

Analyte PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Analytes: 39

Sample # 220511

Regular PT Scheme

Labs Reporting: 86

Grade 21-7-14

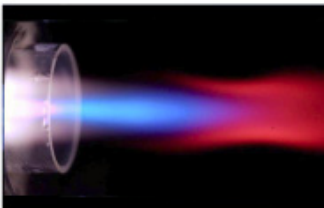
Statistical Summary

Issue Date : 06/30/2022

Analyte Code	Analyte Sample # 220511	# 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)	Hornitz %RSD
001	Ammoniacal N (%)	27	25	11.07	0.2618	11.04		0.2316	0.0579	2.10%		0.0819	2.79%
002	Nitrate N (%)	20	20	9.827	0.3704	9.864		0.2889	0.0807	2.93%		0.1161	2.83%
005	Urea N (%)	1		0.0201									
009	Ammoniacal Plus Nitrate N (%)	1		21.11									
010	Total N (21%)	72	70	20.73	0.6495	20.73	0.7373	0.4811	0.0719	2.32%	1.52	0.1442	2.20%
020	Total P2O5 (%)	42	40	7.162	0.7578	7.002		0.2790	0.0551	3.98%		0.1215	2.98%
030	Citrate Insoluble P2O5 (%)	2	2	3.385	4.773								
040	Indirect Available P2O5 (7%)	2	2	6.915	0.0778								
041	Direct Available P2O5 (7%)	46	46	6.945	0.5224	7.008	0.6800	0.2724	0.0502	3.89%	0.93	0.1065	2.98%
042	Water Soluble OrthoP As P2O5 (%)	1		5.540									
048	Water Soluble P2O5 (%)	5	5	5.382	0.9956	5.382		0.9956	0.5565	18.50%		0.1398	3.10%
050	Soluble K2O (14%)	80	78	14.61	0.9379	14.67	0.8934	0.5721	0.0810	3.90%	1.49	0.2684	2.61%
060	Water (Free) (%)	1		0.4207									
101	Acid Soluble Ca (%)	10	10	1.492	0.4438	1.559	0.2780	0.2112	0.0835	13.54%	1.77	0.0534	3.74%
121	Acid Soluble Mg (%)	14	14	0.2304	0.0542	0.2435	0.2122	0.0165	0.0055	6.78%	0.18	0.0147	4.95%
131	Water Soluble Mg (%)	1		0.1285									
143	Elemental S (%)	5	5	5.506	0.4024	5.506		0.4024	0.2250	7.31%		0.0464	3.09%
145	Sulfate S, HCl soluble (%)	9	9	5.164	0.2234	5.171		0.2366	0.0986	4.57%		0.0433	3.12%
148	Total S (5.1%)	52	51	5.468	1.035	5.315	0.4658	0.2537	0.0444	4.77%	1.27	0.1210	3.11%
149	S - HNO3 soluble (%)	4	4	5.278	0.2816	5.278		0.2816	0.1760	5.33%		0.0350	3.11%
151	Acid Soluble As (ppm)	14	12	5.725	4.602	5.841		5.113	1.845	87.53%		0.7410	12.27%
165	Acid Soluble B (%)	9	7	0.0065	0.0032	0.0052	0.0038	0.0025	0.0012	48.52%	1.55	0.0004	8.83%
171	Water Soluble B (%)	1		0.0110									
181	Acid Soluble Cd (ppm)	17	13	1.118	1.007	0.6866		0.1859	0.0644	27.07%		0.1342	16.93%
190	Water Soluble Cl (%)	13	12	0.5731	0.5148	0.4905	0.0540	0.3235	0.1167	65.95%	13.95	0.0148	4.45%
191	Acid Soluble Cr (ppm)	18	16	17.88	5.485	16.66		3.294	1.029	19.78%		0.7388	10.48%
202	Acid Soluble Co (ppm)	14	10	4.330	8.214	0.9440	1.2832	0.2997	0.1185	31.75%	0.54	0.0709	16.14%
221	Acid Soluble Cu (%)	25	21	0.3829	1.903	0.0012	0.0051	0.0005	0.0001	43.62%	0.24	0.0001	10.96%
241	Acid Soluble Fe (%)	13	10	0.0855	0.1278	0.0508	0.0101	0.0044	0.0017	8.70%	1.02	0.0018	6.26%

Analyte Code	Analyte Sample # 220511	# 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
251	Acid Soluble Pb (ppm)	18	10	2.028	1.351	2.128		0.8161	0.3226	38.35%		0.1603	14.28%
261	Acid Soluble Mn (%)	8	6	0.0069	0.0087	0.0030	0.0053	0.0001	0.0000	2.71%	0.04	0.0000	9.59%
281	Acid Soluble Hg (ppm)	10	3	0.4367	0.6804	0.0022		0.0007	0.0005	33.37%		0.0008	22.00%
289	Acid Soluble Mo (ppm)	14	6	9.494	26.56	1.162	1.3487	0.5938	0.3030	51.08%	1.03	0.1037	15.64%
291	Acid Soluble Ni (ppm)	17	14	6.037	9.490	3.692		1.118	0.3734	30.28%		0.3021	13.14%
301	Acid Soluble Se (ppm)	12	5	3.465	4.018	5.373		4.241	2.371	78.93%		0.4531	12.42%
311	Sodium (%)	6	6	0.0872	0.0099	0.0865	0.0136	0.0096	0.0049	11.10%	1.64	0.0062	5.78%
321	Acid Soluble Zn (%)	27	25	3.249	16.82	0.0083	0.0058	0.0031	0.0008	37.12%	1.23	0.0010	8.23%
325	Water Soluble Zn (%)	2	2	0.0013	0.0004								
431	Soluble Si in nonliquids (%)	1		0.0105									

The Analyte IA Ratio = $2.33 * \text{Robust SD} / \text{IA at the Analyte Assigned Value}$. 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.



