

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 200411

Grade 19-19-19

Statistical Summary

Analytes: 32

Labs Reporting: 93

Issue Date : 05/31/2020

Analyte Code	Analyte Sample # 200411	# 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 (%)	34	34	4.491	0.5068	4.480		0.5514	0.1182	12.31%		0.1106	3.19%
005	Urea N (%)	21	20	14.45	0.6916	14.48		0.6982	0.1952	4.82%		0.1235	2.67%
007	Urea (%)	5	5	14.80	0.5542	14.80		0.5542	0.3098	3.75%		0.1140	2.67%
010	Total N (19%)	89	86	19.16	0.3950	19.16	0.7174	0.3958	0.0534	2.07%	1.29	0.1541	2.56%
020	Total P2O5 (%)	46	45	18.12	0.9396	18.13		0.7121	0.1327	3.93%		0.3007	2.59%
030	Citrate Insoluble P2O5 (%)	2	2	0.0825	0.0106								
040	Indirect Available P2O5 (19%)	1		18.03									
041	Direct Available P2O5 (19%)	53	53	18.08	0.9002	18.17	0.7109	0.7214	0.1239	3.97%	2.36	0.2147	2.59%
048	Water Soluble P2O5 (%)	5	5	16.98	1.140	16.98		1.140	0.6374	6.72%		0.3940	2.61%
050	Soluble K2O (19%)	89	85	19.39	0.8567	19.45	1.0609	0.6678	0.0905	3.43%	1.47	0.2458	2.56%
060	Water (Free) (%)	3	3	0.4850	0.1682	0.4850		0.1682	0.1214	34.69%		0.0433	4.46%
101	Acid Soluble Ca (%)	12	11	0.1767	0.0463	0.1674	0.2084	0.0214	0.0081	12.79%	0.24	0.0101	5.23%
121	Acid Soluble Mg (%)	18	17	0.4774	0.0500	0.4812	0.2241	0.0424	0.0129	8.82%	0.44	0.0137	4.47%
143	Elemental S (%)	2	2	0.8300	0.0495								
148	Total S (%)	8	8	0.7687	0.0593	0.7687	0.2384	0.0673	0.0297	8.75%	0.66	0.0296	4.16%
149	S - HNO3 soluble (%)	3	3	0.8193	0.0575	0.8193		0.0575	0.0415	7.02%		0.0031	4.12%
151	Acid Soluble As (ppm)	15	10	0.8560	0.3476	0.8525		0.3866	0.1528	45.35%		0.0403	16.39%
165	Acid Soluble B (%)	12	8	0.0048	0.0026	0.0045	0.0037	0.0023	0.0010	51.77%	1.49	0.0001	9.01%
181	Acid Soluble Cd (ppm)	20	19	18.55	4.169	18.17		3.089	0.8859	17.00%		0.5934	10.34%
190	Water Soluble Cl (%)	1		14.90									
191	Acid Soluble Cr (ppm)	19	18	102.4	16.78	104.1		15.31	4.510	14.71%		3.263	7.95%
202	Acid Soluble Co (ppm)	14	10	1.144	1.037	0.9287	1.2786	0.5391	0.2131	58.05%	0.98	0.3359	16.18%
221	Acid Soluble Cu (%)	19	6	0.0005	0.0004	0.0005	0.0051	0.0005	0.0002	94.23%	0.22	0.0001	12.52%
241	Acid Soluble Fe (%)	17	16	0.4130	0.0338	0.4157	0.0466	0.0321	0.0100	7.72%	1.61	0.0189	4.56%
251	Acid Soluble Pb (ppm)	14	11	0.7847	0.7982	0.6898		0.6637	0.2501	96.22%		0.2020	16.92%
261	Acid Soluble Mn (%)	14	11	0.0079	0.0012	0.0079	0.0058	0.0013	0.0005	16.02%	0.51	0.0007	8.28%
281	Acid Soluble Hg (ppm)	7	2	5.078	7.173	5.078		7.173	6.340	141.27%		0.7522	12.53%
289	Acid Soluble Mo (ppm)	16	13	12.16	25.39	4.730	2.4189	1.644	0.5700	34.76%	1.58	2.074	12.66%
291	Acid Soluble Ni (ppm)	19	18	11.39	4.106	11.53		4.354	1.283	37.77%		0.8993	11.07%
301	Acid Soluble Se (ppm)	12	8	1.434	1.046	1.434		1.186	0.5243	82.71%		0.2583	15.15%
311	Sodium (%)	7	7	0.4759	0.0911	0.4759	0.0526	0.1032	0.0488	21.69%	4.57	0.0140	4.47%
321	Acid Soluble Zn (%)	34	33	0.0396	0.0479	0.0274	0.0077	0.0032	0.0007	11.56%	0.95	0.0098	6.87%

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

Analyte Code	Analyte Sample # 200411	# 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
--------------	----------------------------	----------------------	-----------------------------------	----------	--------	-------------------------------	------------------------	-----------	---------------------------	--------------	------------------	--------------------------	--------------

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.

