

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 211111

5-2-0 Organic

Statistical Summary

Analytes: 43

Labs Reporting: 87

Issue Date : 12/31/2021

Analyte Code	Analyte Sample # 211111	# 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 (%)	8	7	0.9247	1.433	0.5833		0.3450	0.1630	59.15%		0.0113	4.34%
002	Nitrate N (%)	1		0.0515									
003	Water Insoluble N (%)	10	9	4.345	0.2060	4.380		0.2090	0.0871	4.77%		0.0432	3.20%
005	Urea N (%)	2	2	0.0575	0.0743								
006	Biuret N (%)	1		0.0050									
008	Biuret (%)	1		0.0000									
009	Ammoniacal Plus Nitrate N (%)	2	2	2.693	3.242								
010	Total N (5%)	83	81	5.124	0.4856	5.167	0.5117	0.1450	0.0201	2.81%	0.66	0.0546	3.12%
020	Total P2O5 (%)	44	43	4.252	0.9165	4.451		0.5221	0.0995	11.73%		0.0691	3.19%
030	Citrate Insoluble P2O5 (%)	1		0.6300									
040	Indirect Available P2O5 (2%)	2	2	2.858	1.008								
041	Direct Available P2O5 (2%)	40	39	3.473	0.9667	3.467	0.6700	1.110	0.2221	32.01%	3.86	0.0679	3.32%
048	Water Soluble P2O5 (%)	1		0.1633									
050	Soluble K2O (%)	13	12	0.1934	0.0613	0.2012	0.4100	0.0646	0.0233	32.10%	0.37	0.0120	5.09%
060	Water (Free) (%)	2	2	6.942	2.133								
101	Acid Soluble Ca (%)	12	12	2.118	0.1559	2.107	0.3054	0.1496	0.0540	7.10%	1.14	0.0476	3.58%
121	Acid Soluble Mg (%)	15	15	0.3591	0.0449	0.3586	0.2179	0.0434	0.0140	12.11%	0.46	0.0182	4.67%
131	Water Soluble Mg (%)	1		0.0198									
143	Elemental S (%)	1		1.350									
145	Sulfate S, HCl soluble (%)	1		0.2840									
148	Total S (%)	7	7	1.131	0.3838	1.131	0.2566	0.4352	0.2056	38.48%	3.95	0.2498	3.93%
149	S - HNO3 soluble (%)	2	2	1.335	0.1271								
151	Acid Soluble As (ppm)	18	15	3.269	1.793	3.831		1.340	0.4326	34.99%		0.2125	13.07%
165	Acid Soluble B (%)	10	7	0.0036	0.0027	0.0036	0.0035	0.0011	0.0005	30.51%	0.72	0.0002	9.33%
171	Water Soluble B (%)	1		0.0035									
181	Acid Soluble Cd (ppm)	25	23	2.013	0.7829	1.996		0.4987	0.1300	24.99%		0.0799	14.42%
190	Water Soluble Cl (%)	1		0.2150									
191	Acid Soluble Cr (ppm)	23	23	53.96	11.39	52.73		8.768	2.285	16.63%		2.411	8.81%
202	Acid Soluble Co (ppm)	21	18	8.500	4.052	8.220	3.4659	2.173	0.6403	26.44%	1.46	0.2992	11.65%
221	Acid Soluble Cu (%)	37	36	0.0264	0.0034	0.0262	0.0076	0.0031	0.0006	11.90%	0.95	0.0005	6.92%
241	Acid Soluble Fe (%)	17	17	2.503	0.1339	2.504	0.2554	0.1501	0.0455	6.00%	1.37	0.0911	3.48%
251	Acid Soluble Pb (ppm)	24	23	35.95	9.069	34.94		7.673	2.000	21.96%		1.785	9.37%
261	Acid Soluble Mn (%)	18	17	0.1163	0.0151	0.1179	0.0168	0.0126	0.0038	10.68%	1.75	0.0029	5.52%

Analyte Code	Analyte Sample # 211111	# 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
281	Acid Soluble Hg (ppm)	11	6	0.6768	0.4363	0.7862		0.3509	0.1791	44.63%		0.0738	16.59%
289	Acid Soluble Mo (ppm)	22	20	13.43	19.53	9.353	3.8058	2.992	0.8363	31.99%	1.83	0.4455	11.43%
291	Acid Soluble Ni (ppm)	25	23	24.54	4.634	24.30		3.459	0.9015	14.23%		0.8793	9.90%
301	Acid Soluble Se (ppm)	16	8	22.80	73.00	8.245		4.116	1.819	49.92%		0.5405	11.65%
311	Sodium (%)	7	7	0.0684	0.0123	0.0684	0.0118	0.0140	0.0066	20.48%	2.76	0.0036	5.99%
321	Acid Soluble Zn (%)	36	34	0.1666	0.1150	0.1478	0.0198	0.0143	0.0031	9.65%	1.68	0.0037	5.33%
325	Water Soluble Zn (%)	1		0.0005									
431	Soluble Si in nonliquids (%)	1		0.0040									
441	Humic Acids (%)	10	7	24.88	28.12	7.577		2.090	0.9876	27.59%		0.1737	2.95%
451	Hydrophobic Fulvic Acids (%)	2	2	9.050	9.037								

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 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 using the Thompson Modification, Analyst,2000,125,385-386.

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Analyte Proficiency From All Labs

