±	0.0500	3.762	0.3886	0.0949	77	11.05	050.00	2
101	Acid Soluble Ca (%)	0472	0.1550	0.0100	0.1808	0.0229	0.0053	7	-1.02	101.33	0
101	Acid Soluble Ca (%)	0389	0.1600	0.0000	0.1808	0.0229	0.0053	7	-0.82	101.99	0
101	Acid Soluble Ca (%)	0009	0.1700	0.0000	0.1808	0.0229	0.0053	7	-0.43	101.33	0
101	Acid Soluble Ca (%)	0423	0.1825	0.0010	0.1808	0.0229	0.0053	7	0.07	101.32	0
101	Acid Soluble Ca (%)	0552	0.1900	0.0200	0.1808	0.0229	0.0053	7	0.36	101.99	0
101	Acid Soluble Ca (%)	0527	0.1980	0.0024	0.1808	0.0229	0.0053	7	0.68	101.33	0
101	Acid Soluble Ca (%)	0553	0.2100	0.0040	0.1808	0.0229	0.0053	7	1.15	101.00	0
101	Acid Soluble Ca (%)	0354	0.4000	0.0600	0.1808	0.0229	0.0053	7	8.65	101.30	1
121	Acid Soluble Mg (%)	0552	0.0200	0.0000	0.0264	0.0059	0.0006	8	-0.99	121.99	0
121	Acid Soluble Mg (%)	0524	0.0215	0.0010	0.0264	0.0059	0.0006	8	-0.75	121.99	0
121	Acid Soluble Mg (%)	0389	0.0229	0.0000	0.0264	0.0059	0.0006	8	-0.54	121.99	0
121	Acid Soluble Mg (%)	0423	0.0230	0.0020	0.0264	0.0059	0.0006	8	-0.52	121.32	0
121	Acid Soluble Mg (%)	0527	0.0280	0.0010	0.0264	0.0059	0.0006	8	0.25	121.33	0
121	Acid Soluble Mg (%)	0515	0.0297	0.0003	0.0264	0.0059	0.0006	8	0.51	121.33	0
121	Acid Soluble Mg (%)	0515	0.0319	0.0006	0.0264	0.0059	0.0006	8	0.86	121.99	0
121	Acid Soluble Mg (%)	0553	0.0340	0.0000	0.0264	0.0059	0.0006	8	1.18	121.00	0
121	Acid Soluble Mg (%)	0354	0.0250	0.0100	0.0264	0.0059	0.0006	8	-0.21	121.30	1
121	Acid Soluble Mg (%)	0009	< 0.03		0.0264	0.0059	0.0006	8		121.33	5

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
143	Elemental S (%)	0389	0.0580	0.0020				1		143.99	0
148	Total S (%)	0515	0.0519	0.0017	0.0652	0.0117	0.0038	3	-1.14	148.07	0
148	Total S (%)	0472	0.0700	0.0000	0.0652	0.0117	0.0038	3	0.41	148.07	0
148	Total S (%)	0422	0.0737	0.0096	0.0652	0.0117	0.0038	3	0.73	148.99	0
148	Total S (%)	0527	< 0.01		0.0652	0.0117	0.0038	3		148.07	5
148	Total S (%)	0354	< 0.1		0.0652	0.0117	0.0038	3		148.99	5
149	S - HNO3 soluble (%)	0524	0.0692	0.0001				2		149.04	0
149	S - HNO3 soluble (%)	0423	0.0760	0.0060				2		149.04	0
151	Acid Soluble As (ppm)	0501	0.2650	0.0100	0.3283	0.0843	0.0246	9	-0.75	151.30	0
151	Acid Soluble As (ppm)	0524	0.2766	0.0026	0.3283	0.0843	0.0246	9	-0.61	151.30	0
151	Acid Soluble As (ppm)	0009	0.2800	0.0400	0.3283	0.0843	0.0246	9	-0.57	151.99	0
151	Acid Soluble As (ppm)	0527	0.2810	0.0110	0.3283	0.0843	0.0246	9	-0.56	151.33	0
151	Acid Soluble As (ppm)	0575	0.2980	0.0000	0.3283	0.0843	0.0246	9	-0.36	151.30	0
151	Acid Soluble As (ppm)	0523	0.3205	0.0250	0.3283	0.0843	0.0246	9	-0.09	151.30	0
151	Acid Soluble As (ppm)	0563	0.3239	0.0201	0.3283	0.0843	0.0246	9	-0.05	151.33	0
151	Acid Soluble As (ppm)	0220	1.200	0.0000	0.3283	0.0843	0.0246	9	10.34	151.99	0
151	Acid Soluble As (ppm)	0515	1.649	0.1130	0.3283	0.0843	0.0246	9	15.66	151.34	0
151	Acid Soluble As (ppm)	0515	0.9034	0.3172	0.3283	0.0843	0.0246	9	6.82	151.33	1