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 200411

Grade 19-19-19

Lab Values

Analytes: 32

Labs Reporting: 93

Issue Date : 05/31/2020

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 (%)	0309	3.865	0.0500	4.480	0.5514	0.1106	34	-1.12	001.10	0
001	Ammoniacal N (%)	0394	3.924	0.0590	4.480	0.5514	0.1106	34	-1.01	001.99	0
001	Ammoniacal N (%)	0027	3.928	0.0530	4.480	0.5514	0.1106	34	-1.00	001.99	0
001	Ammoniacal N (%)	0423	3.931	0.0390	4.480	0.5514	0.1106	34	-1.00	001.99	0
001	Ammoniacal N (%)	0533	3.980	0.0600	4.480	0.5514	0.1106	34	-0.91	001.99	0
001	Ammoniacal N (%)	0536	3.980	0.0600	4.480	0.5514	0.1106	34	-0.91	001.99	0
001	Ammoniacal N (%)	0532	4.040	0.1200	4.480	0.5514	0.1106	34	-0.80	001.99	0
001	Ammoniacal N (%)	0481	4.050	0.0200	4.480	0.5514	0.1106	34	-0.78	001.10	0
001	Ammoniacal N (%)	0538	4.060	0.0400	4.480	0.5514	0.1106	34	-0.76	001.99	0
001	Ammoniacal N (%)	0506	4.075	0.0300	4.480	0.5514	0.1106	34	-0.73	001.99	0
001	Ammoniacal N (%)	0563	4.080	0.2400	4.480	0.5514	0.1106	34	-0.73	001.10	0
001	Ammoniacal N (%)	0524	4.141	0.2127	4.480	0.5514	0.1106	34	-0.62	001.99	0
001	Ammoniacal N (%)	0444	4.180	0.3000	4.480	0.5514	0.1106	34	-0.54	001.10	0
001	Ammoniacal N (%)	0456	4.220	0.0600	4.480	0.5514	0.1106	34	-0.47	001.10	0
001	Ammoniacal N (%)	0096	4.315	0.1900	4.480	0.5514	0.1106	34	-0.30	001.99	0
001	Ammoniacal N (%)	0117	4.335	0.0700	4.480	0.5514	0.1106	34	-0.26	001.10	0
001	Ammoniacal N (%)	0231	4.355	0.1100	4.480	0.5514	0.1106	34	-0.23	001.10	0
001	Ammoniacal N (%)	0405	4.370	0.3000	4.480	0.5514	0.1106	34	-0.20	001.99	0
001	Ammoniacal N (%)	0230	4.380	0.1200	4.480	0.5514	0.1106	34	-0.18	001.10	0
001	Ammoniacal N (%)	0558	4.410	0.1400	4.480	0.5514	0.1106	34	-0.13	001.99	0
001	Ammoniacal N (%)	0136	4.450	0.1000	4.480	0.5514	0.1106	34	-0.05	001.10	0
001	Ammoniacal N (%)	0550	4.515	0.0100	4.480	0.5514	0.1106	34	0.06	001.99	0
001	Ammoniacal N (%)	0549	4.595	0.1100	4.480	0.5514	0.1106	34	0.21	001.99	0
001	Ammoniacal N (%)	0560	4.650	0.3000	4.480	0.5514	0.1106	34	0.31	001.99	0
001	Ammoniacal N (%)	0498	4.850	0.1000	4.480	0.5514	0.1106	34	0.67	001.10	0
001	Ammoniacal N (%)	0522	4.875	0.1900	4.480	0.5514	0.1106	34	0.72	001.99	0
001	Ammoniacal N (%)	0255	5.127	0.1280	4.480	0.5514	0.1106	34	1.17	001.99	0
001	Ammoniacal N (%)	0564	5.150	0.1000	4.480	0.5514	0.1106	34	1.22	001.99	0
001	Ammoniacal N (%)	0567	5.150	0.1000	4.480	0.5514	0.1106	34	1.22	001.99	0
001	Ammoniacal N (%)	0559	5.220	0.0200	4.480	0.5514	0.1106	34	1.34	001.99	0
001	Ammoniacal N (%)	0565	5.225	0.0500	4.480	0.5514	0.1106	34	1.35	001.99	0
001	Ammoniacal N (%)	0562	5.280	0.1400	4.480	0.5514	0.1106	34	1.45	001.99	0
001	Ammoniacal N (%)	0544	5.430	0.0600	4.480	0.5514	0.1106	34	1.72	001.99	0
001	Ammoniacal N (%)	0220	5.550	0.0800	4.480	0.5514	0.1106	34	1.94	001.99	0
005	Urea N (%)	0230	12.75	0.1000	14.48	0.6982	0.1235	20	-2.48	005.00	0
005	Urea N (%)	0564	13.48	0.0500	14.48	0.6982	0.1235	20	-1.44	005.99	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				
005	Urea N (%)	0565	13.48	0.0600	14.48	0.6982	0.1235	20	-1.44	005.99	0
005	Urea N (%)	0559	13.50	0.0100	14.48	0.6982	0.1235	20	-1.42	005.99	0
005	Urea N (%)	0562	14.04	0.1700	14.48	0.6982	0.1235	20	-0.64	005.99	0
005	Urea N (%)	0567	14.15	0.1000	14.48	0.6982	0.1235	20	-0.48	005.99	0
005	Urea N (%)	0560	14.25	0.3400	14.48	0.6982	0.1235	20	-0.33	005.99	0
005	Urea N (%)	0558	14.30	0.4000	14.48	0.6982	0.1235	20	-0.26	005.99	0
005	Urea N (%)	0029	14.50	0.1100	14.48	0.6982	0.1235	20	0.02	005.99	0
005	Urea N (%)	0027	14.76	0.1400	14.48	0.6982	0.1235	20	0.40	005.99	0
005	Urea N (%)	0536	14.77	0.1700	14.48	0.6982	0.1235	20	0.40	005.99	0
005	Urea N (%)	0309	14.80	0.0400	14.48	0.6982	0.1235	20	0.45	005.99	0
005	Urea N (%)	0136	14.90	0.2000	14.48	0.6982	0.1235	20	0.60	005.00	0
005	Urea N (%)	0394	14.94	0.1300	14.48	0.6982	0.1235	20	0.65	005.10	0
005	Urea N (%)	0533	15.01	0.0500	14.48	0.6982	0.1235	20	0.75	005.99	0
005	Urea N (%)	0532	15.01	0.1400	14.48	0.6982	0.1235	20	0.75	005.99	0
005	Urea N (%)	0405	15.02	0.1800	14.48	0.6982	0.1235	20	0.77	005.99	0
005	Urea N (%)	0538	15.04	0.0700	14.48	0.6982	0.1235	20	0.79	005.99	0
005	Urea N (%)	0506	15.10	0.0000	14.48	0.6982	0.1235	20	0.88	005.99	0
005	Urea N (%)	0550	15.23	0.0100	14.48	0.6982	0.1235	20	1.06	005.99	0
005	Urea N (%)	0498	15.05	0.7000	14.48	0.6982	0.1235	20	0.81	005.00	1
007	Urea (%)	0549	14.15	0.2200	14.80	0.5542	0.1140	5	-1.17	007.99	0
007	Urea (%)	0220	14.38	0.0100	14.80	0.5542	0.1140	5	-0.76	007.20	0
007	Urea (%)	0444	14.82	0.0800	14.80	0.5542	0.1140	5	0.04	007.00	0
007	Urea (%)	0220	15.12	0.1300	14.80	0.5542	0.1140	5	0.57	007.99	0
007	Urea (%)	0117	15.53	0.1300	14.80	0.5542	0.1140	5	1.31	007.00	0
010	Total N (19%)	0524	18.23†	0.1974	19.16	0.3958	0.1541	86	-2.34	010.99	0
010	Total N (19%)	0493	18.35†	0.1000	19.16	0.3958	0.1541	86	-2.05	010.99	0
010	Total N (19%)	0563	18.38†	0.1500	19.16	0.3958	0.1541	86	-1.99	010.99	0
010	Total N (19%)	0421	18.44†	0.0020	19.16	0.3958	0.1541	86	-1.82	010.60	0
010	Total N (19%)	0563	18.51	0.3200	19.16	0.3958	0.1541	86	-1.65	010.12	0
010	Total N (19%)	0371	18.67	0.0200	19.16	0.3958	0.1541	86	-1.24	010.99	0
010	Total N (19%)	0102	18.69	0.3000	19.16	0.3958	0.1541	86	-1.19	010.60	0
010	Total N (19%)	0041	18.70	0.4000	19.16	0.3958	0.1541	86	-1.17	010.60	0
010	Total N (19%)	0558	18.70	0.6000	19.16	0.3958	0.1541	86	-1.17	010.99	0
010	Total N (19%)	0360	18.71	0.0000	19.16	0.3958	0.1541	86	-1.14	010.60	0
010	Total N (19%)	0525	18.72	0.4400	19.16	0.3958	0.1541	86	-1.12	010.60	0
010	Total N (19%)	0536	18.75	0.2300	19.16	0.3958	0.1541	86	-1.05	010.11	0
010	Total N (19%)	0231	18.80	0.0200	19.16	0.3958	0.1541	86	-0.92	010.60	0
010	Total N (19%)	0307	18.81	0.1000	19.16	0.3958	0.1541	86	-0.89	010.60	0
010	Total N (19%)	0486	18.82	0.0300	19.16	0.3958	0.1541	86	-0.88	010.60	0
010	Total N (19%)	0521	18.82	0.0000	19.16	0.3958	0.1541	86	-0.86	010.60	0
010	Total N (19%)	0551	18.83	0.0500	19.16	0.3958	0.1541	86	-0.85	010.11	0
010	Total N (19%)	0096	18.84	0.0900	19.16	0.3958	0.1541	86	-0.83	010.60	0
010	Total N (19%)	0309	18.85	0.2900	19.16	0.3958	0.1541	86	-0.80	010.11	0
010	Total N (19%)	0394	18.86	0.0710	19.16	0.3958	0.1541	86	-0.77	010.99	0
010	Total N (19%)	0389	18.87	0.0700	19.16	0.3958	0.1541	86	-0.75	010.60	0
010	Total N (19%)	0564	18.88	0.0500	19.16	0.3958	0.1541	86	-0.73	010.99	0
010	Total N (19%)	0551	18.89	0.1100	19.16	0.3958	0.1541	86	-0.70	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 (19%)	0559	18.89	0.0100	19.16	0.3958	0.1541	86	-0.70	010.99	0
010	Total N (19%)	0024	18.90	0.0000	19.16	0.3958	0.1541	86	-0.66	010.60	0
010	Total N (19%)	0560	18.90	0.0400	19.16	0.3958	0.1541	86	-0.66	010.99	0
010	Total N (19%)	0513	18.92	0.0300	19.16	0.3958	0.1541	86	-0.63	010.99	0
010	Total N (19%)	0027	18.95	0.5000	19.16	0.3958	0.1541	86	-0.54	010.60	0
010	Total N (19%)	0565	18.95	0.0800	19.16	0.3958	0.1541	86	-0.54	010.99	0
010	Total N (19%)	0545	18.96	0.0400	19.16	0.3958	0.1541	86	-0.51	010.99	0
010	Total N (19%)	0533	18.99	0.1100	19.16	0.3958	0.1541	86	-0.45	010.11	0
010	Total N (19%)	0177	18.99	0.0300	19.16	0.3958	0.1541	86	-0.45	010.60	0
010	Total N (19%)	0086	18.99	0.0040	19.16	0.3958	0.1541	86	-0.44	010.60	0
