

Analyte PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Analytes: 40

Sample # 220911

Regular PT Scheme

Labs Reporting: 95

Grade 15-15-15

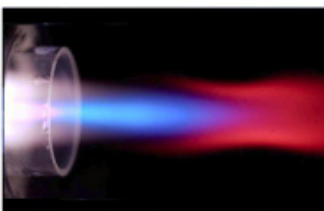
Statistical Summary

Issue Date : 10/31/2022

Analyte Code	Analyte Sample # 220911	# 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 (%)	37	37	8.575	0.4201	8.619		0.2925	0.0601	3.39%		0.1179	2.89%
002	Nitrate N (%)	27	27	6.390	0.2725	6.410		0.2141	0.0515	3.34%		0.0671	3.02%
005	Urea N (%)	1		0.6100									
009	Ammoniacal Plus Nitrate N (%)	3	3	15.15	0.4249	15.15		0.4249	0.3066	2.80%		0.2000	2.57%
010	Total N (15%)	91	89	15.01	0.2606	15.02	0.6505	0.2597	0.0344	1.73%	0.93	0.1127	2.58%
020	Total P2O5 (%)	45	45	15.57	0.7649	15.52		0.5112	0.0953	3.29%		0.2116	2.54%
030	Citrate Insoluble P2O5 (%)	1		0.0500									
040	Indirect Available P2O5 (15%)	2	2	15.39	0.4250								
041	Direct Available P2O5 (15%)	53	53	15.32	0.7615	15.39	0.7000	0.5736	0.0985	3.73%	1.91	0.1595	2.55%
042	Water Soluble OrthoP As P2O5 (%)	1		11.54									
048	Water Soluble P2O5 (%)	5	5	11.64	0.8454	11.64		0.8454	0.4726	7.27%		0.2663	2.76%
050	Soluble K2O (15%)	91	89	15.12	0.9364	15.16	0.9108	0.4477	0.0593	2.95%	1.15	0.2034	2.57%
060	Water (Free) (%)	2	2	1.052	0.3917								
101	Acid Soluble Ca (%)	13	13	4.140	0.7068	3.960	0.3980	0.4015	0.1392	10.14%	2.35	0.0392	3.25%
121	Acid Soluble Mg (%)	14	14	0.2711	0.0246	0.2720	0.2136	0.0256	0.0086	9.42%	0.28	0.0071	4.87%
131	Water Soluble Mg (%)	1		0.0684									
143	Elemental S (%)	6	6	4.657	2.315	5.166		1.328	0.6775	25.70%		0.0799	3.12%
145	Sulfate S, HCl soluble (%)	12	12	5.443	0.3240	5.443		0.3674	0.1326	6.75%		0.0617	3.10%
146	Total S in Liquid (5%)	1		5.795									
148	Total S (5%)	49	48	5.492	0.6822	5.442	0.4721	0.2703	0.0488	4.97%	1.33	0.1116	3.10%
149	S - HNO3 soluble (%)	3	3	5.658	0.2468	5.658		0.2468	0.1781	4.36%		0.1142	3.08%
151	Acid Soluble As (ppm)	13	11	15.04	10.94	16.13		12.36	4.659	76.61%		0.5498	10.53%
165	Acid Soluble B (%)	8	6	0.0077	0.0034	0.0067	0.0040	0.0034	0.0017	50.27%	1.97	0.0001	8.49%
171	Water Soluble B (%)	1		0.0106									
181	Acid Soluble Cd (ppm)	18	15	1.086	0.3593	1.076		0.1852	0.0598	17.21%		0.0640	15.82%
190	Water Soluble Cl (%)	2	2	0.3703	0.0145								
191	Acid Soluble Cr (ppm)	16	15	32.45	4.121	32.27		4.741	1.530	14.69%		0.8918	9.48%
202	Acid Soluble Co (ppm)	15	13	3.968	6.579	2.248	1.6744	0.5646	0.1957	25.12%	0.79	0.2288	14.16%
221	Acid Soluble Cu (%)	23	20	0.0023	0.0019	0.0019	0.0052	0.0004	0.0001	21.79%	0.18	0.0001	10.28%

Analyte Code	Analyte Sample # 220911	# 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
241	Acid Soluble Fe (%)	12	11	0.1140	0.0084	0.1139	0.0164	0.0093	0.0035	8.18%	1.32	0.0032	5.55%
251	Acid Soluble Pb (ppm)	16	14	5.303	2.939	5.183		1.851	0.6185	35.72%		0.4207	12.49%
261	Acid Soluble Mn (%)	10	9	0.0079	0.0009	0.0076	0.0058	0.0006	0.0003	8.45%	0.26	0.0001	8.33%
281	Acid Soluble Hg (ppm)	11	3	0.3765	0.6570	0.0042		0.0031	0.0023	75.12%		0.0014	22.00%
289	Acid Soluble Mo (ppm)	16	11	8.151	24.51	1.930	1.5791	0.7064	0.2662	36.60%	1.04	0.0571	14.49%
291	Acid Soluble Ni (ppm)	15	14	8.144	1.672	7.835		1.456	0.4864	18.58%		0.5173	11.73%
301	Acid Soluble Se (ppm)	12	6	12.34	18.21	22.10		25.05	12.78	113.35%		0.7297	10.04%
311	Sodium (%)	6	6	0.2523	0.0283	0.2523	0.0302	0.0321	0.0164	12.71%	2.47	0.0072	4.92%
321	Acid Soluble Zn (%)	26	24	0.1306	0.6374	0.0053	0.0055	0.0011	0.0003	20.65%	0.46	0.0003	8.79%
325	Water Soluble Zn (%)	2	2	0.0054	0.0051								
431	Soluble Si in nonliquids (%)	1		0.0541									

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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Magruder Fertilizer Proficiency Testing Program