151	Acid Soluble As (ppm)	0255	0.0000	0.0000	0.3283	0.0843	0.0246	9		151.30	4
151	Acid Soluble As (ppm)	0498	< 0.2		0.3283	0.0843	0.0246	9		151.00	5
151	Acid Soluble As (ppm)	0368	< 0.3		0.3283	0.0843	0.0246	9		151.34	5
151	Acid Soluble As (ppm)	0481	< 0.5		0.3283	0.0843	0.0246	9		151.99	5
151	Acid Soluble As (ppm)	0136	< 1		0.3283	0.0843	0.0246	9		151.33	5
151	Acid Soluble As (ppm)	0405	< 3		0.3283	0.0843	0.0246	9		151.99	5
151	Acid Soluble As (ppm)	0009	< 5		0.3283	0.0843	0.0246	9		151.33	5
151	Acid Soluble As (ppm)	0605	< 6.2		0.3283	0.0843	0.0246	9		151.30	5
165	Acid Soluble B (%)	0515	0.0005	0.0000	0.0013	0.0010	0.0000	5	-0.75	165.99	0
165	Acid Soluble B (%)	0389	0.0008	0.0000	0.0013	0.0010	0.0000	5	-0.48	165.30	0
165	Acid Soluble B (%)	0524	0.0010	0.0000	0.0013	0.0010	0.0000	5	-0.30	165.99	0
165	Acid Soluble B (%)	0527	0.0014	0.0000	0.0013	0.0010	0.0000	5	0.05	165.99	0
165	Acid Soluble B (%)	0423	0.0030	0.0000	0.0013	0.0010	0.0000	5	1.47	165.99	0
165	Acid Soluble B (%)	0552	0.0000	0.0000	0.0013	0.0010	0.0000	5		165.99	4
165	Acid Soluble B (%)	0009	< 0.0025		0.0013	0.0010	0.0000	5		165.99	5
165	Acid Soluble B (%)	0354	< 0.01		0.0013	0.0010	0.0000	5		165.30	5
181	Acid Soluble Cd (ppm)	0009	0.0135	0.0010	0.0843	0.1146	0.0567	9	-0.62	181.99	0
181	Acid Soluble Cd (ppm)	0501	0.0140	0.0020	0.0843	0.1146	0.0567	9	-0.61	181.30	0
181	Acid Soluble Cd (ppm)	0389	0.0150	0.0080	0.0843	0.1146	0.0567	9	-0.60	181.30	0
181	Acid Soluble Cd (ppm)	0524	0.0214	0.0020	0.0843	0.1146	0.0567	9	-0.55	181.30	0
181	Acid Soluble Cd (ppm)	0563	0.0233	0.0011	0.0843	0.1146	0.0567	9	-0.53	181.33	0
181	Acid Soluble Cd (ppm)	0523	0.0275	0.0030	0.0843	0.1146	0.0567	9	-0.50	181.30	0
181	Acid Soluble Cd (ppm)	0515	0.1591	0.0366	0.0843	0.1146	0.0567	9	0.65	181.33	0
181	Acid Soluble Cd (ppm)	0515	0.2290	0.1763	0.0843	0.1146	0.0567	9	1.26	181.34	0
181	Acid Soluble Cd (ppm)	0035	0.8800	0.2800	0.0843	0.1146	0.0567	9	6.94	181.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
181	Acid Soluble Cd (ppm)	0255	4.742	6.955	0.0843	0.1146	0.0567	9	40.62	181.30	1
181	Acid Soluble Cd (ppm)	0527	< 0.0001		0.0843	0.1146	0.0567	9		181.33	5
181	Acid Soluble Cd (ppm)	0498	< 0.1		0.0843	0.1146	0.0567	9		181.00	5
181	Acid Soluble Cd (ppm)	0575	< 0.1		0.0843	0.1146	0.0567	9		181.30	5
181	Acid Soluble Cd (ppm)	0368	< 0.1		0.0843	0.1146	0.0567	9		181.34	5
181	Acid Soluble Cd (ppm)	0220	< 0.1		0.0843	0.1146	0.0567	9		181.99	5
181	Acid Soluble Cd (ppm)	0481	< 0.5		0.0843	0.1146	0.0567	9		181.99	5
181	Acid Soluble Cd (ppm)	0136	< 1		0.0843	0.1146	0.0567	9		181.33	5
181	Acid Soluble Cd (ppm)	0405	< 1		0.0843	0.1146	0.0567	9		181.99	5
181	Acid Soluble Cd (ppm)	0605	< 1.9		0.0843	0.1146	0.0567	9		181.30	5
181	Acid Soluble Cd (ppm)	0009	< 2		0.0843	0.1146	0.0567	9		181.33	5
191	Acid Soluble Cr (ppm)	0389	0.1353	0.0165	0.7986	0.4206	0.0918	15	-1.58	191.30	0
191	Acid Soluble Cr (ppm)	0524	0.3595	0.0204	0.7986	0.4206	0.0918	15	-1.04	191.30	0