010	Total N (19%)	0220	18.99	0.1000	19.16	0.3958	0.1541	86	-0.44	010.60	0
010	Total N (19%)	0018	19.00	0.2000	19.16	0.3958	0.1541	86	-0.41	010.60	0
010	Total N (19%)	0043	19.00	0.0400	19.16	0.3958	0.1541	86	-0.41	010.60	0
010	Total N (19%)	0444	19.01	0.2100	19.16	0.3958	0.1541	86	-0.40	010.60	0
010	Total N (19%)	0544	19.04	0.1300	19.16	0.3958	0.1541	86	-0.32	010.99	0
010	Total N (19%)	0356	19.04	0.1020	19.16	0.3958	0.1541	86	-0.30	010.60	0
010	Total N (19%)	0538	19.10	0.0300	19.16	0.3958	0.1541	86	-0.17	010.99	0
010	Total N (19%)	0518	19.13	0.1600	19.16	0.3958	0.1541	86	-0.08	010.99	0
010	Total N (19%)	0049	19.15	0.1200	19.16	0.3958	0.1541	86	-0.03	010.60	0
010	Total N (19%)	0117	19.20	0.4000	19.16	0.3958	0.1541	86	0.09	010.60	0
010	Total N (19%)	0561	19.20	0.0800	19.16	0.3958	0.1541	86	0.09	010.60	0
010	Total N (19%)	0506	19.20	0.0000	19.16	0.3958	0.1541	86	0.09	010.99	0
010	Total N (19%)	0291	19.21	0.0100	19.16	0.3958	0.1541	86	0.11	010.60	0
010	Total N (19%)	0562	19.21	0.1800	19.16	0.3958	0.1541	86	0.12	010.99	0
010	Total N (19%)	0255	19.21	0.0760	19.16	0.3958	0.1541	86	0.13	010.60	0
010	Total N (19%)	0423	19.22	0.1000	19.16	0.3958	0.1541	86	0.15	010.60	0
010	Total N (19%)	0325	19.25	0.3000	19.16	0.3958	0.1541	86	0.22	010.60	0
010	Total N (19%)	0377	19.26	0.0700	19.16	0.3958	0.1541	86	0.23	010.60	0
010	Total N (19%)	0494	19.28	0.0600	19.16	0.3958	0.1541	86	0.30	010.60	0
010	Total N (19%)	0527	19.29	0.0860	19.16	0.3958	0.1541	86	0.33	010.60	0
010	Total N (19%)	0556	19.30	0.2000	19.16	0.3958	0.1541	86	0.35	010.99	0
010	Total N (19%)	0567	19.30	0.2000	19.16	0.3958	0.1541	86	0.35	010.99	0
010	Total N (19%)	0354	19.30	0.0000	19.16	0.3958	0.1541	86	0.35	010.60	0
010	Total N (19%)	0073	19.31	0.1500	19.16	0.3958	0.1541	86	0.36	010.60	0
010	Total N (19%)	0542	19.33	0.3020	19.16	0.3958	0.1541	86	0.43	010.60	0
010	Total N (19%)	0023	19.35	0.1000	19.16	0.3958	0.1541	86	0.47	010.60	0
010	Total N (19%)	0405	19.39	0.1300	19.16	0.3958	0.1541	86	0.56	010.60	0
010	Total N (19%)	0456	19.39	0.0600	19.16	0.3958	0.1541	86	0.57	010.11	0
010	Total N (19%)	0523	19.40	0.0000	19.16	0.3958	0.1541	86	0.60	010.60	0
010	Total N (19%)	0390	19.42	0.2600	19.16	0.3958	0.1541	86	0.65	010.60	0
010	Total N (19%)	0481	19.44	0.1200	19.16	0.3958	0.1541	86	0.70	010.12	0
010	Total N (19%)	0537	19.49	0.3500	19.16	0.3958	0.1541	86	0.81	010.99	0
010	Total N (19%)	0007	19.50	0.8000	19.16	0.3958	0.1541	86	0.85	010.60	0
010	Total N (19%)	0040	19.50	0.4000	19.16	0.3958	0.1541	86	0.85	010.60	0
010	Total N (19%)	0324	19.50	0.0000	19.16	0.3958	0.1541	86	0.85	010.60	0
010	Total N (19%)	0547	19.50	0.2000	19.16	0.3958	0.1541	86	0.85	010.60	0
010	Total N (19%)	0025	19.52	0.2600	19.16	0.3958	0.1541	86	0.90	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 (19%)	0055	19.55	0.2500	19.16	0.3958	0.1541	86	0.97	010.60	0
010	Total N (19%)	0422	19.57	0.1700	19.16	0.3958	0.1541	86	1.02	010.60	0
010	Total N (19%)	0095	19.57	0.3200	19.16	0.3958	0.1541	86	1.03	010.60	0
010	Total N (19%)	0501	19.59	0.3400	19.16	0.3958	0.1541	86	1.08	010.60	0
010	Total N (19%)	0136	19.60	0.0000	19.16	0.3958	0.1541	86	1.11	010.60	0
010	Total N (19%)	0351	19.60	0.2600	19.16	0.3958	0.1541	86	1.11	010.60	0
010	Total N (19%)	0472	19.60	0.0800	19.16	0.3958	0.1541	86	1.11	010.60	0
010	Total N (19%)	0292	19.65	0.0300	19.16	0.3958	0.1541	86	1.22	010.60	0
010	Total N (19%)	0498	19.70	0.2000	19.16	0.3958	0.1541	86	1.36	010.12	0
010	Total N (19%)	0035	19.70	0.2000	19.16	0.3958	0.1541	86	1.36	010.60	0
010	Total N (19%)	0550	19.74	0.0400	19.16	0.3958	0.1541	86	1.46	010.60	0
010	Total N (19%)	0452	19.76	0.1100	19.16	0.3958	0.1541	86	1.50	010.60	0
010	Total N (19%)	0481	19.85	0.0700	19.16	0.3958	0.1541	86	1.72	010.60	0
010	Total N (19%)	0233	19.85	0.4000	19.16	0.3958	0.1541	86	1.74	010.60	0
010	Total N (19%)	0443	19.97‡	0.2700	19.16	0.3958	0.1541	86	2.03	010.60	0
010	Total N (19%)	0029	20.35‡	0.0400	19.16	0.3958	0.1541	86	3.00	010.60	0
010	Total N (19%)	0230	19.30	1.400	19.16	0.3958	0.1541	86	0.35	010.60	1
010	Total N (19%)	0516	19.31	1.190	19.16	0.3958	0.1541	86	0.36	010.60	1
010	Total N (19%)	0522	9.575†	0.0900	19.16	0.3958	0.1541	86	-24.22	010.99	2
020	Total P2O5 (%)	0516	14.95	1.349	18.13	0.7121	0.3007	45	-4.47	020.50	0
020	Total P2O5 (%)	0524	16.39	0.2523	18.13	0.7121	0.3007	45	-2.44	020.50	0
020	Total P2O5 (%)	0389	17.00	0.0700	18.13	0.7121	0.3007	45	-1.60	020.50	0
020	Total P2O5 (%)	0552	17.03	1.410	18.13	0.7121	0.3007	45	-1.55	020.50	0
020	Total P2O5 (%)	0390	17.31	0.4100	18.13	0.7121	0.3007	45	-1.16	020.50	0
020	Total P2O5 (%)	0472	17.34	0.1200	18.13	0.7121	0.3007	45	-1.11	020.50	0
020	Total P2O5 (%)	0157	17.35	0.5000	18.13	0.7121	0.3007	45	-1.10	020.50	0
020	Total P2O5 (%)	0444	17.45	0.2400	18.13	0.7121	0.3007	45	-0.96	020.50	0
020	Total P2O5 (%)	0547	17.45	0.3000	18.13	0.7121	0.3007	45	-0.96	020.20	0
020	Total P2O5 (%)	0558	17.55	1.100	18.13	0.7121	0.3007	45	-0.82	020.20	0
020	Total P2O5 (%)	0561	17.56	0.1300	18.13	0.7121	0.3007	45	-0.81	020.20	0
020	Total P2O5 (%)	0423	17.59	0.0600	18.13	0.7121	0.3007	45	-0.76	020.50	0
020	Total P2O5 (%)	0525	17.66	0.6600	18.13	0.7121	0.3007	45	-0.66	020.50	0
020	Total P2O5 (%)	0522	17.73	0.0090	18.13	0.7121	0.3007	45	-0.57	020.20	0
020	Total P2O5 (%)	0371	17.85	0.1000	18.13	0.7121	0.3007	45	-0.40	020.20	0
020	Total P2O5 (%)	0433	17.87	0.1600	18.13	0.7121	0.3007	45	-0.37	020.50	0
020	Total P2O5 (%)	0405	17.97	0.1600	18.13	0.7121	0.3007	45	-0.23	020.20	0
020	Total P2O5 (%)	0523	18.00	0.2000	18.13	0.7121	0.3007	45	-0.19	020.50	0
020	Total P2O5 (%)	0157	18.05	0.5000	18.13	0.7121	0.3007	45	-0.12	020.10	0
020	Total P2O5 (%)	0521	18.06	0.0000	18.13	0.7121	0.3007	45	-0.10	020.50	0
020	Total P2O5 (%)	0444	18.09	0.2000	18.13	0.7121	0.3007	45	-0.06	020.10	0
020	Total P2O5 (%)	0096	18.12	0.0300	18.13	0.7121	0.3007	45	-0.02	020.40	0
020	Total P2O5 (%)	0493	18.15	0.1000	18.13	0.7121	0.3007	45	0.03	020.10	0
020	Total P2O5 (%)	0513	18.16	0.0600	18.13	0.7121	0.3007	45	0.04	020.99	0
020	Total P2O5 (%)	0456	18.20	0.2000	18.13	0.7121	0.3007	45	0.10	020.40	0
020	Total P2O5 (%)	0324	18.30	0.2000	18.13	0.7121	0.3007	45	0.24	020.20	0
020	Total P2O5 (%)	0481	18.32	0.0200	18.13	0.7121	0.3007	45	0.26	020.20	0
020	Total P2O5 (%)	0356	18.33	0.2050	18.13	0.7121	0.3007	45	0.28	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 (%)	0035	18.35	0.5000	18.13	0.7121	0.3007	45	0.31	020.40	0
020	Total P2O5 (%)	0231	18.42	0.0400	18.13	0.7121	0.3007	45	0.40	020.20	0
020	Total P2O5 (%)	0527	18.45	0.1698	18.13	0.7121	0.3007	45	0.45	020.50	0
020	Total P2O5 (%)	0559	18.55	0.0200	18.13	0.7121	0.3007	45	0.59	020.99	0
020	Total P2O5 (%)	0498	18.60	1.000	18.13	0.7121	0.3007	45	0.66	020.20	0
020	Total P2O5 (%)	0292	18.61	0.3300	18.13	0.7121	0.3007	45	0.66	020.20	0
020	Total P2O5 (%)	0564	18.75	0.1000	18.13	0.7121	0.3007	45	0.87	020.99	0
020	Total P2O5 (%)	0567	18.75	0.1000	18.13	0.7121	0.3007	45	0.87	020.99	0
020	Total P2O5 (%)	0291	18.76	0.0700	18.13	0.7121	0.3007	45	0.87	020.50	0
020	Total P2O5 (%)	0550	18.78	0.9600	18.13	0.7121	0.3007	45	0.91	020.20	0
020	Total P2O5 (%)	0565	18.81	0.0100	18.13	0.7121	0.3007	45	0.94	020.99	0
020	Total P2O5 (%)	0562	18.90	0.1000	18.13	0.7121	0.3007	45	1.08	020.99	0
