

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 180411

Grade 12-24-12

Statistical Summary

Analytes: 36

Labs Reporting: 104

Issue Date : 05/31/2018

Analyte Code	Analyte Sample # 180411	# 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)	Honwitz %RSD
001	Ammoniacal Nitrogen (%)	38	37	8.333	0.3935	8.335		0.2646	0.0544	3.17%		0.0871	2.91%
002	Nitrate Nitrogen (%)	23	23	3.450	0.4420	3.373		0.2058	0.0537	6.10%		0.0735	3.33%
009	Ammoniacal Plus Nitrate Nitrogen (%)	5	5	10.08	3.695	10.08		3.695	2.066	36.67%		0.0976	2.83%
010	Total Nitrogen (12%)	88	86	11.79	0.3830	11.81	0.6072	0.2302	0.0310	1.95%	0.88	0.0880	2.76%
020	Total Phosphorus as P2O5 (%)	58	56	25.91	1.235	25.76		0.7873	0.1315	3.06%		0.3986	2.45%
030	Citrate Insoluble Phosphorus as P2O5 (%)	1		0.3950									
040	Indirect Available Phosphorus as P2O5 (24%)	4	4	19.80	12.68	19.80	0.7190	12.68	7.922	64.01%	41.07	0.0695	2.55%
041	Direct Available Phosphorus as P2O5 (24%)	59	57	25.15	0.7444	25.16	0.7300	0.7238	0.1198	2.88%	2.31	0.2564	2.46%
048	Water Soluble Phosphorus as P2O5 (%)	4	4	18.37	0.2008	18.37		0.2008	0.1255	1.09%		0.1295	2.58%
050	Soluble Potassium as K2O (12%)	98	97	12.93	0.6839	12.89	0.8257	0.5615	0.0713	4.36%	1.58	0.2367	2.72%
060	Water (Free) (%)	5	5	1.256	0.2342	1.256		0.2342	0.1309	18.64%		0.0225	3.86%
101	Acid Soluble Calcium (%)	19	19	4.333	0.3187	4.334	0.4167	0.3172	0.0910	7.32%	1.77	0.0808	3.21%
121	Acid Soluble Magnesium (1.2%)	68	67	1.470	0.2321	1.451	0.2726	0.1306	0.0199	9.00%	1.12	0.0399	3.78%
131	Water Soluble Magnesium (%)	2	2	1.538	0.2322								
143	Elemental Sulfur (%)	6	5	0.9489	0.3560	0.9489		0.3560	0.1990	37.52%		0.0062	4.03%
145	Sulfate Sulfur, HCl soluble (%)	11	10	1.192	0.1499	1.171		0.1150	0.0455	9.82%		0.0274	3.91%
146	Total Sulfur in Liquid (1%)	1		0.9629									
148	Total Sulfur (1%)	40	39	1.170	0.1209	1.161	0.2580	0.1112	0.0223	9.58%	1.00	0.0448	3.91%
149	Sulfur - HNO3 soluble (%)	6	6	1.091	0.0516	1.091		0.0585	0.0299	5.37%		0.0209	3.95%
151	Acid Soluble Arsenic (ppm)	21	21	9.114	3.368	8.859		2.153	0.5873	24.30%		0.7740	11.52%
165	Acid Soluble Boron (0.04%)	48	47	0.0727	0.0727	0.0587	0.0118	0.0138	0.0025	23.53%	2.73	0.0293	6.13%
171	Water Soluble Boron (%)	7	7	0.0664	0.0247	0.0664		0.0280	0.0132	42.19%		0.0071	6.02%
181	Acid Soluble Cadmium (ppm)	25	24	3.163	0.9657	3.058		0.8487	0.2166	27.75%		0.1985	13.52%
191	Acid Soluble Chromium (ppm)	25	24	65.24	13.46	64.53		11.01	2.809	17.06%		2.279	8.54%
202	Acid Soluble Cobalt (ppm)	25	23	3.965	2.329	3.697	2.1091	1.398	0.3644	37.82%	1.54	0.4071	13.14%
221	Acid Soluble Copper (%)	21	20	0.0029	0.0079	0.0008	0.0051	0.0007	0.0002	89.47%	0.33	0.0018	11.68%
241	Acid Soluble Iron (%)	26	25	0.6229	0.0370	0.6252	0.0675	0.0301	0.0075	4.82%	1.04	0.0190	4.29%
251	Acid Soluble Lead (ppm)	25	23	4.385	2.133	4.099		1.543	0.4022	37.64%		0.5516	12.94%
261	Acid Soluble Manganese (%)	25	23	0.0223	0.0203	0.0185	0.0068	0.0017	0.0004	9.02%	0.57	0.0028	7.29%
281	Acid Soluble Mercury (ppm)	2	1	0.0150									
289	Acid Soluble Molybdenum (ppm)	27	25	7.689	2.234	7.586	3.2759	1.938	0.4846	25.55%	1.38	0.6969	11.79%