191	Acid Soluble Cr (ppm)	0444	0.5000	0.0000	0.7986	0.4206	0.0918	15	-0.71	191.30	0
191	Acid Soluble Cr (ppm)	0009	0.6000	0.0600	0.7986	0.4206	0.0918	15	-0.47	191.99	0
191	Acid Soluble Cr (ppm)	0501	0.6600	0.1000	0.7986	0.4206	0.0918	15	-0.33	191.30	0
191	Acid Soluble Cr (ppm)	0527	0.6770	0.0062	0.7986	0.4206	0.0918	15	-0.29	191.33	0
191	Acid Soluble Cr (ppm)	0368	0.7000	0.2000	0.7986	0.4206	0.0918	15	-0.23	191.34	0
191	Acid Soluble Cr (ppm)	0523	0.7085	0.0550	0.7986	0.4206	0.0918	15	-0.21	191.30	0
191	Acid Soluble Cr (ppm)	0563	0.7234	0.0447	0.7986	0.4206	0.0918	15	-0.18	191.33	0
191	Acid Soluble Cr (ppm)	0575	0.7670	0.0000	0.7986	0.4206	0.0918	15	-0.08	191.30	0
191	Acid Soluble Cr (ppm)	0515	0.8443	0.1027	0.7986	0.4206	0.0918	15	0.11	191.33	0
191	Acid Soluble Cr (ppm)	0515	1.113	0.1110	0.7986	0.4206	0.0918	15	0.75	191.34	0
191	Acid Soluble Cr (ppm)	0220	1.300	0.0000	0.7986	0.4206	0.0918	15	1.19	191.99	0
191	Acid Soluble Cr (ppm)	0498	1.830	0.0600	0.7986	0.4206	0.0918	15	2.45	191.00	0
191	Acid Soluble Cr (ppm)	0035	8.410	0.6000	0.7986	0.4206	0.0918	15	18.10	191.30	0
191	Acid Soluble Cr (ppm)	0037	5.650	0.9570	0.7986	0.4206	0.0918	15	11.53	191.33	1
191	Acid Soluble Cr (ppm)	0405	< 1		0.7986	0.4206	0.0918	15		191.99	5
191	Acid Soluble Cr (ppm)	0605	< 1.2		0.7986	0.4206	0.0918	15		191.30	5
191	Acid Soluble Cr (ppm)	0136	< 3		0.7986	0.4206	0.0918	15		191.33	5
191	Acid Soluble Cr (ppm)	0481	< 20		0.7986	0.4206	0.0918	15		191.99	5
191	Acid Soluble Cr (ppm)	0009	< 22		0.7986	0.4206	0.0918	15		191.33	5
202	Acid Soluble Co (ppm)	0389	0.1925	0.0010	0.5523	0.1839	0.1997	14	-1.96	202.30	0
202	Acid Soluble Co (ppm)	0524	0.4148	0.0126	0.5523	0.1839	0.1997	14	-0.75	202.30	0
202	Acid Soluble Co (ppm)	0563	0.4288	0.0133	0.5523	0.1839	0.1997	14	-0.67	202.33	0
202	Acid Soluble Co (ppm)	0423	0.4300	0.0200	0.5523	0.1839	0.1997	14	-0.67	202.32	0
202	Acid Soluble Co (ppm)	0515	0.4452	0.0046	0.5523	0.1839	0.1997	14	-0.58	202.33	0
202	Acid Soluble Co (ppm)	0009	0.5000	0.0600	0.5523	0.1839	0.1997	14	-0.28	202.99	0
202	Acid Soluble Co (ppm)	0575	0.5110	0.0000	0.5523	0.1839	0.1997	14	-0.22	202.30	0
202	Acid Soluble Co (ppm)	0523	0.5485	0.0090	0.5523	0.1839	0.1997	14	-0.02	202.30	0
202	Acid Soluble Co (ppm)	0501	0.5550	0.0500	0.5523	0.1839	0.1997	14	0.01	202.34	0
202	Acid Soluble Co (ppm)	0527	0.5606	0.0182	0.5523	0.1839	0.1997	14	0.05	202.33	0
202	Acid Soluble Co (ppm)	0605	0.6630	0.2360	0.5523	0.1839	0.1997	14	0.60	202.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
202	Acid Soluble Co (ppm)	0515	0.7426	0.0416	0.5523	0.1839	0.1997	14	1.03	202.34	0
202	Acid Soluble Co (ppm)	0035	1.405	0.0300	0.5523	0.1839	0.1997	14	4.64	202.30	0
202	Acid Soluble Co (ppm)	0368	1.450	2.300	0.5523	0.1839	0.1997	14	4.88	202.34	0
202	Acid Soluble Co (ppm)	0255	37.59	14.86	0.5523	0.1839	0.1997	14	201.41	202.99	1
202	Acid Soluble Co (ppm)	0405	< 1		0.5523	0.1839	0.1997	14		202.99	5