020	Total P2O5 (%)	0309	18.91	0.0300	18.13	0.7121	0.3007	45	1.09	020.20	0
020	Total P2O5 (%)	0255	19.07	0.0710	18.13	0.7121	0.3007	45	1.32	020.50	0
020	Total P2O5 (%)	0506	19.15	0.1000	18.13	0.7121	0.3007	45	1.43	020.20	0
020	Total P2O5 (%)	0443	19.25	0.2300	18.13	0.7121	0.3007	45	1.56	020.99	0
020	Total P2O5 (%)	0515	21.51	0.9567	18.13	0.7121	0.3007	45	4.75	020.99	0
020	Total P2O5 (%)	0422	19.85	3.300	18.13	0.7121	0.3007	45	2.41	020.50	1
030	Citrate Insoluble P2O5 (%)	0405	0.0750	0.0100				2		030.20	0
030	Citrate Insoluble P2O5 (%)	0096	0.0900	0.0400				2		030.40	0
040	Indirect Available P2O5 (19%)	0096	18.03±	0.0100				1		040.40	0
041	Direct Available P2O5 (19%)	0025	14.25†	0.3000	18.17	0.7214	0.2147	53	-5.44	041.51	0
041	Direct Available P2O5 (19%)	0230	15.60†	0.2000	18.17	0.7214	0.2147	53	-3.57	041.21	0
041	Direct Available P2O5 (19%)	0423	16.60†	0.2100	18.17	0.7214	0.2147	53	-2.19	041.51	0
041	Direct Available P2O5 (19%)	0325	16.95†	0.1000	18.17	0.7214	0.2147	53	-1.70	041.50	0
041	Direct Available P2O5 (19%)	0055	17.29†	0.1100	18.17	0.7214	0.2147	53	-1.23	041.21	0
041	Direct Available P2O5 (19%)	0377	17.34†	0.1200	18.17	0.7214	0.2147	53	-1.16	041.51	0
041	Direct Available P2O5 (19%)	0522	17.48	0.1350	18.17	0.7214	0.2147	53	-0.97	041.21	0
041	Direct Available P2O5 (19%)	0494	17.53	0.2500	18.17	0.7214	0.2147	53	-0.90	041.10	0
041	Direct Available P2O5 (19%)	0486	17.53	0.2200	18.17	0.7214	0.2147	53	-0.89	041.51	0
041	Direct Available P2O5 (19%)	0024	17.60	0.4000	18.17	0.7214	0.2147	53	-0.80	041.40	0
041	Direct Available P2O5 (19%)	0351	17.67	0.1200	18.17	0.7214	0.2147	53	-0.70	041.11	0
041	Direct Available P2O5 (19%)	0405	17.68	0.4800	18.17	0.7214	0.2147	53	-0.68	041.21	0
041	Direct Available P2O5 (19%)	0055	17.73	0.1600	18.17	0.7214	0.2147	53	-0.62	041.11	0
041	Direct Available P2O5 (19%)	0102	17.75	0.3000	18.17	0.7214	0.2147	53	-0.59	041.10	0
041	Direct Available P2O5 (19%)	0136	17.75	0.7000	18.17	0.7214	0.2147	53	-0.59	041.51	0
041	Direct Available P2O5 (19%)	0394	17.81	0.1580	18.17	0.7214	0.2147	53	-0.51	041.21	0
041	Direct Available P2O5 (19%)	0472	17.88	0.0100	18.17	0.7214	0.2147	53	-0.41	041.21	0
041	Direct Available P2O5 (19%)	0421	17.88	0.0030	18.17	0.7214	0.2147	53	-0.41	041.50	0
041	Direct Available P2O5 (19%)	0494	17.88	0.3800	18.17	0.7214	0.2147	53	-0.41	041.51	0
041	Direct Available P2O5 (19%)	0177	17.88	0.1085	18.17	0.7214	0.2147	53	-0.40	041.21	0
041	Direct Available P2O5 (19%)	0049	17.89	0.1500	18.17	0.7214	0.2147	53	-0.40	041.10	0
041	Direct Available P2O5 (19%)	0513	17.96	0.0700	18.17	0.7214	0.2147	53	-0.30	041.11	0
041	Direct Available P2O5 (19%)	0073	18.00	0.4900	18.17	0.7214	0.2147	53	-0.25	041.11	0
041	Direct Available P2O5 (19%)	0086	18.04	0.0142	18.17	0.7214	0.2147	53	-0.19	041.10	0
041	Direct Available P2O5 (19%)	0117	18.05	0.6556	18.17	0.7214	0.2147	53	-0.18	041.51	0
041	Direct Available P2O5 (19%)	0354	18.05	0.1000	18.17	0.7214	0.2147	53	-0.17	041.21	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 (19%)	0040	18.05	0.5000	18.17	0.7214	0.2147	53	-0.17	041.51	0
041	Direct Available P2O5 (19%)	0027	18.07	0.6300	18.17	0.7214	0.2147	53	-0.15	041.20	0
041	Direct Available P2O5 (19%)	0177	18.09	0.0661	18.17	0.7214	0.2147	53	-0.11	041.10	0
041	Direct Available P2O5 (19%)	0231	18.10	0.2400	18.17	0.7214	0.2147	53	-0.10	041.21	0
041	Direct Available P2O5 (19%)	0095	18.10	0.2600	18.17	0.7214	0.2147	53	-0.10	041.40	0
041	Direct Available P2O5 (19%)	0185	18.15	0.0600	18.17	0.7214	0.2147	53	-0.03	041.11	0
041	Direct Available P2O5 (19%)	0029	18.25	0.1700	18.17	0.7214	0.2147	53	0.10	041.40	0
041	Direct Available P2O5 (19%)	0023	18.30	0.0000	18.17	0.7214	0.2147	53	0.17	041.51	0
041	Direct Available P2O5 (19%)	0007	18.35	0.5000	18.17	0.7214	0.2147	53	0.24	041.50	0
041	Direct Available P2O5 (19%)	0018	18.40	0.6000	18.17	0.7214	0.2147	53	0.31	041.40	0
041	Direct Available P2O5 (19%)	0220	18.41	0.0900	18.17	0.7214	0.2147	53	0.32	041.11	0
041	Direct Available P2O5 (19%)	0562	18.73	0.1500	18.17	0.7214	0.2147	53	0.76	041.99	0
041	Direct Available P2O5 (19%)	0544	18.78	0.0400	18.17	0.7214	0.2147	53	0.84	041.21	0
041	Direct Available P2O5 (19%)	0563	18.83	0.4200	18.17	0.7214	0.2147	53	0.91	041.21	0
041	Direct Available P2O5 (19%)	0551	18.84	0.1300	18.17	0.7214	0.2147	53	0.92	041.99	0
041	Direct Available P2O5 (19%)	0537	18.86	0.1000	18.17	0.7214	0.2147	53	0.95	041.99	0
041	Direct Available P2O5 (19%)	0538	18.94‡	0.0800	18.17	0.7214	0.2147	53	1.06	041.99	0
041	Direct Available P2O5 (19%)	0549	18.95‡	0.1300	18.17	0.7214	0.2147	53	1.07	041.99	0
041	Direct Available P2O5 (19%)	0536	18.99‡	0.1400	18.17	0.7214	0.2147	53	1.13	041.99	0
041	Direct Available P2O5 (19%)	0533	19.00‡	0.1000	18.17	0.7214	0.2147	53	1.14	041.99	0
041	Direct Available P2O5 (19%)	0560	19.04‡	0.3500	18.17	0.7214	0.2147	53	1.19	041.99	0
041	Direct Available P2O5 (19%)	0452	19.08‡	0.0800	18.17	0.7214	0.2147	53	1.26	041.50	0
041	Direct Available P2O5 (19%)	0532	19.10‡	0.1600	18.17	0.7214	0.2147	53	1.28	041.99	0
041	Direct Available P2O5 (19%)	0506	19.15‡	0.1000	18.17	0.7214	0.2147	53	1.35	041.99	0
041	Direct Available P2O5 (19%)	0043	19.19‡	0.1400	18.17	0.7214	0.2147	53	1.41	041.51	0
041	Direct Available P2O5 (19%)	0518	19.25‡	0.1000	18.17	0.7214	0.2147	53	1.49	041.99	0
041	Direct Available P2O5 (19%)	0545	19.35‡	0.1000	18.17	0.7214	0.2147	53	1.63	041.99	0
048	Water Soluble P2O5 (%)	0513	16.31	0.0200	16.98	1.140	0.3940	5	-0.58	048.99	0
048	Water Soluble P2O5 (%)	0096	16.43	0.0600	16.98	1.140	0.3940	5	-0.48	048.40	0
048	Water Soluble P2O5 (%)	0444	16.45	0.5800	16.98	1.140	0.3940	5	-0.46	048.50	0
048	Water Soluble P2O5 (%)	0444	16.69	1.110	16.98	1.140	0.3940	5	-0.25	048.10	0
048	Water Soluble P2O5 (%)	0556	19.00	0.2000	16.98	1.140	0.3940	5	1.78	048.99	0
050	Soluble K2O (19%)	0025	15.40†	0.8000	19.45	0.6678	0.2458	85	-6.07	050.52	0
050	Soluble K2O (19%)	0472	15.81†	0.2100	19.45	0.6678	0.2458	85	-5.46	050.31	0
050	Soluble K2O (19%)	0390	17.90†	0.6000	19.45	0.6678	0.2458	85	-2.33	050.50	0
050	Soluble K2O (19%)	0563	18.22†	0.4520	19.45	0.6678	0.2458	85	-1.85	050.99	0
050	Soluble K2O (19%)	0558	18.35†	0.3000	19.45	0.6678	0.2458	85	-1.65	050.99	0
050	Soluble K2O (19%)	0524	18.53	0.8745	19.45	0.6678	0.2458	85	-1.38	050.99	0
050	Soluble K2O (19%)	0356	18.54	0.0640	19.45	0.6678	0.2458	85	-1.37	050.30	0
050	Soluble K2O (19%)	0394	18.56	0.2500	19.45	0.6678	0.2458	85	-1.34	050.99	0
050	Soluble K2O (19%)	0055	18.61	0.2700	19.45	0.6678	0.2458	85	-1.27	050.00	0
050	Soluble K2O (19%)	0494	18.66	0.0700	19.45	0.6678	0.2458	85	-1.20	050.00	0
050	Soluble K2O (19%)	0498	18.70	0.0000	19.45	0.6678	0.2458	85	-1.13	050.31	0
050	Soluble K2O (19%)	0551	18.80	0.1000	19.45	0.6678	0.2458	85	-0.98	050.99	0
050	Soluble K2O (19%)	0552	18.82	0.6400	19.45	0.6678	0.2458	85	-0.95	050.99	0
050	Soluble K2O (19%)	0533	18.84	0.2400	19.45	0.6678	0.2458	85	-0.92	050.99	0
050	Soluble K2O (19%)	0456	18.85	0.1000	19.45	0.6678	0.2458	85	-0.90	050.61	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				
050	Soluble K2O (19%)	0523	18.85	0.1000	19.45	0.6678	0.2458	85	-0.90	050.99	0
050	Soluble K2O (19%)	0136	18.90	0.2000	19.45	0.6678	0.2458	85	-0.83	050.52	0