Sample # 211111

5-2-0 Organic

Lab Values

Analytes: 43

Labs Reporting: 87

Issue Date : 12/31/2021

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 N (%)	0423	0.2405	0.0210	0.5833	0.3450	0.0113	7	-0.90	001.99	0
001	Ammoniacal N (%)	0524	0.3250	0.0000	0.5833	0.3450	0.0113	7	-0.68	001.99	0
001	Ammoniacal N (%)	0389	0.3300	0.0200	0.5833	0.3450	0.0113	7	-0.66	001.10	0
001	Ammoniacal N (%)	0553	0.6670	0.0080	0.5833	0.3450	0.0113	7	0.22	001.99	0
001	Ammoniacal N (%)	0539	0.7050	0.0100	0.5833	0.3450	0.0113	7	0.32	001.99	0
001	Ammoniacal N (%)	0535	0.7150	0.0100	0.5833	0.3450	0.0113	7	0.35	001.99	0
001	Ammoniacal N (%)	0548	4.415	0.0100	0.5833	0.3450	0.0113	7	10.04	001.99	0
001	Ammoniacal N (%)	0572	0.0000	0.0000	0.5833	0.3450	0.0113	7		001.99	4
002	Nitrate N (%)	0553	0.0515	0.0050				1		002.99	0
003	Water Insoluble N (%)	0117	4.050	0.0086	4.380	0.2090	0.0432	9	-1.46	003.10	0
003	Water Insoluble N (%)	0220	4.180	0.0600	4.380	0.2090	0.0432	9	-0.88	003.10	0
003	Water Insoluble N (%)	0451	4.260	0.1000	4.380	0.2090	0.0432	9	-0.53	003.10	0
003	Water Insoluble N (%)	0027	4.300	0.0800	4.380	0.2090	0.0432	9	-0.35	003.10	0
003	Water Insoluble N (%)	0564	4.475	0.0500	4.380	0.2090	0.0432	9	0.42	003.99	0
003	Water Insoluble N (%)	0565	4.490	0.0200	4.380	0.2090	0.0432	9	0.49	003.99	0
003	Water Insoluble N (%)	0567	4.500	0.0000	4.380	0.2090	0.0432	9	0.53	003.99	0
003	Water Insoluble N (%)	0574	4.535	0.0300	4.380	0.2090	0.0432	9	0.69	003.99	0
003	Water Insoluble N (%)	0577	4.610	0.0400	4.380	0.2090	0.0432	9	1.02	003.99	0
003	Water Insoluble N (%)	0029	4.045	0.2900	4.380	0.2090	0.0432	9	-1.48	003.10	1
005	Urea N (%)	0524	0.0050	0.0040				2		005.99	0
005	Urea N (%)	0574	0.1100	0.0200				2		005.00	0
006	Biuret N (%)	0574	0.0050	0.0100				0		006.99	4
008	Biuret (%)	0572	0.0000	0.0000				0		008.10	4
009	Ammoniacal Plus Nitrate N (%)	0574	0.4000	0.0200				2		009.10	0
009	Ammoniacal Plus Nitrate N (%)	0518	4.985	0.0700				2		009.99	0
010	Total N (5%)	0537	4.810	0.0600	5.167	0.1450	0.0546	81	-2.47	010.99	0
010	Total N (5%)	0476	4.864	0.1605	5.167	0.1450	0.0546	81	-2.09	010.99	0
010	Total N (5%)	0545	4.870	0.0400	5.167	0.1450	0.0546	81	-2.05	010.99	0
010	Total N (5%)	0533	4.905	0.0500	5.167	0.1450	0.0546	81	-1.81	010.11	0
010	Total N (5%)	0325	4.930	0.2400	5.167	0.1450	0.0546	81	-1.64	010.60	0
010	Total N (5%)	0548	4.960	0.0200	5.167	0.1450	0.0546	81	-1.43	010.11	0
010	Total N (5%)	0234	4.970	0.0200	5.167	0.1450	0.0546	81	-1.36	010.60	0
010	Total N (5%)	0506	4.980	0.0400	5.167	0.1450	0.0546	81	-1.29	010.99	0
010	Total N (5%)	0576	4.980	0.0000	5.167	0.1450	0.0546	81	-1.29	010.99	0
010	Total N (5%)	0540	4.990	0.0400	5.167	0.1450	0.0546	81	-1.22	010.11	0
010	Total N (5%)	0493	4.995	0.1300	5.167	0.1450	0.0546	81	-1.19	010.99	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 N (5%)	0538	4.995	0.0300	5.167	0.1450	0.0546	81	-1.19	010.99	0
010	Total N (5%)	0513	5.015	0.0300	5.167	0.1450	0.0546	81	-1.05	010.99	0
010	Total N (5%)	0354	5.035	0.0700	5.167	0.1450	0.0546	81	-0.91	010.60	0
010	Total N (5%)	0536	5.040	0.1200	5.167	0.1450	0.0546	81	-0.88	010.11	0
010	Total N (5%)	0574	5.045	0.0300	5.167	0.1450	0.0546	81	-0.84	010.99	0
010	Total N (5%)	0035	5.050	0.1000	5.167	0.1450	0.0546	81	-0.81	010.60	0
010	Total N (5%)	0564	5.050	0.0200	5.167	0.1450	0.0546	81	-0.81	010.99	0
010	Total N (5%)	0444	5.060	0.0800	5.167	0.1450	0.0546	81	-0.74	010.60	0
010	Total N (5%)	0565	5.060	0.0200	5.167	0.1450	0.0546	81	-0.74	010.99	0
010	Total N (5%)	0572	5.075	0.0508	5.167	0.1450	0.0546	81	-0.64	010.12	0
010	Total N (5%)	0549	5.075	0.0100	5.167	0.1450	0.0546	81	-0.64	010.99	0
010	Total N (5%)	0535	5.078	0.0450	5.167	0.1450	0.0546	81	-0.62	010.11	0
010	Total N (5%)	0539	5.082	0.0560	5.167	0.1450	0.0546	81	-0.59	010.11	0
010	Total N (5%)	0551	5.100	0.1000	5.167	0.1450	0.0546	81	-0.47	010.11	0
010	Total N (5%)	0567	5.100	0.0000	5.167	0.1450	0.0546	81	-0.47	010.99	0
010	Total N (5%)	0559	5.110	0.0200	5.167	0.1450	0.0546	81	-0.40	010.99	0
010	Total N (5%)	0095	5.110	0.0800	5.167	0.1450	0.0546	81	-0.40	010.60	0
010	Total N (5%)	0476	5.116	0.0422	5.167	0.1450	0.0546	81	-0.35	010.60	0
010	Total N (5%)	0532	5.120	0.1000	5.167	0.1450	0.0546	81	-0.33	010.99	0
010	Total N (5%)	0551	5.125	0.0500	5.167	0.1450	0.0546	81	-0.29	010.99	0
010	Total N (5%)	0577	5.130	0.0400	5.167	0.1450	0.0546	81	-0.26	010.99	0
010	Total N (5%)	0451	5.150	0.1830	5.167	0.1450	0.0546	81	-0.12	010.60	0
010	Total N (5%)	0562	5.150	0.1000	5.167	0.1450	0.0546	81	-0.12	010.99	0
010	Total N (5%)	0049	5.155	0.0300	5.167	0.1450	0.0546	81	-0.09	010.60	0
010	Total N (5%)	0292	5.155	0.0100	5.167	0.1450	0.0546	81	-0.09	010.60	0
010	Total N (5%)	0405	5.155	0.0100	5.167	0.1450	0.0546	81	-0.09	010.60	0
010	Total N (5%)	0561	5.155	0.0100	5.167	0.1450	0.0546	81	-0.09	010.60	0
010	Total N (5%)	0220	5.160	0.0000	5.167	0.1450	0.0546	81	-0.05	010.60	0
010	Total N (5%)	0486	5.160	0.0200	5.167	0.1450	0.0546	81	-0.05	010.60	0
010	Total N (5%)	0390	5.161	0.0510	5.167	0.1450	0.0546	81	-0.05	010.60	0
010	Total N (5%)	0029	5.161	0.0260	5.167	0.1450	0.0546	81	-0.04	010.60	0
010	Total N (5%)	0043	5.175	0.0100	5.167	0.1450	0.0546	81	0.05	010.60	0
010	Total N (5%)	0423	5.175	0.0700	5.167	0.1450	0.0546	81	0.05	010.60	0
010	Total N (5%)	0527	5.187	0.0350	5.167	0.1450	0.0546	81	0.13	010.60	0
010	Total N (5%)	0114	5.190	0.0600	5.167	0.1450	0.0546	81	0.16	010.60	0
010	Total N (5%)	0501	5.195	0.0300	5.167	0.1450	0.0546	81	0.19	010.60	0
010	Total N (5%)	0324	5.205	0.0700	5.167	0.1450	0.0546	81	0.26	010.60	0
010	Total N (5%)	0452	5.210	0.0600	5.167	0.1450	0.0546	81	0.29	010.60	0
010	Total N (5%)	0547	5.210	0.0000	5.167	0.1450	0.0546	81	0.29	010.60	0
010	Total N (5%)	0037	5.220	0.1030	5.167	0.1450	0.0546	81	0.36	010.60	0
010	Total N (5%)	0231	5.220	0.0400	5.167	0.1450	0.0546	81	0.36	010.60	0
010	Total N (5%)	0472	5.222	0.0120	5.167	0.1450	0.0546	81	0.38	010.60	0
010	Total N (5%)	0106	5.225	0.0300	5.167	0.1450	0.0546	81	0.40	010.60	0
010	Total N (5%)	0481	5.225	0.0100	5.167	0.1450	0.0546	81	0.40	010.99	0
010	Total N (5%)	0563	5.230	0.0400	5.167	0.1450	0.0546	81	0.43	010.99	0
010	Total N (5%)	0307	5.240	0.0400	5.167	0.1450	0.0546	81	0.50	010.60	0
010	Total N (5%)	0230	5.250	0.0400	5.167	0.1450	0.0546	81	0.57	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 N (5%)	0260	5.250	0.1000	5.167	0.1450	0.0546	81	0.57	010.60	0
010	Total N (5%)	0073	5.255	0.0100	5.167	0.1450	0.0546	81	0.60	010.60	0
010	Total N (5%)	0136	5.255	0.0100	5.167	0.1450	0.0546	81	0.60	010.60	0