Analyte PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Analytes: 39

Sample # 220511

Regular PT Scheme

Labs Reporting: 86

Grade 21-7-14

Lab Values

Issue Date : 06/30/2022

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001	Ammoniacal N (%)	0220	10.50	0.0100	11.04	0.2316	0.0819	25	-2.34	001.99	0
001	Ammoniacal N (%)	0451	10.66	0.0500	11.04	0.2316	0.0819	25	-1.65	001.10	0
001	Ammoniacal N (%)	0549	10.81	0.2000	11.04	0.2316	0.0819	25	-0.98	001.99	0
001	Ammoniacal N (%)	0423	10.82	0.0600	11.04	0.2316	0.0819	25	-0.94	001.99	0
001	Ammoniacal N (%)	0444	10.85	0.1000	11.04	0.2316	0.0819	25	-0.81	001.10	0
001	Ammoniacal N (%)	0524	10.86	0.1050	11.04	0.2316	0.0819	25	-0.75	001.99	0
001	Ammoniacal N (%)	0117	10.89	0.1880	11.04	0.2316	0.0819	25	-0.61	001.10	0
001	Ammoniacal N (%)	0553	10.90	0.2000	11.04	0.2316	0.0819	25	-0.59	001.99	0
001	Ammoniacal N (%)	0513	10.92	0.0100	11.04	0.2316	0.0819	25	-0.53	001.99	0
001	Ammoniacal N (%)	0394	10.98	0.0640	11.04	0.2316	0.0819	25	-0.24	001.99	0
001	Ammoniacal N (%)	0547	11.00	0.0000	11.04	0.2316	0.0819	25	-0.16	001.10	0
001	Ammoniacal N (%)	0602	11.00	0.0800	11.04	0.2316	0.0819	25	-0.16	001.99	0
001	Ammoniacal N (%)	0027	11.04	0.0600	11.04	0.2316	0.0819	25	0.01	001.99	0
001	Ammoniacal N (%)	0255	11.05	0.3500	11.04	0.2316	0.0819	25	0.03	001.99	0
001	Ammoniacal N (%)	0572	11.07	0.0690	11.04	0.2316	0.0819	25	0.16	001.99	0
001	Ammoniacal N (%)	0405	11.08	0.0800	11.04	0.2316	0.0819	25	0.19	001.99	0
001	Ammoniacal N (%)	0538	11.12	0.0100	11.04	0.2316	0.0819	25	0.34	001.99	0
001	Ammoniacal N (%)	0533	11.14	0.1100	11.04	0.2316	0.0819	25	0.42	001.99	0
001	Ammoniacal N (%)	0452	11.14	0.0000	11.04	0.2316	0.0819	25	0.44	001.10	0
001	Ammoniacal N (%)	0575	11.14	0.0200	11.04	0.2316	0.0819	25	0.44	001.99	0
001	Ammoniacal N (%)	0605	11.27	0.0500	11.04	0.2316	0.0819	25	0.98	001.99	0
001	Ammoniacal N (%)	0559	11.34	0.0100	11.04	0.2316	0.0819	25	1.29	001.99	0
001	Ammoniacal N (%)	0563	11.38	0.0900	11.04	0.2316	0.0819	25	1.46	001.99	0
001	Ammoniacal N (%)	0558	11.41	0.0600	11.04	0.2316	0.0819	25	1.61	001.99	0
001	Ammoniacal N (%)	0510	11.55	0.0712	11.04	0.2316	0.0819	25	2.21	001.99	0
001	Ammoniacal N (%)	0368	11.41	0.5910	11.04	0.2316	0.0819	25	1.59	001.99	1
001	Ammoniacal N (%)	0498	11.60	0.6000	11.04	0.2316	0.0819	25	2.43	001.10	1
002	Nitrate N (%)	0553	8.640	0.4400	9.864	0.2889	0.1161	20	-4.24	002.99	0
002	Nitrate N (%)	0029	9.400	0.1800	9.864	0.2889	0.1161	20	-1.61	002.99	0
002	Nitrate N (%)	0452	9.530	0.1400	9.864	0.2889	0.1161	20	-1.16	002.99	0
002	Nitrate N (%)	0547	9.550	0.0200	9.864	0.2889	0.1161	20	-1.09	002.99	0
002	Nitrate N (%)	0549	9.660	0.2000	9.864	0.2889	0.1161	20	-0.71	002.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
002	Nitrate N (%)	0029	9.715	0.0100	9.864	0.2889	0.1161	20	-0.52	002.20	0
002	Nitrate N (%)	0498	9.800	0.4000	9.864	0.2889	0.1161	20	-0.22	002.99	0
002	Nitrate N (%)	0368	9.824	0.4160	9.864	0.2889	0.1161	20	-0.14	002.99	0
002	Nitrate N (%)	0563	9.825	0.0100	9.864	0.2889	0.1161	20	-0.14	002.20	0
002	Nitrate N (%)	0538	9.890	0.0400	9.864	0.2889	0.1161	20	0.09	002.99	0
002	Nitrate N (%)	0575	9.890	0.0000	9.864	0.2889	0.1161	20	0.09	002.99	0
002	Nitrate N (%)	0605	9.915	0.0300	9.864	0.2889	0.1161	20	0.18	002.99	0
002	Nitrate N (%)	0444	9.950	0.1000	9.864	0.2889	0.1161	20	0.30	002.99	0
002	Nitrate N (%)	0423	9.990	0.0600	9.864	0.2889	0.1161	20	0.43	002.99	0
002	Nitrate N (%)	0394	10.000	0.0250	9.864	0.2889	0.1161	20	0.47	002.99	0
002	Nitrate N (%)	0558	10.08	0.0700	9.864	0.2889	0.1161	20	0.73	002.99	0
002	Nitrate N (%)	0513	10.11	0.0200	9.864	0.2889	0.1161	20	0.85	002.99	0
002	Nitrate N (%)	0027	10.14	0.1100	9.864	0.2889	0.1161	20	0.94	002.99	0
002	Nitrate N (%)	0559	10.27	0.0200	9.864	0.2889	0.1161	20	1.40	002.99	0
002	Nitrate N (%)	0220	10.37	0.0300	9.864	0.2889	0.1161	20	1.73	002.99	0
005	Urea N (%)	0524	0.0201	0.0399				1		005.99	0
009	Ammoniacal Plus Nitrate N (%)	0587	21.11	0.0550				1		009.10	0
010	Total N (21%)	0185	18.96†	0.0500	20.73	0.4811	0.1442	70	-3.68	010.60	0
010	Total N (21%)	0588	19.02†	0.1200	20.73	0.4811	0.1442	70	-3.54	010.60	0
010	Total N (21%)	0073	19.18†	0.1500	20.73	0.4811	0.1442	70	-3.22	010.60	0
010	Total N (21%)	0360	19.44†	0.3500	20.73	0.4811	0.1442	70	-2.68	010.60	0
010	Total N (21%)	0234	19.55†	0.1800	20.73	0.4811	0.1442	70	-2.44	010.60	0
010	Total N (21%)	0324	19.65†	0.3000	20.73	0.4811	0.1442	70	-2.23	010.60	0
010	Total N (21%)	0422	19.91†	0.0100	20.73	0.4811	0.1442	70	-1.70	010.60	0
010	Total N (21%)	0095	19.96†	0.4100	20.73	0.4811	0.1442	70	-1.60	010.60	0
010	Total N (21%)	0086	19.96†	0.5710	20.73	0.4811	0.1442	70	-1.60	010.60	0
010	Total N (21%)	0018	20.05	0.1000	20.73	0.4811	0.1442	70	-1.40	010.60	0
010	Total N (21%)	0035	20.20	0.2000	20.73	0.4811	0.1442	70	-1.09	010.60	0
010	Total N (21%)	0042	20.20	0.2000	20.73	0.4811	0.1442	70	-1.09	010.60	0
010	Total N (21%)	0102	20.27	0.0200	20.73	0.4811	0.1442	70	-0.95	010.60	0
010	Total N (21%)	0542	20.28	0.2390	20.73	0.4811	0.1442	70	-0.92	010.60	0
010	Total N (21%)	0307	20.35	0.5000	20.73	0.4811	0.1442	70	-0.78	010.60	0
010	Total N (21%)	0577	20.38	0.3500	20.73	0.4811	0.1442	70	-0.73	010.99	0
010	Total N (21%)	0292	20.39	0.0000	20.73	0.4811	0.1442	70	-0.70	010.60	0
010	Total N (21%)	0476	20.46	0.0814	20.73	0.4811	0.1442	70	-0.56	010.99	0
010	Total N (21%)	0356	20.47	0.0560	20.73	0.4811	0.1442	70	-0.54	010.60	0
010	Total N (21%)	0131	20.49	0.0200	20.73	0.4811	0.1442	70	-0.50	010.60	0
010	Total N (21%)	0524	20.50	0.1938	20.73	0.4811	0.1442	70	-0.46	010.99	0
010	Total N (21%)	0106	20.54	0.0700	20.73	0.4811	0.1442	70	-0.40	010.60	0
010	Total N (21%)	0472	20.56	0.0100	20.73	0.4811	0.1442	70	-0.35	010.60	0
010	Total N (21%)	0481	20.56	0.0600	20.73	0.4811	0.1442	70	-0.34	010.60	0
010	Total N (21%)	0451	20.57	0.4900	20.73	0.4811	0.1442	70	-0.33	010.60	0
010	Total N (21%)	0029	20.61	0.0200	20.73	0.4811	0.1442	70	-0.24	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	R-bar				
010	Total N (21%)	0602	20.61	0.2200	20.73	0.4811	0.1442	70	-0.24	010.99	0
010	Total N (21%)	0136	20.67	0.2900	20.73	0.4811	0.1442	70	-0.13	010.60	0
010	Total N (21%)	0561	20.67	0.0100	20.73	0.4811	0.1442	70	-0.13	010.60	0
010	Total N (21%)	0389	20.67	0.0600	20.73	0.4811	0.1442	70	-0.11	010.60	0
010	Total N (21%)	0602	20.71	0.1400	20.73	0.4811	0.1442	70	-0.03	010.12	0
010	Total N (21%)	0027	20.75	0.0100	20.73	0.4811	0.1442	70	0.04	010.60	0
010	Total N (21%)	0231	20.76	0.0100	20.73	0.4811	0.1442	70	0.06	010.60	0
010	Total N (21%)	0481	20.80	0.2700	20.73	0.4811	0.1442	70	0.15	010.12	0
010	Total N (21%)	0055	20.80	0.0200	20.73	0.4811	0.1442	70	0.16	010.60	0