050	Soluble K2O (19%)	0096	18.90	0.0200	19.45	0.6678	0.2458	85	-0.83	050.99	0
050	Soluble K2O (19%)	0506	18.90	0.0000	19.45	0.6678	0.2458	85	-0.83	050.99	0
050	Soluble K2O (19%)	0556	18.90	0.2000	19.45	0.6678	0.2458	85	-0.83	050.99	0
050	Soluble K2O (19%)	0157	18.95	0.1000	19.45	0.6678	0.2458	85	-0.75	050.50	0
050	Soluble K2O (19%)	0102	19.00	0.0000	19.45	0.6678	0.2458	85	-0.68	050.00	0
050	Soluble K2O (19%)	0518	19.00	0.4000	19.45	0.6678	0.2458	85	-0.68	050.99	0
050	Soluble K2O (19%)	0544	19.02	0.1800	19.45	0.6678	0.2458	85	-0.65	050.00	0
050	Soluble K2O (19%)	0545	19.03	0.0300	19.45	0.6678	0.2458	85	-0.64	050.99	0
050	Soluble K2O (19%)	0444	19.05	0.1200	19.45	0.6678	0.2458	85	-0.60	050.50	0
050	Soluble K2O (19%)	0501	19.06	0.2000	19.45	0.6678	0.2458	85	-0.59	050.99	0
050	Soluble K2O (19%)	0377	19.08	0.0800	19.45	0.6678	0.2458	85	-0.56	050.52	0
050	Soluble K2O (19%)	0549	19.15	0.1000	19.45	0.6678	0.2458	85	-0.45	050.99	0
050	Soluble K2O (19%)	0536	19.19	0.1300	19.45	0.6678	0.2458	85	-0.40	050.99	0
050	Soluble K2O (19%)	0559	19.20	0.0100	19.45	0.6678	0.2458	85	-0.39	050.99	0
050	Soluble K2O (19%)	0532	19.21	0.3900	19.45	0.6678	0.2458	85	-0.37	050.99	0
050	Soluble K2O (19%)	0309	19.24	0.0300	19.45	0.6678	0.2458	85	-0.33	050.30	0
050	Soluble K2O (19%)	0560	19.29	0.1400	19.45	0.6678	0.2458	85	-0.24	050.99	0
050	Soluble K2O (19%)	0522	19.31	0.0800	19.45	0.6678	0.2458	85	-0.21	050.00	0
050	Soluble K2O (19%)	0565	19.32	0.0400	19.45	0.6678	0.2458	85	-0.20	050.99	0
050	Soluble K2O (19%)	0562	19.35	0.2000	19.45	0.6678	0.2458	85	-0.15	050.99	0
050	Soluble K2O (19%)	0564	19.35	0.1000	19.45	0.6678	0.2458	85	-0.15	050.99	0
050	Soluble K2O (19%)	0567	19.35	0.1000	19.45	0.6678	0.2458	85	-0.15	050.99	0
050	Soluble K2O (19%)	0433	19.36	0.0300	19.45	0.6678	0.2458	85	-0.15	050.99	0
050	Soluble K2O (19%)	0443	19.44	0.3800	19.45	0.6678	0.2458	85	-0.02	050.60	0
050	Soluble K2O (19%)	0055	19.48	0.0100	19.45	0.6678	0.2458	85	0.03	050.50	0
050	Soluble K2O (19%)	0231	19.48	0.0600	19.45	0.6678	0.2458	85	0.04	050.00	0
050	Soluble K2O (19%)	0023	19.50	0.0000	19.45	0.6678	0.2458	85	0.07	050.52	0
050	Soluble K2O (19%)	0537	19.51	0.1800	19.45	0.6678	0.2458	85	0.08	050.99	0
050	Soluble K2O (19%)	0389	19.52	0.1600	19.45	0.6678	0.2458	85	0.10	050.99	0
050	Soluble K2O (19%)	0481	19.53	0.2000	19.45	0.6678	0.2458	85	0.11	050.99	0
050	Soluble K2O (19%)	0423	19.60	0.1700	19.45	0.6678	0.2458	85	0.21	050.52	0
050	Soluble K2O (19%)	0040	19.60	0.0000	19.45	0.6678	0.2458	85	0.22	050.30	0
050	Soluble K2O (19%)	0018	19.60	0.2000	19.45	0.6678	0.2458	85	0.22	050.62	0
050	Soluble K2O (19%)	0521	19.60	0.0000	19.45	0.6678	0.2458	85	0.22	050.99	0
050	Soluble K2O (19%)	0185	19.65	0.2200	19.45	0.6678	0.2458	85	0.29	050.32	0
050	Soluble K2O (19%)	0354	19.65	0.1000	19.45	0.6678	0.2458	85	0.29	050.52	0
050	Soluble K2O (19%)	0538	19.65	0.3000	19.45	0.6678	0.2458	85	0.29	050.99	0
050	Soluble K2O (19%)	0220	19.68	0.1200	19.45	0.6678	0.2458	85	0.34	050.00	0
050	Soluble K2O (19%)	0073	19.76	0.7400	19.45	0.6678	0.2458	85	0.46	050.30	0
050	Soluble K2O (19%)	0351	19.78	0.8100	19.45	0.6678	0.2458	85	0.48	050.52	0
050	Soluble K2O (19%)	0493	19.80	0.1000	19.45	0.6678	0.2458	85	0.52	050.99	0
050	Soluble K2O (19%)	0177	19.81	0.0199	19.45	0.6678	0.2458	85	0.54	050.99	0
050	Soluble K2O (19%)	0024	19.85	0.1000	19.45	0.6678	0.2458	85	0.59	050.62	0
050	Soluble K2O (19%)	0513	19.88	0.0500	19.45	0.6678	0.2458	85	0.63	050.62	0
050	Soluble K2O (19%)	0421	19.89	0.0050	19.45	0.6678	0.2458	85	0.65	050.99	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				
050	Soluble K2O (19%)	0486	19.90	0.0900	19.45	0.6678	0.2458	85	0.66	050.52	0
050	Soluble K2O (19%)	0405	19.91	0.0100	19.45	0.6678	0.2458	85	0.68	050.00	0
050	Soluble K2O (19%)	0561	19.93	0.4000	19.45	0.6678	0.2458	85	0.71	050.99	0
050	Soluble K2O (19%)	0452	19.95	0.0700	19.45	0.6678	0.2458	85	0.74	050.51	0
050	Soluble K2O (19%)	0035	19.95	0.1000	19.45	0.6678	0.2458	85	0.74	050.61	0
050	Soluble K2O (19%)	0525	19.95	0.2200	19.45	0.6678	0.2458	85	0.74	050.99	0
050	Soluble K2O (19%)	0157	19.95	0.7000	19.45	0.6678	0.2458	85	0.74	050.30	0
050	Soluble K2O (19%)	0494	19.96	1.020	19.45	0.6678	0.2458	85	0.76	050.52	0
050	Soluble K2O (19%)	0324	20.05	0.3000	19.45	0.6678	0.2458	85	0.89	050.50	0
050	Soluble K2O (19%)	0043	20.08	0.2500	19.45	0.6678	0.2458	85	0.93	050.52	0
050	Soluble K2O (19%)	0027	20.08	0.3720	19.45	0.6678	0.2458	85	0.94	050.99	0
050	Soluble K2O (19%)	0255	20.14	1.096	19.45	0.6678	0.2458	85	1.03	050.99	0
050	Soluble K2O (19%)	0291	20.17	0.0900	19.45	0.6678	0.2458	85	1.07	050.51	0
050	Soluble K2O (19%)	0547	20.24	0.3200	19.45	0.6678	0.2458	85	1.18	050.99	0
050	Soluble K2O (19%)	0422	20.32	0.8700	19.45	0.6678	0.2458	85	1.29	050.50	0
050	Soluble K2O (19%)	0095	20.46	0.4400	19.45	0.6678	0.2458	85	1.51	050.62	0
050	Soluble K2O (19%)	0527	20.48	0.2319	19.45	0.6678	0.2458	85	1.54	050.99	0
050	Soluble K2O (19%)	0230	20.50	0.0000	19.45	0.6678	0.2458	85	1.57	050.00	0
050	Soluble K2O (19%)	0007	20.50	0.8000	19.45	0.6678	0.2458	85	1.57	050.51	0
050	Soluble K2O (19%)	0371	20.63‡	0.4300	19.45	0.6678	0.2458	85	1.75	050.99	0
050	Soluble K2O (19%)	0292	20.66‡	0.2300	19.45	0.6678	0.2458	85	1.80	050.50	0
050	Soluble K2O (19%)	0049	20.71‡	0.1700	19.45	0.6678	0.2458	85	1.87	050.00	0
050	Soluble K2O (19%)	0117	20.99‡	0.8101	19.45	0.6678	0.2458	85	2.29	050.52	0
050	Soluble K2O (19%)	0516	17.19†	1.842	19.45	0.6678	0.2458	85	-3.39	050.99	1
050	Soluble K2O (19%)	0325	19.25	1.700	19.45	0.6678	0.2458	85	-0.30	050.99	1
050	Soluble K2O (19%)	0444	19.95	2.010	19.45	0.6678	0.2458	85	0.74	050.00	1
050	Soluble K2O (19%)	0515	21.44‡	1.821	19.45	0.6678	0.2458	85	2.97	050.99	1
060	Water (Free) (%)	0513	0.2950	0.0100	0.4850	0.1682	0.0433	3	-1.13	060.00	0
060	Water (Free) (%)	0096	0.5450	0.1100	0.4850	0.1682	0.0433	3	0.36	060.00	0
060	Water (Free) (%)	0456	0.6150	0.0100	0.4850	0.1682	0.0433	3	0.77	060.00	0
101	Acid Soluble Ca (%)	0136	0.1300	0.0000	0.1674	0.0214	0.0101	11	-1.75	101.33	0
101	Acid Soluble Ca (%)	0421	0.1490	0.0031	0.1674	0.0214	0.0101	11	-0.86	101.33	0
101	Acid Soluble Ca (%)	0472	0.1550	0.0300	0.1674	0.0214	0.0101	11	-0.58	101.30	0
101	Acid Soluble Ca (%)	0354	0.1600	0.0200	0.1674	0.0214	0.0101	11	-0.35	101.30	0
101	Acid Soluble Ca (%)	0563	0.1611	0.0106	0.1674	0.0214	0.0101	11	-0.29	101.33	0
101	Acid Soluble Ca (%)	0423	0.1650	0.0100	0.1674	0.0214	0.0101	11	-0.11	101.32	0
101	Acid Soluble Ca (%)	0389	0.1650	0.0100	0.1674	0.0214	0.0101	11	-0.11	101.99	0
101	Acid Soluble Ca (%)	0527	0.1757	0.0066	0.1674	0.0214	0.0101	11	0.39	101.33	0
101	Acid Soluble Ca (%)	0096	0.1855	0.0150	0.1674	0.0214	0.0101	11	0.85	101.30	0
101	Acid Soluble Ca (%)	0351	0.1903	0.0059	0.1674	0.0214	0.0101	11	1.07	101.30	0
101	Acid Soluble Ca (%)	0521	0.3069	0.0000	0.1674	0.0214	0.0101	11	6.51	101.32	0
101	Acid Soluble Ca (%)	0552	0.5850	0.1100	0.1674	0.0214	0.0101	11	19.50	101.99	1
121	Acid Soluble Mg (%)	0524	0.3587	0.0127	0.4812	0.0424	0.0137	17	-2.89	121.99	0
121	Acid Soluble Mg (%)	0563	0.3919	0.0147	0.4812	0.0424	0.0137	17	-2.11	121.33	0
121	Acid Soluble Mg (%)	0516	0.4200	0.0460	0.4812	0.0424	0.0137	17	-1.44	121.99	0