202	Acid Soluble Co (ppm)	0009	< 2		0.5523	0.1839	0.1997	14		202.33	5
202	Acid Soluble Co (ppm)	0136	< 3		0.5523	0.1839	0.1997	14		202.33	5
202	Acid Soluble Co (ppm)	0498	< 20		0.5523	0.1839	0.1997	14		202.00	5
202	Acid Soluble Co (ppm)	0481	< 20		0.5523	0.1839	0.1997	14		202.99	5
221	Acid Soluble Cu (%)	0515	0.0001	0.0000	0.0004	0.0005	0.0000	7	-0.64	221.33	0
221	Acid Soluble Cu (%)	0527	0.0001	0.0000	0.0004	0.0005	0.0000	7	-0.64	221.33	0
221	Acid Soluble Cu (%)	0501	0.0001	0.0000	0.0004	0.0005	0.0000	7	-0.64	221.99	0
221	Acid Soluble Cu (%)	0575	0.0002	0.0000	0.0004	0.0005	0.0000	7	-0.42	221.33	0
221	Acid Soluble Cu (%)	0515	0.0003	0.0000	0.0004	0.0005	0.0000	7	-0.21	221.99	0
221	Acid Soluble Cu (%)	0035	0.0010	0.0000	0.0004	0.0005	0.0000	7	1.27	221.30	0
221	Acid Soluble Cu (%)	0255	0.0010	0.0000	0.0004	0.0005	0.0000	7	1.27	221.30	0
221	Acid Soluble Cu (%)	0368	0.0003	0.0001	0.0004	0.0005	0.0000	7	-0.32	221.99	1
221	Acid Soluble Cu (%)	0552	0.0000	0.0000	0.0004	0.0005	0.0000	7		221.30	4
221	Acid Soluble Cu (%)	0106	0.0000	0.0000	0.0004	0.0005	0.0000	7		221.33	4
221	Acid Soluble Cu (%)	0136	< 0.0002		0.0004	0.0005	0.0000	7		221.33	5
221	Acid Soluble Cu (%)	0009	< 0.0002		0.0004	0.0005	0.0000	7		221.99	5
221	Acid Soluble Cu (%)	0405	< 0.0002		0.0004	0.0005	0.0000	7		221.99	5
221	Acid Soluble Cu (%)	0481	< 0.001		0.0004	0.0005	0.0000	7		221.99	5
221	Acid Soluble Cu (%)	0498	< 0.002		0.0004	0.0005	0.0000	7		221.03	5
221	Acid Soluble Cu (%)	0009	< 0.0025		0.0004	0.0005	0.0000	7		221.33	5
221	Acid Soluble Cu (%)	0553	< 0.005		0.0004	0.0005	0.0000	7		221.00	5
221	Acid Soluble Cu (%)	0354	< 0.01		0.0004	0.0005	0.0000	7		221.30	5
241	Acid Soluble Fe (%)	0389	0.0582	0.0002	0.0624	0.0038	0.0014	10	-1.02	241.99	0
241	Acid Soluble Fe (%)	0524	0.0585	0.0034	0.0624	0.0038	0.0014	10	-0.95	241.99	0
241	Acid Soluble Fe (%)	0354	0.0600	0.0000	0.0624	0.0038	0.0014	10	-0.58	241.30	0
241	Acid Soluble Fe (%)	0472	0.0600	0.0000	0.0624	0.0038	0.0014	10	-0.58	241.33	0
241	Acid Soluble Fe (%)	0009	0.0610	0.0020	0.0624	0.0038	0.0014	10	-0.34	241.33	0
241	Acid Soluble Fe (%)	0423	0.0635	0.0010	0.0624	0.0038	0.0014	10	0.28	241.32	0
241	Acid Soluble Fe (%)	0553	0.0640	0.0000	0.0624	0.0038	0.0014	10	0.40	241.00	0
241	Acid Soluble Fe (%)	0515	0.0640	0.0028	0.0624	0.0038	0.0014	10	0.40	241.99	0
241	Acid Soluble Fe (%)	0527	0.0665	0.0023	0.0624	0.0038	0.0014	10	1.00	241.33	0
241	Acid Soluble Fe (%)	0515	0.0699	0.0025	0.0624	0.0038	0.0014	10	1.83	241.33	0
241	Acid Soluble Fe (%)	0552	0.0550	0.0100	0.0624	0.0038	0.0014	10	-1.80	241.30	1
251	Acid Soluble Pb (ppm)	0389	0.1515	0.0010	0.4984	0.1786	0.1664	11	-1.94	251.30	0
251	Acid Soluble Pb (ppm)	0009	0.3700	0.0400	0.4984	0.1786	0.1664	11	-0.72	251.99	0
251	Acid Soluble Pb (ppm)	0524	0.3904	0.0737	0.4984	0.1786	0.1664	11	-0.61	251.30	0
251	Acid Soluble Pb (ppm)	0527	0.3954	0.0049	0.4984	0.1786	0.1664	11	-0.58	251.33	0