Analytes: 40

Sample # 220911

Regular PT Scheme

Labs Reporting: 95

Grade 15-15-15

Lab Values

Issue Date : 10/31/2022

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
001	Ammoniacal N (%)	0553	6.805	0.2700	8.619	0.2925	0.1179	37	-6.20	001.99	0
001	Ammoniacal N (%)	0368	7.848	0.1200	8.619	0.2925	0.1179	37	-2.64	001.99	0
001	Ammoniacal N (%)	0231	7.965	0.0700	8.619	0.2925	0.1179	37	-2.24	001.99	0
001	Ammoniacal N (%)	0562	8.255	0.0100	8.619	0.2925	0.1179	37	-1.24	001.99	0
001	Ammoniacal N (%)	0564	8.275	0.0100	8.619	0.2925	0.1179	37	-1.18	001.99	0
001	Ammoniacal N (%)	0565	8.310	0.0200	8.619	0.2925	0.1179	37	-1.06	001.99	0
001	Ammoniacal N (%)	0605	8.330	0.1000	8.619	0.2925	0.1179	37	-0.99	001.99	0
001	Ammoniacal N (%)	0602	8.400	0.0800	8.619	0.2925	0.1179	37	-0.75	001.99	0
001	Ammoniacal N (%)	0533	8.420	0.3600	8.619	0.2925	0.1179	37	-0.68	001.99	0
001	Ammoniacal N (%)	0540	8.465	0.1300	8.619	0.2925	0.1179	37	-0.53	001.99	0
001	Ammoniacal N (%)	0560	8.470	0.0200	8.619	0.2925	0.1179	37	-0.51	001.99	0
001	Ammoniacal N (%)	0531	8.495	0.0300	8.619	0.2925	0.1179	37	-0.42	001.99	0
001	Ammoniacal N (%)	0538	8.495	0.0100	8.619	0.2925	0.1179	37	-0.42	001.99	0
001	Ammoniacal N (%)	0563	8.520	0.1800	8.619	0.2925	0.1179	37	-0.34	001.99	0
001	Ammoniacal N (%)	0600	8.525	0.1500	8.619	0.2925	0.1179	37	-0.32	001.99	0
001	Ammoniacal N (%)	0532	8.545	0.0500	8.619	0.2925	0.1179	37	-0.25	001.99	0
001	Ammoniacal N (%)	0558	8.565	0.0108	8.619	0.2925	0.1179	37	-0.18	001.99	0
001	Ammoniacal N (%)	0451	8.595	0.1300	8.619	0.2925	0.1179	37	-0.08	001.10	0
001	Ammoniacal N (%)	0444	8.600	0.0000	8.619	0.2925	0.1179	37	-0.07	001.10	0
001	Ammoniacal N (%)	0549	8.650	0.1000	8.619	0.2925	0.1179	37	0.11	001.99	0
001	Ammoniacal N (%)	0548	8.650	0.5000	8.619	0.2925	0.1179	37	0.11	001.99	0
001	Ammoniacal N (%)	0537	8.675	0.0700	8.619	0.2925	0.1179	37	0.19	001.99	0
001	Ammoniacal N (%)	0394	8.687	0.0010	8.619	0.2925	0.1179	37	0.23	001.99	0
001	Ammoniacal N (%)	0510	8.708	0.0512	8.619	0.2925	0.1179	37	0.30	001.99	0
001	Ammoniacal N (%)	0569	8.745	0.0300	8.619	0.2925	0.1179	37	0.43	001.99	0
001	Ammoniacal N (%)	0524	8.760	0.5400	8.619	0.2925	0.1179	37	0.48	001.99	0
001	Ammoniacal N (%)	0452	8.820	0.2800	8.619	0.2925	0.1179	37	0.69	001.10	0
001	Ammoniacal N (%)	0027	8.830	0.0400	8.619	0.2925	0.1179	37	0.72	001.99	0
001	Ammoniacal N (%)	0580	8.835	0.0500	8.619	0.2925	0.1179	37	0.74	001.10	0
001	Ammoniacal N (%)	0513	8.860	0.0200	8.619	0.2925	0.1179	37	0.82	001.99	0
001	Ammoniacal N (%)	0545	8.890	0.0200	8.619	0.2925	0.1179	37	0.93	001.99	0
001	Ammoniacal N (%)	0572	8.924	0.1907	8.619	0.2925	0.1179	37	1.04	001.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
001	Ammoniacal N (%)	0559	8.945	0.0100	8.619	0.2925	0.1179	37	1.11	001.99	0
001	Ammoniacal N (%)	0609	8.985	0.0100	8.619	0.2925	0.1179	37	1.25	001.10	0
001	Ammoniacal N (%)	0405	9.020	0.0000	8.619	0.2925	0.1179	37	1.37	001.99	0
001	Ammoniacal N (%)	0255	9.150	0.4000	8.619	0.2925	0.1179	37	1.82	001.99	0
001	Ammoniacal N (%)	0498	9.250	0.3000	8.619	0.2925	0.1179	37	2.16	001.10	0
002	Nitrate N (%)	0368	5.476	0.0830	6.410	0.2141	0.0671	27	-4.36	002.99	0
002	Nitrate N (%)	0553	5.965	0.0100	6.410	0.2141	0.0671	27	-2.08	002.99	0
002	Nitrate N (%)	0498	6.100	0.2000	6.410	0.2141	0.0671	27	-1.45	002.99	0
002	Nitrate N (%)	0562	6.175	0.0500	6.410	0.2141	0.0671	27	-1.10	002.99	0
002	Nitrate N (%)	0394	6.198	0.0310	6.410	0.2141	0.0671	27	-0.99	002.99	0
002	Nitrate N (%)	0564	6.265	0.0300	6.410	0.2141	0.0671	27	-0.68	002.99	0
002	Nitrate N (%)	0602	6.280	0.0400	6.410	0.2141	0.0671	27	-0.61	002.99	0
002	Nitrate N (%)	0565	6.285	0.0300	6.410	0.2141	0.0671	27	-0.58	002.99	0
002	Nitrate N (%)	0545	6.300	0.0400	6.410	0.2141	0.0671	27	-0.51	002.99	0
002	Nitrate N (%)	0027	6.365	0.0500	6.410	0.2141	0.0671	27	-0.21	002.99	0
002	Nitrate N (%)	0513	6.370	0.0200	6.410	0.2141	0.0671	27	-0.19	002.99	0
002	Nitrate N (%)	0609	6.390	0.1800	6.410	0.2141	0.0671	27	-0.09	002.99	0
002	Nitrate N (%)	0231	6.400	0.0000	6.410	0.2141	0.0671	27	-0.05	002.99	0
002	Nitrate N (%)	0605	6.405	0.1900	6.410	0.2141	0.0671	27	-0.02	002.99	0
002	Nitrate N (%)	0532	6.455	0.0300	6.410	0.2141	0.0671	27	0.21	002.99	0
002	Nitrate N (%)	0600	6.475	0.1500	6.410	0.2141	0.0671	27	0.31	002.99	0
002	Nitrate N (%)	0540	6.480	0.0600	6.410	0.2141	0.0671	27	0.33	002.99	0
002	Nitrate N (%)	0559	6.485	0.0100	6.410	0.2141	0.0671	27	0.35	002.99	0
002	Nitrate N (%)	0560	6.490	0.0600	6.410	0.2141	0.0671	27	0.38	002.99	0
002	Nitrate N (%)	0538	6.495	0.0100	6.410	0.2141	0.0671	27	0.40	002.99	0
002	Nitrate N (%)	0531	6.505	0.0300	6.410	0.2141	0.0671	27	0.45	002.99	0
002	Nitrate N (%)	0452	6.545	0.1100	6.410	0.2141	0.0671	27	0.63	002.99	0
002	Nitrate N (%)	0558	6.575	0.0073	6.410	0.2141	0.0671	27	0.77	002.99	0
002	Nitrate N (%)	0580	6.655	0.2100	6.410	0.2141	0.0671	27	1.15	002.99	0
002	Nitrate N (%)	0549	6.755	0.1100	6.410	0.2141	0.0671	27	1.61	002.99	0
002	Nitrate N (%)	0569	6.815	0.0100	6.410	0.2141	0.0671	27	1.89	002.99	0
002	Nitrate N (%)	0537	6.830	0.0600	6.410	0.2141	0.0671	27	1.96	002.99	0
005	Urea N (%)	0524	0.6100	0.1000				1		005.99	0
009	Ammoniacal Plus Nitrate N (%)	0587	14.75	0.3000	15.15	0.4249	0.2000	3	-0.93	009.10	0
009	Ammoniacal Plus Nitrate N (%)	0444	15.10	0.2100	15.15	0.4249	0.2000	3	-0.12	009.10	0
009	Ammoniacal Plus Nitrate N (%)	0537	15.60	0.0900	15.15	0.4249	0.2000	3	1.06	009.10	0
010	Total N (15%)	0521	14.24†	0.0000	15.02	0.2597	0.1127	89	-3.02	010.60	0
010	Total N (15%)	0117	14.41	0.0180	15.02	0.2597	0.1127	89	-2.37	010.12	0
010	Total N (15%)	0230	14.50	0.0000	15.02	0.2597	0.1127	89	-2.01	010.60	0
010	Total N (15%)	0572	14.53	0.5799	15.02	0.2597	0.1127	89	-1.88	010.12	0
010	Total N (15%)	0476	14.58	0.2261	15.02	0.2597	0.1127	89	-1.69	010.99	0
010	Total N (15%)	0548	14.60	0.2000	15.02	0.2597	0.1127	89	-1.63	010.11	0
010	Total N (15%)	0024	14.65	0.5000	15.02	0.2597	0.1127	89	-1.44	010.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
010	Total N (15%)	0324	14.65	0.5000	15.02	0.2597	0.1127	89	-1.44	010.60	0
010	Total N (15%)	0422	14.66	0.0300	15.02	0.2597	0.1127	89	-1.42	010.60	0
010	Total N (15%)	0102	14.68	0.0900	15.02	0.2597	0.1127	89	-1.34	010.60	0
010	Total N (15%)	0602	14.68	0.1200	15.02	0.2597	0.1127	89	-1.32	010.12	0
010	Total N (15%)	0472	14.68	0.0200	15.02	0.2597	0.1127	89	-1.32	010.60	0
010	Total N (15%)	0602	14.68	0.1200	15.02	0.2597	0.1127	89	-1.32	010.99	0
010	Total N (15%)	0360	14.73	0.2000	15.02	0.2597	0.1127	89	-1.13	010.60	0
010	Total N (15%)	0234	14.74	0.3200	15.02	0.2597	0.1127	89	-1.09	010.60	0
010	Total N (15%)	0255	14.74	0.0050	15.02	0.2597	0.1127	89	-1.08	010.60	0
010	Total N (15%)	0533	14.76	0.0700	15.02	0.2597	0.1127	89	-1.03	010.11	0
010	Total N (15%)	0072	14.77	0.0600	15.02	0.2597	0.1127	89	-0.97	010.60	0
010	Total N (15%)	0524	14.79	0.1213	15.02	0.2597	0.1127	89	-0.88	010.99	0
010	Total N (15%)	0095	14.81	0.0000	15.02	0.2597	0.1127	89	-0.82	010.60	0
010	Total N (15%)	0481	14.82	0.0800	15.02	0.2597	0.1127	89	-0.78	010.12	0
010	Total N (15%)	0510	14.86	0.0113	15.02	0.2597	0.1127	89	-0.63	010.11	0
010	Total N (15%)	0025	14.88	0.3100	15.02	0.2597	0.1127	89	-0.57	010.60	0
010	Total N (15%)	0073	14.88	0.0600	15.02	0.2597	0.1127	89	-0.55	010.60	0
010	Total N (15%)	0394	14.88	0.0320	15.02	0.2597	0.1127	89	-0.54	010.99	0
010	Total N (15%)	0444	14.90	0.0000	15.02	0.2597	0.1127	89	-0.47	010.60	0
010	Total N (15%)	0307	14.94	0.1000	15.02	0.2597	0.1127	89	-0.32	010.60	0
010	Total N (15%)	0035	14.95	0.1000	15.02	0.2597	0.1127	89	-0.28	010.60	0
010	Total N (15%)	0451	14.95	0.1800	15.02	0.2597	0.1127	89	-0.28	010.60	0
010	Total N (15%)	0389	14.96	0.0300	15.02	0.2597	0.1127	89	-0.26	010.60	0
010	Total N (15%)	0086	14.96	0.1190	15.02	0.2597	0.1127	89	-0.24	010.60	0
010	Total N (15%)	0292	14.97	0.0100	15.02	0.2597	0.1127	89	-0.22	010.60	0
010	Total N (15%)	0481	14.97	0.0300	15.02	0.2597	0.1127	89	-0.22	010.60	0
010	Total N (15%)	0231	14.97	0.0000	15.02	0.2597	0.1127	89	-0.20	010.60	0
010	Total N (15%)	0580	14.98	0.1000	15.02	0.2597	0.1127	89	-0.17	010.12	0
010	Total N (15%)	0540	14.99	0.0400	15.02	0.2597	0.1127	89	-0.13	010.99	0
010	Total N (15%)	0444	15.00	0.2000	15.02	0.2597	0.1127	89	-0.09	010.10	0
010	Total N (15%)	0136	15.00	0.2000	15.02	0.2597	0.1127	89	-0.09	010.60	0
010	Total N (15%)	0368	15.00	0.0000	15.02	0.2597	0.1127	89	-0.09	010.60	0
010	Total N (15%)	0534	15.00	0.0000	15.02	0.2597	0.1127	89	-0.09	010.60	0