010	Total N (5%)	0534	5.255	0.0100	5.167	0.1450	0.0546	81	0.60	010.60	0
010	Total N (5%)	0485	5.261	0.1626	5.167	0.1450	0.0546	81	0.65	010.60	0
010	Total N (5%)	0524	5.280	0.0067	5.167	0.1450	0.0546	81	0.78	010.99	0
010	Total N (5%)	0040	5.300	0.0000	5.167	0.1450	0.0546	81	0.91	010.60	0
010	Total N (5%)	0450	5.300	0.0000	5.167	0.1450	0.0546	81	0.91	010.60	0
010	Total N (5%)	0027	5.305	0.1300	5.167	0.1450	0.0546	81	0.95	010.60	0
010	Total N (5%)	0055	5.305	0.1700	5.167	0.1450	0.0546	81	0.95	010.60	0
010	Total N (5%)	0402	5.309	0.0090	5.167	0.1450	0.0546	81	0.97	010.60	0
010	Total N (5%)	0255	5.313	0.0360	5.167	0.1450	0.0546	81	1.00	010.60	0
010	Total N (5%)	0422	5.334	0.1010	5.167	0.1450	0.0546	81	1.15	010.60	0
010	Total N (5%)	0510	5.335	0.0055	5.167	0.1450	0.0546	81	1.16	010.11	0
010	Total N (5%)	0042	5.350	0.1000	5.167	0.1450	0.0546	81	1.26	010.60	0
010	Total N (5%)	0023	5.352	0.2030	5.167	0.1450	0.0546	81	1.27	010.60	0
010	Total N (5%)	0546	5.365	0.1900	5.167	0.1450	0.0546	81	1.36	010.11	0
010	Total N (5%)	0177	5.382	0.0280	5.167	0.1450	0.0546	81	1.48	010.60	0
010	Total N (5%)	0421	5.415	0.0100	5.167	0.1450	0.0546	81	1.71	010.60	0
010	Total N (5%)	0568	5.425	0.0900	5.167	0.1450	0.0546	81	1.78	010.12	0
010	Total N (5%)	0102	5.540	0.0200	5.167	0.1450	0.0546	81	2.57	010.60	0
010	Total N (5%)	0498	5.600	0.0000	5.167	0.1450	0.0546	81	2.98	010.12	0
010	Total N (5%)	0025	5.645	0.0500	5.167	0.1450	0.0546	81	3.29	010.60	0
010	Total N (5%)	0368	5.393	0.8050	5.167	0.1450	0.0546	81	1.55	010.60	1
010	Total N (5%)	0389	0.9850†	0.0100	5.167	0.1450	0.0546	81	-28.85	010.60	2
020	Total P2O5 (%)	0576	1.900	0.0000	4.451	0.5221	0.0691	43	-4.89	020.99	0
020	Total P2O5 (%)	0548	2.110	0.0600	4.451	0.5221	0.0691	43	-4.48	020.20	0
020	Total P2O5 (%)	0567	2.110	0.0200	4.451	0.5221	0.0691	43	-4.48	020.99	0
020	Total P2O5 (%)	0564	2.125	0.0500	4.451	0.5221	0.0691	43	-4.45	020.99	0
020	Total P2O5 (%)	0565	2.130	0.0200	4.451	0.5221	0.0691	43	-4.44	020.99	0
020	Total P2O5 (%)	0042	2.450	0.3000	4.451	0.5221	0.0691	43	-3.83	020.50	0
020	Total P2O5 (%)	0537	3.630	0.0600	4.451	0.5221	0.0691	43	-1.57	020.99	0
020	Total P2O5 (%)	0481	3.960	0.0400	4.451	0.5221	0.0691	43	-0.94	020.20	0
020	Total P2O5 (%)	0027	4.120	0.0800	4.451	0.5221	0.0691	43	-0.63	020.20	0
020	Total P2O5 (%)	0405	4.200	0.0000	4.451	0.5221	0.0691	43	-0.48	020.20	0
020	Total P2O5 (%)	0513	4.205	0.0300	4.451	0.5221	0.0691	43	-0.47	020.99	0
020	Total P2O5 (%)	0177	4.211	0.0812	4.451	0.5221	0.0691	43	-0.46	020.10	0
020	Total P2O5 (%)	0561	4.220	0.2000	4.451	0.5221	0.0691	43	-0.44	020.20	0
020	Total P2O5 (%)	0292	4.240	0.0200	4.451	0.5221	0.0691	43	-0.40	020.20	0
020	Total P2O5 (%)	0472	4.250	0.0000	4.451	0.5221	0.0691	43	-0.38	020.50	0
020	Total P2O5 (%)	0515	4.384	0.0630	4.451	0.5221	0.0691	43	-0.13	020.99	0
020	Total P2O5 (%)	0255	4.392	0.0460	4.451	0.5221	0.0691	43	-0.11	020.50	0
020	Total P2O5 (%)	0231	4.410	0.0200	4.451	0.5221	0.0691	43	-0.08	020.20	0
020	Total P2O5 (%)	0390	4.415	0.2500	4.451	0.5221	0.0691	43	-0.07	020.50	0
020	Total P2O5 (%)	0451	4.428	0.0870	4.451	0.5221	0.0691	43	-0.04	020.50	0
020	Total P2O5 (%)	0043	4.485	0.0500	4.451	0.5221	0.0691	43	0.07	020.10	0
020	Total P2O5 (%)	0553	4.498	0.0360	4.451	0.5221	0.0691	43	0.09	020.20	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 P2O5 (%)	0524	4.559	0.0122	4.451	0.5221	0.0691	43	0.21	020.50	0
020	Total P2O5 (%)	0450	4.570	0.0200	4.451	0.5221	0.0691	43	0.23	020.50	0
020	Total P2O5 (%)	0260	4.585	0.0700	4.451	0.5221	0.0691	43	0.26	020.50	0
020	Total P2O5 (%)	0444	4.590	0.0600	4.451	0.5221	0.0691	43	0.27	020.50	0
020	Total P2O5 (%)	0452	4.610	0.0200	4.451	0.5221	0.0691	43	0.31	020.50	0
020	Total P2O5 (%)	0368	4.646	0.0651	4.451	0.5221	0.0691	43	0.37	020.50	0
020	Total P2O5 (%)	0035	4.650	0.1000	4.451	0.5221	0.0691	43	0.38	020.40	0
020	Total P2O5 (%)	0547	4.650	0.1400	4.451	0.5221	0.0691	43	0.38	020.50	0
020	Total P2O5 (%)	0493	4.720	0.2000	4.451	0.5221	0.0691	43	0.52	020.20	0
020	Total P2O5 (%)	0423	4.760	0.1000	4.451	0.5221	0.0691	43	0.59	020.50	0
020	Total P2O5 (%)	0572	4.774	0.0613	4.451	0.5221	0.0691	43	0.62	020.99	0
020	Total P2O5 (%)	0476	4.805	0.0787	4.451	0.5221	0.0691	43	0.68	020.99	0
020	Total P2O5 (%)	0231	4.820	0.0200	4.451	0.5221	0.0691	43	0.71	020.50	0
020	Total P2O5 (%)	0539	4.900	0.0000	4.451	0.5221	0.0691	43	0.86	020.20	0
020	Total P2O5 (%)	0535	4.950	0.1000	4.451	0.5221	0.0691	43	0.96	020.20	0
020	Total P2O5 (%)	0546	4.968	0.1616	4.451	0.5221	0.0691	43	0.99	020.50	0
020	Total P2O5 (%)	0402	5.009	0.0150	4.451	0.5221	0.0691	43	1.07	020.50	0
020	Total P2O5 (%)	0527	5.048	0.0252	4.451	0.5221	0.0691	43	1.14	020.50	0
020	Total P2O5 (%)	0510	5.207	0.0190	4.451	0.5221	0.0691	43	1.45	020.20	0
020	Total P2O5 (%)	0433	5.250	0.1400	4.451	0.5221	0.0691	43	1.53	020.50	0
020	Total P2O5 (%)	0389	5.335	0.0500	4.451	0.5221	0.0691	43	1.69	020.50	0
020	Total P2O5 (%)	0324	4.800	0.3400	4.451	0.5221	0.0691	43	0.67	020.20	1
030	Citrate Insoluble P2O5 (%)	0405	0.6300	0.0200				1		030.20	0
040	Indirect Available P2O5 (2%)	0577	2.145‡	0.0500				2		040.99	0
040	Indirect Available P2O5 (2%)	0405	3.570‡	0.0200				2		040.99	0
041	Direct Available P2O5 (2%)	0518	2.000†	0.0200	3.467	1.110	0.0679	39	-1.32	041.99	0
041	Direct Available P2O5 (2%)	0538	2.005†	0.0100	3.467	1.110	0.0679	39	-1.32	041.99	0
041	Direct Available P2O5 (2%)	0540	2.010†	0.0400	3.467	1.110	0.0679	39	-1.31	041.99	0
041	Direct Available P2O5 (2%)	0536	2.020†	0.0600	3.467	1.110	0.0679	39	-1.30	041.10	0
041	Direct Available P2O5 (2%)	0532	2.060†	0.0200	3.467	1.110	0.0679	39	-1.27	041.99	0
041	Direct Available P2O5 (2%)	0574	2.100†	0.0400	3.467	1.110	0.0679	39	-1.23	041.30	0
041	Direct Available P2O5 (2%)	0562	2.125†	0.1500	3.467	1.110	0.0679	39	-1.21	041.99	0
041	Direct Available P2O5 (2%)	0559	2.155†	0.0100	3.467	1.110	0.0679	39	-1.18	041.99	0
041	Direct Available P2O5 (2%)	0533	2.165†	0.0700	3.467	1.110	0.0679	39	-1.17	041.99	0
041	Direct Available P2O5 (2%)	0551	2.200†	0.1000	3.467	1.110	0.0679	39	-1.14	041.99	0
041	Direct Available P2O5 (2%)	0102	2.205†	0.0500	3.467	1.110	0.0679	39	-1.14	041.10	0
041	Direct Available P2O5 (2%)	0549	2.295†	0.0900	3.467	1.110	0.0679	39	-1.06	041.99	0
041	Direct Available P2O5 (2%)	0095	3.215	0.2500	3.467	1.110	0.0679	39	-0.23	041.11	0
041	Direct Available P2O5 (2%)	0027	3.375	0.3300	3.467	1.110	0.0679	39	-0.08	041.20	0
041	Direct Available P2O5 (2%)	0545	3.550	0.1000	3.467	1.110	0.0679	39	0.07	041.99	0
041	Direct Available P2O5 (2%)	0498	3.650	0.1000	3.467	1.110	0.0679	39	0.16	041.20	0