010	Total N (21%)	0444	20.80	0.2000	20.73	0.4811	0.1442	70	0.16	010.60	0
010	Total N (21%)	0034	20.84	0.0700	20.73	0.4811	0.1442	70	0.23	010.60	0
010	Total N (21%)	0580	20.85	0.4000	20.73	0.4811	0.1442	70	0.26	010.12	0
010	Total N (21%)	0260	20.85	0.1000	20.73	0.4811	0.1442	70	0.26	010.60	0
010	Total N (21%)	0390	20.85	0.0890	20.73	0.4811	0.1442	70	0.27	010.60	0
010	Total N (21%)	0233	20.89	0.0900	20.73	0.4811	0.1442	70	0.33	010.60	0
010	Total N (21%)	0523	20.89	0.0700	20.73	0.4811	0.1442	70	0.33	010.60	0
010	Total N (21%)	0169	20.89	0.0200	20.73	0.4811	0.1442	70	0.34	010.60	0
010	Total N (21%)	0040	20.90	0.2000	20.73	0.4811	0.1442	70	0.36	010.60	0
010	Total N (21%)	0230	20.90	0.0000	20.73	0.4811	0.1442	70	0.36	010.60	0
010	Total N (21%)	0043	20.92	0.0600	20.73	0.4811	0.1442	70	0.40	010.60	0
010	Total N (21%)	0494	20.95	0.1500	20.73	0.4811	0.1442	70	0.46	010.60	0
010	Total N (21%)	0575	20.97	0.1000	20.73	0.4811	0.1442	70	0.51	010.99	0
010	Total N (21%)	0452	20.98	0.1500	20.73	0.4811	0.1442	70	0.52	010.60	0
010	Total N (21%)	0394	20.98	0.0330	20.73	0.4811	0.1442	70	0.53	010.99	0
010	Total N (21%)	0556	21.00	0.2000	20.73	0.4811	0.1442	70	0.57	010.99	0
010	Total N (21%)	0049	21.01	0.3328	20.73	0.4811	0.1442	70	0.58	010.60	0
010	Total N (21%)	0538	21.01	0.0400	20.73	0.4811	0.1442	70	0.59	010.99	0
010	Total N (21%)	0405	21.02	0.0200	20.73	0.4811	0.1442	70	0.61	010.60	0
010	Total N (21%)	0513	21.03	0.0100	20.73	0.4811	0.1442	70	0.62	010.99	0
010	Total N (21%)	0563	21.11	0.1300	20.73	0.4811	0.1442	70	0.79	010.99	0
010	Total N (21%)	0220	21.12	0.0700	20.73	0.4811	0.1442	70	0.81	010.60	0
010	Total N (21%)	0325	21.12	0.2900	20.73	0.4811	0.1442	70	0.81	010.60	0
010	Total N (21%)	0518	21.13	0.2500	20.73	0.4811	0.1442	70	0.83	010.99	0
010	Total N (21%)	0510	21.17	0.0275	20.73	0.4811	0.1442	70	0.92	010.11	0
010	Total N (21%)	0605	21.18	0.0600	20.73	0.4811	0.1442	70	0.95	010.99	0
010	Total N (21%)	0177	21.20	0.0330	20.73	0.4811	0.1442	70	0.98	010.60	0
010	Total N (21%)	0023	21.20	0.0990	20.73	0.4811	0.1442	70	0.99	010.60	0
010	Total N (21%)	0354	21.25	0.1000	20.73	0.4811	0.1442	70	1.09	010.60	0
010	Total N (21%)	0423	21.28	0.1300	20.73	0.4811	0.1442	70	1.14	010.60	0
010	Total N (21%)	0527	21.52‡	0.0320	20.73	0.4811	0.1442	70	1.66	010.60	0
010	Total N (21%)	0559	21.61‡	0.0100	20.73	0.4811	0.1442	70	1.83	010.99	0
010	Total N (21%)	0368	21.98‡	0.1970	20.73	0.4811	0.1442	70	2.60	010.60	0
010	Total N (21%)	0255	22.27‡	0.0020	20.73	0.4811	0.1442	70	3.20	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	R-bar				
010	Total N (21%)	0443	22.44±	0.5500	20.73	0.4811	0.1442	70	3.55	010.60	0
010	Total N (21%)	0498	21.40	1.000	20.73	0.4811	0.1442	70	1.40	010.12	1
010	Total N (21%)	0558	21.99±	0.8700	20.73	0.4811	0.1442	70	2.62	010.99	1
020	Total P2O5 (%)	0422	6.179	0.1123	7.002	0.2790	0.1215	40	-2.95	020.50	0
020	Total P2O5 (%)	0035	6.400	0.0000	7.002	0.2790	0.1215	40	-2.16	020.40	0
020	Total P2O5 (%)	0572	6.458	0.1180	7.002	0.2790	0.1215	40	-1.95	020.99	0
020	Total P2O5 (%)	0389	6.510	0.0200	7.002	0.2790	0.1215	40	-1.76	020.50	0
020	Total P2O5 (%)	0542	6.669	0.2080	7.002	0.2790	0.1215	40	-1.19	020.50	0
020	Total P2O5 (%)	0390	6.680	0.5600	7.002	0.2790	0.1215	40	-1.15	020.50	0
020	Total P2O5 (%)	0472	6.715	0.0100	7.002	0.2790	0.1215	40	-1.03	020.50	0
020	Total P2O5 (%)	0476	6.741	0.0169	7.002	0.2790	0.1215	40	-0.93	020.99	0
020	Total P2O5 (%)	0481	6.795	0.0500	7.002	0.2790	0.1215	40	-0.74	020.20	0
020	Total P2O5 (%)	0423	6.845	0.0300	7.002	0.2790	0.1215	40	-0.56	020.50	0
020	Total P2O5 (%)	0444	6.855	0.0700	7.002	0.2790	0.1215	40	-0.53	020.50	0
020	Total P2O5 (%)	0433	6.885	0.0700	7.002	0.2790	0.1215	40	-0.42	020.50	0
020	Total P2O5 (%)	0260	6.905	0.1300	7.002	0.2790	0.1215	40	-0.35	020.50	0
020	Total P2O5 (%)	0231	6.925	0.0300	7.002	0.2790	0.1215	40	-0.27	020.20	0
020	Total P2O5 (%)	0587	6.940	0.2600	7.002	0.2790	0.1215	40	-0.22	020.99	0
020	Total P2O5 (%)	0559	6.965	0.0100	7.002	0.2790	0.1215	40	-0.13	020.99	0
020	Total P2O5 (%)	0510	6.976	0.0163	7.002	0.2790	0.1215	40	-0.09	020.20	0
020	Total P2O5 (%)	0405	6.980	0.0000	7.002	0.2790	0.1215	40	-0.08	020.20	0
020	Total P2O5 (%)	0451	6.986	0.1960	7.002	0.2790	0.1215	40	-0.06	020.50	0
020	Total P2O5 (%)	0324	7.020	0.1200	7.002	0.2790	0.1215	40	0.07	020.20	0
020	Total P2O5 (%)	0513	7.020	0.0200	7.002	0.2790	0.1215	40	0.07	020.99	0
020	Total P2O5 (%)	0602	7.030	0.1000	7.002	0.2790	0.1215	40	0.10	020.20	0
020	Total P2O5 (%)	0042	7.050	0.1000	7.002	0.2790	0.1215	40	0.17	020.50	0
020	Total P2O5 (%)	0394	7.052	0.0840	7.002	0.2790	0.1215	40	0.18	020.20	0
020	Total P2O5 (%)	0455	7.055	0.0100	7.002	0.2790	0.1215	40	0.19	020.20	0
020	Total P2O5 (%)	0524	7.069	0.2934	7.002	0.2790	0.1215	40	0.24	020.50	0
020	Total P2O5 (%)	0356	7.073	0.0150	7.002	0.2790	0.1215	40	0.25	020.20	0
020	Total P2O5 (%)	0527	7.080	0.1022	7.002	0.2790	0.1215	40	0.28	020.50	0
020	Total P2O5 (%)	0580	7.120	0.0600	7.002	0.2790	0.1215	40	0.42	020.20	0
020	Total P2O5 (%)	0292	7.125	0.0300	7.002	0.2790	0.1215	40	0.44	020.20	0
020	Total P2O5 (%)	0563	7.145	0.2300	7.002	0.2790	0.1215	40	0.51	020.20	0
020	Total P2O5 (%)	0561	7.195	0.0100	7.002	0.2790	0.1215	40	0.69	020.20	0
020	Total P2O5 (%)	0307	7.205	0.1900	7.002	0.2790	0.1215	40	0.73	020.50	0
020	Total P2O5 (%)	0605	7.220	0.2400	7.002	0.2790	0.1215	40	0.78	020.50	0
020	Total P2O5 (%)	0234	7.310	0.0600	7.002	0.2790	0.1215	40	1.11	020.50	0
020	Total P2O5 (%)	0402	7.445	0.0970	7.002	0.2790	0.1215	40	1.59	020.50	0
020	Total P2O5 (%)	0169	7.465	0.0500	7.002	0.2790	0.1215	40	1.66	020.50	0
020	Total P2O5 (%)	0368	7.803	0.1658	7.002	0.2790	0.1215	40	2.87	020.50	0
020	Total P2O5 (%)	0255	8.106	0.1770	7.002	0.2790	0.1215	40	3.96	020.50	0
020	Total P2O5 (%)	0523	8.700	0.8000	7.002	0.2790	0.1215	40	6.09	020.50	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
020	Total P2O5 (%)	0515	8.152	1.623	7.002	0.2790	0.1215	40	4.12	020.99	1
020	Total P2O5 (%)	0443	10.98	1.110	7.002	0.2790	0.1215	40	14.24	020.99	2
030	Citrate Insoluble P2O5 (%)	0405	0.0100	0.0000				2		030.20	0
030	Citrate Insoluble P2O5 (%)	0444	6.760	0.0000				2		030.10	0
040	Indirect Available P2O5 (7%)	0602	6.860‡	0.1000				2		040.20	0
040	Indirect Available P2O5 (7%)	0405	6.970‡	0.0000				2		040.99	0
041	Direct Available P2O5 (7%)	0230	5.550‡	0.1000	7.008	0.2724	0.1065	46	-5.35	041.21	0
041	Direct Available P2O5 (7%)	0177	5.673‡	0.0049	7.008	0.2724	0.1065	46	-4.90	041.21	0
041	Direct Available P2O5 (7%)	0055	5.765‡	0.0900	7.008	0.2724	0.1065	46	-4.56	041.11	0
041	Direct Available P2O5 (7%)	0472	5.875‡	0.1700	7.008	0.2724	0.1065	46	-4.16	041.21	0
041	Direct Available P2O5 (7%)	0095	6.005‡	0.4100	7.008	0.2724	0.1065	46	-3.68	041.11	0