010	Total N (15%)	0538	15.00	0.0200	15.02	0.2597	0.1127	89	-0.09	010.99	0
010	Total N (15%)	0023	15.00	0.0700	15.02	0.2597	0.1127	89	-0.08	010.60	0
010	Total N (15%)	0531	15.01	0.0300	15.02	0.2597	0.1127	89	-0.07	010.11	0
010	Total N (15%)	0568	15.01	0.0000	15.02	0.2597	0.1127	89	-0.05	010.12	0
010	Total N (15%)	0114	15.01	0.4000	15.02	0.2597	0.1127	89	-0.05	010.60	0
010	Total N (15%)	0532	15.03	0.0700	15.02	0.2597	0.1127	89	0.01	010.99	0
010	Total N (15%)	0356	15.03	0.0100	15.02	0.2597	0.1127	89	0.02	010.60	0
010	Total N (15%)	0563	15.05	0.5900	15.02	0.2597	0.1127	89	0.08	010.99	0
010	Total N (15%)	0443	15.06	0.0200	15.02	0.2597	0.1127	89	0.14	010.60	0
010	Total N (15%)	0587	15.08	0.1100	15.02	0.2597	0.1127	89	0.20	010.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
010	Total N (15%)	0494	15.09	0.1000	15.02	0.2597	0.1127	89	0.26	010.60	0
010	Total N (15%)	0556	15.10	0.2000	15.02	0.2597	0.1127	89	0.30	010.99	0
010	Total N (15%)	0055	15.12	0.0700	15.02	0.2597	0.1127	89	0.35	010.60	0
010	Total N (15%)	0029	15.13	0.0500	15.02	0.2597	0.1127	89	0.39	010.60	0
010	Total N (15%)	0561	15.13	0.0300	15.02	0.2597	0.1127	89	0.39	010.60	0
010	Total N (15%)	0508	15.13	0.0500	15.02	0.2597	0.1127	89	0.39	010.99	0
010	Total N (15%)	0177	15.13	0.0600	15.02	0.2597	0.1127	89	0.41	010.60	0
010	Total N (15%)	0558	15.14	0.0035	15.02	0.2597	0.1127	89	0.45	010.99	0
010	Total N (15%)	0560	15.16	0.0500	15.02	0.2597	0.1127	89	0.51	010.99	0
010	Total N (15%)	0049	15.16	0.1000	15.02	0.2597	0.1127	89	0.53	010.60	0
010	Total N (15%)	0106	15.17	0.0300	15.02	0.2597	0.1127	89	0.55	010.60	0
010	Total N (15%)	0452	15.18	0.1700	15.02	0.2597	0.1127	89	0.59	010.60	0
010	Total N (15%)	0600	15.18	0.1500	15.02	0.2597	0.1127	89	0.59	010.99	0
010	Total N (15%)	0043	15.18	0.0200	15.02	0.2597	0.1127	89	0.60	010.60	0
010	Total N (15%)	0545	15.19	0.0200	15.02	0.2597	0.1127	89	0.64	010.99	0
010	Total N (15%)	0034	15.19	0.0600	15.02	0.2597	0.1127	89	0.64	010.60	0
010	Total N (15%)	0405	15.19	0.0600	15.02	0.2597	0.1127	89	0.64	010.60	0
010	Total N (15%)	0377	15.20	0.1900	15.02	0.2597	0.1127	89	0.66	010.60	0
010	Total N (15%)	0007	15.20	0.0000	15.02	0.2597	0.1127	89	0.68	010.60	0
010	Total N (15%)	0042	15.20	0.0000	15.02	0.2597	0.1127	89	0.68	010.60	0
010	Total N (15%)	0157	15.20	0.0000	15.02	0.2597	0.1127	89	0.68	010.60	0
010	Total N (15%)	0233	15.20	0.1200	15.02	0.2597	0.1127	89	0.68	010.60	0
010	Total N (15%)	0354	15.20	0.0000	15.02	0.2597	0.1127	89	0.68	010.60	0
010	Total N (15%)	0291	15.21	0.0100	15.02	0.2597	0.1127	89	0.70	010.60	0
010	Total N (15%)	0131	15.23	0.0210	15.02	0.2597	0.1127	89	0.80	010.60	0
010	Total N (15%)	0485	15.26	0.2300	15.02	0.2597	0.1127	89	0.89	010.60	0
010	Total N (15%)	0513	15.27	0.0600	15.02	0.2597	0.1127	89	0.95	010.99	0
010	Total N (15%)	0169	15.28	0.0100	15.02	0.2597	0.1127	89	0.97	010.60	0
010	Total N (15%)	0040	15.30	0.0000	15.02	0.2597	0.1127	89	1.07	010.60	0
010	Total N (15%)	0527	15.31	0.3030	15.02	0.2597	0.1127	89	1.11	010.60	0
010	Total N (15%)	0421	15.33	0.3100	15.02	0.2597	0.1127	89	1.16	010.60	0
010	Total N (15%)	0498	15.35	0.1000	15.02	0.2597	0.1127	89	1.26	010.12	0
010	Total N (15%)	0559	15.43	0.0100	15.02	0.2597	0.1127	89	1.55	010.99	0
010	Total N (15%)	0260	15.45	0.5000	15.02	0.2597	0.1127	89	1.64	010.60	0
010	Total N (15%)	0609	15.45	0.1000	15.02	0.2597	0.1127	89	1.64	010.60	0
010	Total N (15%)	0562	15.45	0.1000	15.02	0.2597	0.1127	89	1.64	010.99	0
010	Total N (15%)	0564	15.50	0.0600	15.02	0.2597	0.1127	89	1.84	010.99	0
010	Total N (15%)	0565	15.51	0.0300	15.02	0.2597	0.1127	89	1.86	010.99	0
010	Total N (15%)	0027	15.61	0.5500	15.02	0.2597	0.1127	89	2.24	010.60	0
010	Total N (15%)	0325	14.75	0.8900	15.02	0.2597	0.1127	89	-1.07	010.60	1
010	Total N (15%)	0518	14.90	0.9800	15.02	0.2597	0.1127	89	-0.47	010.99	1
020	Total P2O5 (%)	0260	14.26	0.8200	15.52	0.5112	0.2116	45	-2.47	020.50	0
020	Total P2O5 (%)	0564	14.28	0.0500	15.52	0.5112	0.2116	45	-2.44	020.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
020	Total P2O5 (%)	0565	14.30	0.0400	15.52	0.5112	0.2116	45	-2.39	020.99	0
020	Total P2O5 (%)	0609	14.46	0.0700	15.52	0.5112	0.2116	45	-2.09	020.20	0
020	Total P2O5 (%)	0307	14.60	0.2000	15.52	0.5112	0.2116	45	-1.81	020.50	0
020	Total P2O5 (%)	0559	14.61	0.0100	15.52	0.5112	0.2116	45	-1.80	020.99	0
020	Total P2O5 (%)	0481	14.99	0.3200	15.52	0.5112	0.2116	45	-1.04	020.20	0
020	Total P2O5 (%)	0451	15.03	0.3800	15.52	0.5112	0.2116	45	-0.97	020.50	0
020	Total P2O5 (%)	0472	15.04	0.0800	15.52	0.5112	0.2116	45	-0.95	020.50	0
020	Total P2O5 (%)	0534	15.07	0.0200	15.52	0.5112	0.2116	45	-0.89	020.20	0
020	Total P2O5 (%)	0368	15.11	0.0351	15.52	0.5112	0.2116	45	-0.81	020.50	0
020	Total P2O5 (%)	0548	15.20	0.2000	15.52	0.5112	0.2116	45	-0.63	020.20	0
020	Total P2O5 (%)	0563	15.30	0.3400	15.52	0.5112	0.2116	45	-0.44	020.20	0
020	Total P2O5 (%)	0389	15.33	0.1900	15.52	0.5112	0.2116	45	-0.39	020.50	0
020	Total P2O5 (%)	0169	15.36	0.0200	15.52	0.5112	0.2116	45	-0.32	020.20	0
020	Total P2O5 (%)	0234	15.40	0.9100	15.52	0.5112	0.2116	45	-0.25	020.50	0
020	Total P2O5 (%)	0556	15.40	0.2000	15.52	0.5112	0.2116	45	-0.24	020.99	0
020	Total P2O5 (%)	0587	15.43	0.0100	15.52	0.5112	0.2116	45	-0.19	020.99	0
020	Total P2O5 (%)	0580	15.49	0.1000	15.52	0.5112	0.2116	45	-0.07	020.20	0
020	Total P2O5 (%)	0510	15.52	0.0283	15.52	0.5112	0.2116	45	0.00	020.20	0
020	Total P2O5 (%)	0444	15.56	0.0100	15.52	0.5112	0.2116	45	0.06	020.50	0
020	Total P2O5 (%)	0292	15.57	0.3810	15.52	0.5112	0.2116	45	0.09	020.20	0
020	Total P2O5 (%)	0602	15.59	0.1100	15.52	0.5112	0.2116	45	0.12	020.20	0
020	Total P2O5 (%)	0255	15.59	0.2680	15.52	0.5112	0.2116	45	0.13	020.50	0
020	Total P2O5 (%)	0513	15.68	0.0500	15.52	0.5112	0.2116	45	0.30	020.99	0
020	Total P2O5 (%)	0324	15.70	0.0000	15.52	0.5112	0.2116	45	0.34	020.20	0
020	Total P2O5 (%)	0394	15.71	0.0340	15.52	0.5112	0.2116	45	0.36	020.20	0
020	Total P2O5 (%)	0527	15.72	0.0102	15.52	0.5112	0.2116	45	0.38	020.50	0
020	Total P2O5 (%)	0521	15.72	0.0000	15.52	0.5112	0.2116	45	0.38	020.50	0
020	Total P2O5 (%)	0073	15.74	0.0100	15.52	0.5112	0.2116	45	0.41	020.10	0
020	Total P2O5 (%)	0405	15.75	0.0300	15.52	0.5112	0.2116	45	0.43	020.20	0
020	Total P2O5 (%)	0476	15.77	0.1105	15.52	0.5112	0.2116	45	0.49	020.99	0
020	Total P2O5 (%)	0231	15.79	0.0100	15.52	0.5112	0.2116	45	0.51	020.20	0
020	Total P2O5 (%)	0444	15.80	0.1000	15.52	0.5112	0.2116	45	0.54	020.10	0
020	Total P2O5 (%)	0524	15.81	0.9917	15.52	0.5112	0.2116	45	0.57	020.50	0
020	Total P2O5 (%)	0498	15.85	0.7000	15.52	0.5112	0.2116	45	0.64	020.20	0
020	Total P2O5 (%)	0356	15.95	0.2920	15.52	0.5112	0.2116	45	0.83	020.20	0
020	Total P2O5 (%)	0542	15.95	0.1864	15.52	0.5112	0.2116	45	0.83	020.50	0
020	Total P2O5 (%)	0291	15.97	0.0100	15.52	0.5112	0.2116	45	0.86	020.50	0
020	Total P2O5 (%)	0035	16.05	0.7000	15.52	0.5112	0.2116	45	1.03	020.40	0
020	Total P2O5 (%)	0572	16.09	0.0882	15.52	0.5112	0.2116	45	1.10	020.99	0
020	Total P2O5 (%)	0561	16.18	0.0400	15.52	0.5112	0.2116	45	1.28	020.20	0
020	Total P2O5 (%)	0515	17.06	0.2560	15.52	0.5112	0.2116	45	3.01	020.99	0
020	Total P2O5 (%)	0422	17.34	0.5728	15.52	0.5112	0.2116	45	3.54	020.50	0
020	Total P2O5 (%)	0443	18.53	0.5400	15.52	0.5112	0.2116	45	5.88	020.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
030	Citrate Insoluble P2O5 (%)	0405	0.0500	0.0000				1		030.20	0
040	Indirect Available P2O5 (15%)	0558	15.09±	0.0550				2		040.20	0
040	Indirect Available P2O5 (15%)	0405	15.70±	0.0300				2		040.99	0
041	Direct Available P2O5 (15%)	0055	13.12±	0.0100	15.39	0.5736	0.1595	53	-3.97	041.21	0
041	Direct Available P2O5 (15%)	0177	13.27±	0.0570	15.39	0.5736	0.1595	53	-3.71	041.21	0
041	Direct Available P2O5 (15%)	0095	13.49±	0.4500	15.39	0.5736	0.1595	53	-3.33	041.11	0
041	Direct Available P2O5 (15%)	0472	13.73±	0.1000	15.39	0.5736	0.1595	53	-2.90	041.21	0
041	Direct Available P2O5 (15%)	0568	14.30±	0.0000	15.39	0.5736	0.1595	53	-1.91	041.21	0
041	Direct Available P2O5 (15%)	0562	14.35±	0.1000	15.39	0.5736	0.1595	53	-1.82	041.99	0
041	Direct Available P2O5 (15%)	0609	14.43±	0.0400	15.39	0.5736	0.1595	53	-1.68	041.21	0
041	Direct Available P2O5 (15%)	0600	14.55±	0.2000	15.39	0.5736	0.1595	53	-1.47	041.99	0
041	Direct Available P2O5 (15%)	0538	15.00	0.0300	15.39	0.5736	0.1595	53	-0.70	041.99	0
041	Direct Available P2O5 (15%)	0072	15.01	0.0300	15.39	0.5736	0.1595	53	-0.68	041.51	0
041	Direct Available P2O5 (15%)	0540	15.03	0.1400	15.39	0.5736	0.1595	53	-0.64	041.99	0