121	Acid Soluble Mg (%)	0389	0.4600	0.0000	0.4812	0.0424	0.0137	17	-0.50	121.99	0
121	Acid Soluble Mg (%)	0354	0.4750	0.0100	0.4812	0.0424	0.0137	17	-0.15	121.30	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				
121	Acid Soluble Mg (%)	0444	0.4750	0.0300	0.4812	0.0424	0.0137	17	-0.15	121.30	0
121	Acid Soluble Mg (%)	0136	0.4750	0.0300	0.4812	0.0424	0.0137	17	-0.15	121.33	0
121	Acid Soluble Mg (%)	0423	0.4760	0.0100	0.4812	0.0424	0.0137	17	-0.12	121.32	0
121	Acid Soluble Mg (%)	0421	0.4797	0.0008	0.4812	0.0424	0.0137	17	-0.03	121.33	0
121	Acid Soluble Mg (%)	0096	0.4850	0.0100	0.4812	0.0424	0.0137	17	0.09	121.30	0
121	Acid Soluble Mg (%)	0527	0.4976	0.0014	0.4812	0.0424	0.0137	17	0.39	121.33	0
121	Acid Soluble Mg (%)	0523	0.5000	0.0000	0.4812	0.0424	0.0137	17	0.44	121.99	0
121	Acid Soluble Mg (%)	0351	0.5033	0.0096	0.4812	0.0424	0.0137	17	0.52	121.30	0
121	Acid Soluble Mg (%)	0521	0.5035	0.0000	0.4812	0.0424	0.0137	17	0.53	121.32	0
121	Acid Soluble Mg (%)	0515	0.5098	0.0076	0.4812	0.0424	0.0137	17	0.68	121.99	0
121	Acid Soluble Mg (%)	0472	0.5400	0.0200	0.4812	0.0424	0.0137	17	1.39	121.30	0
121	Acid Soluble Mg (%)	0552	0.5650	0.0300	0.4812	0.0424	0.0137	17	1.98	121.99	0
121	Acid Soluble Mg (%)	0515	0.4485	0.0748	0.4812	0.0424	0.0137	17	-0.77	121.33	1
143	Elemental S (%)	0472	0.7950	0.0100				2		143.99	0
143	Elemental S (%)	0389	0.8650	0.0100				2		143.99	0
148	Total S (%)	0527	0.6753	0.0277	0.7687	0.0673	0.0296	8	-1.27	148.07	0
148	Total S (%)	0515	0.7022	0.0429	0.7687	0.0673	0.0296	8	-0.91	148.07	0
148	Total S (%)	0516	0.7295	0.0930	0.7687	0.0673	0.0296	8	-0.53	148.99	0
148	Total S (%)	0354	0.7800	0.0200	0.7687	0.0673	0.0296	8	0.15	148.99	0
148	Total S (%)	0563	0.8049	0.0163	0.7687	0.0673	0.0296	8	0.49	148.07	0
148	Total S (%)	0096	0.8060	0.0240	0.7687	0.0673	0.0296	8	0.51	148.99	0
148	Total S (%)	0523	0.8100	0.0000	0.7687	0.0673	0.0296	8	0.56	148.99	0
148	Total S (%)	0421	0.8422	0.0132	0.7687	0.0673	0.0296	8	1.00	148.07	0
149	S - HNO3 soluble (%)	0524	0.7530	0.0043	0.8193	0.0575	0.0031	3	-1.15	149.04	0
149	S - HNO3 soluble (%)	0423	0.8505	0.0050	0.8193	0.0575	0.0031	3	0.54	149.04	0
149	S - HNO3 soluble (%)	0521	0.8544	0.0000	0.8193	0.0575	0.0031	3	0.61	149.04	0
151	Acid Soluble As (ppm)	0524	0.4510	0.0980	0.8525	0.3866	0.0403	10	-1.04	151.30	0
151	Acid Soluble As (ppm)	0481	0.5850	0.0100	0.8525	0.3866	0.0403	10	-0.69	151.99	0
151	Acid Soluble As (ppm)	0527	0.6588	0.0137	0.8525	0.3866	0.0403	10	-0.50	151.33	0
151	Acid Soluble As (ppm)	0501	0.6673	0.0454	0.8525	0.3866	0.0403	10	-0.48	151.30	0
151	Acid Soluble As (ppm)	0136	0.6900	0.0200	0.8525	0.3866	0.0403	10	-0.42	151.33	0
151	Acid Soluble As (ppm)	0506	0.7145	0.0050	0.8525	0.3866	0.0403	10	-0.36	151.99	0
151	Acid Soluble As (ppm)	0563	0.8935	0.0110	0.8525	0.3866	0.0403	10	0.11	151.33	0
151	Acid Soluble As (ppm)	0405	1.000	0.0000	0.8525	0.3866	0.0403	10	0.38	151.99	0
151	Acid Soluble As (ppm)	0220	1.450	0.1000	0.8525	0.3866	0.0403	10	1.55	151.32	0
151	Acid Soluble As (ppm)	0220	1.450	0.1000	0.8525	0.3866	0.0403	10	1.55	151.99	0
151	Acid Soluble As (ppm)	0255	0.5080	0.2060	0.8525	0.3866	0.0403	10	-0.89	151.30	1
151	Acid Soluble As (ppm)	0515	0.0000	0.0000	0.8525	0.3866	0.0403	10		151.33	4
151	Acid Soluble As (ppm)	0515	0.0000	0.0000	0.8525	0.3866	0.0403	10		151.34	4
151	Acid Soluble As (ppm)	0550	< 0.08		0.8525	0.3866	0.0403	10		151.00	5
151	Acid Soluble As (ppm)	0117	< 10		0.8525	0.3866	0.0403	10		151.33	5
165	Acid Soluble B (%)	0516	0.0020	0.0000	0.0045	0.0023	0.0001	8	-1.08	165.99	0
165	Acid Soluble B (%)	0136	0.0028	0.0002	0.0045	0.0023	0.0001	8	-0.74	165.99	0
165	Acid Soluble B (%)	0524	0.0032	0.0003	0.0045	0.0023	0.0001	8	-0.59	165.99	0
165	Acid Soluble B (%)	0563	0.0038	0.0002	0.0045	0.0023	0.0001	8	-0.31	165.99	0
165	Acid Soluble B (%)	0527	0.0048	0.0001	0.0045	0.0023	0.0001	8	0.09	165.99	0
165	Acid Soluble B (%)	0423	0.0048	0.0000	0.0045	0.0023	0.0001	8	0.11	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 (%)	0521	0.0069	0.0000	0.0045	0.0023	0.0001	8	1.01	165.30	0
165	Acid Soluble B (%)	0472	0.0100	0.0000	0.0045	0.0023	0.0001	8	2.33	165.99	0
165	Acid Soluble B (%)	0515	0.0048	0.0012	0.0045	0.0023	0.0001	8	0.11	165.99	1
165	Acid Soluble B (%)	0552	0.0000	0.0000	0.0045	0.0023	0.0001	8		165.99	4
165	Acid Soluble B (%)	0421	< 0.0018		0.0045	0.0023	0.0001	8		165.99	5
165	Acid Soluble B (%)	0354	< 0.01		0.0045	0.0023	0.0001	8		165.30	5
181	Acid Soluble Cd (ppm)	0524	12.42	0.7036	18.17	3.089	0.5934	19	-1.86	181.30	0
181	Acid Soluble Cd (ppm)	0444	12.78	0.0100	18.17	3.089	0.5934	19	-1.75	181.30	0
181	Acid Soluble Cd (ppm)	0255	14.35	1.844	18.17	3.089	0.5934	19	-1.24	181.30	0
181	Acid Soluble Cd (ppm)	0498	16.10	0.2000	18.17	3.089	0.5934	19	-0.67	181.00	0
181	Acid Soluble Cd (ppm)	0220	16.75	0.3000	18.17	3.089	0.5934	19	-0.46	181.32	0
181	Acid Soluble Cd (ppm)	0220	16.90	1.000	18.17	3.089	0.5934	19	-0.41	181.99	0
181	Acid Soluble Cd (ppm)	0501	17.08	1.330	18.17	3.089	0.5934	19	-0.35	181.30	0
181	Acid Soluble Cd (ppm)	0506	17.25	0.3000	18.17	3.089	0.5934	19	-0.30	181.99	0
181	Acid Soluble Cd (ppm)	0394	17.95	0.1000	18.17	3.089	0.5934	19	-0.07	181.30	0
181	Acid Soluble Cd (ppm)	0136	18.30	0.8000	18.17	3.089	0.5934	19	0.04	181.33	0
181	Acid Soluble Cd (ppm)	0117	18.43	0.1350	18.17	3.089	0.5934	19	0.08	181.33	0
181	Acid Soluble Cd (ppm)	0405	18.85	0.3000	18.17	3.089	0.5934	19	0.22	181.99	0
181	Acid Soluble Cd (ppm)	0096	18.95	0.3000	18.17	3.089	0.5934	19	0.25	181.30	0
181	Acid Soluble Cd (ppm)	0481	19.60	0.1100	18.17	3.089	0.5934	19	0.46	181.99	0
181	Acid Soluble Cd (ppm)	0527	19.97	0.3499	18.17	3.089	0.5934	19	0.58	181.33	0
181	Acid Soluble Cd (ppm)	0563	20.55	0.7962	18.17	3.089	0.5934	19	0.77	181.33	0
181	Acid Soluble Cd (ppm)	0515	21.51	0.2950	18.17	3.089	0.5934	19	1.08	181.34	0
181	Acid Soluble Cd (ppm)	0550	23.20	2.000	18.17	3.089	0.5934	19	1.63	181.00	0
181	Acid Soluble Cd (ppm)	0389	31.60	0.4000	18.17	3.089	0.5934	19	4.35	181.30	0
181	Acid Soluble Cd (ppm)	0515	18.80	4.705	18.17	3.089	0.5934	19	0.20	181.33	1
190	Water Soluble Cl (%)	0513	14.90	0.0900				1		190.99	0
191	Acid Soluble Cr (ppm)	0550	64.75	0.4400	104.1	15.31	3.263	18	-2.57	191.00	0
191	Acid Soluble Cr (ppm)	0524	72.75	3.278	104.1	15.31	3.263	18	-2.05	191.30	0
191	Acid Soluble Cr (ppm)	0027	76.00	4.000	104.1	15.31	3.263	18	-1.83	191.30	0
191	Acid Soluble Cr (ppm)	0394	94.75	2.300	104.1	15.31	3.263	18	-0.61	191.30	0
191	Acid Soluble Cr (ppm)	0389	95.60	3.000	104.1	15.31	3.263	18	-0.55	191.30	0
191	Acid Soluble Cr (ppm)	0506	96.10	0.4000	104.1	15.31	3.263	18	-0.52	191.99	0
191	Acid Soluble Cr (ppm)	0563	100.4	1.045	104.1	15.31	3.263	18	-0.24	191.33	0
191	Acid Soluble Cr (ppm)	0501	107.0	0.6900	104.1	15.31	3.263	18	0.19	191.30	0
191	Acid Soluble Cr (ppm)	0481	107.7	2.200	104.1	15.31	3.263	18	0.24	191.99	0
191	Acid Soluble Cr (ppm)	0117	108.7	0.3600	104.1	15.31	3.263	18	0.30	191.33	0
191	Acid Soluble Cr (ppm)	0220	110.0	0.0000	104.1	15.31	3.263	18	0.39	191.32	0
191	Acid Soluble Cr (ppm)	0220	110.0	6.000	104.1	15.31	3.263	18	0.39	191.99	0
191	Acid Soluble Cr (ppm)	0498	110.6	3.700	104.1	15.31	3.263	18	0.42	191.00	0
191	Acid Soluble Cr (ppm)	0527	112.8	1.266	104.1	15.31	3.263	18	0.57	191.33	0