041	Direct Available P2O5 (7%)	0423	6.395	0.0500	7.008	0.2724	0.1065	46	-2.25	041.51	0
041	Direct Available P2O5 (7%)	0553	6.515	0.1900	7.008	0.2724	0.1065	46	-1.81	041.20	0
041	Direct Available P2O5 (7%)	0049	6.620	0.1000	7.008	0.2724	0.1065	46	-1.42	041.11	0
041	Direct Available P2O5 (7%)	0405	6.815	0.0100	7.008	0.2724	0.1065	46	-0.71	041.21	0
041	Direct Available P2O5 (7%)	0106	6.850	0.1800	7.008	0.2724	0.1065	46	-0.58	041.21	0
041	Direct Available P2O5 (7%)	0231	6.890	0.0400	7.008	0.2724	0.1065	46	-0.43	041.21	0
041	Direct Available P2O5 (7%)	0575	6.915	0.0100	7.008	0.2724	0.1065	46	-0.34	041.99	0
041	Direct Available P2O5 (7%)	0513	6.925	0.0300	7.008	0.2724	0.1065	46	-0.30	041.11	0
041	Direct Available P2O5 (7%)	0405	6.935	0.0500	7.008	0.2724	0.1065	46	-0.27	041.11	0
041	Direct Available P2O5 (7%)	0494	6.945	0.2500	7.008	0.2724	0.1065	46	-0.23	041.10	0
041	Direct Available P2O5 (7%)	0360	6.945	0.0300	7.008	0.2724	0.1065	46	-0.23	041.51	0
041	Direct Available P2O5 (7%)	0498	6.950	0.3000	7.008	0.2724	0.1065	46	-0.21	041.20	0
041	Direct Available P2O5 (7%)	0325	6.950	0.3000	7.008	0.2724	0.1065	46	-0.21	041.50	0
041	Direct Available P2O5 (7%)	0117	6.976	0.0793	7.008	0.2724	0.1065	46	-0.12	041.51	0
041	Direct Available P2O5 (7%)	0233	6.981	0.0480	7.008	0.2724	0.1065	46	-0.10	041.51	0
041	Direct Available P2O5 (7%)	0025	6.995	0.2100	7.008	0.2724	0.1065	46	-0.05	041.51	0
041	Direct Available P2O5 (7%)	0027	6.995	0.0100	7.008	0.2724	0.1065	46	-0.05	041.20	0
041	Direct Available P2O5 (7%)	0055	7.015	0.0300	7.008	0.2724	0.1065	46	0.03	041.21	0
041	Direct Available P2O5 (7%)	0452	7.020	0.0200	7.008	0.2724	0.1065	46	0.04	041.20	0
041	Direct Available P2O5 (7%)	0394	7.035	0.0120	7.008	0.2724	0.1065	46	0.10	041.21	0
041	Direct Available P2O5 (7%)	0177	7.040	0.0261	7.008	0.2724	0.1065	46	0.12	041.10	0
041	Direct Available P2O5 (7%)	0485	7.050	0.0400	7.008	0.2724	0.1065	46	0.15	041.11	0
041	Direct Available P2O5 (7%)	0220	7.060	0.0600	7.008	0.2724	0.1065	46	0.19	041.11	0
041	Direct Available P2O5 (7%)	0018	7.095	0.0100	7.008	0.2724	0.1065	46	0.32	041.40	0
041	Direct Available P2O5 (7%)	0073	7.105	0.0100	7.008	0.2724	0.1065	46	0.36	041.11	0
041	Direct Available P2O5 (7%)	0185	7.105	0.0300	7.008	0.2724	0.1065	46	0.36	041.11	0
041	Direct Available P2O5 (7%)	0029	7.105	0.0300	7.008	0.2724	0.1065	46	0.36	041.40	0
041	Direct Available P2O5 (7%)	0558	7.110	0.0800	7.008	0.2724	0.1065	46	0.38	041.20	0
041	Direct Available P2O5 (7%)	0605	7.190	0.0200	7.008	0.2724	0.1065	46	0.67	041.50	0
041	Direct Available P2O5 (7%)	0023	7.195	0.0500	7.008	0.2724	0.1065	46	0.69	041.51	0
041	Direct Available P2O5 (7%)	0549	7.195	0.0100	7.008	0.2724	0.1065	46	0.69	041.99	0
041	Direct Available P2O5 (7%)	0043	7.225	0.0500	7.008	0.2724	0.1065	46	0.80	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	R-bar				
041	Direct Available P2O5 (7%)	0136	7.250	0.1000	7.008	0.2724	0.1065	46	0.89	041.51	0
041	Direct Available P2O5 (7%)	0518	7.250	0.2000	7.008	0.2724	0.1065	46	0.89	041.99	0
041	Direct Available P2O5 (7%)	0538	7.250	0.0800	7.008	0.2724	0.1065	46	0.89	041.99	0
041	Direct Available P2O5 (7%)	0354	7.255	0.0100	7.008	0.2724	0.1065	46	0.91	041.21	0
041	Direct Available P2O5 (7%)	0040	7.300	0.4000	7.008	0.2724	0.1065	46	1.07	041.51	0
041	Direct Available P2O5 (7%)	0494	7.380	0.4600	7.008	0.2724	0.1065	46	1.37	041.51	0
041	Direct Available P2O5 (7%)	0131	7.415	0.3300	7.008	0.2724	0.1065	46	1.49	041.50	0
041	Direct Available P2O5 (7%)	0102	7.775‡	0.1300	7.008	0.2724	0.1065	46	2.82	041.10	0
041	Direct Available P2O5 (7%)	0533	8.565‡	0.0500	7.008	0.2724	0.1065	46	5.72	041.99	0
042	Water Soluble OrthoP As P2O5 (%)	0577	5.540	0.1400				1		042.99	0
048	Water Soluble P2O5 (%)	0572	4.534	0.2290	5.382	0.9956	0.1398	5	-0.85	048.99	0
048	Water Soluble P2O5 (%)	0472	4.675	0.0300	5.382	0.9956	0.1398	5	-0.71	048.20	0
048	Water Soluble P2O5 (%)	0513	5.100	0.0200	5.382	0.9956	0.1398	5	-0.28	048.99	0
048	Water Soluble P2O5 (%)	0444	5.600	0.2200	5.382	0.9956	0.1398	5	0.22	048.99	0
048	Water Soluble P2O5 (%)	0556	7.000	0.2000	5.382	0.9956	0.1398	5	1.63	048.99	0
050	Soluble K2O (14%)	0515	11.80‡	1.369	14.67	0.5721	0.2684	78	-5.02	050.99	0
050	Soluble K2O (14%)	0390	13.55‡	0.1000	14.67	0.5721	0.2684	78	-1.95	050.50	0
050	Soluble K2O (14%)	0451	13.58‡	0.6300	14.67	0.5721	0.2684	78	-1.91	050.99	0
050	Soluble K2O (14%)	0549	13.68‡	0.1300	14.67	0.5721	0.2684	78	-1.74	050.99	0
050	Soluble K2O (14%)	0510	13.89	0.0100	14.67	0.5721	0.2684	78	-1.36	050.60	0
050	Soluble K2O (14%)	0443	13.97	0.1700	14.67	0.5721	0.2684	78	-1.23	050.60	0
050	Soluble K2O (14%)	0472	13.98	0.0000	14.67	0.5721	0.2684	78	-1.20	050.32	0
050	Soluble K2O (14%)	0533	13.98	0.1400	14.67	0.5721	0.2684	78	-1.20	050.99	0
050	Soluble K2O (14%)	0043	13.99	0.1100	14.67	0.5721	0.2684	78	-1.19	050.52	0
050	Soluble K2O (14%)	0055	14.00	0.0300	14.67	0.5721	0.2684	78	-1.18	050.00	0
050	Soluble K2O (14%)	0538	14.00	0.2000	14.67	0.5721	0.2684	78	-1.17	050.99	0
050	Soluble K2O (14%)	0556	14.00	0.2000	14.67	0.5721	0.2684	78	-1.17	050.99	0
050	Soluble K2O (14%)	0106	14.01	0.4400	14.67	0.5721	0.2684	78	-1.15	050.50	0
050	Soluble K2O (14%)	0575	14.04	0.0300	14.67	0.5721	0.2684	78	-1.11	050.99	0
050	Soluble K2O (14%)	0559	14.13	0.0100	14.67	0.5721	0.2684	78	-0.95	050.99	0
050	Soluble K2O (14%)	0558	14.19	0.0400	14.67	0.5721	0.2684	78	-0.83	050.99	0
050	Soluble K2O (14%)	0481	14.20	0.4000	14.67	0.5721	0.2684	78	-0.82	050.99	0
050	Soluble K2O (14%)	0433	14.27	0.4200	14.67	0.5721	0.2684	78	-0.69	050.99	0
050	Soluble K2O (14%)	0485	14.30	0.2000	14.67	0.5721	0.2684	78	-0.64	050.52	0
050	Soluble K2O (14%)	0587	14.30	0.1400	14.67	0.5721	0.2684	78	-0.64	050.99	0
050	Soluble K2O (14%)	0231	14.34	0.0500	14.67	0.5721	0.2684	78	-0.58	050.00	0
050	Soluble K2O (14%)	0260	14.35	0.7000	14.67	0.5721	0.2684	78	-0.56	050.99	0
050	Soluble K2O (14%)	0605	14.38	0.1100	14.67	0.5721	0.2684	78	-0.51	050.99	0
050	Soluble K2O (14%)	0368	14.38	0.1472	14.67	0.5721	0.2684	78	-0.51	050.51	0
050	Soluble K2O (14%)	0055	14.45	0.3000	14.67	0.5721	0.2684	78	-0.38	050.50	0
050	Soluble K2O (14%)	0233	14.48	0.4200	14.67	0.5721	0.2684	78	-0.33	050.52	0
050	Soluble K2O (14%)	0255	14.49	0.0840	14.67	0.5721	0.2684	78	-0.31	050.99	0
050	Soluble K2O (14%)	0307	14.50	0.6000	14.67	0.5721	0.2684	78	-0.29	050.50	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050	Soluble K2O (14%)	0325	14.50	0.0000	14.67	0.5721	0.2684	78	-0.29	050.99	0
050	Soluble K2O (14%)	0524	14.50	0.0664	14.67	0.5721	0.2684	78	-0.29	050.99	0
050	Soluble K2O (14%)	0049	14.51	0.1700	14.67	0.5721	0.2684	78	-0.28	050.00	0