041	Direct Available P2O5 (15%)	0531	15.05	0.1100	15.39	0.5736	0.1595	53	-0.61	041.99	0
041	Direct Available P2O5 (15%)	0325	15.05	0.3000	15.39	0.5736	0.1595	53	-0.60	041.50	0
041	Direct Available P2O5 (15%)	0532	15.12	0.0900	15.39	0.5736	0.1595	53	-0.49	041.99	0
041	Direct Available P2O5 (15%)	0560	15.12	0.0900	15.39	0.5736	0.1595	53	-0.49	041.99	0
041	Direct Available P2O5 (15%)	0549	15.12	0.0200	15.39	0.5736	0.1595	53	-0.48	041.99	0
041	Direct Available P2O5 (15%)	0377	15.15	0.0600	15.39	0.5736	0.1595	53	-0.43	041.51	0
041	Direct Available P2O5 (15%)	0569	15.24	0.0300	15.39	0.5736	0.1595	53	-0.28	041.99	0
041	Direct Available P2O5 (15%)	0136	15.25	0.1000	15.39	0.5736	0.1595	53	-0.25	041.51	0
041	Direct Available P2O5 (15%)	0537	15.25	0.0800	15.39	0.5736	0.1595	53	-0.25	041.99	0
041	Direct Available P2O5 (15%)	0545	15.25	0.2600	15.39	0.5736	0.1595	53	-0.25	041.99	0
041	Direct Available P2O5 (15%)	0360	15.28	0.1600	15.39	0.5736	0.1595	53	-0.20	041.51	0
041	Direct Available P2O5 (15%)	0177	15.28	0.1916	15.39	0.5736	0.1595	53	-0.19	041.10	0
041	Direct Available P2O5 (15%)	0518	15.31	0.3400	15.39	0.5736	0.1595	53	-0.15	041.99	0
041	Direct Available P2O5 (15%)	0025	15.35	0.1000	15.39	0.5736	0.1595	53	-0.08	041.51	0
041	Direct Available P2O5 (15%)	0049	15.36	0.3700	15.39	0.5736	0.1595	53	-0.07	041.11	0
041	Direct Available P2O5 (15%)	0605	15.40	0.4400	15.39	0.5736	0.1595	53	0.01	041.50	0
041	Direct Available P2O5 (15%)	0131	15.46	0.1240	15.39	0.5736	0.1595	53	0.12	041.50	0
041	Direct Available P2O5 (15%)	0106	15.47	0.4500	15.39	0.5736	0.1595	53	0.12	041.21	0
041	Direct Available P2O5 (15%)	0533	15.49	0.1500	15.39	0.5736	0.1595	53	0.16	041.99	0
041	Direct Available P2O5 (15%)	0354	15.50	0.0000	15.39	0.5736	0.1595	53	0.18	041.21	0
041	Direct Available P2O5 (15%)	0405	15.53	0.0000	15.39	0.5736	0.1595	53	0.24	041.11	0
041	Direct Available P2O5 (15%)	0513	15.58	0.0200	15.39	0.5736	0.1595	53	0.32	041.11	0
041	Direct Available P2O5 (15%)	0394	15.58	0.0100	15.39	0.5736	0.1595	53	0.33	041.21	0
041	Direct Available P2O5 (15%)	0452	15.59	0.0200	15.39	0.5736	0.1595	53	0.34	041.20	0
041	Direct Available P2O5 (15%)	0494	15.63	0.5200	15.39	0.5736	0.1595	53	0.41	041.10	0
041	Direct Available P2O5 (15%)	0230	15.70	0.6000	15.39	0.5736	0.1595	53	0.53	041.21	0
041	Direct Available P2O5 (15%)	0072	15.72	0.0410	15.39	0.5736	0.1595	53	0.56	041.11	0
041	Direct Available P2O5 (15%)	0553	15.75	0.1000	15.39	0.5736	0.1595	53	0.62	041.20	0
041	Direct Available P2O5 (15%)	0023	15.75	0.1000	15.39	0.5736	0.1595	53	0.62	041.51	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
041	Direct Available P2O5 (15%)	0102	15.78	0.0700	15.39	0.5736	0.1595	53	0.66	041.10	0
041	Direct Available P2O5 (15%)	0421	15.80	0.2000	15.39	0.5736	0.1595	53	0.71	041.50	0
041	Direct Available P2O5 (15%)	0055	15.82	0.0600	15.39	0.5736	0.1595	53	0.74	041.11	0
041	Direct Available P2O5 (15%)	0043	15.84	0.2100	15.39	0.5736	0.1595	53	0.77	041.51	0
041	Direct Available P2O5 (15%)	0485	15.85	0.1000	15.39	0.5736	0.1595	53	0.79	041.11	0
041	Direct Available P2O5 (15%)	0508	15.86	0.0000	15.39	0.5736	0.1595	53	0.81	041.50	0
041	Direct Available P2O5 (15%)	0029	15.99	0.0600	15.39	0.5736	0.1595	53	1.04	041.40	0
041	Direct Available P2O5 (15%)	0231	16.15‡	0.0600	15.39	0.5736	0.1595	53	1.32	041.21	0
041	Direct Available P2O5 (15%)	0494	16.21‡	0.4600	15.39	0.5736	0.1595	53	1.42	041.51	0
041	Direct Available P2O5 (15%)	0040	16.25‡	0.5000	15.39	0.5736	0.1595	53	1.49	041.51	0
041	Direct Available P2O5 (15%)	0027	16.31‡	0.0000	15.39	0.5736	0.1595	53	1.60	041.20	0
041	Direct Available P2O5 (15%)	0007	16.75‡	0.3000	15.39	0.5736	0.1595	53	2.36	041.50	0
041	Direct Available P2O5 (15%)	0572	16.97‡	0.4009	15.39	0.5736	0.1595	53	2.75	041.99	0
042	Water Soluble OrthoP As P2O5 (%)	0609	11.54	0.0200				1		042.10	0
048	Water Soluble P2O5 (%)	0513	10.70	0.0900	11.64	0.8454	0.2663	5	-1.11	048.99	0
048	Water Soluble P2O5 (%)	0472	10.86	0.2200	11.64	0.8454	0.2663	5	-0.92	048.20	0
048	Water Soluble P2O5 (%)	0444	11.84	0.0600	11.64	0.8454	0.2663	5	0.24	048.30	0
048	Water Soluble P2O5 (%)	0444	12.08	0.2400	11.64	0.8454	0.2663	5	0.53	048.50	0
048	Water Soluble P2O5 (%)	0572	12.70	0.7217	11.64	0.8454	0.2663	5	1.26	048.99	0
050	Soluble K2O (15%)	0515	11.85‡	0.3396	15.16	0.4477	0.2034	89	-7.40	050.99	0
050	Soluble K2O (15%)	0307	14.45	1.100	15.16	0.4477	0.2034	89	-1.60	050.99	0
050	Soluble K2O (15%)	0476	14.48	0.1143	15.16	0.4477	0.2034	89	-1.53	050.99	0
050	Soluble K2O (15%)	0472	14.49	0.2300	15.16	0.4477	0.2034	89	-1.52	050.32	0
050	Soluble K2O (15%)	0325	14.50	0.0000	15.16	0.4477	0.2034	89	-1.48	050.99	0
050	Soluble K2O (15%)	0559	14.58	0.0100	15.16	0.4477	0.2034	89	-1.32	050.99	0
050	Soluble K2O (15%)	0049	14.66	0.8500	15.16	0.4477	0.2034	89	-1.14	050.00	0
050	Soluble K2O (15%)	0605	14.67	0.3500	15.16	0.4477	0.2034	89	-1.12	050.99	0
050	Soluble K2O (15%)	0562	14.68	0.0500	15.16	0.4477	0.2034	89	-1.09	050.99	0
050	Soluble K2O (15%)	0564	14.69	0.0200	15.16	0.4477	0.2034	89	-1.06	050.99	0
050	Soluble K2O (15%)	0443	14.72	0.3000	15.16	0.4477	0.2034	89	-0.99	050.60	0
050	Soluble K2O (15%)	0521	14.74	0.0000	15.16	0.4477	0.2034	89	-0.95	050.99	0
050	Soluble K2O (15%)	0025	14.75	0.1000	15.16	0.4477	0.2034	89	-0.93	050.52	0
050	Soluble K2O (15%)	0421	14.75	0.3000	15.16	0.4477	0.2034	89	-0.93	050.99	0
050	Soluble K2O (15%)	0055	14.76	0.0400	15.16	0.4477	0.2034	89	-0.90	050.50	0
050	Soluble K2O (15%)	0102	14.80	0.6100	15.16	0.4477	0.2034	89	-0.83	050.00	0
050	Soluble K2O (15%)	0072	14.80	0.2300	15.16	0.4477	0.2034	89	-0.83	050.52	0
050	Soluble K2O (15%)	0377	14.80	0.7100	15.16	0.4477	0.2034	89	-0.83	050.52	0
050	Soluble K2O (15%)	0485	14.80	0.0000	15.16	0.4477	0.2034	89	-0.81	050.52	0
050	Soluble K2O (15%)	0553	14.80	0.0000	15.16	0.4477	0.2034	89	-0.81	050.99	0
050	Soluble K2O (15%)	0510	14.82	0.0024	15.16	0.4477	0.2034	89	-0.77	050.60	0
050	Soluble K2O (15%)	0518	14.82	0.7600	15.16	0.4477	0.2034	89	-0.77	050.99	0
050	Soluble K2O (15%)	0600	14.83	0.1500	15.16	0.4477	0.2034	89	-0.76	050.99	0
050	Soluble K2O (15%)	0451	14.83	0.1600	15.16	0.4477	0.2034	89	-0.75	050.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
050	Soluble K2O (15%)	0072	14.88	0.1760	15.16	0.4477	0.2034	89	-0.63	050.00	0
050	Soluble K2O (15%)	0360	14.89	0.0400	15.16	0.4477	0.2034	89	-0.61	050.52	0
050	Soluble K2O (15%)	0609	14.89	0.1200	15.16	0.4477	0.2034	89	-0.61	050.60	0
050	Soluble K2O (15%)	0040	14.90	0.0000	15.16	0.4477	0.2034	89	-0.59	050.30	0
050	Soluble K2O (15%)	0602	14.90	0.2000	15.16	0.4477	0.2034	89	-0.59	050.99	0
050	Soluble K2O (15%)	0177	14.95	0.0824	15.16	0.4477	0.2034	89	-0.48	050.99	0
050	Soluble K2O (15%)	0354	14.95	0.1000	15.16	0.4477	0.2034	89	-0.48	050.52	0
050	Soluble K2O (15%)	0545	14.98	0.0400	15.16	0.4477	0.2034	89	-0.41	050.99	0
050	Soluble K2O (15%)	0538	15.00	0.0300	15.16	0.4477	0.2034	89	-0.38	050.99	0
050	Soluble K2O (15%)	0540	15.01	0.1700	15.16	0.4477	0.2034	89	-0.36	050.99	0
050	Soluble K2O (15%)	0444	15.02	0.0200	15.16	0.4477	0.2034	89	-0.32	050.50	0
050	Soluble K2O (15%)	0043	15.04	0.2100	15.16	0.4477	0.2034	89	-0.29	050.52	0
050	Soluble K2O (15%)	0531	15.04	0.1200	15.16	0.4477	0.2034	89	-0.28	050.99	0
050	Soluble K2O (15%)	0556	15.05	0.0200	15.16	0.4477	0.2034	89	-0.26	050.99	0
050	Soluble K2O (15%)	0532	15.07	0.1300	15.16	0.4477	0.2034	89	-0.22	050.99	0
050	Soluble K2O (15%)	0291	15.08	0.1000	15.16	0.4477	0.2034	89	-0.19	050.51	0
050	Soluble K2O (15%)	0549	15.08	0.0200	15.16	0.4477	0.2034	89	-0.19	050.99	0
050	Soluble K2O (15%)	0569	15.09	0.0100	15.16	0.4477	0.2034	89	-0.18	050.99	0
050	Soluble K2O (15%)	0356	15.09	0.0230	15.16	0.4477	0.2034	89	-0.17	050.30	0
050	Soluble K2O (15%)	0560	15.12	0.0500	15.16	0.4477	0.2034	89	-0.11	050.99	0
050	Soluble K2O (15%)	0587	15.12	0.0900	15.16	0.4477	0.2034	89	-0.11	050.99	0
050	Soluble K2O (15%)	0368	15.12	0.0705	15.16	0.4477	0.2034	89	-0.10	050.51	0
050	Soluble K2O (15%)	0106	15.13	0.3500	15.16	0.4477	0.2034	89	-0.09	050.50	0
050	Soluble K2O (15%)	0563	15.14	0.4900	15.16	0.4477	0.2034	89	-0.07	050.99	0
050	Soluble K2O (15%)	0537	15.16	0.0700	15.16	0.4477	0.2034	89	-0.02	050.99	0
050	Soluble K2O (15%)	0444	15.18	0.0000	15.16	0.4477	0.2034	89	0.03	050.00	0
050	Soluble K2O (15%)	0558	15.20	0.0238	15.16	0.4477	0.2034	89	0.08	050.30	0
050	Soluble K2O (15%)	0073	15.21	0.2400	15.16	0.4477	0.2034	89	0.10	050.30	0