041	Direct Available P2O5 (2%)	0563	3.670	0.0600	3.467	1.110	0.0679	39	0.18	041.21	0
041	Direct Available P2O5 (2%)	0423	3.745	0.0300	3.467	1.110	0.0679	39	0.25	041.51	0
041	Direct Available P2O5 (2%)	0405	3.830	0.0000	3.467	1.110	0.0679	39	0.33	041.11	0
041	Direct Available P2O5 (2%)	0220	3.835	0.0100	3.467	1.110	0.0679	39	0.33	041.11	0
041	Direct Available P2O5 (2%)	0405	3.865	0.0100	3.467	1.110	0.0679	39	0.36	041.21	0
041	Direct Available P2O5 (2%)	0055	3.930	0.0600	3.467	1.110	0.0679	39	0.42	041.11	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				
041	Direct Available P2O5 (2%)	0073	3.975	0.0300	3.467	1.110	0.0679	39	0.46	041.11	0
041	Direct Available P2O5 (2%)	0049	3.980	0.0400	3.467	1.110	0.0679	39	0.46	041.11	0
041	Direct Available P2O5 (2%)	0485	3.997	0.0015	3.467	1.110	0.0679	39	0.48	041.11	0
041	Direct Available P2O5 (2%)	0136	4.015	0.0100	3.467	1.110	0.0679	39	0.49	041.11	0
041	Direct Available P2O5 (2%)	0009	4.050	0.1000	3.467	1.110	0.0679	39	0.53	041.10	0
041	Direct Available P2O5 (2%)	0040	4.050	0.1000	3.467	1.110	0.0679	39	0.53	041.10	0
041	Direct Available P2O5 (2%)	0029	4.105	0.1100	3.467	1.110	0.0679	39	0.57	041.40	0
041	Direct Available P2O5 (2%)	0106	4.270‡	0.1400	3.467	1.110	0.0679	39	0.72	041.21	0
041	Direct Available P2O5 (2%)	0055	4.300‡	0.1400	3.467	1.110	0.0679	39	0.75	041.21	0
041	Direct Available P2O5 (2%)	0025	4.320‡	0.0000	3.467	1.110	0.0679	39	0.77	041.51	0
041	Direct Available P2O5 (2%)	0568	4.370‡	0.1600	3.467	1.110	0.0679	39	0.81	041.21	0
041	Direct Available P2O5 (2%)	0023	4.445‡	0.0300	3.467	1.110	0.0679	39	0.88	041.51	0
041	Direct Available P2O5 (2%)	0037	4.468‡	0.0060	3.467	1.110	0.0679	39	0.90	041.51	0
041	Direct Available P2O5 (2%)	0421	4.580‡	0.0200	3.467	1.110	0.0679	39	1.00	041.50	0
041	Direct Available P2O5 (2%)	0230	4.610‡	0.0600	3.467	1.110	0.0679	39	1.03	041.99	0
041	Direct Available P2O5 (2%)	0354	4.735‡	0.0500	3.467	1.110	0.0679	39	1.14	041.21	0
041	Direct Available P2O5 (2%)	0486	4.950‡	0.0400	3.467	1.110	0.0679	39	1.34	041.51	0
041	Direct Available P2O5 (2%)	0325	3.700	0.6000	3.467	1.110	0.0679	39	0.21	041.50	1
048	Water Soluble P2O5 (%)	0572	0.1633	0.0428				1		048.99	0
050	Soluble K2O (%)	0354	0.1125	0.0070	0.2012	0.0646	0.0120	12	-1.37	050.52	0
050	Soluble K2O (%)	0539	0.1400	0.0200	0.2012	0.0646	0.0120	12	-0.95	050.99	0
050	Soluble K2O (%)	0535	0.1550	0.0100	0.2012	0.0646	0.0120	12	-0.72	050.99	0
050	Soluble K2O (%)	0539	0.1600	0.0200	0.2012	0.0646	0.0120	12	-0.64	050.61	0
050	Soluble K2O (%)	0535	0.1750	0.0100	0.2012	0.0646	0.0120	12	-0.41	050.61	0
050	Soluble K2O (%)	0553	0.1910	0.0080	0.2012	0.0646	0.0120	12	-0.16	050.99	0
050	Soluble K2O (%)	0421	0.2000	0.0200	0.2012	0.0646	0.0120	12	-0.02	050.99	0
050	Soluble K2O (%)	0568	0.2100	0.0000	0.2012	0.0646	0.0120	12	0.14	050.51	0
050	Soluble K2O (%)	0524	0.2426	0.0070	0.2012	0.0646	0.0120	12	0.64	050.99	0
050	Soluble K2O (%)	0423	0.2550	0.0100	0.2012	0.0646	0.0120	12	0.83	050.52	0
050	Soluble K2O (%)	0527	0.2784	0.0022	0.2012	0.0646	0.0120	12	1.20	050.99	0
050	Soluble K2O (%)	0389	0.2950	0.0300	0.2012	0.0646	0.0120	12	1.45	050.99	0
050	Soluble K2O (%)	0325	< 0.1		0.2012	0.0646	0.0120	12		050.99	5
060	Water (Free) (%)	0510	5.433	0.0004				2		060.99	0
060	Water (Free) (%)	0009	8.450	0.1000				2		060.99	0
101	Acid Soluble Ca (%)	0421	1.975	0.0300	2.107	0.1496	0.0476	12	-0.88	101.33	0
101	Acid Soluble Ca (%)	0527	1.977	0.0134	2.107	0.1496	0.0476	12	-0.87	101.33	0
101	Acid Soluble Ca (%)	0472	1.985	0.0100	2.107	0.1496	0.0476	12	-0.82	101.33	0
101	Acid Soluble Ca (%)	0563	2.017	0.0039	2.107	0.1496	0.0476	12	-0.60	101.33	0
101	Acid Soluble Ca (%)	0568	2.050	0.0400	2.107	0.1496	0.0476	12	-0.38	101.30	0
101	Acid Soluble Ca (%)	0009	2.050	0.1000	2.107	0.1496	0.0476	12	-0.38	101.33	0
101	Acid Soluble Ca (%)	0553	2.058	0.0750	2.107	0.1496	0.0476	12	-0.33	101.00	0
101	Acid Soluble Ca (%)	0035	2.105	0.0500	2.107	0.1496	0.0476	12	-0.01	101.30	0
101	Acid Soluble Ca (%)	0572	2.149	0.0617	2.107	0.1496	0.0476	12	0.28	101.99	0
101	Acid Soluble Ca (%)	0423	2.260	0.0970	2.107	0.1496	0.0476	12	1.02	101.32	0
101	Acid Soluble Ca (%)	0389	2.330	0.0000	2.107	0.1496	0.0476	12	1.49	101.99	0
101	Acid Soluble Ca (%)	0354	2.465	0.0900	2.107	0.1496	0.0476	12	2.39	101.30	0
121	Acid Soluble Mg (%)	0515	0.2722	0.0774	0.3586	0.0434	0.0182	15	-1.99	121.99	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				
121	Acid Soluble Mg (%)	0515	0.3009	0.0881	0.3586	0.0434	0.0182	15	-1.33	121.33	0
121	Acid Soluble Mg (%)	0472	0.3050	0.0100	0.3586	0.0434	0.0182	15	-1.23	121.33	0
121	Acid Soluble Mg (%)	0524	0.3294	0.0080	0.3586	0.0434	0.0182	15	-0.67	121.99	0
121	Acid Soluble Mg (%)	0568	0.3340	0.0040	0.3586	0.0434	0.0182	15	-0.57	121.30	0
121	Acid Soluble Mg (%)	0389	0.3600	0.0000	0.3586	0.0434	0.0182	15	0.03	121.99	0
121	Acid Soluble Mg (%)	0572	0.3619	0.0020	0.3586	0.0434	0.0182	15	0.08	121.99	0
121	Acid Soluble Mg (%)	0009	0.3650	0.0100	0.3586	0.0434	0.0182	15	0.15	121.33	0
121	Acid Soluble Mg (%)	0553	0.3725	0.0110	0.3586	0.0434	0.0182	15	0.32	121.00	0
121	Acid Soluble Mg (%)	0563	0.3773	0.0017	0.3586	0.0434	0.0182	15	0.43	121.33	0
121	Acid Soluble Mg (%)	0035	0.3845	0.0170	0.3586	0.0434	0.0182	15	0.60	121.30	0
121	Acid Soluble Mg (%)	0421	0.3850	0.0100	0.3586	0.0434	0.0182	15	0.61	121.33	0
121	Acid Soluble Mg (%)	0354	0.3900	0.0200	0.3586	0.0434	0.0182	15	0.72	121.30	0
121	Acid Soluble Mg (%)	0423	0.3965	0.0090	0.3586	0.0434	0.0182	15	0.87	121.32	0
121	Acid Soluble Mg (%)	0527	0.4519	0.0051	0.3586	0.0434	0.0182	15	2.15	121.33	0
131	Water Soluble Mg (%)	0572	0.0198	0.0049				1		131.99	0
143	Elemental S (%)	0389	1.350	0.0200				1		143.99	0
145	Sulfate S, HCl soluble (%)	0553	0.2840	0.0100				1		145.99	0
148	Total S (%)	0354	0.5900	0.0400	1.131	0.4352	0.2498	7	-1.12	148.99	0
148	Total S (%)	0515	0.5904	1.032	1.131	0.4352	0.2498	7	-1.12	148.07	0
148	Total S (%)	0563	1.179	0.0080	1.131	0.4352	0.2498	7	0.10	148.07	0
148	Total S (%)	0472	1.265	0.0100	1.131	0.4352	0.2498	7	0.28	148.07	0
148	Total S (%)	0527	1.356	0.0019	1.131	0.4352	0.2498	7	0.47	148.07	0
148	Total S (%)	0572	1.468	0.5969	1.131	0.4352	0.2498	7	0.70	148.99	0
148	Total S (%)	0421	1.470	0.0600	1.131	0.4352	0.2498	7	0.70	148.07	0
149	S - HNO3 soluble (%)	0524	1.245	0.0739				2		149.04	0
149	S - HNO3 soluble (%)	0423	1.425	0.0400				2		149.04	0
151	Acid Soluble As (ppm)	0481	0.8550	0.0700	3.831	1.340	0.2125	15	-2.22	151.99	0
151	Acid Soluble As (ppm)	0498	2.600	0.4000	3.831	1.340	0.2125	15	-0.92	151.00	0