050	Soluble K2O (14%)	0476	14.51	0.2357	14.67	0.5721	0.2684	78	-0.28	050.99	0
050	Soluble K2O (14%)	0356	14.54	0.1110	14.67	0.5721	0.2684	78	-0.23	050.30	0
050	Soluble K2O (14%)	0035	14.55	0.7000	14.67	0.5721	0.2684	78	-0.21	050.61	0
050	Soluble K2O (14%)	0018	14.55	0.1000	14.67	0.5721	0.2684	78	-0.21	050.62	0
050	Soluble K2O (14%)	0136	14.60	0.0700	14.67	0.5721	0.2684	78	-0.13	050.52	0
050	Soluble K2O (14%)	0040	14.60	0.2000	14.67	0.5721	0.2684	78	-0.12	050.30	0
050	Soluble K2O (14%)	0360	14.61	0.2900	14.67	0.5721	0.2684	78	-0.11	050.52	0
050	Soluble K2O (14%)	0423	14.64	0.1300	14.67	0.5721	0.2684	78	-0.06	050.52	0
050	Soluble K2O (14%)	0169	14.65	0.1000	14.67	0.5721	0.2684	78	-0.03	050.50	0
050	Soluble K2O (14%)	0389	14.65	0.2200	14.67	0.5721	0.2684	78	-0.03	050.99	0
050	Soluble K2O (14%)	0230	14.65	0.5000	14.67	0.5721	0.2684	78	-0.03	050.50	0
050	Soluble K2O (14%)	0025	14.65	0.3000	14.67	0.5721	0.2684	78	-0.03	050.52	0
050	Soluble K2O (14%)	0354	14.70	0.0000	14.67	0.5721	0.2684	78	0.06	050.52	0
050	Soluble K2O (14%)	0292	14.72	0.1700	14.67	0.5721	0.2684	78	0.08	050.50	0
050	Soluble K2O (14%)	0494	14.73	0.2200	14.67	0.5721	0.2684	78	0.11	050.00	0
050	Soluble K2O (14%)	0324	14.75	1.300	14.67	0.5721	0.2684	78	0.14	050.50	0
050	Soluble K2O (14%)	0452	14.86	0.0500	14.67	0.5721	0.2684	78	0.33	050.51	0
050	Soluble K2O (14%)	0527	14.87	0.0170	14.67	0.5721	0.2684	78	0.35	050.99	0
050	Soluble K2O (14%)	0117	14.88	0.1186	14.67	0.5721	0.2684	78	0.38	050.52	0
050	Soluble K2O (14%)	0023	14.90	0.4000	14.67	0.5721	0.2684	78	0.41	050.52	0
050	Soluble K2O (14%)	0177	14.92	0.0653	14.67	0.5721	0.2684	78	0.44	050.99	0
050	Soluble K2O (14%)	0027	14.92	0.1600	14.67	0.5721	0.2684	78	0.44	050.99	0
050	Soluble K2O (14%)	0542	14.94	0.0820	14.67	0.5721	0.2684	78	0.47	050.99	0
050	Soluble K2O (14%)	0518	14.95	0.1300	14.67	0.5721	0.2684	78	0.48	050.99	0
050	Soluble K2O (14%)	0498	14.95	0.1000	14.67	0.5721	0.2684	78	0.49	050.99	0
050	Soluble K2O (14%)	0095	14.97	0.8500	14.67	0.5721	0.2684	78	0.52	050.62	0
050	Soluble K2O (14%)	0513	14.98	0.0400	14.67	0.5721	0.2684	78	0.55	050.62	0
050	Soluble K2O (14%)	0220	15.00	0.0500	14.67	0.5721	0.2684	78	0.57	050.00	0
050	Soluble K2O (14%)	0394	15.03	0.0280	14.67	0.5721	0.2684	78	0.64	050.62	0
050	Soluble K2O (14%)	0102	15.05	0.0900	14.67	0.5721	0.2684	78	0.66	050.00	0
050	Soluble K2O (14%)	0042	15.05	0.3000	14.67	0.5721	0.2684	78	0.67	050.99	0
050	Soluble K2O (14%)	0494	15.18	0.4800	14.67	0.5721	0.2684	78	0.90	050.52	0
050	Soluble K2O (14%)	0580	15.25	0.0600	14.67	0.5721	0.2684	78	1.02	050.60	0
050	Soluble K2O (14%)	0602	15.25	0.1000	14.67	0.5721	0.2684	78	1.02	050.99	0
050	Soluble K2O (14%)	0602	15.30	0.2000	14.67	0.5721	0.2684	78	1.11	050.00	0
050	Soluble K2O (14%)	0405	15.32	0.0200	14.67	0.5721	0.2684	78	1.14	050.00	0
050	Soluble K2O (14%)	0455	15.33	0.0100	14.67	0.5721	0.2684	78	1.15	050.99	0
050	Soluble K2O (14%)	0444	15.33	1.040	14.67	0.5721	0.2684	78	1.16	050.50	0
050	Soluble K2O (14%)	0029	15.40	0.0000	14.67	0.5721	0.2684	78	1.28	050.62	0
050	Soluble K2O (14%)	0402	15.42	0.2490	14.67	0.5721	0.2684	78	1.31	050.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050	Soluble K2O (14%)	0553	15.50	1.200	14.67	0.5721	0.2684	78	1.45	050.99	0
050	Soluble K2O (14%)	0114	15.63±	0.0800	14.67	0.5721	0.2684	78	1.68	050.00	0
050	Soluble K2O (14%)	0422	15.76±	0.1326	14.67	0.5721	0.2684	78	1.92	050.50	0
050	Soluble K2O (14%)	0234	15.92±	0.2500	14.67	0.5721	0.2684	78	2.18	050.99	0
050	Soluble K2O (14%)	0523	16.15±	1.100	14.67	0.5721	0.2684	78	2.59	050.99	0
050	Soluble K2O (14%)	0577	16.24±	0.5200	14.67	0.5721	0.2684	78	2.75	050.99	0
050	Soluble K2O (14%)	0073	16.55±	0.9500	14.67	0.5721	0.2684	78	3.28	050.30	0
050	Soluble K2O (14%)	0563	15.73±	4.760	14.67	0.5721	0.2684	78	1.85	050.99	1
050	Soluble K2O (14%)	0131	8.940±	0.0200	14.67	0.5721	0.2684	78	-10.01	050.51	2
060	Water (Free) (%)	0510	0.4207	0.0169				1		060.99	0
101	Acid Soluble Ca (%)	0035	0.3645	0.0070	1.559	0.2112	0.0534	10	-5.26	101.30	0
101	Acid Soluble Ca (%)	0472	1.390	0.0000	1.559	0.2112	0.0534	10	-0.75	101.33	0
101	Acid Soluble Ca (%)	0389	1.485	0.0300	1.559	0.2112	0.0534	10	-0.33	101.99	0
101	Acid Soluble Ca (%)	0354	1.495	0.0500	1.559	0.2112	0.0534	10	-0.28	101.30	0
101	Acid Soluble Ca (%)	0324	1.540	0.2200	1.559	0.2112	0.0534	10	-0.09	101.30	0
101	Acid Soluble Ca (%)	0553	1.555	0.0300	1.559	0.2112	0.0534	10	-0.02	101.00	0
101	Acid Soluble Ca (%)	0423	1.574	0.0110	1.559	0.2112	0.0534	10	0.06	101.32	0
101	Acid Soluble Ca (%)	0494	1.610	0.0187	1.559	0.2112	0.0534	10	0.22	101.33	0
101	Acid Soluble Ca (%)	0527	1.826	0.0090	1.559	0.2112	0.0534	10	1.17	101.33	0
101	Acid Soluble Ca (%)	0572	2.086	0.1580	1.559	0.2112	0.0534	10	2.32	101.99	0
121	Acid Soluble Mg (%)	0035	0.0495	0.0010	0.2435	0.0165	0.0147	14	-11.74	121.30	0
121	Acid Soluble Mg (%)	0524	0.2051	0.0035	0.2435	0.0165	0.0147	14	-2.33	121.99	0
121	Acid Soluble Mg (%)	0572	0.2265	0.0370	0.2435	0.0165	0.0147	14	-1.03	121.99	0
121	Acid Soluble Mg (%)	0515	0.2387	0.0224	0.2435	0.0165	0.0147	14	-0.29	121.99	0
121	Acid Soluble Mg (%)	0472	0.2400	0.0000	0.2435	0.0165	0.0147	14	-0.21	121.33	0
121	Acid Soluble Mg (%)	0494	0.2411	0.0196	0.2435	0.0165	0.0147	14	-0.14	121.33	0
121	Acid Soluble Mg (%)	0389	0.2420	0.0000	0.2435	0.0165	0.0147	14	-0.09	121.99	0
121	Acid Soluble Mg (%)	0307	0.2445	0.0430	0.2435	0.0165	0.0147	14	0.06	121.99	0
121	Acid Soluble Mg (%)	0527	0.2452	0.0028	0.2435	0.0165	0.0147	14	0.10	121.33	0
121	Acid Soluble Mg (%)	0553	0.2535	0.0030	0.2435	0.0165	0.0147	14	0.61	121.00	0
121	Acid Soluble Mg (%)	0095	0.2590	0.0139	0.2435	0.0165	0.0147	14	0.94	121.32	0
121	Acid Soluble Mg (%)	0423	0.2590	0.0040	0.2435	0.0165	0.0147	14	0.94	121.32	0
121	Acid Soluble Mg (%)	0354	0.2600	0.0000	0.2435	0.0165	0.0147	14	1.00	121.30	0
121	Acid Soluble Mg (%)	0515	0.2620	0.0558	0.2435	0.0165	0.0147	14	1.12	121.33	0
131	Water Soluble Mg (%)	0572	0.1285	0.0250				1		131.99	0
143	Elemental S (%)	0390	5.035	0.0300	5.506	0.4024	0.0464	5	-1.17	143.99	0
143	Elemental S (%)	0255	5.186	0.0840	5.506	0.4024	0.0464	5	-0.80	143.99	0
143	Elemental S (%)	0368	5.494	0.0281	5.506	0.4024	0.0464	5	-0.03	143.99	0
143	Elemental S (%)	0389	5.885	0.0100	5.506	0.4024	0.0464	5	0.94	143.99	0
143	Elemental S (%)	0325	5.930	0.0800	5.506	0.4024	0.0464	5	1.05	143.99	0
145	Sulfate S, HCl soluble (%)	0498	4.750	0.1000	5.171	0.2366	0.0433	9	-1.64	145.00	0
145	Sulfate S, HCl soluble (%)	0559	4.895	0.0100	5.171	0.2366	0.0433	9	-1.08	145.99	0
145	Sulfate S, HCl soluble (%)	0575	5.085	0.0100	5.171	0.2366	0.0433	9	-0.34	145.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