050	Soluble K2O (15%)	0055	15.23	0.1300	15.16	0.4477	0.2034	89	0.14	050.00	0
050	Soluble K2O (15%)	0230	15.25	0.1000	15.16	0.4477	0.2034	89	0.19	050.50	0
050	Soluble K2O (15%)	0231	15.28	0.0000	15.16	0.4477	0.2034	89	0.26	050.00	0
050	Soluble K2O (15%)	0561	15.29	0.0200	15.16	0.4477	0.2034	89	0.28	050.00	0
050	Soluble K2O (15%)	0292	15.30	0.0500	15.16	0.4477	0.2034	89	0.29	050.50	0
050	Soluble K2O (15%)	0494	15.30	0.3600	15.16	0.4477	0.2034	89	0.30	050.00	0
050	Soluble K2O (15%)	0533	15.30	0.0800	15.16	0.4477	0.2034	89	0.30	050.99	0
050	Soluble K2O (15%)	0508	15.31	0.1100	15.16	0.4477	0.2034	89	0.31	050.99	0
050	Soluble K2O (15%)	0394	15.31	0.1890	15.16	0.4477	0.2034	89	0.33	050.99	0
050	Soluble K2O (15%)	0260	15.38	0.1350	15.16	0.4477	0.2034	89	0.49	050.99	0
050	Soluble K2O (15%)	0169	15.39	0.0100	15.16	0.4477	0.2034	89	0.49	050.60	0
050	Soluble K2O (15%)	0481	15.39	0.3300	15.16	0.4477	0.2034	89	0.49	050.99	0
050	Soluble K2O (15%)	0389	15.40	0.1300	15.16	0.4477	0.2034	89	0.51	050.99	0
050	Soluble K2O (15%)	0568	15.40	0.0000	15.16	0.4477	0.2034	89	0.53	050.51	0
050	Soluble K2O (15%)	0234	15.48	0.7500	15.16	0.4477	0.2034	89	0.69	050.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
050	Soluble K2O (15%)	0023	15.50	0.0000	15.16	0.4477	0.2034	89	0.75	050.52	0
050	Soluble K2O (15%)	0035	15.50	0.2000	15.16	0.4477	0.2034	89	0.75	050.61	0
050	Soluble K2O (15%)	0452	15.53	0.0600	15.16	0.4477	0.2034	89	0.82	050.51	0
050	Soluble K2O (15%)	0136	15.55	0.5000	15.16	0.4477	0.2034	89	0.86	050.52	0
050	Soluble K2O (15%)	0527	15.59	0.0697	15.16	0.4477	0.2034	89	0.94	050.99	0
050	Soluble K2O (15%)	0307	15.60	0.8000	15.16	0.4477	0.2034	89	0.97	050.30	0
050	Soluble K2O (15%)	0572	15.60	0.5584	15.16	0.4477	0.2034	89	0.98	050.99	0
050	Soluble K2O (15%)	0498	15.65	0.3000	15.16	0.4477	0.2034	89	1.08	050.99	0
050	Soluble K2O (15%)	0524	15.67	0.4869	15.16	0.4477	0.2034	89	1.13	050.99	0
050	Soluble K2O (15%)	0513	15.68	0.1500	15.16	0.4477	0.2034	89	1.14	050.62	0
050	Soluble K2O (15%)	0324	15.75	1.100	15.16	0.4477	0.2034	89	1.31	050.50	0
050	Soluble K2O (15%)	0405	15.76	0.0200	15.16	0.4477	0.2034	89	1.33	050.00	0
050	Soluble K2O (15%)	0580	15.80	0.1500	15.16	0.4477	0.2034	89	1.41	050.60	0
050	Soluble K2O (15%)	0095	15.85	0.1800	15.16	0.4477	0.2034	89	1.53	050.62	0
050	Soluble K2O (15%)	0029	15.92	0.1600	15.16	0.4477	0.2034	89	1.69	050.62	0
050	Soluble K2O (15%)	0494	15.94	0.0400	15.16	0.4477	0.2034	89	1.73	050.52	0
050	Soluble K2O (15%)	0007	16.05	0.7000	15.16	0.4477	0.2034	89	1.98	050.51	0
050	Soluble K2O (15%)	0548	16.25‡	0.1000	15.16	0.4477	0.2034	89	2.42	050.99	0
050	Soluble K2O (15%)	0114	16.27‡	0.2700	15.16	0.4477	0.2034	89	2.46	050.00	0
050	Soluble K2O (15%)	0027	16.28‡	0.1600	15.16	0.4477	0.2034	89	2.49	050.99	0
050	Soluble K2O (15%)	0422	16.50‡	0.2650	15.16	0.4477	0.2034	89	2.99	050.50	0
050	Soluble K2O (15%)	0542	17.25‡	0.0160	15.16	0.4477	0.2034	89	4.66	050.99	0
050	Soluble K2O (15%)	0255	16.83‡	1.686	15.16	0.4477	0.2034	89	3.72	050.99	1
050	Soluble K2O (15%)	0131	8.545‡	0.0060	15.16	0.4477	0.2034	89	-14.79	050.51	2
060	Water (Free) (%)	0513	0.7750	0.0100				2		060.00	0
060	Water (Free) (%)	0510	1.329	0.0079				2		060.99	0
101	Acid Soluble Ca (%)	0389	3.635	0.0100	3.960	0.4015	0.0392	13	-0.81	101.99	0
101	Acid Soluble Ca (%)	0553	3.670	0.0600	3.960	0.4015	0.0392	13	-0.72	101.00	0
101	Acid Soluble Ca (%)	0568	3.700	0.0000	3.960	0.4015	0.0392	13	-0.65	101.30	0
101	Acid Soluble Ca (%)	0494	3.765	0.1124	3.960	0.4015	0.0392	13	-0.49	101.33	0
101	Acid Soluble Ca (%)	0354	3.775	0.0300	3.960	0.4015	0.0392	13	-0.46	101.30	0
101	Acid Soluble Ca (%)	0472	3.775	0.0100	3.960	0.4015	0.0392	13	-0.46	101.33	0
101	Acid Soluble Ca (%)	0444	3.785	0.0300	3.960	0.4015	0.0392	13	-0.44	101.30	0
101	Acid Soluble Ca (%)	0609	3.835	0.0100	3.960	0.4015	0.0392	13	-0.31	101.33	0
101	Acid Soluble Ca (%)	0035	3.890	0.0400	3.960	0.4015	0.0392	13	-0.18	101.30	0
101	Acid Soluble Ca (%)	0542	3.967	0.0410	3.960	0.4015	0.0392	13	0.02	101.33	0
101	Acid Soluble Ca (%)	0527	4.984	0.0268	3.960	0.4015	0.0392	13	2.55	101.33	0
101	Acid Soluble Ca (%)	0572	5.315	0.0500	3.960	0.4015	0.0392	13	3.37	101.99	0
101	Acid Soluble Ca (%)	0231	5.725	0.0900	3.960	0.4015	0.0392	13	4.39	101.30	0
121	Acid Soluble Mg (%)	0472	0.2200	0.0000	0.2720	0.0256	0.0071	14	-2.03	121.33	0
121	Acid Soluble Mg (%)	0524	0.2355	0.0215	0.2720	0.0256	0.0071	14	-1.43	121.99	0
121	Acid Soluble Mg (%)	0572	0.2466	0.0055	0.2720	0.0256	0.0071	14	-0.99	121.99	0
121	Acid Soluble Mg (%)	0515	0.2511	0.0138	0.2720	0.0256	0.0071	14	-0.82	121.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
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121	Acid Soluble Mg (%)	0568	0.2630	0.0000	0.2720	0.0256	0.0071	14	-0.35	121.30	0
121	Acid Soluble Mg (%)	0553	0.2730	0.0020	0.2720	0.0256	0.0071	14	0.04	121.00	0
121	Acid Soluble Mg (%)	0354	0.2750	0.0100	0.2720	0.0256	0.0071	14	0.12	121.30	0
121	Acid Soluble Mg (%)	0389	0.2755	0.0030	0.2720	0.0256	0.0071	14	0.14	121.99	0
121	Acid Soluble Mg (%)	0494	0.2882	0.0184	0.2720	0.0256	0.0071	14	0.63	121.33	0
121	Acid Soluble Mg (%)	0231	0.2900	0.0000	0.2720	0.0256	0.0071	14	0.70	121.30	0
121	Acid Soluble Mg (%)	0609	0.2900	0.0020	0.2720	0.0256	0.0071	14	0.70	121.33	0
121	Acid Soluble Mg (%)	0542	0.2900	0.0048	0.2720	0.0256	0.0071	14	0.70	121.33	0
121	Acid Soluble Mg (%)	0035	0.2980	0.0140	0.2720	0.0256	0.0071	14	1.01	121.30	0
121	Acid Soluble Mg (%)	0527	0.2990	0.0049	0.2720	0.0256	0.0071	14	1.05	121.33	0
131	Water Soluble Mg (%)	0572	0.0684	0.0062				1		131.99	0
143	Elemental S (%)	0405	0.1200	0.0000	5.166	1.328	0.0799	6	-3.38	143.00	0
143	Elemental S (%)	0389	4.450	0.1000	5.166	1.328	0.0799	6	-0.48	143.99	0
143	Elemental S (%)	0255	5.282	0.1130	5.166	1.328	0.0799	6	0.08	143.99	0
143	Elemental S (%)	0368	5.858	0.1465	5.166	1.328	0.0799	6	0.46	143.99	0
143	Elemental S (%)	0291	5.915	0.0100	5.166	1.328	0.0799	6	0.50	143.99	0
143	Elemental S (%)	0325	6.315	0.1100	5.166	1.328	0.0799	6	0.77	143.99	0
145	Sulfate S, HCl soluble (%)	0540	4.995	0.0700	5.443	0.3674	0.0617	12	-1.22	145.99	0
145	Sulfate S, HCl soluble (%)	0444	5.040	0.1200	5.443	0.3674	0.0617	12	-1.10	145.99	0
145	Sulfate S, HCl soluble (%)	0559	5.120	0.0200	5.443	0.3674	0.0617	12	-0.88	145.99	0
145	Sulfate S, HCl soluble (%)	0564	5.185	0.0100	5.443	0.3674	0.0617	12	-0.70	145.00	0
145	Sulfate S, HCl soluble (%)	0565	5.190	0.0200	5.443	0.3674	0.0617	12	-0.69	145.00	0
145	Sulfate S, HCl soluble (%)	0405	5.435	0.0100	5.443	0.3674	0.0617	12	-0.02	145.00	0
145	Sulfate S, HCl soluble (%)	0553	5.615	0.0500	5.443	0.3674	0.0617	12	0.47	145.99	0
145	Sulfate S, HCl soluble (%)	0106	5.640	0.0600	5.443	0.3674	0.0617	12	0.54	145.00	0
145	Sulfate S, HCl soluble (%)	0532	5.655	0.1300	5.443	0.3674	0.0617	12	0.58	145.00	0
145	Sulfate S, HCl soluble (%)	0027	5.725	0.0900	5.443	0.3674	0.0617	12	0.77	145.00	0
145	Sulfate S, HCl soluble (%)	0561	5.745	0.0100	5.443	0.3674	0.0617	12	0.82	145.00	0
145	Sulfate S, HCl soluble (%)	0537	5.965	0.1500	5.443	0.3674	0.0617	12	1.42	145.00	0
146	Total S in Liquid (5%)	0580	5.795±	0.0900				1		146.00	0
148	Total S (5%)	0568	3.350±	0.0000	5.442	0.2703	0.1116	48	-7.74	148.07	0
148	Total S (5%)	0260	4.939±	0.2420	5.442	0.2703	0.1116	48	-1.86	148.07	0
148	Total S (5%)	0538	4.985	0.0100	5.442	0.2703	0.1116	48	-1.69	148.01	0
148	Total S (5%)	0560	5.020	0.0800	5.442	0.2703	0.1116	48	-1.56	148.99	0
148	Total S (5%)	0558	5.040	0.0109	5.442	0.2703	0.1116	48	-1.49	148.99	0
148	Total S (5%)	0531	5.060	0.0800	5.442	0.2703	0.1116	48	-1.41	148.99	0
148	Total S (5%)	0562	5.165	0.0300	5.442	0.2703	0.1116	48	-1.02	148.99	0
148	Total S (5%)	0565	5.195	0.0300	5.442	0.2703	0.1116	48	-0.91	148.01	0
148	Total S (5%)	0564	5.200	0.0000	5.442	0.2703	0.1116	48	-0.89	148.01	0
148	Total S (5%)	0600	5.200	0.1000	5.442	0.2703	0.1116	48	-0.89	148.99	0
148	Total S (5%)	0177	5.211	0.0257	5.442	0.2703	0.1116	48	-0.85	148.07	0
148	Total S (5%)	0444	5.235	0.0500	5.442	0.2703	0.1116	48	-0.76	148.07	0
148	Total S (5%)	0609	5.250	0.1000	5.442	0.2703	0.1116	48	-0.71	148.00	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
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148	Total S (5%)	0073	5.295	0.3300	5.442	0.2703	0.1116	48	-0.54	148.00	0
148	Total S (5%)	0542	5.318	0.0120	5.442	0.2703	0.1116	48	-0.46	148.07	0
148	Total S (5%)	0136	5.320	0.2400	5.442	0.2703	0.1116	48	-0.45	148.00	0
148	Total S (5%)	0421	5.325	0.0500	5.442	0.2703	0.1116	48	-0.43	148.07	0