Analyte Code	Analyte Sample # 180411	# 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)	Howitz %RSD
291	Acid Soluble Nickel (ppm)	26	25	16.34	6.645	15.23		3.522	0.8806	23.13%		0.9249	10.62%
301	Acid Soluble Selenium (ppm)	12	10	6.523	9.094	4.631		4.706	1.860	101.62%		0.5914	12.70%
311	Sodium (%)	11	11	0.4057	0.0417	0.4003	0.0450	0.0346	0.0130	8.65%	1.79	0.0171	4.59%
321	Acid Soluble Zinc (0.02%)	60	58	0.0300	0.0198	0.0266	0.0077	0.0043	0.0007	16.02%	1.30	0.0067	6.90%
325	Water Soluble Zinc (%)	1		0.0295									

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.

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Analyte Proficiency From All Labs

Analytes: 36

Sample # 180411

Lab Values

Labs Reporting: 104

Grade 12-24-12

Issue Date : 05/31/2018

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001	Ammoniacal Nitrogen (%)	0309	7.115	0.1500	8.335	0.2646	0.0871	37	-4.61	001.10	0
001	Ammoniacal Nitrogen (%)	0230	7.510	0.3600	8.335	0.2646	0.0871	37	-3.12	001.10	0
001	Ammoniacal Nitrogen (%)	0415	7.806	0.0067	8.335	0.2646	0.0871	37	-2.00	001.99	0
001	Ammoniacal Nitrogen (%)	0177	7.978	0.0092	8.335	0.2646	0.0871	37	-1.35	001.10	0
001	Ammoniacal Nitrogen (%)	0394	7.985	0.0530	8.335	0.2646	0.0871	37	-1.33	001.99	0
001	Ammoniacal Nitrogen (%)	0368	8.013	0.0020	8.335	0.2646	0.0871	37	-1.22	001.99	0
001	Ammoniacal Nitrogen (%)	0231	8.070	0.0400	8.335	0.2646	0.0871	37	-1.00	001.10	0
001	Ammoniacal Nitrogen (%)	0451	8.125	0.0100	8.335	0.2646	0.0871	37	-0.79	001.10	0
001	Ammoniacal Nitrogen (%)	0546	8.190	0.1600	8.335	0.2646	0.0871	37	-0.55	001.99	0
001	Ammoniacal Nitrogen (%)	0510	8.193	0.1415	8.335	0.2646	0.0871	37	-0.54	001.99	0
001	Ammoniacal Nitrogen (%)	0169	8.200	0.0200	8.335	0.2646	0.0871	37	-0.51	001.10	0
001	Ammoniacal Nitrogen (%)	0405	8.230	0.1000	8.335	0.2646	0.0871	37	-0.40	001.10	0
001	Ammoniacal Nitrogen (%)	0522	8.270	0.0400	8.335	0.2646	0.0871	37	-0.25	001.99	0
001	Ammoniacal Nitrogen (%)	0027	8.300	0.1400	8.335	0.2646	0.0871	37	-0.13	001.99	0
001	Ammoniacal Nitrogen (%)	0489	8.305	0.0100	8.335	0.2646	0.0871	37	-0.11	001.99	0
001	Ammoniacal Nitrogen (%)	0524	8.305	0.0100	8.335	0.2646	0.0871	37	-0.11	001.99	0
001	Ammoniacal Nitrogen (%)	0220	8.320	0.0200	8.335	0.2646	0.0871	37	-0.06	001.99	0