251	Acid Soluble Pb (ppm)	0563	0.4795	0.0553	0.4984	0.1786	0.1664	11	-0.11	251.33	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
251	Acid Soluble Pb (ppm)	0575	0.4890	0.0000	0.4984	0.1786	0.1664	11	-0.05	251.30	0
251	Acid Soluble Pb (ppm)	0523	0.5015	0.0230	0.4984	0.1786	0.1664	11	0.02	251.30	0
251	Acid Soluble Pb (ppm)	0501	0.5050	0.0500	0.4984	0.1786	0.1664	11	0.04	251.30	0
251	Acid Soluble Pb (ppm)	0220	0.6500	0.3000	0.4984	0.1786	0.1664	11	0.85	251.99	0
251	Acid Soluble Pb (ppm)	0498	0.7050	0.0500	0.4984	0.1786	0.1664	11	1.16	251.00	0
251	Acid Soluble Pb (ppm)	0515	7.553	1.233	0.4984	0.1786	0.1664	11	39.50	251.34	0
251	Acid Soluble Pb (ppm)	0515	15.23	2.380	0.4984	0.1786	0.1664	11	82.48	251.33	1
251	Acid Soluble Pb (ppm)	0255	0.0000	0.0000	0.4984	0.1786	0.1664	11		251.30	4
251	Acid Soluble Pb (ppm)	0035	< 0.005		0.4984	0.1786	0.1664	11		251.30	5
251	Acid Soluble Pb (ppm)	0481	< 0.5		0.4984	0.1786	0.1664	11		251.99	5
251	Acid Soluble Pb (ppm)	0368	< 0.6		0.4984	0.1786	0.1664	11		251.34	5
251	Acid Soluble Pb (ppm)	0136	< 3		0.4984	0.1786	0.1664	11		251.33	5
251	Acid Soluble Pb (ppm)	0405	< 4		0.4984	0.1786	0.1664	11		251.99	5
251	Acid Soluble Pb (ppm)	0605	< 5		0.4984	0.1786	0.1664	11		251.30	5
251	Acid Soluble Pb (ppm)	0009	< 6		0.4984	0.1786	0.1664	11		251.33	5
261	Acid Soluble Mn (%)	0009	0.0014	0.0000	0.0016	0.0003	0.0000	5	-0.54	261.35	0
261	Acid Soluble Mn (%)	0389	0.0014	0.0000	0.0016	0.0003	0.0000	5	-0.54	261.99	0
261	Acid Soluble Mn (%)	0524	0.0014	0.0000	0.0016	0.0003	0.0000	5	-0.54	261.99	0
261	Acid Soluble Mn (%)	0527	0.0016	0.0000	0.0016	0.0003	0.0000	5	0.13	261.35	0
261	Acid Soluble Mn (%)	0423	0.0020	0.0000	0.0016	0.0003	0.0000	5	1.47	261.34	0
261	Acid Soluble Mn (%)	0552	0.0000	0.0000	0.0016	0.0003	0.0000	5		261.32	4
261	Acid Soluble Mn (%)	0553	< 0.005		0.0016	0.0003	0.0000	5		261.00	5
261	Acid Soluble Mn (%)	0354	< 0.01		0.0016	0.0003	0.0000	5		261.30	5
281	Acid Soluble Hg (ppm)	0368	0.0042	0.0003	0.0062	0.0023	0.0002	5	-0.87	281.99	0
281	Acid Soluble Hg (ppm)	0524	0.0045	0.0000	0.0062	0.0023	0.0002	5	-0.71	281.99	0
281	Acid Soluble Hg (ppm)	0035	0.0060	0.0000	0.0062	0.0023	0.0002	5	-0.07	281.99	0
281	Acid Soluble Hg (ppm)	0501	0.0062	0.0005	0.0062	0.0023	0.0002	5	0.00	281.30	0
281	Acid Soluble Hg (ppm)	0220	0.0100	0.0000	0.0062	0.0023	0.0002	5	1.65	281.99	0
281	Acid Soluble Hg (ppm)	0527	< 0.001		0.0062	0.0023	0.0002	5		281.30	5
281	Acid Soluble Hg (ppm)	0009	< 0.025		0.0062	0.0023	0.0002	5		281.30	5
281	Acid Soluble Hg (ppm)	0575	< 0.1		0.0062	0.0023	0.0002	5		281.30	5
281	Acid Soluble Hg (ppm)	0117	< 0.2		0.0062	0.0023	0.0002	5		281.00	5
281	Acid Soluble Hg (ppm)	0481	< 0.5		0.0062	0.0023	0.0002	5		281.00	5
281	Acid Soluble Hg (ppm)	0498	< 0.5		0.0062	0.0023	0.0002	5		281.00	5
281	Acid Soluble Hg (ppm)	0605	< 1.3		0.0062	0.0023	0.0002	5		281.30	5
281	Acid Soluble Hg (ppm)	0405	< 2		0.0062	0.0023	0.0002	5		281.99	5