148	Total S (5%)	0157	5.345	0.0700	5.442	0.2703	0.1116	48	-0.36	148.00	0
148	Total S (5%)	0572	5.375	0.3456	5.442	0.2703	0.1116	48	-0.25	148.99	0
148	Total S (5%)	0472	5.380	0.0000	5.442	0.2703	0.1116	48	-0.23	148.07	0
148	Total S (5%)	0043	5.425	0.0900	5.442	0.2703	0.1116	48	-0.06	148.07	0
148	Total S (5%)	0040	5.450	0.1000	5.442	0.2703	0.1116	48	0.03	148.07	0
148	Total S (5%)	0494	5.455	0.1700	5.442	0.2703	0.1116	48	0.05	148.07	0
148	Total S (5%)	0023	5.455	0.0300	5.442	0.2703	0.1116	48	0.05	148.99	0
148	Total S (5%)	0095	5.475	0.0900	5.442	0.2703	0.1116	48	0.12	148.01	0
148	Total S (5%)	0521	5.490	0.0000	5.442	0.2703	0.1116	48	0.18	148.07	0
148	Total S (5%)	0049	5.495	0.4300	5.442	0.2703	0.1116	48	0.20	148.00	0
148	Total S (5%)	0292	5.505	0.0700	5.442	0.2703	0.1116	48	0.23	148.07	0
148	Total S (5%)	0354	5.535	0.1300	5.442	0.2703	0.1116	48	0.34	148.99	0
148	Total S (5%)	0131	5.539	0.0090	5.442	0.2703	0.1116	48	0.36	148.00	0
148	Total S (5%)	0377	5.550	0.1000	5.442	0.2703	0.1116	48	0.40	148.99	0
148	Total S (5%)	0405	5.555	0.0100	5.442	0.2703	0.1116	48	0.42	148.99	0
148	Total S (5%)	0481	5.560	0.1600	5.442	0.2703	0.1116	48	0.44	148.99	0
148	Total S (5%)	0394	5.604	0.0900	5.442	0.2703	0.1116	48	0.60	148.07	0
148	Total S (5%)	0230	5.650	0.3000	5.442	0.2703	0.1116	48	0.77	148.01	0
148	Total S (5%)	0476	5.654	0.0837	5.442	0.2703	0.1116	48	0.78	148.01	0
148	Total S (5%)	0452	5.655	0.0900	5.442	0.2703	0.1116	48	0.79	148.99	0
148	Total S (5%)	0029	5.658	0.1380	5.442	0.2703	0.1116	48	0.80	148.00	0
148	Total S (5%)	0534	5.665	0.0300	5.442	0.2703	0.1116	48	0.83	148.01	0
148	Total S (5%)	0114	5.680	0.3200	5.442	0.2703	0.1116	48	0.88	148.00	0
148	Total S (5%)	0451	5.680	0.3000	5.442	0.2703	0.1116	48	0.88	148.00	0
148	Total S (5%)	0513	5.710	0.0200	5.442	0.2703	0.1116	48	0.99	148.01	0
148	Total S (5%)	0485	5.715	0.1500	5.442	0.2703	0.1116	48	1.01	148.01	0
148	Total S (5%)	0605	5.720	0.1000	5.442	0.2703	0.1116	48	1.03	148.99	0
148	Total S (5%)	0055	5.725	0.0900	5.442	0.2703	0.1116	48	1.05	148.01	0
148	Total S (5%)	0527	5.863	0.1304	5.442	0.2703	0.1116	48	1.56	148.07	0
148	Total S (5%)	0563	5.880	0.2200	5.442	0.2703	0.1116	48	1.62	148.07	0
148	Total S (5%)	0324	6.250±	0.1000	5.442	0.2703	0.1116	48	2.99	148.01	0
148	Total S (5%)	0422	9.303±	1.257	5.442	0.2703	0.1116	48	14.28	148.99	2
149	S - HNO3 soluble (%)	0508	5.385	0.0100	5.658	0.2468	0.1142	3	-1.11	149.04	0
149	S - HNO3 soluble (%)	0231	5.725	0.0900	5.658	0.2468	0.1142	3	0.27	149.04	0
149	S - HNO3 soluble (%)	0524	5.865	0.2427	5.658	0.2468	0.1142	3	0.84	149.04	0
151	Acid Soluble As (ppm)	0481	1.715	0.1100	16.13	12.36	0.5498	11	-1.17	151.99	0
151	Acid Soluble As (ppm)	0498	2.000	0.2000	16.13	12.36	0.5498	11	-1.14	151.00	0
151	Acid Soluble As (ppm)	0527	5.249	0.3405	16.13	12.36	0.5498	11	-0.88	151.33	0
151	Acid Soluble As (ppm)	0524	8.283	0.1772	16.13	12.36	0.5498	11	-0.64	151.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
151	Acid Soluble As (ppm)	0572	10.41	0.4410	16.13	12.36	0.5498	11	-0.46	151.99	0
151	Acid Soluble As (ppm)	0568	18.70	0.0000	16.13	12.36	0.5498	11	0.21	151.30	0
151	Acid Soluble As (ppm)	0563	21.92	0.2300	16.13	12.36	0.5498	11	0.47	151.33	0
151	Acid Soluble As (ppm)	0515	22.70	0.1490	16.13	12.36	0.5498	11	0.53	151.34	0
151	Acid Soluble As (ppm)	0027	28.50	1.000	16.13	12.36	0.5498	11	1.00	151.30	0
151	Acid Soluble As (ppm)	0368	28.50	2.400	16.13	12.36	0.5498	11	1.00	151.34	0
151	Acid Soluble As (ppm)	0405	29.50	1.000	16.13	12.36	0.5498	11	1.08	151.32	0
151	Acid Soluble As (ppm)	0605	18.10	3.800	16.13	12.36	0.5498	11	0.16	151.30	1
151	Acid Soluble As (ppm)	0255	0.0000	0.0000	16.13	12.36	0.5498	11		151.30	4
165	Acid Soluble B (%)	0524	0.0035	0.0000	0.0067	0.0034	0.0001	6	-0.85	165.99	0
165	Acid Soluble B (%)	0542	0.0038	0.0001	0.0067	0.0034	0.0001	6	-0.79	165.99	0
165	Acid Soluble B (%)	0527	0.0052	0.0002	0.0067	0.0034	0.0001	6	-0.41	165.99	0
165	Acid Soluble B (%)	0553	0.0080	0.0000	0.0067	0.0034	0.0001	6	0.33	165.00	0
165	Acid Soluble B (%)	0354	0.0100	0.0000	0.0067	0.0034	0.0001	6	0.86	165.30	0
165	Acid Soluble B (%)	0472	0.0100	0.0000	0.0067	0.0034	0.0001	6	0.86	165.99	0
165	Acid Soluble B (%)	0389	0.0075	0.0010	0.0067	0.0034	0.0001	6	0.20	165.30	1
165	Acid Soluble B (%)	0572	< 0.0134		0.0067	0.0034	0.0001	6		165.99	5
171	Water Soluble B (%)	0572	< 0.0106					0		171.99	5
181	Acid Soluble Cd (ppm)	0444	0.7100	0.0600	1.076	0.1852	0.0640	15	-1.98	181.30	0
181	Acid Soluble Cd (ppm)	0485	0.8530	0.1060	1.076	0.1852	0.0640	15	-1.20	181.30	0
181	Acid Soluble Cd (ppm)	0035	0.8700	0.1320	1.076	0.1852	0.0640	15	-1.11	181.30	0
181	Acid Soluble Cd (ppm)	0524	0.8927	0.0181	1.076	0.1852	0.0640	15	-0.99	181.30	0
181	Acid Soluble Cd (ppm)	0405	1.000	0.0000	1.076	0.1852	0.0640	15	-0.41	181.32	0
181	Acid Soluble Cd (ppm)	0394	1.035	0.0100	1.076	0.1852	0.0640	15	-0.22	181.30	0
181	Acid Soluble Cd (ppm)	0389	1.080	0.0000	1.076	0.1852	0.0640	15	0.02	181.30	0
181	Acid Soluble Cd (ppm)	0494	1.115	0.0700	1.076	0.1852	0.0640	15	0.21	181.33	0
181	Acid Soluble Cd (ppm)	0481	1.120	0.0600	1.076	0.1852	0.0640	15	0.24	181.99	0
181	Acid Soluble Cd (ppm)	0572	1.182	0.1470	1.076	0.1852	0.0640	15	0.57	181.99	0
181	Acid Soluble Cd (ppm)	0136	1.195	0.0700	1.076	0.1852	0.0640	15	0.64	181.33	0
181	Acid Soluble Cd (ppm)	0368	1.200	0.2000	1.076	0.1852	0.0640	15	0.67	181.34	0
181	Acid Soluble Cd (ppm)	0563	1.205	0.0100	1.076	0.1852	0.0640	15	0.70	181.33	0
181	Acid Soluble Cd (ppm)	0498	1.255	0.0500	1.076	0.1852	0.0640	15	0.97	181.00	0
181	Acid Soluble Cd (ppm)	0527	1.341	0.0265	1.076	0.1852	0.0640	15	1.43	181.33	0
181	Acid Soluble Cd (ppm)	0255	1.541	0.3400	1.076	0.1852	0.0640	15	2.51	181.30	1
181	Acid Soluble Cd (ppm)	0515	< 0.101		1.076	0.1852	0.0640	15		181.34	5
181	Acid Soluble Cd (ppm)	0605	< 1.85		1.076	0.1852	0.0640	15		181.30	5
190	Water Soluble Cl (%)	0553	0.3600	0.0200				2		190.00	0
190	Water Soluble Cl (%)	0609	0.3805	0.0010				2		190.00	0
191	Acid Soluble Cr (ppm)	0524	26.21	0.6308	32.27	4.741	0.8918	15	-1.28	191.30	0
191	Acid Soluble Cr (ppm)	0568	26.40	0.0000	32.27	4.741	0.8918	15	-1.24	191.30	0
191	Acid Soluble Cr (ppm)	0563	28.83	0.1300	32.27	4.741	0.8918	15	-0.73	191.33	0
191	Acid Soluble Cr (ppm)	0389	29.62	0.0400	32.27	4.741	0.8918	15	-0.56	191.30	0
191	Acid Soluble Cr (ppm)	0394	29.90	0.6000	32.27	4.741	0.8918	15	-0.50	191.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
191	Acid Soluble Cr (ppm)	0035	30.45	0.1000	32.27	4.741	0.8918	15	-0.38	191.30	0
191	Acid Soluble Cr (ppm)	0136	31.10	0.0000	32.27	4.741	0.8918	15	-0.25	191.33	0
191	Acid Soluble Cr (ppm)	0027	31.50	1.000	32.27	4.741	0.8918	15	-0.16	191.30	0
191	Acid Soluble Cr (ppm)	0368	31.65	0.5000	32.27	4.741	0.8918	15	-0.13	191.34	0
191	Acid Soluble Cr (ppm)	0572	32.00	2.733	32.27	4.741	0.8918	15	-0.06	191.99	0
191	Acid Soluble Cr (ppm)	0494	34.30	1.000	32.27	4.741	0.8918	15	0.43	191.33	0
191	Acid Soluble Cr (ppm)	0527	36.49	0.7635	32.27	4.741	0.8918	15	0.89	191.33	0
191	Acid Soluble Cr (ppm)	0405	37.00	2.000	32.27	4.741	0.8918	15	1.00	191.32	0
191	Acid Soluble Cr (ppm)	0515	39.22	1.979	32.27	4.741	0.8918	15	1.47	191.34	0
191	Acid Soluble Cr (ppm)	0605	39.65	1.900	32.27	4.741	0.8918	15	1.56	191.30	0
191	Acid Soluble Cr (ppm)	0481	34.85	5.500	32.27	4.741	0.8918	15	0.54	191.99	1
202	Acid Soluble Co (ppm)	0572	1.437	0.1960	2.248	0.5646	0.2288	13	-1.44	202.99	0
202	Acid Soluble Co (ppm)	0389	1.585	0.0100	2.248	0.5646	0.2288	13	-1.17	202.30	0
202	Acid Soluble Co (ppm)	0035	1.805	1.090	2.248	0.5646	0.2288	13	-0.78	202.30	0
202	Acid Soluble Co (ppm)	0568	2.000	0.0000	2.248	0.5646	0.2288	13	-0.44	202.30	0
202	Acid Soluble Co (ppm)	0527	2.011	0.0251	2.248	0.5646	0.2288	13	-0.42	202.33	0
202	Acid Soluble Co (ppm)	0563	2.055	0.0700	2.248	0.5646	0.2288	13	-0.34	202.33	0
202	Acid Soluble Co (ppm)	0494	2.375	0.3300	2.248	0.5646	0.2288	13	0.23	202.33	0
202	Acid Soluble Co (ppm)	0485	2.380	0.3000	2.248	0.5646	0.2288	13	0.23	202.30	0
202	Acid Soluble Co (ppm)	0605	2.400	0.4000	2.248	0.5646	0.2288	13	0.27	202.30	0
202	Acid Soluble Co (ppm)	0368	2.450	0.1000	2.248	0.5646	0.2288	13	0.36	202.34	0
202	Acid Soluble Co (ppm)	0524	2.630	0.1134	2.248	0.5646	0.2288	13	0.68	202.30	0
202	Acid Soluble Co (ppm)	0405	3.000	0.0000	2.248	0.5646	0.2288	13	1.33	202.32	0
202	Acid Soluble Co (ppm)	0542	3.202	0.3400	2.248	0.5646	0.2288	13	1.69	202.33	0
202	Acid Soluble Co (ppm)	0255	27.69	7.890	2.248	0.5646	0.2288	13	45.05	202.99	2