191	Acid Soluble Cr (ppm)	0405	113.0	2.000	104.1	15.31	3.263	18	0.58	191.99	0
191	Acid Soluble Cr (ppm)	0096	113.5	1.100	104.1	15.31	3.263	18	0.61	191.30	0
191	Acid Soluble Cr (ppm)	0515	123.9	16.05	104.1	15.31	3.263	18	1.29	191.33	0
191	Acid Soluble Cr (ppm)	0515	126.2	10.92	104.1	15.31	3.263	18	1.45	191.34	0
191	Acid Soluble Cr (ppm)	0444	90.15	25.71	104.1	15.31	3.263	18	-0.91	191.30	1
202	Acid Soluble Co (ppm)	0255	0.3370	0.1720	0.9287	0.5391	0.3359	10	-1.10	202.99	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				
202	Acid Soluble Co (ppm)	0563	0.5436	0.0212	0.9287	0.5391	0.3359	10	-0.71	202.33	0
202	Acid Soluble Co (ppm)	0527	0.5827	0.0020	0.9287	0.5391	0.3359	10	-0.64	202.33	0
202	Acid Soluble Co (ppm)	0405	0.6000	0.0000	0.9287	0.5391	0.3359	10	-0.61	202.99	0
202	Acid Soluble Co (ppm)	0501	0.6540	0.0220	0.9287	0.5391	0.3359	10	-0.51	202.34	0
202	Acid Soluble Co (ppm)	0524	0.8770	0.0617	0.9287	0.5391	0.3359	10	-0.10	202.30	0
202	Acid Soluble Co (ppm)	0220	1.150	0.1000	0.9287	0.5391	0.3359	10	0.41	202.32	0
202	Acid Soluble Co (ppm)	0389	1.205	0.0100	0.9287	0.5391	0.3359	10	0.51	202.30	0
202	Acid Soluble Co (ppm)	0220	1.600	0.0000	0.9287	0.5391	0.3359	10	1.25	202.99	0
202	Acid Soluble Co (ppm)	0515	3.888	2.970	0.9287	0.5391	0.3359	10	5.49	202.33	0
202	Acid Soluble Co (ppm)	0515	2.667	3.491	0.9287	0.5391	0.3359	10	3.22	202.34	1
202	Acid Soluble Co (ppm)	0550	< 0.09		0.9287	0.5391	0.3359	10		202.33	5
202	Acid Soluble Co (ppm)	0117	< 5		0.9287	0.5391	0.3359	10		202.33	5
202	Acid Soluble Co (ppm)	0481	< 20		0.9287	0.5391	0.3359	10		202.99	5
221	Acid Soluble Cu (%)	0527	0.0001	0.0000	0.0005	0.0005	0.0001	6	-0.85	221.33	0
221	Acid Soluble Cu (%)	0524	0.0001	0.0000	0.0005	0.0005	0.0001	6	-0.85	221.99	0
221	Acid Soluble Cu (%)	0501	0.0003	0.0001	0.0005	0.0005	0.0001	6	-0.54	221.99	0
221	Acid Soluble Cu (%)	0515	0.0006	0.0004	0.0005	0.0005	0.0001	6	0.19	221.33	0
221	Acid Soluble Cu (%)	0516	0.0010	0.0000	0.0005	0.0005	0.0001	6	1.03	221.99	0
221	Acid Soluble Cu (%)	0523	0.0010	0.0000	0.0005	0.0005	0.0001	6	1.03	221.99	0
221	Acid Soluble Cu (%)	0515	0.0010	0.0005	0.0005	0.0005	0.0001	6	0.92	221.99	1
221	Acid Soluble Cu (%)	0255	0.0000	0.0000	0.0005	0.0005	0.0001	6		221.30	4
221	Acid Soluble Cu (%)	0472	0.0000	0.0000	0.0005	0.0005	0.0001	6		221.30	4
221	Acid Soluble Cu (%)	0552	0.0000	0.0000	0.0005	0.0005	0.0001	6		221.30	4
221	Acid Soluble Cu (%)	0095	0.0001	0.0001	0.0005	0.0005	0.0001	6		221.32	4
221	Acid Soluble Cu (%)	0563	< 0.0001		0.0005	0.0005	0.0001	6		221.33	5
221	Acid Soluble Cu (%)	0041	< 0.001		0.0005	0.0005	0.0001	6		221.30	5
221	Acid Soluble Cu (%)	0481	< 0.001		0.0005	0.0005	0.0001	6		221.99	5
221	Acid Soluble Cu (%)	0421	< 0.0015		0.0005	0.0005	0.0001	6		221.33	5
221	Acid Soluble Cu (%)	0117	< 0.0025		0.0005	0.0005	0.0001	6		221.33	5
221	Acid Soluble Cu (%)	0354	< 0.01		0.0005	0.0005	0.0001	6		221.30	5
221	Acid Soluble Cu (%)	0405	< 0.5		0.0005	0.0005	0.0001	6		221.99	5
221	Acid Soluble Cu (%)	0550	< 1		0.0005	0.0005	0.0001	6		221.00	5
241	Acid Soluble Fe (%)	0524	0.3361	0.0093	0.4157	0.0321	0.0189	16	-2.48	241.99	0
241	Acid Soluble Fe (%)	0516	0.3565	0.0450	0.4157	0.0321	0.0189	16	-1.84	241.99	0
241	Acid Soluble Fe (%)	0563	0.3715	0.0157	0.4157	0.0321	0.0189	16	-1.38	241.33	0
241	Acid Soluble Fe (%)	0136	0.3950	0.0300	0.4157	0.0321	0.0189	16	-0.64	241.33	0
241	Acid Soluble Fe (%)	0389	0.4000	0.0000	0.4157	0.0321	0.0189	16	-0.49	241.99	0
241	Acid Soluble Fe (%)	0521	0.4121	0.0000	0.4157	0.0321	0.0189	16	-0.11	241.32	0
241	Acid Soluble Fe (%)	0444	0.4200	0.0000	0.4157	0.0321	0.0189	16	0.13	241.30	0
241	Acid Soluble Fe (%)	0472	0.4200	0.0000	0.4157	0.0321	0.0189	16	0.13	241.30	0
241	Acid Soluble Fe (%)	0351	0.4246	0.0112	0.4157	0.0321	0.0189	16	0.28	241.30	0
241	Acid Soluble Fe (%)	0354	0.4250	0.0100	0.4157	0.0321	0.0189	16	0.29	241.30	0
241	Acid Soluble Fe (%)	0096	0.4300	0.0000	0.4157	0.0321	0.0189	16	0.45	241.30	0
241	Acid Soluble Fe (%)	0527	0.4316	0.0050	0.4157	0.0321	0.0189	16	0.50	241.33	0
241	Acid Soluble Fe (%)	0552	0.4400	0.1000	0.4157	0.0321	0.0189	16	0.76	241.30	0
241	Acid Soluble Fe (%)	0423	0.4425	0.0030	0.4157	0.0321	0.0189	16	0.84	241.32	0
241	Acid Soluble Fe (%)	0523	0.4425	0.0010	0.4157	0.0321	0.0189	16	0.84	241.99	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				
241	Acid Soluble Fe (%)	0515	0.4610	0.0727	0.4157	0.0321	0.0189	16	1.41	241.99	0
241	Acid Soluble Fe (%)	0515	0.5937	0.4000	0.4157	0.0321	0.0189	16	5.54	241.33	1
251	Acid Soluble Pb (ppm)	0563	0.1364	0.0003	0.6898	0.6637	0.2020	11	-0.83	251.33	0
251	Acid Soluble Pb (ppm)	0527	0.1744	0.0093	0.6898	0.6637	0.2020	11	-0.78	251.33	0
251	Acid Soluble Pb (ppm)	0524	0.1988	0.0253	0.6898	0.6637	0.2020	11	-0.74	251.30	0
251	Acid Soluble Pb (ppm)	0405	0.3500	0.1000	0.6898	0.6637	0.2020	11	-0.51	251.99	0
251	Acid Soluble Pb (ppm)	0255	0.4250	0.2160	0.6898	0.6637	0.2020	11	-0.40	251.30	0
251	Acid Soluble Pb (ppm)	0501	0.4853	0.0163	0.6898	0.6637	0.2020	11	-0.31	251.30	0
251	Acid Soluble Pb (ppm)	0394	0.5320	0.0140	0.6898	0.6637	0.2020	11	-0.24	251.30	0
251	Acid Soluble Pb (ppm)	0481	0.6150	0.0700	0.6898	0.6637	0.2020	11	-0.11	251.99	0
251	Acid Soluble Pb (ppm)	0220	1.300	0.4000	0.6898	0.6637	0.2020	11	0.92	251.32	0
251	Acid Soluble Pb (ppm)	0220	1.750	0.1000	0.6898	0.6637	0.2020	11	1.60	251.99	0
251	Acid Soluble Pb (ppm)	0515	2.666	1.271	0.6898	0.6637	0.2020	11	2.98	251.34	0
251	Acid Soluble Pb (ppm)	0515	5.788	2.056	0.6898	0.6637	0.2020	11	7.68	251.33	1
251	Acid Soluble Pb (ppm)	0550	< 1.5		0.6898	0.6637	0.2020	11		251.00	5
251	Acid Soluble Pb (ppm)	0117	< 5		0.6898	0.6637	0.2020	11		251.33	5
261	Acid Soluble Mn (%)	0136	0.0060	0.0001	0.0079	0.0013	0.0007	11	-1.55	261.35	0
261	Acid Soluble Mn (%)	0524	0.0069	0.0002	0.0079	0.0013	0.0007	11	-0.81	261.99	0
261	Acid Soluble Mn (%)	0516	0.0070	0.0020	0.0079	0.0013	0.0007	11	-0.73	261.99	0
261	Acid Soluble Mn (%)	0389	0.0074	0.0000	0.0079	0.0013	0.0007	11	-0.41	261.99	0
261	Acid Soluble Mn (%)	0423	0.0077	0.0001	0.0079	0.0013	0.0007	11	-0.21	261.34	0
261	Acid Soluble Mn (%)	0563	0.0078	0.0002	0.0079	0.0013	0.0007	11	-0.10	261.35	0
261	Acid Soluble Mn (%)	0527	0.0081	0.0001	0.0079	0.0013	0.0007	11	0.10	261.35	0
261	Acid Soluble Mn (%)	0096	0.0083	0.0001	0.0079	0.0013	0.0007	11	0.26	261.30	0
261	Acid Soluble Mn (%)	0523	0.0090	0.0000	0.0079	0.0013	0.0007	11	0.85	261.99	0
261	Acid Soluble Mn (%)	0515	0.0093	0.0049	0.0079	0.0013	0.0007	11	1.05	261.99	0
261	Acid Soluble Mn (%)	0472	0.0100	0.0000	0.0079	0.0013	0.0007	11	1.64	261.30	0
261	Acid Soluble Mn (%)	0552	0.0300	0.0400	0.0079	0.0013	0.0007	11	17.39	261.32	1
261	Acid Soluble Mn (%)	0515	0.0112	0.0224	0.0079	0.0013	0.0007	11		261.35	4
261	Acid Soluble Mn (%)	0354	< 0.01		0.0079	0.0013	0.0007	11		261.30	5
281	Acid Soluble Hg (ppm)	0563	0.0053	0.0044				2		281.30	0
281	Acid Soluble Hg (ppm)	0550	10.15	1.500				2		281.00	0
281	Acid Soluble Hg (ppm)	0515	0.0000	0.0000				2		281.30	4
281	Acid Soluble Hg (ppm)	0527	< 0.001					2		281.30	5
281	Acid Soluble Hg (ppm)	0220	< 0.01					2		281.99	5
281	Acid Soluble Hg (ppm)	0405	< 0.01					2		281.99	5
281	Acid Soluble Hg (ppm)	0481	< 0.5					2		281.99	5