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145	Sulfate S, HCl soluble (%)	0405	5.125	0.0500	5.171	0.2366	0.0433	9	-0.18	145.00	0
145	Sulfate S, HCl soluble (%)	0553	5.250	0.0800	5.171	0.2366	0.0433	9	0.31	145.99	0
145	Sulfate S, HCl soluble (%)	0073	5.285	0.0100	5.171	0.2366	0.0433	9	0.44	145.00	0
145	Sulfate S, HCl soluble (%)	0106	5.295	0.0300	5.171	0.2366	0.0433	9	0.48	145.00	0
145	Sulfate S, HCl soluble (%)	0027	5.365	0.0700	5.171	0.2366	0.0433	9	0.76	145.00	0
145	Sulfate S, HCl soluble (%)	0561	5.425	0.0300	5.171	0.2366	0.0433	9	0.99	145.00	0
148	Total S (5.1%)	0563	4.703†	0.0031	5.315	0.2537	0.1210	51	-2.41	148.07	0
148	Total S (5.1%)	0572	4.834†	0.0130	5.315	0.2537	0.1210	51	-1.90	148.99	0
148	Total S (5.1%)	0049	4.950	0.0800	5.315	0.2537	0.1210	51	-1.44	148.00	0
148	Total S (5.1%)	0073	4.980	0.0400	5.315	0.2537	0.1210	51	-1.32	148.00	0
148	Total S (5.1%)	0131	4.995	0.0090	5.315	0.2537	0.1210	51	-1.26	148.00	0
148	Total S (5.1%)	0043	5.010	0.0800	5.315	0.2537	0.1210	51	-1.20	148.07	0
148	Total S (5.1%)	0472	5.085	0.0300	5.315	0.2537	0.1210	51	-0.91	148.07	0
148	Total S (5.1%)	0558	5.089	0.0500	5.315	0.2537	0.1210	51	-0.89	148.99	0
148	Total S (5.1%)	0556	5.100	0.2000	5.315	0.2537	0.1210	51	-0.85	148.99	0
148	Total S (5.1%)	0575	5.125	0.0300	5.315	0.2537	0.1210	51	-0.75	148.99	0
148	Total S (5.1%)	0527	5.133	0.2500	5.315	0.2537	0.1210	51	-0.72	148.07	0
148	Total S (5.1%)	0485	5.150	0.0200	5.315	0.2537	0.1210	51	-0.65	148.01	0
148	Total S (5.1%)	0029	5.152	0.2370	5.315	0.2537	0.1210	51	-0.64	148.00	0
148	Total S (5.1%)	0538	5.155	0.0300	5.315	0.2537	0.1210	51	-0.63	148.99	0
148	Total S (5.1%)	0260	5.165	0.2100	5.315	0.2537	0.1210	51	-0.59	148.07	0
148	Total S (5.1%)	0577	5.175	0.1300	5.315	0.2537	0.1210	51	-0.55	148.99	0
148	Total S (5.1%)	0233	5.176	0.0180	5.315	0.2537	0.1210	51	-0.55	148.07	0
148	Total S (5.1%)	0177	5.189	0.1408	5.315	0.2537	0.1210	51	-0.50	148.07	0
148	Total S (5.1%)	0040	5.200	0.2000	5.315	0.2537	0.1210	51	-0.45	148.07	0
148	Total S (5.1%)	0605	5.225	0.0700	5.315	0.2537	0.1210	51	-0.36	148.99	0
148	Total S (5.1%)	0023	5.240	0.0400	5.315	0.2537	0.1210	51	-0.30	148.99	0
148	Total S (5.1%)	0481	5.245	0.0500	5.315	0.2537	0.1210	51	-0.28	148.99	0
148	Total S (5.1%)	0292	5.245	0.0700	5.315	0.2537	0.1210	51	-0.28	148.07	0
148	Total S (5.1%)	0354	5.260	0.1400	5.315	0.2537	0.1210	51	-0.22	148.99	0
148	Total S (5.1%)	0117	5.284	0.0800	5.315	0.2537	0.1210	51	-0.12	148.07	0
148	Total S (5.1%)	0136	5.300	0.2000	5.315	0.2537	0.1210	51	-0.06	148.00	0
148	Total S (5.1%)	0095	5.320	0.0200	5.315	0.2537	0.1210	51	0.02	148.01	0
148	Total S (5.1%)	0035	5.320	0.0000	5.315	0.2537	0.1210	51	0.02	148.99	0
148	Total S (5.1%)	0580	5.335	0.5700	5.315	0.2537	0.1210	51	0.08	148.01	0
148	Total S (5.1%)	0515	5.341	0.5826	5.315	0.2537	0.1210	51	0.10	148.07	0
148	Total S (5.1%)	0307	5.365	0.3500	5.315	0.2537	0.1210	51	0.20	148.07	0
148	Total S (5.1%)	0394	5.365	0.1300	5.315	0.2537	0.1210	51	0.20	148.07	0
148	Total S (5.1%)	0029	5.370	0.0800	5.315	0.2537	0.1210	51	0.22	148.01	0
148	Total S (5.1%)	0169	5.410	0.1000	5.315	0.2537	0.1210	51	0.37	148.07	0
148	Total S (5.1%)	0028	5.415	0.0500	5.315	0.2537	0.1210	51	0.39	148.01	0
148	Total S (5.1%)	0055	5.415	0.1700	5.315	0.2537	0.1210	51	0.39	148.01	0
148	Total S (5.1%)	0513	5.425	0.0300	5.315	0.2537	0.1210	51	0.43	148.01	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 (5.1%)	0494	5.438	0.0554	5.315	0.2537	0.1210	51	0.48	148.07	0
148	Total S (5.1%)	0451	5.481	0.2880	5.315	0.2537	0.1210	51	0.65	148.00	0
148	Total S (5.1%)	0452	5.520	0.1600	5.315	0.2537	0.1210	51	0.81	148.99	0
148	Total S (5.1%)	0102	5.530	0.1000	5.315	0.2537	0.1210	51	0.85	148.07	0
148	Total S (5.1%)	0433	5.540	0.0400	5.315	0.2537	0.1210	51	0.89	148.99	0
148	Total S (5.1%)	0157	5.555	0.0300	5.315	0.2537	0.1210	51	0.95	148.01	0
148	Total S (5.1%)	0422	5.610	0.1630	5.315	0.2537	0.1210	51	1.16	148.99	0
148	Total S (5.1%)	0230	5.645	0.0900	5.315	0.2537	0.1210	51	1.30	148.01	0
148	Total S (5.1%)	0114	5.730	0.0731	5.315	0.2537	0.1210	51	1.63	148.00	0
148	Total S (5.1%)	0220	5.750	0.0600	5.315	0.2537	0.1210	51	1.71	148.01	0
148	Total S (5.1%)	0324	5.785±	0.3300	5.315	0.2537	0.1210	51	1.85	148.01	0
148	Total S (5.1%)	0523	5.865±	0.2100	5.315	0.2537	0.1210	51	2.17	148.99	0
148	Total S (5.1%)	0220	5.940±	0.0000	5.315	0.2537	0.1210	51	2.46	148.99	0
148	Total S (5.1%)	0402	6.179±	0.0700	5.315	0.2537	0.1210	51	3.41	148.07	0
148	Total S (5.1%)	0444	12.52±	0.5500	5.315	0.2537	0.1210	51	28.38	148.07	2
149	S - HNO3 soluble (%)	0588	4.930	0.1000	5.278	0.2816	0.0350	4	-1.24	149.04	0
149	S - HNO3 soluble (%)	0423	5.200	0.0200	5.278	0.2816	0.0350	4	-0.28	149.04	0
149	S - HNO3 soluble (%)	0524	5.393	0.0000	5.278	0.2816	0.0350	4	0.41	149.04	0
149	S - HNO3 soluble (%)	0231	5.590	0.0200	5.278	0.2816	0.0350	4	1.11	149.04	0
151	Acid Soluble As (ppm)	0481	0.9700	0.0400	5.841	5.113	0.7410	12	-0.95	151.99	0
151	Acid Soluble As (ppm)	0498	1.000	0.0000	5.841	5.113	0.7410	12	-0.95	151.00	0
151	Acid Soluble As (ppm)	0575	1.130	0.0000	5.841	5.113	0.7410	12	-0.92	151.30	0
151	Acid Soluble As (ppm)	0527	2.147	0.0023	5.841	5.113	0.7410	12	-0.72	151.33	0
151	Acid Soluble As (ppm)	0572	2.655	0.0220	5.841	5.113	0.7410	12	-0.62	151.99	0
151	Acid Soluble As (ppm)	0136	4.230	0.0200	5.841	5.113	0.7410	12	-0.32	151.33	0
151	Acid Soluble As (ppm)	0524	5.717	0.1884	5.841	5.113	0.7410	12	-0.02	151.30	0
151	Acid Soluble As (ppm)	0515	7.533	6.802	5.841	5.113	0.7410	12	0.33	151.34	0
151	Acid Soluble As (ppm)	0605	8.973	0.4160	5.841	5.113	0.7410	12	0.61	151.30	0
151	Acid Soluble As (ppm)	0563	10.19	0.3007	5.841	5.113	0.7410	12	0.85	151.33	0
151	Acid Soluble As (ppm)	0368	12.55	1.100	5.841	5.113	0.7410	12	1.31	151.34	0
151	Acid Soluble As (ppm)	0405	13.00	0.0000	5.841	5.113	0.7410	12	1.40	151.99	0
151	Acid Soluble As (ppm)	0515	10.06	9.750	5.841	5.113	0.7410	12	0.82	151.33	1
151	Acid Soluble As (ppm)	0255	0.0000	0.0000	5.841	5.113	0.7410	12		151.30	4
165	Acid Soluble B (%)	0515	0.0022	0.0011	0.0052	0.0025	0.0004	7	-1.09	165.99	0
165	Acid Soluble B (%)	0524	0.0029	0.0002	0.0052	0.0025	0.0004	7	-0.82	165.99	0
165	Acid Soluble B (%)	0389	0.0054	0.0002	0.0052	0.0025	0.0004	7	0.08	165.30	0
165	Acid Soluble B (%)	0527	0.0054	0.0002	0.0052	0.0025	0.0004	7	0.08	165.99	0
165	Acid Soluble B (%)	0423	0.0055	0.0010	0.0052	0.0025	0.0004	7	0.11	165.99	0
165	Acid Soluble B (%)	0553	0.0060	0.0000	0.0052	0.0025	0.0004	7	0.29	165.00	0
165	Acid Soluble B (%)	0472	0.0100	0.0000	0.0052	0.0025	0.0004	7	1.73	165.99	0
165	Acid Soluble B (%)	0354	< 0.01		0.0052	0.0025	0.0004	7		165.30	5
165	Acid Soluble B (%)	0572	< 0.011		0.0052	0.0025	0.0004	7		165.99	5
171	Water Soluble B (%)	0572	< 0.011					0		171.99	5