001	Ammoniacal Nitrogen (%)	0545	8.335	0.0300	8.335	0.2646	0.0871	37	0.00	001.99	0
001	Ammoniacal Nitrogen (%)	0096	8.345	0.0300	8.335	0.2646	0.0871	37	0.04	001.99	0
001	Ammoniacal Nitrogen (%)	0535	8.350	0.1000	8.335	0.2646	0.0871	37	0.06	001.99	0
001	Ammoniacal Nitrogen (%)	0538	8.380	0.0400	8.335	0.2646	0.0871	37	0.17	001.99	0
001	Ammoniacal Nitrogen (%)	0300	8.395	0.0100	8.335	0.2646	0.0871	37	0.23	001.99	0
001	Ammoniacal Nitrogen (%)	0371	8.405	0.0300	8.335	0.2646	0.0871	37	0.26	001.99	0
001	Ammoniacal Nitrogen (%)	0535	8.425	0.0500	8.335	0.2646	0.0871	37	0.34	001.10	0
001	Ammoniacal Nitrogen (%)	0255	8.430	0.2600	8.335	0.2646	0.0871	37	0.36	001.99	0
001	Ammoniacal Nitrogen (%)	0498	8.450	0.1000	8.335	0.2646	0.0871	37	0.43	001.10	0
001	Ammoniacal Nitrogen (%)	0423	8.455	0.0900	8.335	0.2646	0.0871	37	0.45	001.99	0
001	Ammoniacal Nitrogen (%)	0444	8.475	0.2100	8.335	0.2646	0.0871	37	0.53	001.10	0
001	Ammoniacal Nitrogen (%)	0540	8.490	0.0200	8.335	0.2646	0.0871	37	0.58	001.99	0
001	Ammoniacal Nitrogen (%)	0550	8.495	0.0500	8.335	0.2646	0.0871	37	0.60	001.99	0
001	Ammoniacal Nitrogen (%)	0537	8.560	0.2600	8.335	0.2646	0.0871	37	0.85	001.99	0
001	Ammoniacal Nitrogen (%)	0539	8.590	0.0200	8.335	0.2646	0.0871	37	0.96	001.99	0
001	Ammoniacal Nitrogen (%)	0533	8.600	0.1800	8.335	0.2646	0.0871	37	1.00	001.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001	Ammoniacal Nitrogen (%)	0532	8.840	0.1800	8.335	0.2646	0.0871	37	1.91	001.99	0
001	Ammoniacal Nitrogen (%)	0519	8.885	0.0500	8.335	0.2646	0.0871	37	2.08	001.99	0
001	Ammoniacal Nitrogen (%)	0549	9.250	0.1000	8.335	0.2646	0.0871	37	3.46	001.99	0
001	Ammoniacal Nitrogen (%)	0481	9.270	0.1400	8.335	0.2646	0.0871	37	3.53	001.99	0
001	Ammoniacal Nitrogen (%)	0486	8.390	0.6600	8.335	0.2646	0.0871	37	0.21	001.10	1
002	Nitrate Nitrogen (%)	0533	2.830	0.0400	3.373	0.2058	0.0735	23	-2.64	002.99	0
002	Nitrate Nitrogen (%)	0029	3.080	0.0400	3.373	0.2058	0.0735	23	-1.42	002.99	0
002	Nitrate Nitrogen (%)	0545	3.130	0.0200	3.373	0.2058	0.0735	23	-1.18	002.99	0
002	Nitrate Nitrogen (%)	0532	3.150	0.1400	3.373	0.2058	0.0735	23	-1.08	002.99	0
002	Nitrate Nitrogen (%)	0537	3.250	0.1400	3.373	0.2058	0.0735	23	-0.60	002.99	0
002	Nitrate Nitrogen (%)	0539	3.280	0.0400	3.373	0.2058	0.0735	23	-0.45	002.99	0
002	Nitrate Nitrogen (%)	0394	3.284	0.0020	3.373	0.2058	0.0735	23	-0.43	002.99	0