151	Acid Soluble As (ppm)	0527	2.752	0.0012	3.831	1.340	0.2125	15	-0.80	151.33	0
151	Acid Soluble As (ppm)	0572	2.996	0.3267	3.831	1.340	0.2125	15	-0.62	151.99	0
151	Acid Soluble As (ppm)	0220	3.250	0.1000	3.831	1.340	0.2125	15	-0.43	151.32	0
151	Acid Soluble As (ppm)	0220	3.300	0.0000	3.831	1.340	0.2125	15	-0.40	151.99	0
151	Acid Soluble As (ppm)	0136	3.360	0.0200	3.831	1.340	0.2125	15	-0.35	151.33	0
151	Acid Soluble As (ppm)	0563	3.523	0.0388	3.831	1.340	0.2125	15	-0.23	151.33	0
151	Acid Soluble As (ppm)	0476	3.722	0.1720	3.831	1.340	0.2125	15	-0.08	151.32	0
151	Acid Soluble As (ppm)	0547	4.155	0.1700	3.831	1.340	0.2125	15	0.24	151.30	0
151	Acid Soluble As (ppm)	0037	4.487	0.6390	3.831	1.340	0.2125	15	0.49	151.33	0
151	Acid Soluble As (ppm)	0009	4.550	0.5000	3.831	1.340	0.2125	15	0.54	151.99	0
151	Acid Soluble As (ppm)	0548	5.265	0.0500	3.831	1.340	0.2125	15	1.07	151.33	0
151	Acid Soluble As (ppm)	0405	6.000	0.0000	3.831	1.340	0.2125	15	1.62	151.99	0
151	Acid Soluble As (ppm)	0009	6.350	0.7000	3.831	1.340	0.2125	15	1.88	151.33	0
151	Acid Soluble As (ppm)	0515	1.271	1.430	3.831	1.340	0.2125	15	-1.91	151.34	1
151	Acid Soluble As (ppm)	0255	0.0000	0.0000	3.831	1.340	0.2125	15		151.30	4
151	Acid Soluble As (ppm)	0368	< 0.4		3.831	1.340	0.2125	15		151.34	5
165	Acid Soluble B (%)	0515	0.0017	0.0007	0.0036	0.0011	0.0002	7	-1.60	165.99	0
165	Acid Soluble B (%)	0389	0.0032	0.0003	0.0036	0.0011	0.0002	7	-0.36	165.30	0
165	Acid Soluble B (%)	0009	0.0033	0.0000	0.0036	0.0011	0.0002	7	-0.24	165.99	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				
165	Acid Soluble B (%)	0563	0.0035	0.0002	0.0036	0.0011	0.0002	7	-0.07	165.99	0
165	Acid Soluble B (%)	0524	0.0039	0.0000	0.0036	0.0011	0.0002	7	0.26	165.99	0
165	Acid Soluble B (%)	0572	0.0043	0.0004	0.0036	0.0011	0.0002	7	0.59	165.99	0
165	Acid Soluble B (%)	0423	0.0050	0.0000	0.0036	0.0011	0.0002	7	1.17	165.99	0
165	Acid Soluble B (%)	0421	0.0000	0.0000	0.0036	0.0011	0.0002	7		165.99	4
165	Acid Soluble B (%)	0527	< 0.001		0.0036	0.0011	0.0002	7		165.99	5
165	Acid Soluble B (%)	0354	< 0.01		0.0036	0.0011	0.0002	7		165.30	5
171	Water Soluble B (%)	0572	< 0.0035					0		171.99	5
181	Acid Soluble Cd (ppm)	0481	1.315	0.2100	1.996	0.4987	0.0799	23	-1.37	181.99	0
181	Acid Soluble Cd (ppm)	0255	1.362	0.2190	1.996	0.4987	0.0799	23	-1.27	181.30	0
181	Acid Soluble Cd (ppm)	0476	1.498	0.0800	1.996	0.4987	0.0799	23	-1.00	181.32	0
181	Acid Soluble Cd (ppm)	0444	1.550	0.0400	1.996	0.4987	0.0799	23	-0.89	181.30	0
181	Acid Soluble Cd (ppm)	0563	1.574	0.0205	1.996	0.4987	0.0799	23	-0.84	181.33	0
181	Acid Soluble Cd (ppm)	0389	1.580	0.0200	1.996	0.4987	0.0799	23	-0.83	181.30	0
181	Acid Soluble Cd (ppm)	0035	1.630	0.0400	1.996	0.4987	0.0799	23	-0.73	181.30	0
181	Acid Soluble Cd (ppm)	0405	1.695	0.0900	1.996	0.4987	0.0799	23	-0.60	181.99	0
181	Acid Soluble Cd (ppm)	0368	1.850	0.3000	1.996	0.4987	0.0799	23	-0.29	181.34	0
181	Acid Soluble Cd (ppm)	0524	1.916	0.0328	1.996	0.4987	0.0799	23	-0.16	181.30	0
181	Acid Soluble Cd (ppm)	0136	1.935	0.0300	1.996	0.4987	0.0799	23	-0.12	181.33	0
181	Acid Soluble Cd (ppm)	0450	2.000	0.0000	1.996	0.4987	0.0799	23	0.01	181.30	0
181	Acid Soluble Cd (ppm)	0527	2.047	0.0698	1.996	0.4987	0.0799	23	0.10	181.33	0
181	Acid Soluble Cd (ppm)	0009	2.050	0.1000	1.996	0.4987	0.0799	23	0.11	181.99	0
181	Acid Soluble Cd (ppm)	0498	2.060	0.0200	1.996	0.4987	0.0799	23	0.13	181.00	0
181	Acid Soluble Cd (ppm)	0539	2.150	0.1000	1.996	0.4987	0.0799	23	0.31	181.99	0
181	Acid Soluble Cd (ppm)	0547	2.250	0.1000	1.996	0.4987	0.0799	23	0.51	181.34	0
181	Acid Soluble Cd (ppm)	0037	2.259	0.1090	1.996	0.4987	0.0799	23	0.53	181.33	0
181	Acid Soluble Cd (ppm)	0009	2.350	0.1000	1.996	0.4987	0.0799	23	0.71	181.33	0
181	Acid Soluble Cd (ppm)	0548	2.600	0.1200	1.996	0.4987	0.0799	23	1.21	181.33	0
181	Acid Soluble Cd (ppm)	0220	3.500	0.0000	1.996	0.4987	0.0799	23	3.02	181.32	0
181	Acid Soluble Cd (ppm)	0220	3.700	0.0000	1.996	0.4987	0.0799	23	3.42	181.99	0
181	Acid Soluble Cd (ppm)	0572	3.708	0.0376	1.996	0.4987	0.0799	23	3.43	181.99	0
181	Acid Soluble Cd (ppm)	0535	1.750	0.5000	1.996	0.4987	0.0799	23	-0.49	181.99	1
181	Acid Soluble Cd (ppm)	0515	0.0000	0.0000	1.996	0.4987	0.0799	23		181.34	4
190	Water Soluble Cl (%)	0553	0.2150	0.0100				1		190.00	0
191	Acid Soluble Cr (ppm)	0389	38.52	0.7400	52.73	8.768	2.411	23	-1.62	191.30	0
191	Acid Soluble Cr (ppm)	0481	43.30	0.6000	52.73	8.768	2.411	23	-1.08	191.99	0
191	Acid Soluble Cr (ppm)	0476	43.44	0.4330	52.73	8.768	2.411	23	-1.06	191.32	0
191	Acid Soluble Cr (ppm)	0563	43.91	0.4173	52.73	8.768	2.411	23	-1.01	191.33	0
191	Acid Soluble Cr (ppm)	0444	44.87	0.2000	52.73	8.768	2.411	23	-0.90	191.30	0
191	Acid Soluble Cr (ppm)	0136	44.95	0.9000	52.73	8.768	2.411	23	-0.89	191.33	0
191	Acid Soluble Cr (ppm)	0515	47.09	11.43	52.73	8.768	2.411	23	-0.64	191.34	0
191	Acid Soluble Cr (ppm)	0498	48.15	0.5000	52.73	8.768	2.411	23	-0.52	191.00	0
191	Acid Soluble Cr (ppm)	0572	49.65	1.236	52.73	8.768	2.411	23	-0.35	191.99	0
191	Acid Soluble Cr (ppm)	0368	50.05	3.300	52.73	8.768	2.411	23	-0.31	191.34	0
191	Acid Soluble Cr (ppm)	0547	51.10	0.6000	52.73	8.768	2.411	23	-0.19	191.34	0
191	Acid Soluble Cr (ppm)	0524	51.18	1.668	52.73	8.768	2.411	23	-0.18	191.30	0
191	Acid Soluble Cr (ppm)	0035	51.20	1.000	52.73	8.768	2.411	23	-0.17	191.30	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				
191	Acid Soluble Cr (ppm)	0515	57.17	8.798	52.73	8.768	2.411	23	0.51	191.33	0
191	Acid Soluble Cr (ppm)	0527	57.61	0.0983	52.73	8.768	2.411	23	0.56	191.33	0
191	Acid Soluble Cr (ppm)	0037	57.70	1.439	52.73	8.768	2.411	23	0.57	191.33	0
191	Acid Soluble Cr (ppm)	0220	58.50	0.2000	52.73	8.768	2.411	23	0.66	191.32	0
191	Acid Soluble Cr (ppm)	0405	58.50	1.000	52.73	8.768	2.411	23	0.66	191.99	0
191	Acid Soluble Cr (ppm)	0009	60.00	2.000	52.73	8.768	2.411	23	0.83	191.33	0
191	Acid Soluble Cr (ppm)	0220	60.55	3.500	52.73	8.768	2.411	23	0.89	191.99	0
191	Acid Soluble Cr (ppm)	0009	62.50	9.000	52.73	8.768	2.411	23	1.11	191.99	0
191	Acid Soluble Cr (ppm)	0450	67.50	5.000	52.73	8.768	2.411	23	1.68	191.30	0
191	Acid Soluble Cr (ppm)	0548	93.61	1.380	52.73	8.768	2.411	23	4.66	191.33	0
202	Acid Soluble Co (ppm)	0547	5.600	0.2000	8.220	2.173	0.2992	18	-1.21	202.34	0
202	Acid Soluble Co (ppm)	0136	5.695	0.0900	8.220	2.173	0.2992	18	-1.16	202.33	0
202	Acid Soluble Co (ppm)	0389	5.920	0.0200	8.220	2.173	0.2992	18	-1.06	202.30	0
202	Acid Soluble Co (ppm)	0220	6.550	0.1000	8.220	2.173	0.2992	18	-0.77	202.32	0