289	Acid Soluble Mo (ppm)	0524	0.1642	0.0071	0.3290	0.1998	0.0439	7	-0.83	289.30	0
289	Acid Soluble Mo (ppm)	0501	0.2350	0.0300	0.3290	0.1998	0.0439	7	-0.47	289.34	0
289	Acid Soluble Mo (ppm)	0515	0.2365	0.2287	0.3290	0.1998	0.0439	7	-0.46	289.33	0
289	Acid Soluble Mo (ppm)	0563	0.2503	0.0277	0.3290	0.1998	0.0439	7	-0.39	289.33	0
289	Acid Soluble Mo (ppm)	0527	0.2579	0.0116	0.3290	0.1998	0.0439	7	-0.36	289.33	0
289	Acid Soluble Mo (ppm)	0515	0.5306	0.0025	0.3290	0.1998	0.0439	7	1.01	289.34	0
289	Acid Soluble Mo (ppm)	0575	1.089	0.0000	0.3290	0.1998	0.0439	7	3.80	289.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
289	Acid Soluble Mo (ppm)	0220	0.7000	0.4000	0.3290	0.1998	0.0439	7	1.86	289.99	1
289	Acid Soluble Mo (ppm)	0255	0.0000	0.0000	0.3290	0.1998	0.0439	7		289.30	4
289	Acid Soluble Mo (ppm)	0106	0.0000	0.0000	0.3290	0.1998	0.0439	7		289.33	4
289	Acid Soluble Mo (ppm)	0368	0.0500	0.1000	0.3290	0.1998	0.0439	7		289.34	4
289	Acid Soluble Mo (ppm)	0035	< 0.002		0.3290	0.1998	0.0439	7		289.30	5
289	Acid Soluble Mo (ppm)	0498	< 0.01		0.3290	0.1998	0.0439	7		289.00	5
289	Acid Soluble Mo (ppm)	0009	< 0.2		0.3290	0.1998	0.0439	7		289.99	5
289	Acid Soluble Mo (ppm)	0405	< 1		0.3290	0.1998	0.0439	7		289.99	5
289	Acid Soluble Mo (ppm)	0136	< 3		0.3290	0.1998	0.0439	7		289.33	5
289	Acid Soluble Mo (ppm)	0009	< 4		0.3290	0.1998	0.0439	7		289.33	5
289	Acid Soluble Mo (ppm)	0481	< 100		0.3290	0.1998	0.0439	7		289.99	5
291	Acid Soluble Ni (ppm)	0524	0.6651	0.0714	1.258	0.4442	0.4434	14	-1.33	291.30	0
291	Acid Soluble Ni (ppm)	0515	0.6964	0.0360	1.258	0.4442	0.4434	14	-1.26	291.33	0
291	Acid Soluble Ni (ppm)	0444	0.8050	0.0100	1.258	0.4442	0.4434	14	-1.02	291.30	0
291	Acid Soluble Ni (ppm)	0563	1.028	0.0130	1.258	0.4442	0.4434	14	-0.52	291.33	0
291	Acid Soluble Ni (ppm)	0527	1.041	0.0217	1.258	0.4442	0.4434	14	-0.49	291.33	0
291	Acid Soluble Ni (ppm)	0009	1.250	0.1000	1.258	0.4442	0.4434	14	-0.02	291.99	0
291	Acid Soluble Ni (ppm)	0575	1.275	0.0000	1.258	0.4442	0.4434	14	0.04	291.30	0
291	Acid Soluble Ni (ppm)	0220	1.300	0.0000	1.258	0.4442	0.4434	14	0.10	291.99	0
291	Acid Soluble Ni (ppm)	0523	1.348	0.0010	1.258	0.4442	0.4434	14	0.20	291.30	0
291	Acid Soluble Ni (ppm)	0501	1.350	0.1000	1.258	0.4442	0.4434	14	0.21	291.34	0
291	Acid Soluble Ni (ppm)	0368	1.500	0.2000	1.258	0.4442	0.4434	14	0.55	291.34	0
291	Acid Soluble Ni (ppm)	0405	1.500	1.000	1.258	0.4442	0.4434	14	0.55	291.99	0
291	Acid Soluble Ni (ppm)	0035	2.690	0.0000	1.258	0.4442	0.4434	14	3.23	291.30	0
291	Acid Soluble Ni (ppm)	0515	3.579	4.655	1.258	0.4442	0.4434	14	5.23	291.34	0
291	Acid Soluble Ni (ppm)	0255	53.85	15.11	1.258	0.4442	0.4434	14	118.40	291.99	1
291	Acid Soluble Ni (ppm)	0605	< 2.4		1.258	0.4442	0.4434	14		291.30	5
291	Acid Soluble Ni (ppm)	0009	< 3		1.258	0.4442	0.4434	14		291.33	5
291	Acid Soluble Ni (ppm)	0136	< 3		1.258	0.4442	0.4434	14		291.33	5
291	Acid Soluble Ni (ppm)	0498	< 10		1.258	0.4442	0.4434	14		291.00	5