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181	Acid Soluble Cd (ppm)	0575	0.2600	0.0000	0.6866	0.1859	0.1342	13	-2.29	181.30	0
181	Acid Soluble Cd (ppm)	0444	0.4750	0.0700	0.6866	0.1859	0.1342	13	-1.14	181.30	0
181	Acid Soluble Cd (ppm)	0524	0.5389	0.0292	0.6866	0.1859	0.1342	13	-0.79	181.30	0
181	Acid Soluble Cd (ppm)	0394	0.6080	0.0040	0.6866	0.1859	0.1342	13	-0.42	181.30	0
181	Acid Soluble Cd (ppm)	0389	0.6400	0.0400	0.6866	0.1859	0.1342	13	-0.25	181.30	0
181	Acid Soluble Cd (ppm)	0481	0.6950	0.0100	0.6866	0.1859	0.1342	13	0.05	181.99	0
181	Acid Soluble Cd (ppm)	0368	0.7000	0.0000	0.6866	0.1859	0.1342	13	0.07	181.34	0
181	Acid Soluble Cd (ppm)	0494	0.7035	0.0130	0.6866	0.1859	0.1342	13	0.09	181.33	0
181	Acid Soluble Cd (ppm)	0572	0.7080	0.0160	0.6866	0.1859	0.1342	13	0.12	181.99	0
181	Acid Soluble Cd (ppm)	0563	0.7222	0.0453	0.6866	0.1859	0.1342	13	0.19	181.33	0
181	Acid Soluble Cd (ppm)	0527	0.7962	0.0172	0.6866	0.1859	0.1342	13	0.59	181.33	0
181	Acid Soluble Cd (ppm)	0498	1.180	0.0000	0.6866	0.1859	0.1342	13	2.65	181.00	0
181	Acid Soluble Cd (ppm)	0035	2.940	1.500	0.6866	0.1859	0.1342	13	12.12	181.30	0
181	Acid Soluble Cd (ppm)	0255	4.184	5.062	0.6866	0.1859	0.1342	13	18.82	181.30	1
181	Acid Soluble Cd (ppm)	0136	< 1		0.6866	0.1859	0.1342	13		181.33	5
181	Acid Soluble Cd (ppm)	0405	< 1		0.6866	0.1859	0.1342	13		181.99	5
181	Acid Soluble Cd (ppm)	0605	< 1.85		0.6866	0.1859	0.1342	13		181.30	5
190	Water Soluble Cl (%)	0220	0.2300	0.0000	0.4905	0.3235	0.0148	12	-0.81	190.00	0
190	Water Soluble Cl (%)	0029	0.2800	0.0080	0.4905	0.3235	0.0148	12	-0.65	190.00	0
190	Water Soluble Cl (%)	0605	0.2900	0.0400	0.4905	0.3235	0.0148	12	-0.62	190.00	0
190	Water Soluble Cl (%)	0553	0.3100	0.0000	0.4905	0.3235	0.0148	12	-0.56	190.00	0
190	Water Soluble Cl (%)	0444	0.3200	0.0000	0.4905	0.3235	0.0148	12	-0.53	190.00	0
190	Water Soluble Cl (%)	0572	0.3400	0.0400	0.4905	0.3235	0.0148	12	-0.47	190.00	0
190	Water Soluble Cl (%)	0455	0.3550	0.0100	0.4905	0.3235	0.0148	12	-0.42	190.00	0
190	Water Soluble Cl (%)	0029	0.4050	0.0100	0.4905	0.3235	0.0148	12	-0.26	190.99	0
190	Water Soluble Cl (%)	0561	0.5100	0.0400	0.4905	0.3235	0.0148	12	0.06	190.00	0
190	Water Soluble Cl (%)	0577	0.9050	0.0100	0.4905	0.3235	0.0148	12	1.28	190.00	0
190	Water Soluble Cl (%)	0538	0.9650	0.0100	0.4905	0.3235	0.0148	12	1.47	190.00	0
190	Water Soluble Cl (%)	0481	2.105	0.0100	0.4905	0.3235	0.0148	12	4.99	190.00	0
190	Water Soluble Cl (%)	0136	0.4350	0.1100	0.4905	0.3235	0.0148	12	-0.17	190.99	1
191	Acid Soluble Cr (ppm)	0444	10.61	0.2500	16.66	3.294	0.7388	16	-1.84	191.30	0
191	Acid Soluble Cr (ppm)	0394	12.41	0.6370	16.66	3.294	0.7388	16	-1.29	191.30	0
191	Acid Soluble Cr (ppm)	0524	12.71	0.1002	16.66	3.294	0.7388	16	-1.20	191.30	0
191	Acid Soluble Cr (ppm)	0498	14.70	0.4000	16.66	3.294	0.7388	16	-0.59	191.00	0
191	Acid Soluble Cr (ppm)	0368	14.75	1.700	16.66	3.294	0.7388	16	-0.58	191.34	0
191	Acid Soluble Cr (ppm)	0389	15.13	0.4300	16.66	3.294	0.7388	16	-0.47	191.30	0
191	Acid Soluble Cr (ppm)	0563	15.75	0.6713	16.66	3.294	0.7388	16	-0.27	191.33	0
191	Acid Soluble Cr (ppm)	0572	16.28	1.504	16.66	3.294	0.7388	16	-0.12	191.99	0
191	Acid Soluble Cr (ppm)	0136	17.04	0.0800	16.66	3.294	0.7388	16	0.12	191.33	0
191	Acid Soluble Cr (ppm)	0035	18.10	1.600	16.66	3.294	0.7388	16	0.44	191.30	0
191	Acid Soluble Cr (ppm)	0575	18.60	0.0000	16.66	3.294	0.7388	16	0.59	191.30	0
191	Acid Soluble Cr (ppm)	0494	19.55	0.7000	16.66	3.294	0.7388	16	0.88	191.33	0
191	Acid Soluble Cr (ppm)	0515	19.61	2.916	16.66	3.294	0.7388	16	0.90	191.34	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
191	Acid Soluble Cr (ppm)	0605	19.99	0.7880	16.66	3.294	0.7388	16	1.01	191.30	0
191	Acid Soluble Cr (ppm)	0405	20.00	0.0000	16.66	3.294	0.7388	16	1.01	191.99	0
191	Acid Soluble Cr (ppm)	0527	20.18	0.0449	16.66	3.294	0.7388	16	1.07	191.33	0
191	Acid Soluble Cr (ppm)	0515	36.36	19.32	16.66	3.294	0.7388	16	5.98	191.33	1
191	Acid Soluble Cr (ppm)	0481	< 20		16.66	3.294	0.7388	16		191.99	5
202	Acid Soluble Co (ppm)	0572	0.6570	0.1220	0.9440	0.2997	0.0709	10	-0.96	202.99	0
202	Acid Soluble Co (ppm)	0389	0.7350	0.0500	0.9440	0.2997	0.0709	10	-0.70	202.30	0
202	Acid Soluble Co (ppm)	0527	0.7568	0.0366	0.9440	0.2997	0.0709	10	-0.62	202.33	0
202	Acid Soluble Co (ppm)	0494	0.7685	0.0590	0.9440	0.2997	0.0709	10	-0.59	202.33	0
202	Acid Soluble Co (ppm)	0575	0.7900	0.0000	0.9440	0.2997	0.0709	10	-0.51	202.30	0
202	Acid Soluble Co (ppm)	0423	0.8575	0.0250	0.9440	0.2997	0.0709	10	-0.29	202.32	0
202	Acid Soluble Co (ppm)	0405	1.000	0.0000	0.9440	0.2997	0.0709	10	0.19	202.99	0
202	Acid Soluble Co (ppm)	0524	1.131	0.0236	0.9440	0.2997	0.0709	10	0.63	202.30	0
202	Acid Soluble Co (ppm)	0605	1.351	0.0230	0.9440	0.2997	0.0709	10	1.36	202.30	0
202	Acid Soluble Co (ppm)	0035	3.225	0.3700	0.9440	0.2997	0.0709	10	7.61	202.30	0
202	Acid Soluble Co (ppm)	0255	26.75	11.17	0.9440	0.2997	0.0709	10	86.08	202.99	1
202	Acid Soluble Co (ppm)	0368	< 0.1		0.9440	0.2997	0.0709	10		202.34	5
202	Acid Soluble Co (ppm)	0136	< 2.5		0.9440	0.2997	0.0709	10		202.33	5
202	Acid Soluble Co (ppm)	0481	< 20		0.9440	0.2997	0.0709	10		202.99	5
221	Acid Soluble Cu (%)	0368	0.0007	0.0002	0.0012	0.0005	0.0001	21	-0.99	221.99	0
221	Acid Soluble Cu (%)	0524	0.0008	0.0001	0.0012	0.0005	0.0001	21	-0.90	221.99	0
221	Acid Soluble Cu (%)	0527	0.0008	0.0000	0.0012	0.0005	0.0001	21	-0.80	221.33	0
221	Acid Soluble Cu (%)	0389	0.0008	0.0000	0.0012	0.0005	0.0001	21	-0.80	221.99	0
221	Acid Soluble Cu (%)	0095	0.0009	0.0000	0.0012	0.0005	0.0001	21	-0.62	221.32	0
221	Acid Soluble Cu (%)	0405	0.0009	0.0000	0.0012	0.0005	0.0001	21	-0.62	221.99	0
221	Acid Soluble Cu (%)	0423	0.0010	0.0001	0.0012	0.0005	0.0001	21	-0.52	221.32	0
221	Acid Soluble Cu (%)	0255	0.0010	0.0000	0.0012	0.0005	0.0001	21	-0.43	221.30	0
221	Acid Soluble Cu (%)	0444	0.0010	0.0000	0.0012	0.0005	0.0001	21	-0.43	221.30	0
221	Acid Soluble Cu (%)	0043	0.0010	0.0000	0.0012	0.0005	0.0001	21	-0.43	221.33	0
221	Acid Soluble Cu (%)	0136	0.0010	0.0000	0.0012	0.0005	0.0001	21	-0.43	221.33	0
221	Acid Soluble Cu (%)	0481	0.0010	0.0000	0.0012	0.0005	0.0001	21	-0.43	221.99	0
221	Acid Soluble Cu (%)	0572	0.0010	0.0000	0.0012	0.0005	0.0001	21	-0.43	221.99	0
221	Acid Soluble Cu (%)	0485	0.0012	0.0000	0.0012	0.0005	0.0001	21	-0.06	221.00	0
221	Acid Soluble Cu (%)	0394	0.0015	0.0001	0.0012	0.0005	0.0001	21	0.41	221.32	0
221	Acid Soluble Cu (%)	0515	0.0015	0.0010	0.0012	0.0005	0.0001	21	0.50	221.33	0
221	Acid Soluble Cu (%)	0515	0.0018	0.0001	0.0012	0.0005	0.0001	21	0.97	221.99	0
221	Acid Soluble Cu (%)	0575	0.0025	0.0000	0.0012	0.0005	0.0001	21	2.36	221.99	0
221	Acid Soluble Cu (%)	0035	0.0040	0.0000	0.0012	0.0005	0.0001	21	5.16	221.30	0
221	Acid Soluble Cu (%)	0402	0.0057	0.0003	0.0012	0.0005	0.0001	21	8.23	221.30	0
221	Acid Soluble Cu (%)	0494	0.0095	0.0009	0.0012	0.0005	0.0001	21	15.31	221.33	0
221	Acid Soluble Cu (%)	0605	9.519	1.158	0.0012	0.0005	0.0001	21	17729.90	221.99	2
221	Acid Soluble Cu (%)	0106	0.0001	0.0001	0.0012	0.0005	0.0001	21		221.33	4
221	Acid Soluble Cu (%)	0553	< 0.005		0.0012	0.0005	0.0001	21		221.00	5