202	Acid Soluble Co (ppm)	0136	< 2.5		2.248	0.5646	0.2288	13		202.33	5
221	Acid Soluble Cu (%)	0255	0.0010	0.0000	0.0019	0.0004	0.0001	20	-2.15	221.30	0
221	Acid Soluble Cu (%)	0234	0.0012	0.0001	0.0019	0.0004	0.0001	20	-1.79	221.30	0
221	Acid Soluble Cu (%)	0106	0.0015	0.0006	0.0019	0.0004	0.0001	20	-0.94	221.33	0
221	Acid Soluble Cu (%)	0542	0.0016	0.0000	0.0019	0.0004	0.0001	20	-0.69	221.33	0
221	Acid Soluble Cu (%)	0563	0.0016	0.0000	0.0019	0.0004	0.0001	20	-0.69	221.33	0
221	Acid Soluble Cu (%)	0524	0.0016	0.0000	0.0019	0.0004	0.0001	20	-0.69	221.99	0
221	Acid Soluble Cu (%)	0136	0.0017	0.0000	0.0019	0.0004	0.0001	20	-0.45	221.33	0
221	Acid Soluble Cu (%)	0572	0.0017	0.0002	0.0019	0.0004	0.0001	20	-0.45	221.99	0
221	Acid Soluble Cu (%)	0609	0.0018	0.0001	0.0019	0.0004	0.0001	20	-0.33	221.33	0
221	Acid Soluble Cu (%)	0049	0.0020	0.0000	0.0019	0.0004	0.0001	20	0.28	221.30	0
221	Acid Soluble Cu (%)	0043	0.0020	0.0000	0.0019	0.0004	0.0001	20	0.28	221.33	0
221	Acid Soluble Cu (%)	0027	0.0020	0.0000	0.0019	0.0004	0.0001	20	0.28	221.99	0
221	Acid Soluble Cu (%)	0368	0.0020	0.0006	0.0019	0.0004	0.0001	20	0.28	221.99	0
221	Acid Soluble Cu (%)	0389	0.0020	0.0000	0.0019	0.0004	0.0001	20	0.28	221.99	0
221	Acid Soluble Cu (%)	0481	0.0020	0.0000	0.0019	0.0004	0.0001	20	0.28	221.99	0
221	Acid Soluble Cu (%)	0405	0.0022	0.0001	0.0019	0.0004	0.0001	20	0.65	221.32	0
221	Acid Soluble Cu (%)	0527	0.0022	0.0001	0.0019	0.0004	0.0001	20	0.65	221.33	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
221	Acid Soluble Cu (%)	0035	0.0024	0.0006	0.0019	0.0004	0.0001	20	1.26	221.30	0
221	Acid Soluble Cu (%)	0515	0.0027	0.0003	0.0019	0.0004	0.0001	20	1.86	221.99	0
221	Acid Soluble Cu (%)	0394	0.0030	0.0001	0.0019	0.0004	0.0001	20	2.60	221.32	0
221	Acid Soluble Cu (%)	0095	0.0000	0.0000	0.0019	0.0004	0.0001	20		221.32	4
221	Acid Soluble Cu (%)	0553	< 0.005		0.0019	0.0004	0.0001	20		221.00	5
221	Acid Soluble Cu (%)	0354	< 0.01		0.0019	0.0004	0.0001	20		221.30	5
241	Acid Soluble Fe (%)	0572	0.1025	0.0002	0.1139	0.0093	0.0032	11	-1.22	241.99	0
241	Acid Soluble Fe (%)	0524	0.1054	0.0024	0.1139	0.0093	0.0032	11	-0.91	241.99	0
241	Acid Soluble Fe (%)	0035	0.1055	0.0050	0.1139	0.0093	0.0032	11	-0.90	241.30	0
241	Acid Soluble Fe (%)	0389	0.1090	0.0020	0.1139	0.0093	0.0032	11	-0.53	241.99	0
241	Acid Soluble Fe (%)	0472	0.1100	0.0000	0.1139	0.0093	0.0032	11	-0.42	241.33	0
241	Acid Soluble Fe (%)	0515	0.1146	0.0007	0.1139	0.0093	0.0032	11	0.07	241.99	0
241	Acid Soluble Fe (%)	0354	0.1150	0.0100	0.1139	0.0093	0.0032	11	0.12	241.30	0
241	Acid Soluble Fe (%)	0553	0.1180	0.0000	0.1139	0.0093	0.0032	11	0.44	241.00	0
241	Acid Soluble Fe (%)	0527	0.1220	0.0030	0.1139	0.0093	0.0032	11	0.87	241.33	0
241	Acid Soluble Fe (%)	0542	0.1231	0.0041	0.1139	0.0093	0.0032	11	0.98	241.33	0
241	Acid Soluble Fe (%)	0609	0.1310	0.0080	0.1139	0.0093	0.0032	11	1.84	241.33	0
241	Acid Soluble Fe (%)	0563	0.1120	0.0200	0.1139	0.0093	0.0032	11	-0.20	241.33	1
251	Acid Soluble Pb (ppm)	0498	0.5500	0.1000	5.183	1.851	0.4207	14	-2.50	251.00	0
251	Acid Soluble Pb (ppm)	0481	3.180	0.0200	5.183	1.851	0.4207	14	-1.08	251.99	0
251	Acid Soluble Pb (ppm)	0563	3.380	0.0400	5.183	1.851	0.4207	14	-0.97	251.33	0
251	Acid Soluble Pb (ppm)	0515	4.180	1.298	5.183	1.851	0.4207	14	-0.54	251.34	0
251	Acid Soluble Pb (ppm)	0136	4.710	0.0000	5.183	1.851	0.4207	14	-0.26	251.33	0
251	Acid Soluble Pb (ppm)	0389	4.905	0.1700	5.183	1.851	0.4207	14	-0.15	251.30	0
251	Acid Soluble Pb (ppm)	0527	4.916	0.0372	5.183	1.851	0.4207	14	-0.14	251.33	0
251	Acid Soluble Pb (ppm)	0572	4.933	0.1310	5.183	1.851	0.4207	14	-0.14	251.99	0
251	Acid Soluble Pb (ppm)	0394	5.395	0.0300	5.183	1.851	0.4207	14	0.11	251.30	0
251	Acid Soluble Pb (ppm)	0524	5.929	0.0037	5.183	1.851	0.4207	14	0.40	251.30	0
251	Acid Soluble Pb (ppm)	0035	6.170	0.8600	5.183	1.851	0.4207	14	0.53	251.30	0
251	Acid Soluble Pb (ppm)	0605	6.800	1.200	5.183	1.851	0.4207	14	0.87	251.30	0
251	Acid Soluble Pb (ppm)	0568	7.700	0.0000	5.183	1.851	0.4207	14	1.36	251.30	0
251	Acid Soluble Pb (ppm)	0405	9.000	2.000	5.183	1.851	0.4207	14	2.06	251.32	0
251	Acid Soluble Pb (ppm)	0255	12.50	3.920	5.183	1.851	0.4207	14	3.95	251.30	1
251	Acid Soluble Pb (ppm)	0368	< 0.6		5.183	1.851	0.4207	14		251.34	5
261	Acid Soluble Mn (%)	0563	0.0070	0.0000	0.0076	0.0006	0.0001	9	-0.91	261.35	0
261	Acid Soluble Mn (%)	0389	0.0070	0.0000	0.0076	0.0006	0.0001	9	-0.91	261.99	0
261	Acid Soluble Mn (%)	0524	0.0071	0.0000	0.0076	0.0006	0.0001	9	-0.76	261.99	0
261	Acid Soluble Mn (%)	0572	0.0073	0.0002	0.0076	0.0006	0.0001	9	-0.48	261.99	0
261	Acid Soluble Mn (%)	0542	0.0077	0.0000	0.0076	0.0006	0.0001	9	0.10	261.35	0
261	Acid Soluble Mn (%)	0035	0.0079	0.0005	0.0076	0.0006	0.0001	9	0.31	261.30	0
261	Acid Soluble Mn (%)	0553	0.0080	0.0000	0.0076	0.0006	0.0001	9	0.52	261.00	0
261	Acid Soluble Mn (%)	0527	0.0082	0.0001	0.0076	0.0006	0.0001	9	0.74	261.35	0
261	Acid Soluble Mn (%)	0609	0.0089	0.0005	0.0076	0.0006	0.0001	9	1.74	261.35	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
261	Acid Soluble Mn (%)	0354	< 0.01		0.0076	0.0006	0.0001	9		261.30	5
281	Acid Soluble Hg (ppm)	0524	0.0013	0.0001	0.0042	0.0031	0.0014	3	-0.76	281.99	0
281	Acid Soluble Hg (ppm)	0368	0.0038	0.0032	0.0042	0.0031	0.0014	3	-0.10	281.99	0
281	Acid Soluble Hg (ppm)	0035	0.0075	0.0010	0.0042	0.0031	0.0014	3	0.86	281.99	0
281	Acid Soluble Hg (ppm)	0527	< 0.001		0.0042	0.0031	0.0014	3		281.30	5
281	Acid Soluble Hg (ppm)	0572	< 0.011		0.0042	0.0031	0.0014	3		281.99	5
281	Acid Soluble Hg (ppm)	0515	< 0.017		0.0042	0.0031	0.0014	3		281.30	5
281	Acid Soluble Hg (ppm)	0568	< 0.15		0.0042	0.0031	0.0014	3		281.30	5
281	Acid Soluble Hg (ppm)	0117	< 0.2		0.0042	0.0031	0.0014	3		281.00	5
281	Acid Soluble Hg (ppm)	0481	< 0.5		0.0042	0.0031	0.0014	3		281.00	5
281	Acid Soluble Hg (ppm)	0605	< 1.25		0.0042	0.0031	0.0014	3		281.30	5
281	Acid Soluble Hg (ppm)	0405	< 2		0.0042	0.0031	0.0014	3		281.30	5
289	Acid Soluble Mo (ppm)	0234	1.000	0.0000	1.930	0.7064	0.0571	11	-1.32	289.30	0
289	Acid Soluble Mo (ppm)	0485	1.140	0.2600	1.930	0.7064	0.0571	11	-1.12	289.30	0
289	Acid Soluble Mo (ppm)	0524	1.662	0.0185	1.930	0.7064	0.0571	11	-0.38	289.30	0
289	Acid Soluble Mo (ppm)	0527	1.701	0.0263	1.930	0.7064	0.0571	11	-0.32	289.33	0
289	Acid Soluble Mo (ppm)	0494	1.855	0.0700	1.930	0.7064	0.0571	11	-0.11	289.33	0
289	Acid Soluble Mo (ppm)	0568	1.900	0.0000	1.930	0.7064	0.0571	11	-0.04	289.30	0
289	Acid Soluble Mo (ppm)	0563	1.995	0.0900	1.930	0.7064	0.0571	11	0.09	289.33	0
289	Acid Soluble Mo (ppm)	0405	2.000	0.0000	1.930	0.7064	0.0571	11	0.10	289.32	0
289	Acid Soluble Mo (ppm)	0106	2.000	0.0000	1.930	0.7064	0.0571	11	0.10	289.33	0
289	Acid Soluble Mo (ppm)	0542	3.258	0.1330	1.930	0.7064	0.0571	11	1.88	289.33	0
289	Acid Soluble Mo (ppm)	0255	3.445	0.0300	1.930	0.7064	0.0571	11	2.14	289.30	0
289	Acid Soluble Mo (ppm)	0515	2.777	3.424	1.930	0.7064	0.0571	11	1.20	289.34	1
289	Acid Soluble Mo (ppm)	0368	< 0.1		1.930	0.7064	0.0571	11		289.34	5
289	Acid Soluble Mo (ppm)	0136	< 2.5		1.930	0.7064	0.0571	11		289.33	5
289	Acid Soluble Mo (ppm)	0572	< 3.09		1.930	0.7064	0.0571	11		289.99	5
289	Acid Soluble Mo (ppm)	0481	< 100		1.930	0.7064	0.0571	11		289.99	5
291	Acid Soluble Ni (ppm)	0515	5.988	1.690	7.835	1.456	0.5173	14	-1.27	291.34	0
291	Acid Soluble Ni (ppm)	0568	6.200	0.0000	7.835	1.456	0.5173	14	-1.12	291.30	0
291	Acid Soluble Ni (ppm)	0035	6.360	0.8000	7.835	1.456	0.5173	14	-1.01	291.30	0
291	Acid Soluble Ni (ppm)	0563	6.760	0.0200	7.835	1.456	0.5173	14	-0.74	291.33	0
291	Acid Soluble Ni (ppm)	0524	6.813	0.0324	7.835	1.456	0.5173	14	-0.70	291.30	0
291	Acid Soluble Ni (ppm)	0485	7.265	0.5700	7.835	1.456	0.5173	14	-0.39	291.30	0
291	Acid Soluble Ni (ppm)	0394	8.165	0.1700	7.835	1.456	0.5173	14	0.23	291.30	0
291	Acid Soluble Ni (ppm)	0605	8.250	0.5000	7.835	1.456	0.5173	14	0.28	291.30	0
291	Acid Soluble Ni (ppm)	0368	8.300	0.0000	7.835	1.456	0.5173	14	0.32	291.34	0
291	Acid Soluble Ni (ppm)	0572	8.424	0.1150	7.835	1.456	0.5173	14	0.40	291.99	0
291	Acid Soluble Ni (ppm)	0136	8.440	1.280	7.835	1.456	0.5173	14	0.42	291.33	0
291	Acid Soluble Ni (ppm)	0527	9.211	0.1641	7.835	1.456	0.5173	14	0.94	291.33	0
291	Acid Soluble Ni (ppm)	0405	9.500	1.000	7.835	1.456	0.5173	14	1.14	291.32	0
291	Acid Soluble Ni (ppm)	0494	10.65	0.9000	7.835	1.456	0.5173	14	1.93	291.33	0
291	Acid Soluble Ni (ppm)	0255	11.84	3.030	7.835	1.456	0.5173	14	2.75	291.99	1