291	Acid Soluble Ni (ppm)	0481	< 20		1.258	0.4442	0.4434	14		291.99	5
301	Acid Soluble Se (ppm)	0524	0.2667	0.0127	0.4585	0.2819	0.2075	9	-0.68	301.30	0
301	Acid Soluble Se (ppm)	0220	0.2800	0.1400	0.4585	0.2819	0.2075	9	-0.63	301.99	0
301	Acid Soluble Se (ppm)	0501	0.2800	0.0800	0.4585	0.2819	0.2075	9	-0.63	301.30	0
301	Acid Soluble Se (ppm)	0009	0.2950	0.0300	0.4585	0.2819	0.2075	9	-0.58	301.99	0
301	Acid Soluble Se (ppm)	0563	0.3828	0.0605	0.4585	0.2819	0.2075	9	-0.27	301.33	0
301	Acid Soluble Se (ppm)	0523	0.3975	0.0330	0.4585	0.2819	0.2075	9	-0.22	301.30	0
301	Acid Soluble Se (ppm)	0575	0.4620	0.0000	0.4585	0.2819	0.2075	9	0.01	301.30	0
301	Acid Soluble Se (ppm)	0515	3.246	0.4810	0.4585	0.2819	0.2075	9	9.89	301.34	0
301	Acid Soluble Se (ppm)	0515	5.127	1.030	0.4585	0.2819	0.2075	9	16.56	301.33	0
301	Acid Soluble Se (ppm)	0368	6.300	4.200	0.4585	0.2819	0.2075	9	20.72	301.34	1
301	Acid Soluble Se (ppm)	0255	0.0000	0.0000	0.4585	0.2819	0.2075	9		301.99	4
301	Acid Soluble Se (ppm)	0527	< 0.001		0.4585	0.2819	0.2075	9		301.33	5

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
301	Acid Soluble Se (ppm)	0481	< 0.5		0.4585	0.2819	0.2075	9		301.99	5
301	Acid Soluble Se (ppm)	0605	< 1.7		0.4585	0.2819	0.2075	9		301.30	5
301	Acid Soluble Se (ppm)	0405	< 10		0.4585	0.2819	0.2075	9		301.99	5
301	Acid Soluble Se (ppm)	0009	< 22		0.4585	0.2819	0.2075	9		301.33	5
311	Sodium (%)	0009	0.0405	0.0010	0.0662	0.0471	0.0012	5	-0.54	311.33	0
311	Sodium (%)	0423	0.0415	0.0010	0.0662	0.0471	0.0012	5	-0.52	311.33	0
311	Sodium (%)	0527	0.0459	0.0021	0.0662	0.0471	0.0012	5	-0.43	311.33	0
311	Sodium (%)	0553	0.0530	0.0020	0.0662	0.0471	0.0012	5	-0.28	311.00	0
311	Sodium (%)	0354	0.1500	0.0000	0.0662	0.0471	0.0012	5	1.78	311.99	0
321	Acid Soluble Zn (%)	0515	0.0001	0.0000	0.0010	0.0014	0.0012	9	-0.62	321.33	0
321	Acid Soluble Zn (%)	0575	0.0001	0.0000	0.0010	0.0014	0.0012	9	-0.62	321.33	0
321	Acid Soluble Zn (%)	0524	0.0001	0.0000	0.0010	0.0014	0.0012	9	-0.62	321.99	0
321	Acid Soluble Zn (%)	0501	0.0002	0.0001	0.0010	0.0014	0.0012	9	-0.59	321.99	0
321	Acid Soluble Zn (%)	0515	0.0003	0.0004	0.0010	0.0014	0.0012	9	-0.48	321.99	0
321	Acid Soluble Zn (%)	0368	0.0005	0.0002	0.0010	0.0014	0.0012	9	-0.34	321.99	0
321	Acid Soluble Zn (%)	0255	0.0015	0.0010	0.0010	0.0014	0.0012	9	0.36	321.30	0
321	Acid Soluble Zn (%)	0423	0.0030	0.0000	0.0010	0.0014	0.0012	9	1.41	321.32	0
321	Acid Soluble Zn (%)	0035	0.0145	0.0090	0.0010	0.0014	0.0012	9	9.47	321.30	0
321	Acid Soluble Zn (%)	0037	4.951	1.106	0.0010	0.0014	0.0012	9	3469.98	321.33	2
321	Acid Soluble Zn (%)	0552	0.0000	0.0000	0.0010	0.0014	0.0012	9		321.30	4
321	Acid Soluble Zn (%)	0106	0.0000	0.0000	0.0010	0.0014	0.0012	9		321.33	4
321	Acid Soluble Zn (%)	0527	< 0.0001		0.0010	0.0014	0.0012	9		321.33	5
321	Acid Soluble Zn (%)	0136	< 0.0003		0.0010	0.0014	0.0012	9		321.33	5
321	Acid Soluble Zn (%)	0405	< 0.0003		0.0010	0.0014	0.0012	9		321.99	5