202	Acid Soluble Co (ppm)	0572	6.753	0.1993	8.220	2.173	0.2992	18	-0.68	202.99	0
202	Acid Soluble Co (ppm)	0476	6.960	0.0170	8.220	2.173	0.2992	18	-0.58	202.32	0
202	Acid Soluble Co (ppm)	0035	7.025	0.1900	8.220	2.173	0.2992	18	-0.55	202.30	0
202	Acid Soluble Co (ppm)	0405	7.500	0.6000	8.220	2.173	0.2992	18	-0.33	202.99	0
202	Acid Soluble Co (ppm)	0220	7.600	0.0000	8.220	2.173	0.2992	18	-0.29	202.99	0
202	Acid Soluble Co (ppm)	0563	7.931	0.1769	8.220	2.173	0.2992	18	-0.13	202.33	0
202	Acid Soluble Co (ppm)	0450	8.400	1.000	8.220	2.173	0.2992	18	0.08	202.30	0
202	Acid Soluble Co (ppm)	0527	9.112	0.0382	8.220	2.173	0.2992	18	0.41	202.33	0
202	Acid Soluble Co (ppm)	0423	9.665	0.0700	8.220	2.173	0.2992	18	0.67	202.32	0
202	Acid Soluble Co (ppm)	0524	9.886	0.7300	8.220	2.173	0.2992	18	0.77	202.30	0
202	Acid Soluble Co (ppm)	0009	9.900	0.2000	8.220	2.173	0.2992	18	0.77	202.33	0
202	Acid Soluble Co (ppm)	0009	10.50	1.000	8.220	2.173	0.2992	18	1.05	202.99	0
202	Acid Soluble Co (ppm)	0037	11.59	0.7440	8.220	2.173	0.2992	18	1.55	202.33	0
202	Acid Soluble Co (ppm)	0548	16.26	0.0100	8.220	2.173	0.2992	18	3.70	202.33	0
202	Acid Soluble Co (ppm)	0368	5.650	2.500	8.220	2.173	0.2992	18	-1.18	202.34	1
202	Acid Soluble Co (ppm)	0255	0.0000	0.0000	8.220	2.173	0.2992	18		202.99	4
202	Acid Soluble Co (ppm)	0481	< 20		8.220	2.173	0.2992	18		202.99	5
221	Acid Soluble Cu (%)	0354	0.0200	0.0000	0.0262	0.0031	0.0005	36	-1.99	221.30	0
221	Acid Soluble Cu (%)	0476	0.0200	0.0000	0.0262	0.0031	0.0005	36	-1.99	221.99	0
221	Acid Soluble Cu (%)	0515	0.0222	0.0014	0.0262	0.0031	0.0005	36	-1.29	221.99	0
221	Acid Soluble Cu (%)	0563	0.0224	0.0003	0.0262	0.0031	0.0005	36	-1.24	221.33	0
221	Acid Soluble Cu (%)	0481	0.0225	0.0010	0.0262	0.0031	0.0005	36	-1.19	221.99	0
221	Acid Soluble Cu (%)	0402	0.0228	0.0003	0.0262	0.0031	0.0005	36	-1.11	221.30	0
221	Acid Soluble Cu (%)	0234	0.0234	0.0009	0.0262	0.0031	0.0005	36	-0.92	221.30	0
221	Acid Soluble Cu (%)	0553	0.0235	0.0010	0.0262	0.0031	0.0005	36	-0.87	221.00	0
221	Acid Soluble Cu (%)	0515	0.0237	0.0018	0.0262	0.0031	0.0005	36	-0.80	221.33	0
221	Acid Soluble Cu (%)	0255	0.0240	0.0000	0.0262	0.0031	0.0005	36	-0.71	221.30	0
221	Acid Soluble Cu (%)	0524	0.0244	0.0002	0.0262	0.0031	0.0005	36	-0.58	221.99	0
221	Acid Soluble Cu (%)	0577	0.0249	0.0005	0.0262	0.0031	0.0005	36	-0.44	221.01	0
221	Acid Soluble Cu (%)	0220	0.0254	0.0001	0.0262	0.0031	0.0005	36	-0.28	221.99	0
221	Acid Soluble Cu (%)	0220	0.0255	0.0001	0.0262	0.0031	0.0005	36	-0.24	221.32	0
221	Acid Soluble Cu (%)	0444	0.0260	0.0000	0.0262	0.0031	0.0005	36	-0.07	221.30	0
221	Acid Soluble Cu (%)	0009	0.0260	0.0000	0.0262	0.0031	0.0005	36	-0.07	221.33	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				
221	Acid Soluble Cu (%)	0506	0.0260	0.0000	0.0262	0.0031	0.0005	36	-0.07	221.99	0
221	Acid Soluble Cu (%)	0106	0.0260	0.0002	0.0262	0.0031	0.0005	36	-0.07	221.33	0
221	Acid Soluble Cu (%)	0009	0.0260	0.0020	0.0262	0.0031	0.0005	36	-0.07	221.99	0
221	Acid Soluble Cu (%)	0368	0.0262	0.0005	0.0262	0.0031	0.0005	36	-0.02	221.99	0
221	Acid Soluble Cu (%)	0572	0.0267	0.0019	0.0262	0.0031	0.0005	36	0.14	221.99	0
221	Acid Soluble Cu (%)	0037	0.0268	0.0000	0.0262	0.0031	0.0005	36	0.19	221.33	0
221	Acid Soluble Cu (%)	0535	0.0275	0.0010	0.0262	0.0031	0.0005	36	0.41	221.00	0
221	Acid Soluble Cu (%)	0535	0.0275	0.0010	0.0262	0.0031	0.0005	36	0.41	221.01	0
221	Acid Soluble Cu (%)	0539	0.0275	0.0010	0.0262	0.0031	0.0005	36	0.41	221.01	0
221	Acid Soluble Cu (%)	0405	0.0277	0.0002	0.0262	0.0031	0.0005	36	0.48	221.99	0
221	Acid Soluble Cu (%)	0035	0.0280	0.0000	0.0262	0.0031	0.0005	36	0.57	221.30	0
221	Acid Soluble Cu (%)	0527	0.0285	0.0002	0.0262	0.0031	0.0005	36	0.73	221.33	0
221	Acid Soluble Cu (%)	0043	0.0294	0.0008	0.0262	0.0031	0.0005	36	1.02	221.33	0
221	Acid Soluble Cu (%)	0423	0.0295	0.0010	0.0262	0.0031	0.0005	36	1.05	221.32	0
221	Acid Soluble Cu (%)	0498	0.0300	0.0000	0.0262	0.0031	0.0005	36	1.22	221.03	0
221	Acid Soluble Cu (%)	0231	0.0300	0.0000	0.0262	0.0031	0.0005	36	1.22	221.30	0
221	Acid Soluble Cu (%)	0472	0.0300	0.0000	0.0262	0.0031	0.0005	36	1.22	221.33	0
221	Acid Soluble Cu (%)	0389	0.0300	0.0000	0.0262	0.0031	0.0005	36	1.22	221.99	0
221	Acid Soluble Cu (%)	0547	0.0300	0.0000	0.0262	0.0031	0.0005	36	1.22	221.99	0
221	Acid Soluble Cu (%)	0548	0.0380	0.0000	0.0262	0.0031	0.0005	36	3.78	221.33	0
221	Acid Soluble Cu (%)	0539	0.0275	0.0030	0.0262	0.0031	0.0005	36	0.41	221.00	1
241	Acid Soluble Fe (%)	0472	2.265	0.0500	2.504	0.1501	0.0911	17	-1.59	241.33	0
241	Acid Soluble Fe (%)	0515	2.294	0.1630	2.504	0.1501	0.0911	17	-1.40	241.99	0
241	Acid Soluble Fe (%)	0553	2.350	0.0400	2.504	0.1501	0.0911	17	-1.02	241.00	0
241	Acid Soluble Fe (%)	0563	2.357	0.0715	2.504	0.1501	0.0911	17	-0.98	241.33	0
241	Acid Soluble Fe (%)	0515	2.392	0.2680	2.504	0.1501	0.0911	17	-0.74	241.33	0
241	Acid Soluble Fe (%)	0572	2.446	0.2113	2.504	0.1501	0.0911	17	-0.39	241.99	0
241	Acid Soluble Fe (%)	0389	2.500	0.0200	2.504	0.1501	0.0911	17	-0.03	241.99	0
241	Acid Soluble Fe (%)	0035	2.525	0.0300	2.504	0.1501	0.0911	17	0.14	241.30	0
241	Acid Soluble Fe (%)	0444	2.535	0.0900	2.504	0.1501	0.0911	17	0.21	241.30	0
241	Acid Soluble Fe (%)	0535	2.550	0.1000	2.504	0.1501	0.0911	17	0.31	241.00	0
241	Acid Soluble Fe (%)	0535	2.550	0.1000	2.504	0.1501	0.0911	17	0.31	241.01	0
241	Acid Soluble Fe (%)	0539	2.550	0.3000	2.504	0.1501	0.0911	17	0.31	241.01	0
241	Acid Soluble Fe (%)	0539	2.600	0.0000	2.504	0.1501	0.0911	17	0.64	241.00	0
241	Acid Soluble Fe (%)	0354	2.605	0.0500	2.504	0.1501	0.0911	17	0.67	241.30	0
241	Acid Soluble Fe (%)	0524	2.611	0.0143	2.504	0.1501	0.0911	17	0.72	241.99	0
241	Acid Soluble Fe (%)	0423	2.701	0.0210	2.504	0.1501	0.0911	17	1.31	241.32	0
241	Acid Soluble Fe (%)	0527	2.720	0.0196	2.504	0.1501	0.0911	17	1.44	241.33	0
251	Acid Soluble Pb (ppm)	0255	19.51	1.890	34.94	7.673	1.785	23	-2.01	251.30	0
251	Acid Soluble Pb (ppm)	0368	21.75	3.700	34.94	7.673	1.785	23	-1.72	251.34	0
251	Acid Soluble Pb (ppm)	0476	22.81	0.3090	34.94	7.673	1.785	23	-1.58	251.32	0
251	Acid Soluble Pb (ppm)	0498	25.00	0.4000	34.94	7.673	1.785	23	-1.30	251.00	0
251	Acid Soluble Pb (ppm)	0481	29.10	3.000	34.94	7.673	1.785	23	-0.76	251.99	0
251	Acid Soluble Pb (ppm)	0444	29.30	0.3500	34.94	7.673	1.785	23	-0.74	251.30	0
251	Acid Soluble Pb (ppm)	0389	30.24	0.1900	34.94	7.673	1.785	23	-0.61	251.30	0
251	Acid Soluble Pb (ppm)	0524	33.50	2.657	34.94	7.673	1.785	23	-0.19	251.30	0
251	Acid Soluble Pb (ppm)	0539	34.50	3.000	34.94	7.673	1.785	23	-0.06	251.99	0