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
301	Acid Soluble Se (ppm)	0515	3.594	0.1020	22.10	25.05	0.7297	6	-0.74	301.34	0
301	Acid Soluble Se (ppm)	0255	4.670	0.4620	22.10	25.05	0.7297	6	-0.70	301.99	0
301	Acid Soluble Se (ppm)	0524	10.06	0.0955	22.10	25.05	0.7297	6	-0.48	301.30	0
301	Acid Soluble Se (ppm)	0527	14.80	0.4165	22.10	25.05	0.7297	6	-0.29	301.33	0
301	Acid Soluble Se (ppm)	0572	43.91	1.852	22.10	25.05	0.7297	6	0.87	301.99	0
301	Acid Soluble Se (ppm)	0563	55.56	1.450	22.10	25.05	0.7297	6	1.34	301.33	0
301	Acid Soluble Se (ppm)	0481	< 0.5		22.10	25.05	0.7297	6		301.99	5
301	Acid Soluble Se (ppm)	0568	< 1		22.10	25.05	0.7297	6		301.30	5
301	Acid Soluble Se (ppm)	0494	< 1		22.10	25.05	0.7297	6		301.33	5
301	Acid Soluble Se (ppm)	0368	< 1.4		22.10	25.05	0.7297	6		301.34	5
301	Acid Soluble Se (ppm)	0605	< 1.65		22.10	25.05	0.7297	6		301.30	5
301	Acid Soluble Se (ppm)	0405	< 10		22.10	25.05	0.7297	6		301.32	5
311	Sodium (%)	0572	0.2199	0.0041	0.2523	0.0321	0.0072	6	-0.90	311.99	0
311	Sodium (%)	0553	0.2290	0.0080	0.2523	0.0321	0.0072	6	-0.65	311.00	0
311	Sodium (%)	0542	0.2498	0.0008	0.2523	0.0321	0.0072	6	-0.07	311.99	0
311	Sodium (%)	0035	0.2520	0.0100	0.2523	0.0321	0.0072	6	-0.01	311.33	0
311	Sodium (%)	0527	0.2633	0.0003	0.2523	0.0321	0.0072	6	0.30	311.33	0
311	Sodium (%)	0354	0.3000	0.0200	0.2523	0.0321	0.0072	6	1.32	311.99	0
321	Acid Soluble Zn (%)	0234	0.0010	0.0001	0.0053	0.0011	0.0003	24	-3.98	321.30	0
321	Acid Soluble Zn (%)	0255	0.0030	0.0000	0.0053	0.0011	0.0003	24	-2.12	321.30	0
321	Acid Soluble Zn (%)	0485	0.0043	0.0003	0.0053	0.0011	0.0003	24	-0.98	321.30	0
321	Acid Soluble Zn (%)	0527	0.0043	0.0002	0.0053	0.0011	0.0003	24	-0.94	321.33	0
321	Acid Soluble Zn (%)	0106	0.0047	0.0007	0.0053	0.0011	0.0003	24	-0.62	321.33	0
321	Acid Soluble Zn (%)	0568	0.0047	0.0000	0.0053	0.0011	0.0003	24	-0.57	321.30	0
321	Acid Soluble Zn (%)	0035	0.0048	0.0020	0.0053	0.0011	0.0003	24	-0.48	321.30	0
321	Acid Soluble Zn (%)	0553	0.0050	0.0000	0.0053	0.0011	0.0003	24	-0.30	321.00	0
321	Acid Soluble Zn (%)	0049	0.0050	0.0000	0.0053	0.0011	0.0003	24	-0.30	321.30	0
321	Acid Soluble Zn (%)	0389	0.0050	0.0000	0.0053	0.0011	0.0003	24	-0.30	321.99	0
321	Acid Soluble Zn (%)	0481	0.0050	0.0000	0.0053	0.0011	0.0003	24	-0.30	321.99	0
321	Acid Soluble Zn (%)	0542	0.0051	0.0000	0.0053	0.0011	0.0003	24	-0.21	321.33	0
321	Acid Soluble Zn (%)	0609	0.0052	0.0000	0.0053	0.0011	0.0003	24	-0.12	321.33	0
321	Acid Soluble Zn (%)	0572	0.0053	0.0000	0.0053	0.0011	0.0003	24	-0.03	321.99	0
321	Acid Soluble Zn (%)	0136	0.0054	0.0001	0.0053	0.0011	0.0003	24	0.02	321.33	0
321	Acid Soluble Zn (%)	0515	0.0054	0.0000	0.0053	0.0011	0.0003	24	0.06	321.99	0
321	Acid Soluble Zn (%)	0524	0.0054	0.0004	0.0053	0.0011	0.0003	24	0.06	321.99	0
321	Acid Soluble Zn (%)	0043	0.0060	0.0000	0.0053	0.0011	0.0003	24	0.61	321.33	0
321	Acid Soluble Zn (%)	0027	0.0060	0.0000	0.0053	0.0011	0.0003	24	0.61	321.99	0
321	Acid Soluble Zn (%)	0405	0.0065	0.0001	0.0053	0.0011	0.0003	24	1.02	321.32	0
321	Acid Soluble Zn (%)	0563	0.0068	0.0001	0.0053	0.0011	0.0003	24	1.29	321.33	0
321	Acid Soluble Zn (%)	0394	0.0073	0.0020	0.0053	0.0011	0.0003	24	1.79	321.32	0
321	Acid Soluble Zn (%)	0368	0.0090	0.0002	0.0053	0.0011	0.0003	24	3.33	321.99	0
321	Acid Soluble Zn (%)	0095	0.0100	0.0000	0.0053	0.0011	0.0003	24	4.24	321.32	0
321	Acid Soluble Zn (%)	0072	3.256	0.1230	0.0053	0.0011	0.0003	24	2952.05	321.30	2

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
321	Acid Soluble Zn (%)	0354	< 0.01		0.0053	0.0011	0.0003	24		321.30	5
325	Water Soluble Zn (%)	0572	0.0018	0.0014				2		325.99	0
325	Water Soluble Zn (%)	0368	0.0090	0.0002				2		325.30	0
431	Soluble Si in nonliquids (%)	0572	0.0541	0.0070				1		431.99	0

Interpreting Z Scores and Flags:

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier, 3 = removed from stats, 4 = rejected due to 0s submitted and 5 = LOD. A 9 flag indicates a data problem - scores not calculated.

Notes:

Robust statistics not used if < 6 labs used in calculations, in this case Values and Z Scores are grayed out and should be interpreted with extreme caution. Your offset values are higher (‡) or lower (†) than the Robust Analyte value ± Investigational Allowance. Analyte codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely for the purpose of this Proficiency Testing program.