321	Acid Soluble Zn (%)	0553	< 0.002		0.0010	0.0014	0.0012	9		321.00	5
321	Acid Soluble Zn (%)	0481	< 0.002		0.0010	0.0014	0.0012	9		321.99	5
321	Acid Soluble Zn (%)	0009	< 0.0025		0.0010	0.0014	0.0012	9		321.33	5
321	Acid Soluble Zn (%)	0498	< 0.01		0.0010	0.0014	0.0012	9		321.03	5
321	Acid Soluble Zn (%)	0354	< 0.01		0.0010	0.0014	0.0012	9		321.30	5
325	Water Soluble Zn (%)	0368	0.0009	0.0009				1		325.30	0
441	Humic Acids (12%)	0501	9.165	0.1100	12.07	0.9047	0.1866	24	-3.21	441.00	0
441	Humic Acids (12%)	0037	9.700	0.5200	12.07	0.9047	0.1866	24	-2.62	441.00	0
441	Humic Acids (12%)	0444	9.950	0.1000	12.07	0.9047	0.1866	24	-2.34	441.10	0
441	Humic Acids (12%)	0527	10.02	0.0549	12.07	0.9047	0.1866	24	-2.26	441.10	0
441	Humic Acids (12%)	0533	11.40	0.4000	12.07	0.9047	0.1866	24	-0.74	441.00	0
441	Humic Acids (12%)	0368	11.60	0.0430	12.07	0.9047	0.1866	24	-0.52	441.10	0
441	Humic Acids (12%)	0498	11.85	0.1000	12.07	0.9047	0.1866	24	-0.24	441.99	0
441	Humic Acids (12%)	0220	11.97	0.0400	12.07	0.9047	0.1866	24	-0.11	441.00	0
441	Humic Acids (12%)	0549	11.99	0.0900	12.07	0.9047	0.1866	24	-0.09	441.00	0
441	Humic Acids (12%)	0538	12.00	0.0300	12.07	0.9047	0.1866	24	-0.08	441.10	0
441	Humic Acids (12%)	0556	12.10	0.0200	12.07	0.9047	0.1866	24	0.04	441.10	0
441	Humic Acids (12%)	0567	12.23	0.0500	12.07	0.9047	0.1866	24	0.18	441.99	0
441	Humic Acids (12%)	0562	12.25	0.1000	12.07	0.9047	0.1866	24	0.20	441.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
441	Humic Acids (12%)	0565	12.26	0.1100	12.07	0.9047	0.1866	24	0.21	441.99	0
441	Humic Acids (12%)	0560	12.28	0.0700	12.07	0.9047	0.1866	24	0.23	441.99	0
441	Humic Acids (12%)	0600	12.30	0.1000	12.07	0.9047	0.1866	24	0.26	441.99	0
441	Humic Acids (12%)	0136	12.32	0.8000	12.07	0.9047	0.1866	24	0.28	441.00	0
441	Humic Acids (12%)	0559	12.39	0.0100	12.07	0.9047	0.1866	24	0.35	441.99	0
441	Humic Acids (12%)	0564	12.46	0.0600	12.07	0.9047	0.1866	24	0.43	441.99	0
441	Humic Acids (12%)	0518	12.47	0.5700	12.07	0.9047	0.1866	24	0.44	441.00	0
441	Humic Acids (12%)	0481	12.66	0.4700	12.07	0.9047	0.1866	24	0.65	441.99	0
441	Humic Acids (12%)	0117	13.82	0.1693	12.07	0.9047	0.1866	24	1.94	441.10	0
441	Humic Acids (12%)	0547	14.04	0.1600	12.07	0.9047	0.1866	24	2.18	441.10	0
441	Humic Acids (12%)	0220	16.38	0.3000	12.07	0.9047	0.1866	24	4.77	441.10	0

Interpreting Z Scores and Flags:

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, 3 = removed from stats, 4 = rejected due to 0s submitted and 5 = LOD. A 9 flag indicates a data problem - scores not calculated.

Notes:

Robust statistics not used if < 6 labs used in calculations, in this case Values and Z Scores are grayed out and should be interpreted with extreme caution. Your offset values are higher (‡) or lower (†) than the Robust Analyte value ± Investigational Allowance. 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.