289	Acid Soluble Mo (ppm)	0255	3.008	0.3450	4.730	1.644	2.074	13	-1.05	289.30	0
289	Acid Soluble Mo (ppm)	0524	3.168	0.0000	4.730	1.644	2.074	13	-0.95	289.30	0
289	Acid Soluble Mo (ppm)	0096	3.450	0.1000	4.730	1.644	2.074	13	-0.78	289.30	0
289	Acid Soluble Mo (ppm)	0550	3.640	0.1800	4.730	1.644	2.074	13	-0.66	289.00	0
289	Acid Soluble Mo (ppm)	0220	3.750	0.7000	4.730	1.644	2.074	13	-0.60	289.32	0
289	Acid Soluble Mo (ppm)	0220	4.000	0.6000	4.730	1.644	2.074	13	-0.44	289.99	0
289	Acid Soluble Mo (ppm)	0563	4.245	0.0339	4.730	1.644	2.074	13	-0.29	289.33	0
289	Acid Soluble Mo (ppm)	0423	4.605	0.7900	4.730	1.644	2.074	13	-0.08	289.33	0
289	Acid Soluble Mo (ppm)	0527	5.718	0.0977	4.730	1.644	2.074	13	0.60	289.33	0
289	Acid Soluble Mo (ppm)	0501	5.722	0.4340	4.730	1.644	2.074	13	0.60	289.34	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)	0405	5.790	0.0800	4.730	1.644	2.074	13	0.64	289.99	0
289	Acid Soluble Mo (ppm)	0516	15.00	10.00	4.730	1.644	2.074	13	6.25	289.30	0
289	Acid Soluble Mo (ppm)	0515	96.04	13.60	4.730	1.644	2.074	13	55.54	289.33	0
289	Acid Soluble Mo (ppm)	0515	21.16	34.19	4.730	1.644	2.074	13	9.99	289.34	1
289	Acid Soluble Mo (ppm)	0117	< 5		4.730	1.644	2.074	13		289.33	5
289	Acid Soluble Mo (ppm)	0481	< 100		4.730	1.644	2.074	13		289.99	5
291	Acid Soluble Ni (ppm)	0550	3.360	0.3200	11.53	4.354	0.8993	18	-1.88	291.00	0
291	Acid Soluble Ni (ppm)	0255	4.173	5.109	11.53	4.354	0.8993	18	-1.69	291.99	0
291	Acid Soluble Ni (ppm)	0524	7.756	0.0720	11.53	4.354	0.8993	18	-0.87	291.30	0
291	Acid Soluble Ni (ppm)	0444	8.390	0.7400	11.53	4.354	0.8993	18	-0.72	291.30	0
291	Acid Soluble Ni (ppm)	0498	8.800	0.2000	11.53	4.354	0.8993	18	-0.63	291.00	0
291	Acid Soluble Ni (ppm)	0563	9.075	0.5693	11.53	4.354	0.8993	18	-0.56	291.33	0
291	Acid Soluble Ni (ppm)	0481	9.890	0.0400	11.53	4.354	0.8993	18	-0.38	291.99	0
291	Acid Soluble Ni (ppm)	0394	11.10	0.2000	11.53	4.354	0.8993	18	-0.10	291.30	0
291	Acid Soluble Ni (ppm)	0220	12.10	0.4000	11.53	4.354	0.8993	18	0.13	291.99	0
291	Acid Soluble Ni (ppm)	0506	12.15	0.1000	11.53	4.354	0.8993	18	0.14	291.99	0
291	Acid Soluble Ni (ppm)	0220	12.30	0.2000	11.53	4.354	0.8993	18	0.18	291.32	0
291	Acid Soluble Ni (ppm)	0405	12.65	0.3000	11.53	4.354	0.8993	18	0.26	291.99	0
291	Acid Soluble Ni (ppm)	0117	12.85	0.2220	11.53	4.354	0.8993	18	0.30	291.33	0
291	Acid Soluble Ni (ppm)	0527	13.02	0.3295	11.53	4.354	0.8993	18	0.34	291.33	0
291	Acid Soluble Ni (ppm)	0096	15.25	0.5000	11.53	4.354	0.8993	18	0.86	291.30	0
291	Acid Soluble Ni (ppm)	0501	16.36	0.5825	11.53	4.354	0.8993	18	1.11	291.34	0
291	Acid Soluble Ni (ppm)	0515	17.73	2.743	11.53	4.354	0.8993	18	1.42	291.33	0
291	Acid Soluble Ni (ppm)	0389	18.12	3.560	11.53	4.354	0.8993	18	1.51	291.30	0
291	Acid Soluble Ni (ppm)	0515	17.75	7.255	11.53	4.354	0.8993	18	1.43	291.34	1
301	Acid Soluble Se (ppm)	0220	0.4500	0.1000	1.434	1.186	0.2583	8	-0.83	301.99	0
301	Acid Soluble Se (ppm)	0563	0.4887	0.0496	1.434	1.186	0.2583	8	-0.80	301.33	0
301	Acid Soluble Se (ppm)	0220	0.5000	0.0000	1.434	1.186	0.2583	8	-0.79	301.32	0
301	Acid Soluble Se (ppm)	0501	0.5763	0.0085	1.434	1.186	0.2583	8	-0.72	301.30	0
301	Acid Soluble Se (ppm)	0515	1.734	0.5090	1.434	1.186	0.2583	8	0.25	301.34	0
301	Acid Soluble Se (ppm)	0527	2.337	0.0272	1.434	1.186	0.2583	8	0.76	301.33	0
301	Acid Soluble Se (ppm)	0515	2.465	1.328	1.434	1.186	0.2583	8	0.87	301.33	0
301	Acid Soluble Se (ppm)	0255	2.925	0.0440	1.434	1.186	0.2583	8	1.26	301.99	0
301	Acid Soluble Se (ppm)	0506	23.85	5.700	1.434	1.186	0.2583	8	18.89	301.99	2
301	Acid Soluble Se (ppm)	0550	< 0.08		1.434	1.186	0.2583	8		301.00	5
301	Acid Soluble Se (ppm)	0481	< 0.5		1.434	1.186	0.2583	8		301.99	5
301	Acid Soluble Se (ppm)	0405	< 1		1.434	1.186	0.2583	8		301.99	5
311	Sodium (%)	0563	0.3664	0.0182	0.4759	0.1032	0.0140	7	-0.96	311.33	0
311	Sodium (%)	0136	0.4050	0.0100	0.4759	0.1032	0.0140	7	-0.62	311.33	0
311	Sodium (%)	0096	0.4400	0.0200	0.4759	0.1032	0.0140	7	-0.31	311.99	0
311	Sodium (%)	0527	0.4533	0.0051	0.4759	0.1032	0.0140	7	-0.20	311.33	0
311	Sodium (%)	0354	0.4700	0.0400	0.4759	0.1032	0.0140	7	-0.05	311.99	0
311	Sodium (%)	0423	0.5775	0.0050	0.4759	0.1032	0.0140	7	0.89	311.33	0
311	Sodium (%)	0521	0.6193	0.0000	0.4759	0.1032	0.0140	7	1.26	311.32	0
321	Acid Soluble Zn (%)	0516	0.0125	0.0050	0.0274	0.0032	0.0098	33	-4.71	321.99	0
321	Acid Soluble Zn (%)	0027	0.0185	0.0010	0.0274	0.0032	0.0098	33	-2.82	321.99	0
321	Acid Soluble Zn (%)	0558	0.0200	0.0000	0.0274	0.0032	0.0098	33	-2.35	321.99	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				
321	Acid Soluble Zn (%)	0421	0.0244	0.0004	0.0274	0.0032	0.0098	33	-0.96	321.33	0
321	Acid Soluble Zn (%)	0255	0.0245	0.0010	0.0274	0.0032	0.0098	33	-0.93	321.30	0
321	Acid Soluble Zn (%)	0136	0.0245	0.0010	0.0274	0.0032	0.0098	33	-0.93	321.33	0
321	Acid Soluble Zn (%)	0220	0.0250	0.0003	0.0274	0.0032	0.0098	33	-0.79	321.32	0
321	Acid Soluble Zn (%)	0354	0.0250	0.0100	0.0274	0.0032	0.0098	33	-0.77	321.30	0
321	Acid Soluble Zn (%)	0394	0.0255	0.0010	0.0274	0.0032	0.0098	33	-0.61	321.32	0
321	Acid Soluble Zn (%)	0220	0.0255	0.0014	0.0274	0.0032	0.0098	33	-0.61	321.99	0
321	Acid Soluble Zn (%)	0524	0.0257	0.0006	0.0274	0.0032	0.0098	33	-0.55	321.99	0
321	Acid Soluble Zn (%)	0563	0.0260	0.0025	0.0274	0.0032	0.0098	33	-0.47	321.33	0
321	Acid Soluble Zn (%)	0506	0.0260	0.0000	0.0274	0.0032	0.0098	33	-0.46	321.99	0
321	Acid Soluble Zn (%)	0515	0.0261	0.0025	0.0274	0.0032	0.0098	33	-0.44	321.33	0
321	Acid Soluble Zn (%)	0405	0.0269	0.0006	0.0274	0.0032	0.0098	33	-0.17	321.99	0
321	Acid Soluble Zn (%)	0043	0.0270	0.0000	0.0274	0.0032	0.0098	33	-0.14	321.33	0
321	Acid Soluble Zn (%)	0521	0.0273	0.0000	0.0274	0.0032	0.0098	33	-0.05	321.32	0
321	Acid Soluble Zn (%)	0117	0.0277	0.0006	0.0274	0.0032	0.0098	33	0.08	321.33	0
321	Acid Soluble Zn (%)	0041	0.0280	0.0000	0.0274	0.0032	0.0098	33	0.17	321.30	0
321	Acid Soluble Zn (%)	0527	0.0282	0.0001	0.0274	0.0032	0.0098	33	0.22	321.33	0
321	Acid Soluble Zn (%)	0444	0.0290	0.0020	0.0274	0.0032	0.0098	33	0.49	321.30	0
321	Acid Soluble Zn (%)	0423	0.0295	0.0010	0.0274	0.0032	0.0098	33	0.65	321.32	0
321	Acid Soluble Zn (%)	0501	0.0295	0.0010	0.0274	0.0032	0.0098	33	0.65	321.99	0
321	Acid Soluble Zn (%)	0550	0.0297	0.0048	0.0274	0.0032	0.0098	33	0.71	321.00	0
321	Acid Soluble Zn (%)	0351	0.0299	0.0006	0.0274	0.0032	0.0098	33	0.77	321.30	0
321	Acid Soluble Zn (%)	0498	0.0300	0.0000	0.0274	0.0032	0.0098	33	0.80	321.00	0
321	Acid Soluble Zn (%)	0472	0.0300	0.0000	0.0274	0.0032	0.0098	33	0.80	321.30	0
321	Acid Soluble Zn (%)	0095	0.0300	0.0000	0.0274	0.0032	0.0098	33	0.80	321.32	0
321	Acid Soluble Zn (%)	0481	0.0300	0.0000	0.0274	0.0032	0.0098	33	0.80	321.99	0
321	Acid Soluble Zn (%)	0515	0.0304	0.0030	0.0274	0.0032	0.0098	33	0.93	321.99	0
321	Acid Soluble Zn (%)	0552	0.0850	0.0100	0.0274	0.0032	0.0098	33	18.14	321.30	0
321	Acid Soluble Zn (%)	0523	0.1640	0.2720	0.0274	0.0032	0.0098	33	43.05	321.99	0
321	Acid Soluble Zn (%)	0389	0.2640	0.0000	0.0274	0.0032	0.0098	33	74.58	321.99	0
321	Acid Soluble Zn (%)	0096	311.3	4.300	0.0274	0.0032	0.0098	33	98120.80	321.30	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, 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.