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
221	Acid Soluble Cu (%)	0354	< 0.01		0.0012	0.0005	0.0001	21		221.30	5
241	Acid Soluble Fe (%)	0572	0.0450	0.0060	0.0508	0.0044	0.0018	10	-1.31	241.99	0
241	Acid Soluble Fe (%)	0553	0.0475	0.0010	0.0508	0.0044	0.0018	10	-0.75	241.00	0
241	Acid Soluble Fe (%)	0524	0.0475	0.0024	0.0508	0.0044	0.0018	10	-0.75	241.99	0
241	Acid Soluble Fe (%)	0515	0.0487	0.0030	0.0508	0.0044	0.0018	10	-0.48	241.99	0
241	Acid Soluble Fe (%)	0389	0.0499	0.0003	0.0508	0.0044	0.0018	10	-0.22	241.99	0
241	Acid Soluble Fe (%)	0472	0.0500	0.0000	0.0508	0.0044	0.0018	10	-0.18	241.33	0
241	Acid Soluble Fe (%)	0527	0.0527	0.0006	0.0508	0.0044	0.0018	10	0.43	241.33	0
241	Acid Soluble Fe (%)	0035	0.0545	0.0010	0.0508	0.0044	0.0018	10	0.84	241.30	0
241	Acid Soluble Fe (%)	0095	0.0559	0.0025	0.0508	0.0044	0.0018	10	1.14	241.32	0
241	Acid Soluble Fe (%)	0423	0.0565	0.0010	0.0508	0.0044	0.0018	10	1.29	241.32	0
241	Acid Soluble Fe (%)	0515	0.0857	0.0786	0.0508	0.0044	0.0018	10	7.90	241.33	1
241	Acid Soluble Fe (%)	0494	0.5075	0.0290	0.0508	0.0044	0.0018	10	103.35	241.33	2
241	Acid Soluble Fe (%)	0354	< 0.01		0.0508	0.0044	0.0018	10		241.30	5
251	Acid Soluble Pb (ppm)	0575	1.130	0.0000	2.128	0.8161	0.1603	10	-1.22	251.30	0
251	Acid Soluble Pb (ppm)	0444	1.475	0.1700	2.128	0.8161	0.1603	10	-0.80	251.30	0
251	Acid Soluble Pb (ppm)	0481	1.510	0.1200	2.128	0.8161	0.1603	10	-0.76	251.99	0
251	Acid Soluble Pb (ppm)	0563	1.653	0.0967	2.128	0.8161	0.1603	10	-0.58	251.33	0
251	Acid Soluble Pb (ppm)	0572	1.988	0.1390	2.128	0.8161	0.1603	10	-0.17	251.99	0
251	Acid Soluble Pb (ppm)	0527	1.999	0.1661	2.128	0.8161	0.1603	10	-0.16	251.33	0
251	Acid Soluble Pb (ppm)	0524	2.461	0.0771	2.128	0.8161	0.1603	10	0.41	251.30	0
251	Acid Soluble Pb (ppm)	0389	2.800	0.0600	2.128	0.8161	0.1603	10	0.82	251.30	0
251	Acid Soluble Pb (ppm)	0394	3.050	0.0040	2.128	0.8161	0.1603	10	1.13	251.30	0
251	Acid Soluble Pb (ppm)	0494	3.215	0.7700	2.128	0.8161	0.1603	10	1.33	251.33	0
251	Acid Soluble Pb (ppm)	0515	2.118	0.9297	2.128	0.8161	0.1603	10	-0.01	251.33	1
251	Acid Soluble Pb (ppm)	0255	0.0000	0.0000	2.128	0.8161	0.1603	10		251.30	4
251	Acid Soluble Pb (ppm)	0035	< 0.005		2.128	0.8161	0.1603	10		251.30	5
251	Acid Soluble Pb (ppm)	0498	< 0.5		2.128	0.8161	0.1603	10		251.00	5
251	Acid Soluble Pb (ppm)	0368	< 0.6		2.128	0.8161	0.1603	10		251.34	5
251	Acid Soluble Pb (ppm)	0136	< 3		2.128	0.8161	0.1603	10		251.33	5
251	Acid Soluble Pb (ppm)	0405	< 4		2.128	0.8161	0.1603	10		251.99	5
251	Acid Soluble Pb (ppm)	0605	< 5		2.128	0.8161	0.1603	10		251.30	5
261	Acid Soluble Mn (%)	0524	0.0029	0.0001	0.0030	0.0001	0.0000	6	-1.70	261.99	0
261	Acid Soluble Mn (%)	0553	0.0030	0.0000	0.0030	0.0001	0.0000	6	-0.06	261.00	0
261	Acid Soluble Mn (%)	0035	0.0030	0.0000	0.0030	0.0001	0.0000	6	-0.06	261.30	0
261	Acid Soluble Mn (%)	0572	0.0030	0.0000	0.0030	0.0001	0.0000	6	-0.06	261.99	0
261	Acid Soluble Mn (%)	0527	0.0031	0.0001	0.0030	0.0001	0.0000	6	0.49	261.35	0
261	Acid Soluble Mn (%)	0389	0.0031	0.0000	0.0030	0.0001	0.0000	6	1.03	261.99	0
261	Acid Soluble Mn (%)	0494	0.0275	0.0046	0.0030	0.0001	0.0000	6	268.03	261.35	1
261	Acid Soluble Mn (%)	0354	< 0.01		0.0030	0.0001	0.0000	6		261.30	5
281	Acid Soluble Hg (ppm)	0368	0.0016	0.0002	0.0022	0.0007	0.0008	3	-0.65	281.99	0
281	Acid Soluble Hg (ppm)	0524	0.0020	0.0001	0.0022	0.0007	0.0008	3	-0.26	281.99	0
281	Acid Soluble Hg (ppm)	0035	0.0030	0.0020	0.0022	0.0007	0.0008	3	0.91	281.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
281	Acid Soluble Hg (ppm)	0527	< 0.001		0.0022	0.0007	0.0008	3		281.30	5
281	Acid Soluble Hg (ppm)	0572	< 0.009		0.0022	0.0007	0.0008	3		281.99	5
281	Acid Soluble Hg (ppm)	0575	< 0.1		0.0022	0.0007	0.0008	3		281.30	5
281	Acid Soluble Hg (ppm)	0481	< 0.5		0.0022	0.0007	0.0008	3		281.00	5
281	Acid Soluble Hg (ppm)	0498	< 0.5		0.0022	0.0007	0.0008	3		281.00	5
281	Acid Soluble Hg (ppm)	0605	< 1.25		0.0022	0.0007	0.0008	3		281.30	5
281	Acid Soluble Hg (ppm)	0405	< 2		0.0022	0.0007	0.0008	3		281.99	5
289	Acid Soluble Mo (ppm)	0524	0.5774	0.0464	1.162	0.5938	0.1037	6	-0.99	289.30	0
289	Acid Soluble Mo (ppm)	0575	0.8700	0.0000	1.162	0.5938	0.1037	6	-0.49	289.30	0
289	Acid Soluble Mo (ppm)	0234	1.000	0.0000	1.162	0.5938	0.1037	6	-0.27	289.30	0
289	Acid Soluble Mo (ppm)	0106	1.000	0.0000	1.162	0.5938	0.1037	6	-0.27	289.33	0
289	Acid Soluble Mo (ppm)	0527	1.474	0.4211	1.162	0.5938	0.1037	6	0.52	289.33	0
289	Acid Soluble Mo (ppm)	0515	20.32	0.1545	1.162	0.5938	0.1037	6	32.26	289.33	0
289	Acid Soluble Mo (ppm)	0494	1.454	1.653	1.162	0.5938	0.1037	6	0.49	289.33	1
289	Acid Soluble Mo (ppm)	0368	0.0000	0.0000	1.162	0.5938	0.1037	6		289.34	4
289	Acid Soluble Mo (ppm)	0255	0.1700	0.3400	1.162	0.5938	0.1037	6		289.30	4
289	Acid Soluble Mo (ppm)	0035	< 0.002		1.162	0.5938	0.1037	6		289.30	5
289	Acid Soluble Mo (ppm)	0405	< 1		1.162	0.5938	0.1037	6		289.99	5
289	Acid Soluble Mo (ppm)	0136	< 2.5		1.162	0.5938	0.1037	6		289.33	5
289	Acid Soluble Mo (ppm)	0572	< 2.55		1.162	0.5938	0.1037	6		289.99	5
289	Acid Soluble Mo (ppm)	0481	< 100		1.162	0.5938	0.1037	6		289.99	5
291	Acid Soluble Ni (ppm)	0515	0.4972	0.1189	3.692	1.118	0.3021	14	-2.86	291.34	0
291	Acid Soluble Ni (ppm)	0394	2.564	0.0390	3.692	1.118	0.3021	14	-1.01	291.30	0
291	Acid Soluble Ni (ppm)	0485	2.660	0.0800	3.692	1.118	0.3021	14	-0.92	291.30	0
291	Acid Soluble Ni (ppm)	0524	2.947	0.1787	3.692	1.118	0.3021	14	-0.67	291.30	0
291	Acid Soluble Ni (ppm)	0575	3.290	0.0000	3.692	1.118	0.3021	14	-0.36	291.30	0
291	Acid Soluble Ni (ppm)	0389	3.360	0.0110	3.692	1.118	0.3021	14	-0.30	291.30	0
291	Acid Soluble Ni (ppm)	0572	3.434	0.4360	3.692	1.118	0.3021	14	-0.23	291.99	0
291	Acid Soluble Ni (ppm)	0136	3.720	0.0600	3.692	1.118	0.3021	14	0.03	291.33	0
291	Acid Soluble Ni (ppm)	0563	3.859	0.0202	3.692	1.118	0.3021	14	0.15	291.33	0
291	Acid Soluble Ni (ppm)	0605	4.203	0.1340	3.692	1.118	0.3021	14	0.46	291.30	0
291	Acid Soluble Ni (ppm)	0405	4.500	1.000	3.692	1.118	0.3021	14	0.72	291.99	0
291	Acid Soluble Ni (ppm)	0527	4.880	0.0616	3.692	1.118	0.3021	14	1.06	291.33	0
291	Acid Soluble Ni (ppm)	0494	4.885	0.0700	3.692	1.118	0.3021	14	1.07	291.33	0
291	Acid Soluble Ni (ppm)	0035	5.710	2.020	3.692	1.118	0.3021	14	1.81	291.30	0
291	Acid Soluble Ni (ppm)	0255	41.92	14.45	3.692	1.118	0.3021	14	34.19	291.99	2
291	Acid Soluble Ni (ppm)	0368	< 0.2		3.692	1.118	0.3021	14		291.34	5
291	Acid Soluble Ni (ppm)	0481	< 10		3.692	1.118	0.3021	14		291.99	5
301	Acid Soluble Se (ppm)	0515	1.044	0.3190	5.373	4.241	0.4531	5	-1.02	301.34	0
301	Acid Soluble Se (ppm)	0575	1.500	0.0000	5.373	4.241	0.4531	5	-0.91	301.30	0
301	Acid Soluble Se (ppm)	0524	5.392	0.2520	5.373	4.241	0.4531	5	0.00	301.30	0
301	Acid Soluble Se (ppm)	0527	7.933	0.2847	5.373	4.241	0.4531	5	0.60	301.33	0
301	Acid Soluble Se (ppm)	0572	11.00	1.410	5.373	4.241	0.4531	5	1.33	301.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
301	Acid Soluble Se (ppm)	0255	0.0000	0.0000	5.373	4.241	0.4531	5		301.99	4
301	Acid Soluble Se (ppm)	0498	< 0.5		5.373	4.241	0.4531	5		301.00	5
301	Acid Soluble Se (ppm)	0481	< 0.5		5.373	4.241	0.4531	5		301.99	5
301	Acid Soluble Se (ppm)	0494	< 0.96		5.373	4.241	0.4531	5		301.33	5
301	Acid Soluble Se (ppm)	0368	< 1.1		5.373	4.241	0.4531	5		301.34	5
301	Acid Soluble Se (ppm)	0605	< 1.65		5.373	4.241	0.4531	5		301.30	5
301	Acid Soluble Se (ppm)	0405	< 10		5.373	4.241	0.4531	5		301.99	5
311	Sodium (%)	0553	0.0755	0.0030	0.0865	0.0096	0.0062	6	-1.02	311.00	0
311	Sodium (%)	0572	0.0815	0.0170	0.0865	0.0096	0.0062	6	-0.46	311.99	0
311	Sodium (%)	0035	0.0855	0.0030	0.0865	0.0096	0.0062	6	-0.09	311.33	0
311	Sodium (%)	0527	0.0871	0.0029	0.0865	0.0096	0.0062	6	0.05	311.33	0
311	Sodium (%)	0423	0.0885	0.0010	0.0865	0.0096	0.0062	6	0.19	311.33	0
311	Sodium (%)	0354	0.1050	0.0100	0.0865	0.0096	0.0062	6	1.72	311.99	0
321	Acid Soluble Zn (%)	0234	0.0007	0.0004	0.0083	0.0031	0.0010	25	-2.47	321.30	0
321	Acid Soluble Zn (%)	0043	0.0009	0.0000	0.0083	0.0031	0.0010	25	-2.40	321.33	0
321	Acid Soluble Zn (%)	0035	0.0035	0.0010	0.0083	0.0031	0.0010	25	-1.56	321.30	0
321	Acid Soluble Zn (%)	0106	0.0045	0.0016	0.0083	0.0031	0.0010	25	-1.23	321.33	0
321	Acid Soluble Zn (%)	0368	0.0046	0.0066	0.0083	0.0031	0.0010	25	-1.20	321.99	0
321	Acid Soluble Zn (%)	0572	0.0060	0.0000	0.0083	0.0031	0.0010	25	-0.74	321.99	0
321	Acid Soluble Zn (%)	0563	0.0075	0.0010	0.0083	0.0031	0.0010	25	-0.26	321.33	0
321	Acid Soluble Zn (%)	0481	0.0075	0.0010	0.0083	0.0031	0.0010	25	-0.26	321.99	0
321	Acid Soluble Zn (%)	0553	0.0080	0.0000	0.0083	0.0031	0.0010	25	-0.09	321.00	0
321	Acid Soluble Zn (%)	0515	0.0080	0.0000	0.0083	0.0031	0.0010	25	-0.09	321.33	0
321	Acid Soluble Zn (%)	0485	0.0086	0.0004	0.0083	0.0031	0.0010	25	0.10	321.00	0
321	Acid Soluble Zn (%)	0524	0.0087	0.0006	0.0083	0.0031	0.0010	25	0.14	321.99	0
321	Acid Soluble Zn (%)	0136	0.0088	0.0001	0.0083	0.0031	0.0010	25	0.15	321.33	0
321	Acid Soluble Zn (%)	0389	0.0089	0.0001	0.0083	0.0031	0.0010	25	0.18	321.99	0
321	Acid Soluble Zn (%)	0515	0.0089	0.0012	0.0083	0.0031	0.0010	25	0.20	321.99	0
321	Acid Soluble Zn (%)	0394	0.0090	0.0000	0.0083	0.0031	0.0010	25	0.23	321.32	0
321	Acid Soluble Zn (%)	0575	0.0090	0.0000	0.0083	0.0031	0.0010	25	0.23	321.99	0
321	Acid Soluble Zn (%)	0233	0.0093	0.0011	0.0083	0.0031	0.0010	25	0.31	321.33	0
321	Acid Soluble Zn (%)	0444	0.0095	0.0010	0.0083	0.0031	0.0010	25	0.40	321.30	0
321	Acid Soluble Zn (%)	0405	0.0098	0.0005	0.0083	0.0031	0.0010	25	0.48	321.99	0
321	Acid Soluble Zn (%)	0472	0.0100	0.0000	0.0083	0.0031	0.0010	25	0.56	321.33	0
321	Acid Soluble Zn (%)	0255	0.0110	0.0020	0.0083	0.0031	0.0010	25	0.88	321.30	0
321	Acid Soluble Zn (%)	0095	0.0136	0.0026	0.0083	0.0031	0.0010	25	1.73	321.32	0
321	Acid Soluble Zn (%)	0402	0.0150	0.0001	0.0083	0.0031	0.0010	25	2.17	321.30	0
321	Acid Soluble Zn (%)	0494	0.0939	0.0029	0.0083	0.0031	0.0010	25	27.83	321.33	0
321	Acid Soluble Zn (%)	0605	87.42	1.547	0.0083	0.0031	0.0010	25	28425.48	321.99	2
321	Acid Soluble Zn (%)	0354	< 0.01		0.0083	0.0031	0.0010	25		321.30	5
325	Water Soluble Zn (%)	0572	0.0010	0.0000				2		325.99	0
325	Water Soluble Zn (%)	0444	0.0015	0.0010				2		325.30	0
431	Soluble Si in nonliquids (%)	0572	0.0105	0.0030				1		431.99	0

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

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.