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251	Acid Soluble Pb (ppm)	0009	35.50	1.000	34.94	7.673	1.785	23	0.07	251.33	0
251	Acid Soluble Pb (ppm)	0535	35.50	3.000	34.94	7.673	1.785	23	0.07	251.99	0
251	Acid Soluble Pb (ppm)	0515	35.98	7.361	34.94	7.673	1.785	23	0.14	251.34	0
251	Acid Soluble Pb (ppm)	0547	36.75	1.100	34.94	7.673	1.785	23	0.24	251.34	0
251	Acid Soluble Pb (ppm)	0037	37.79	0.2330	34.94	7.673	1.785	23	0.37	251.33	0
251	Acid Soluble Pb (ppm)	0405	38.60	1.600	34.94	7.673	1.785	23	0.48	251.99	0
251	Acid Soluble Pb (ppm)	0220	38.75	0.5000	34.94	7.673	1.785	23	0.50	251.32	0
251	Acid Soluble Pb (ppm)	0220	39.00	1.400	34.94	7.673	1.785	23	0.53	251.99	0
251	Acid Soluble Pb (ppm)	0035	39.05	1.900	34.94	7.673	1.785	23	0.54	251.30	0
251	Acid Soluble Pb (ppm)	0563	40.78	0.8427	34.94	7.673	1.785	23	0.76	251.33	0
251	Acid Soluble Pb (ppm)	0136	40.85	0.1000	34.94	7.673	1.785	23	0.77	251.33	0
251	Acid Soluble Pb (ppm)	0572	41.99	0.7427	34.94	7.673	1.785	23	0.92	251.99	0
251	Acid Soluble Pb (ppm)	0527	44.69	0.3300	34.94	7.673	1.785	23	1.27	251.33	0
251	Acid Soluble Pb (ppm)	0548	56.52	5.450	34.94	7.673	1.785	23	2.81	251.33	0
251	Acid Soluble Pb (ppm)	0515	55.28	15.74	34.94	7.673	1.785	23	2.65	251.33	1
261	Acid Soluble Mn (%)	0535	0.1000	0.0000	0.1179	0.0126	0.0029	17	-1.42	261.13	0
261	Acid Soluble Mn (%)	0563	0.1011	0.0014	0.1179	0.0126	0.0029	17	-1.34	261.35	0
261	Acid Soluble Mn (%)	0535	0.1025	0.0050	0.1179	0.0126	0.0029	17	-1.23	261.12	0
261	Acid Soluble Mn (%)	0539	0.1080	0.0040	0.1179	0.0126	0.0029	17	-0.79	261.12	0
261	Acid Soluble Mn (%)	0515	0.1110	0.0011	0.1179	0.0126	0.0029	17	-0.56	261.99	0
261	Acid Soluble Mn (%)	0539	0.1150	0.0100	0.1179	0.0126	0.0029	17	-0.23	261.13	0
261	Acid Soluble Mn (%)	0524	0.1156	0.0015	0.1179	0.0126	0.0029	17	-0.19	261.99	0
261	Acid Soluble Mn (%)	0572	0.1178	0.0070	0.1179	0.0126	0.0029	17	-0.01	261.99	0
261	Acid Soluble Mn (%)	0354	0.1200	0.0000	0.1179	0.0126	0.0029	17	0.16	261.30	0
261	Acid Soluble Mn (%)	0009	0.1200	0.0000	0.1179	0.0126	0.0029	17	0.16	261.35	0
261	Acid Soluble Mn (%)	0472	0.1200	0.0000	0.1179	0.0126	0.0029	17	0.16	261.35	0
261	Acid Soluble Mn (%)	0035	0.1205	0.0010	0.1179	0.0126	0.0029	17	0.20	261.30	0
261	Acid Soluble Mn (%)	0444	0.1250	0.0100	0.1179	0.0126	0.0029	17	0.56	261.30	0
261	Acid Soluble Mn (%)	0527	0.1265	0.0005	0.1179	0.0126	0.0029	17	0.68	261.35	0
261	Acid Soluble Mn (%)	0423	0.1285	0.0010	0.1179	0.0126	0.0029	17	0.84	261.34	0
261	Acid Soluble Mn (%)	0389	0.1400	0.0000	0.1179	0.0126	0.0029	17	1.75	261.99	0
261	Acid Soluble Mn (%)	0553	0.1435	0.0070	0.1179	0.0126	0.0029	17	2.03	261.00	0
261	Acid Soluble Mn (%)	0515	0.0788	0.0648	0.1179	0.0126	0.0029	17	-3.11	261.35	1
281	Acid Soluble Hg (ppm)	0547	0.3650	0.0500	0.7862	0.3509	0.0738	6	-1.07	281.99	0
281	Acid Soluble Hg (ppm)	0476	0.4340	0.0020	0.7862	0.3509	0.0738	6	-0.89	281.30	0
281	Acid Soluble Hg (ppm)	0405	0.8750	0.0500	0.7862	0.3509	0.0738	6	0.23	281.99	0
281	Acid Soluble Hg (ppm)	0450	0.9650	0.0700	0.7862	0.3509	0.0738	6	0.45	281.30	0
281	Acid Soluble Hg (ppm)	0563	0.9706	0.0111	0.7862	0.3509	0.0738	6	0.47	281.30	0
281	Acid Soluble Hg (ppm)	0572	1.108	0.2595	0.7862	0.3509	0.0738	6	0.82	281.99	0
281	Acid Soluble Hg (ppm)	0368	1.227	0.4760	0.7862	0.3509	0.0738	6	1.12	281.99	1
281	Acid Soluble Hg (ppm)	0515	0.0000	0.0000	0.7862	0.3509	0.0738	6		281.30	4
281	Acid Soluble Hg (ppm)	0527	< 0.001		0.7862	0.3509	0.0738	6		281.30	5
281	Acid Soluble Hg (ppm)	0481	< 0.5		0.7862	0.3509	0.0738	6		281.00	5
281	Acid Soluble Hg (ppm)	0009	< 1		0.7862	0.3509	0.0738	6		281.30	5
289	Acid Soluble Mo (ppm)	0402	4.200	0.8000	9.353	2.992	0.4455	20	-1.72	289.30	0
289	Acid Soluble Mo (ppm)	0450	4.200	0.4000	9.353	2.992	0.4455	20	-1.72	289.30	0
289	Acid Soluble Mo (ppm)	0524	4.876	0.1159	9.353	2.992	0.4455	20	-1.50	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 Mo (ppm)	0476	6.498	0.0670	9.353	2.992	0.4455	20	-0.95	289.32	0
289	Acid Soluble Mo (ppm)	0255	7.704	0.0670	9.353	2.992	0.4455	20	-0.55	289.30	0
289	Acid Soluble Mo (ppm)	0220	8.500	0.4000	9.353	2.992	0.4455	20	-0.29	289.32	0
289	Acid Soluble Mo (ppm)	0563	8.737	0.0724	9.353	2.992	0.4455	20	-0.21	289.33	0
289	Acid Soluble Mo (ppm)	0405	8.890	0.3800	9.353	2.992	0.4455	20	-0.15	289.99	0
289	Acid Soluble Mo (ppm)	0220	8.900	0.2000	9.353	2.992	0.4455	20	-0.15	289.99	0
289	Acid Soluble Mo (ppm)	0423	9.495	0.1100	9.353	2.992	0.4455	20	0.05	289.33	0
289	Acid Soluble Mo (ppm)	0136	9.705	0.1100	9.353	2.992	0.4455	20	0.12	289.33	0
289	Acid Soluble Mo (ppm)	0009	9.850	0.3000	9.353	2.992	0.4455	20	0.17	289.33	0
289	Acid Soluble Mo (ppm)	0547	10.40	0.0000	9.353	2.992	0.4455	20	0.35	289.34	0
289	Acid Soluble Mo (ppm)	0527	10.53	0.0373	9.353	2.992	0.4455	20	0.39	289.33	0
289	Acid Soluble Mo (ppm)	0037	10.85	0.4200	9.353	2.992	0.4455	20	0.50	289.33	0
289	Acid Soluble Mo (ppm)	0572	11.41	1.620	9.353	2.992	0.4455	20	0.69	289.99	0
289	Acid Soluble Mo (ppm)	0009	11.50	1.000	9.353	2.992	0.4455	20	0.72	289.99	0
289	Acid Soluble Mo (ppm)	0106	12.00	0.0000	9.353	2.992	0.4455	20	0.88	289.33	0
289	Acid Soluble Mo (ppm)	0368	13.65	2.100	9.353	2.992	0.4455	20	1.44	289.34	0
289	Acid Soluble Mo (ppm)	0548	15.20	0.7100	9.353	2.992	0.4455	20	1.95	289.33	0
289	Acid Soluble Mo (ppm)	0515	8.290	7.721	9.353	2.992	0.4455	20	-0.36	289.33	1
289	Acid Soluble Mo (ppm)	0481	< 100		9.353	2.992	0.4455	20		289.99	5
291	Acid Soluble Ni (ppm)	0476	18.44	0.2260	24.30	3.459	0.8793	23	-1.69	291.32	0
291	Acid Soluble Ni (ppm)	0444	19.44	0.0900	24.30	3.459	0.8793	23	-1.41	291.30	0
291	Acid Soluble Ni (ppm)	0136	20.20	0.2000	24.30	3.459	0.8793	23	-1.19	291.33	0
291	Acid Soluble Ni (ppm)	0481	20.80	0.1500	24.30	3.459	0.8793	23	-1.01	291.99	0
291	Acid Soluble Ni (ppm)	0524	21.51	0.7122	24.30	3.459	0.8793	23	-0.81	291.30	0
291	Acid Soluble Ni (ppm)	0450	22.00	0.0000	24.30	3.459	0.8793	23	-0.67	291.30	0
291	Acid Soluble Ni (ppm)	0368	22.25	1.500	24.30	3.459	0.8793	23	-0.59	291.34	0
291	Acid Soluble Ni (ppm)	0035	22.35	0.5000	24.30	3.459	0.8793	23	-0.56	291.30	0
291	Acid Soluble Ni (ppm)	0547	22.55	0.3000	24.30	3.459	0.8793	23	-0.51	291.34	0
291	Acid Soluble Ni (ppm)	0572	23.82	0.5975	24.30	3.459	0.8793	23	-0.14	291.99	0
291	Acid Soluble Ni (ppm)	0535	24.00	2.000	24.30	3.459	0.8793	23	-0.09	291.99	0
291	Acid Soluble Ni (ppm)	0220	24.60	0.4000	24.30	3.459	0.8793	23	0.09	291.32	0
291	Acid Soluble Ni (ppm)	0563	24.87	0.5479	24.30	3.459	0.8793	23	0.16	291.33	0
291	Acid Soluble Ni (ppm)	0539	25.00	2.000	24.30	3.459	0.8793	23	0.20	291.99	0
291	Acid Soluble Ni (ppm)	0220	25.05	2.100	24.30	3.459	0.8793	23	0.22	291.99	0
291	Acid Soluble Ni (ppm)	0527	26.30	0.6668	24.30	3.459	0.8793	23	0.58	291.33	0
291	Acid Soluble Ni (ppm)	0498	26.85	1.700	24.30	3.459	0.8793	23	0.74	291.00	0
291	Acid Soluble Ni (ppm)	0405	27.00	0.0000	24.30	3.459	0.8793	23	0.78	291.99	0
291	Acid Soluble Ni (ppm)	0255	27.21	0.4700	24.30	3.459	0.8793	23	0.84	291.99	0
291	Acid Soluble Ni (ppm)	0037	27.56	0.2130	24.30	3.459	0.8793	23	0.94	291.33	0
291	Acid Soluble Ni (ppm)	0009	28.50	1.000	24.30	3.459	0.8793	23	1.21	291.33	0
291	Acid Soluble Ni (ppm)	0009	28.50	3.000	24.30	3.459	0.8793	23	1.21	291.99	0
291	Acid Soluble Ni (ppm)	0548	41.77	1.850	24.30	3.459	0.8793	23	5.05	291.33	0
291	Acid Soluble Ni (ppm)	0515	19.17	8.775	24.30	3.459	0.8793	23	-1.48	291.34	1
291	Acid Soluble Ni (ppm)	0515	23.68	7.896	24.30	3.459	0.8793	23	-0.18	291.33	1
301	Acid Soluble Se (ppm)	0037	3.709	0.2300	8.245	4.116	0.5405	8	-1.10	301.33	0
301	Acid Soluble Se (ppm)	0043	3.770	0.5000	8.245	4.116	0.5405	8	-1.09	301.33	0
301	Acid Soluble Se (ppm)	0405	6.500	1.000	8.245	4.116	0.5405	8	-0.42	301.99	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				
301	Acid Soluble Se (ppm)	0547	7.485	0.2100	8.245	4.116	0.5405	8	-0.18	301.30	0
301	Acid Soluble Se (ppm)	0563	9.705	0.2109	8.245	4.116	0.5405	8	0.35	301.33	0
301	Acid Soluble Se (ppm)	0548	9.875	0.3300	8.245	4.116	0.5405	8	0.40	301.33	0
301	Acid Soluble Se (ppm)	0009	10.50	1.000	8.245	4.116	0.5405	8	0.55	301.99	0
301	Acid Soluble Se (ppm)	0476	14.91	0.8430	8.245	4.116	0.5405	8	1.62	301.32	0
301	Acid Soluble Se (ppm)	0572	296.0	574.1	8.245	4.116	0.5405	8	69.91	301.99	2
301	Acid Soluble Se (ppm)	0515	0.0000	0.0000	8.245	4.116	0.5405	8		301.33	4
301	Acid Soluble Se (ppm)	0515	0.0000	0.0000	8.245	4.116	0.5405	8		301.34	4
301	Acid Soluble Se (ppm)	0255	0.0000	0.0000	8.245	4.116	0.5405	8		301.99	4
301	Acid Soluble Se (ppm)	0527	< 0.001		8.245	4.116	0.5405	8		301.33	5
301	Acid Soluble Se (ppm)	0220	< 0.3		8.245	4.116	0.5405	8		301.32	5
301	Acid Soluble Se (ppm)	0481	< 0.5		8.245	4.116	0.5405	8		301.99	5
301	Acid Soluble Se (ppm)	0368	< 1.5		8.245	4.116	0.5405	8		301.34	5
311	Sodium (%)	0553	0.0505	0.0030	0.0684	0.0140	0.0036	7	-1.15	311.00	0
311	Sodium (%)	0572	0.0574	0.0018	0.0684	0.0140	0.0036	7	-0.71	311.99	0
311	Sodium (%)	0423	0.0630	0.0020	0.0684	0.0140	0.0036	7	-0.35	311.33	0
311	Sodium (%)	0035	0.0675	0.0050	0.0684	0.0140	0.0036	7	-0.05	311.33	0
311	Sodium (%)	0527	0.0771	0.0037	0.0684	0.0140	0.0036	7	0.56	311.33	0
311	Sodium (%)	0009	0.0780	0.0000	0.0684	0.0140	0.0036	7	0.62	311.33	0
311	Sodium (%)	0354	0.0850	0.0100	0.0684	0.0140	0.0036	7	1.08	311.99	0
321	Acid Soluble Zn (%)	0476	0.1110	0.0020	0.1478	0.0143	0.0037	34	-2.58	321.99	0
321	Acid Soluble Zn (%)	0563	0.1140	0.0034	0.1478	0.0143	0.0037	34	-2.37	321.33	0
321	Acid Soluble Zn (%)	0481	0.1250	0.0100	0.1478	0.0143	0.0037	34	-1.60	321.99	0
321	Acid Soluble Zn (%)	0472	0.1300	0.0000	0.1478	0.0143	0.0037	34	-1.25	321.33	0
321	Acid Soluble Zn (%)	0553	0.1315	0.0130	0.1478	0.0143	0.0037	34	-1.14	321.00	0
321	Acid Soluble Zn (%)	0255	0.1345	0.0010	0.1478	0.0143	0.0037	34	-0.93	321.30	0
321	Acid Soluble Zn (%)	0444	0.1350	0.0100	0.1478	0.0143	0.0037	34	-0.90	321.30	0
321	Acid Soluble Zn (%)	0506	0.1380	0.0020	0.1478	0.0143	0.0037	34	-0.69	321.99	0
321	Acid Soluble Zn (%)	0572	0.1389	0.0042	0.1478	0.0143	0.0037	34	-0.62	321.99	0
321	Acid Soluble Zn (%)	0231	0.1400	0.0000	0.1478	0.0143	0.0037	34	-0.55	321.30	0
321	Acid Soluble Zn (%)	0009	0.1400	0.0000	0.1478	0.0143	0.0037	34	-0.55	321.33	0
321	Acid Soluble Zn (%)	0136	0.1400	0.0000	0.1478	0.0143	0.0037	34	-0.55	321.33	0
321	Acid Soluble Zn (%)	0547	0.1400	0.0000	0.1478	0.0143	0.0037	34	-0.55	321.99	0
321	Acid Soluble Zn (%)	0524	0.1457	0.0004	0.1478	0.0143	0.0037	34	-0.15	321.99	0
321	Acid Soluble Zn (%)	0106	0.1467	0.0021	0.1478	0.0143	0.0037	34	-0.08	321.33	0
321	Acid Soluble Zn (%)	0368	0.1483	0.0007	0.1478	0.0143	0.0037	34	0.03	321.99	0
321	Acid Soluble Zn (%)	0402	0.1487	0.0018	0.1478	0.0143	0.0037	34	0.06	321.30	0
321	Acid Soluble Zn (%)	0354	0.1500	0.0000	0.1478	0.0143	0.0037	34	0.15	321.30	0
321	Acid Soluble Zn (%)	0421	0.1500	0.0000	0.1478	0.0143	0.0037	34	0.15	321.33	0
321	Acid Soluble Zn (%)	0037	0.1512	0.0010	0.1478	0.0143	0.0037	34	0.24	321.33	0
321	Acid Soluble Zn (%)	0043	0.1524	0.0070	0.1478	0.0143	0.0037	34	0.32	321.33	0
321	Acid Soluble Zn (%)	0535	0.1540	0.0020	0.1478	0.0143	0.0037	34	0.43	321.01	0
321	Acid Soluble Zn (%)	0535	0.1550	0.0100	0.1478	0.0143	0.0037	34	0.50	321.00	0
321	Acid Soluble Zn (%)	0539	0.1550	0.0100	0.1478	0.0143	0.0037	34	0.50	321.00	0
321	Acid Soluble Zn (%)	0539	0.1555	0.0030	0.1478	0.0143	0.0037	34	0.54	321.01	0
321	Acid Soluble Zn (%)	0527	0.1556	0.0006	0.1478	0.0143	0.0037	34	0.55	321.33	0
321	Acid Soluble Zn (%)	0035	0.1585	0.0010	0.1478	0.0143	0.0037	34	0.75	321.30	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				
321	Acid Soluble Zn (%)	0405	0.1605	0.0090	0.1478	0.0143	0.0037	34	0.89	321.99	0
321	Acid Soluble Zn (%)	0234	0.1609	0.0006	0.1478	0.0143	0.0037	34	0.92	321.30	0
321	Acid Soluble Zn (%)	0423	0.1615	0.0010	0.1478	0.0143	0.0037	34	0.96	321.32	0
321	Acid Soluble Zn (%)	0515	0.1616	0.0303	0.1478	0.0143	0.0037	34	0.96	321.99	0
321	Acid Soluble Zn (%)	0389	0.1700	0.0000	0.1478	0.0143	0.0037	34	1.55	321.99	0
321	Acid Soluble Zn (%)	0577	0.1877	0.0009	0.1478	0.0143	0.0037	34	2.79	321.01	0
321	Acid Soluble Zn (%)	0548	0.1920	0.0000	0.1478	0.0143	0.0037	34	3.10	321.33	0
321	Acid Soluble Zn (%)	0515	0.1281	0.0437	0.1478	0.0143	0.0037	34	-1.39	321.33	1
321	Acid Soluble Zn (%)	0498	0.8300	0.0400	0.1478	0.0143	0.0037	34	47.81	321.03	2
325	Water Soluble Zn (%)	0572	0.0005	0.0002				1		325.99	0
431	Soluble Si in nonliquids (%)	0572	< 0.004					0		431.99	5
441	Humic Acids (%)	0572	4.885	0.0700	7.577	2.090	0.1737	7	-1.16	441.10	0
441	Humic Acids (%)	0368	5.873	0.0120	7.577	2.090	0.1737	7	-0.74	441.10	0
441	Humic Acids (%)	0136	6.825	0.2500	7.577	2.090	0.1737	7	-0.33	441.00	0
441	Humic Acids (%)	0527	7.521	0.1942	7.577	2.090	0.1737	7	-0.02	441.10	0
441	Humic Acids (%)	0547	8.660	0.3600	7.577	2.090	0.1737	7	0.47	441.10	0
441	Humic Acids (%)	0220	9.585	0.1300	7.577	2.090	0.1737	7	0.87	441.99	0
441	Humic Acids (%)	0220	9.690	0.2000	7.577	2.090	0.1737	7	0.91	441.00	0
441	Humic Acids (%)	0444	60.98	5.550	7.577	2.090	0.1737	7	23.10	441.00	3
441	Humic Acids (%)	0444	60.98	5.550	7.577	2.090	0.1737	7	23.10	441.99	3
441	Humic Acids (%)	0481	73.81	0.0300	7.577	2.090	0.1737	7	28.65	441.99	3
451	Hydrophobic Fulvic Acids (%)	0220	2.660	0.1000				2		451.00	0
451	Hydrophobic Fulvic Acids (%)	0481	15.44	0.0200				2		451.99	0

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. Robust statistics not used if < 6 labs used in calculations, in this case the Z Scores are grey and included for information only. 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.