002	Nitrate Nitrogen (%)	0423	3.290	0.0200	3.373	0.2058	0.0735	23	-0.40	002.99	0
002	Nitrate Nitrogen (%)	0368	3.292	0.0590	3.373	0.2058	0.0735	23	-0.40	002.99	0
002	Nitrate Nitrogen (%)	0519	3.305	0.0100	3.373	0.2058	0.0735	23	-0.33	002.99	0
002	Nitrate Nitrogen (%)	0550	3.325	0.1700	3.373	0.2058	0.0735	23	-0.23	002.99	0
002	Nitrate Nitrogen (%)	0027	3.350	0.1000	3.373	0.2058	0.0735	23	-0.11	002.99	0
002	Nitrate Nitrogen (%)	0540	3.380	0.0400	3.373	0.2058	0.0735	23	0.03	002.99	0
002	Nitrate Nitrogen (%)	0535	3.425	0.0500	3.373	0.2058	0.0735	23	0.25	002.99	0
002	Nitrate Nitrogen (%)	0549	3.425	0.0500	3.373	0.2058	0.0735	23	0.25	002.99	0
002	Nitrate Nitrogen (%)	0538	3.430	0.1400	3.373	0.2058	0.0735	23	0.28	002.99	0
002	Nitrate Nitrogen (%)	0481	3.480	0.0200	3.373	0.2058	0.0735	23	0.52	002.99	0
002	Nitrate Nitrogen (%)	0231	3.515	0.0300	3.373	0.2058	0.0735	23	0.69	002.99	0
002	Nitrate Nitrogen (%)	0371	3.535	0.2100	3.373	0.2058	0.0735	23	0.79	002.99	0
002	Nitrate Nitrogen (%)	0486	3.545	0.0500	3.373	0.2058	0.0735	23	0.84	002.99	0
002	Nitrate Nitrogen (%)	0498	3.700	0.2000	3.373	0.2058	0.0735	23	1.59	002.10	0
002	Nitrate Nitrogen (%)	0546	4.310	0.1000	3.373	0.2058	0.0735	23	4.55	002.99	0
002	Nitrate Nitrogen (%)	0230	5.050	0.0200	3.373	0.2058	0.0735	23	8.15	002.20	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0444	3.480	0.1000	10.08	3.695	0.0976	5	-1.79	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0489	11.51	0.0100	10.08	3.695	0.0976	5	0.39	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0169	11.54	0.0900	10.08	3.695	0.0976	5	0.39	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0537	11.81	0.1200	10.08	3.695	0.0976	5	0.47	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0397	12.06	0.1679	10.08	3.695	0.0976	5	0.54	009.10	0
010	Total Nitrogen (12%)	0117	10.23†	0.5400	11.81	0.2302	0.0880	86	-6.89	010.12	0
010	Total Nitrogen (12%)	0522	10.42†	0.0400	11.81	0.2302	0.0880	86	-6.06	010.99	0
010	Total Nitrogen (12%)	0309	10.85†	0.0800	11.81	0.2302	0.0880	86	-4.19	010.11	0
010	Total Nitrogen (12%)	0544	11.05†	0.0300	11.81	0.2302	0.0880	86	-3.34	010.12	0
010	Total Nitrogen (12%)	0522	11.11†	0.0100	11.81	0.2302	0.0880	86	-3.08	010.11	0
010	Total Nitrogen (12%)	0476	11.26	0.1091	11.81	0.2302	0.0880	86	-2.41	010.99	0
010	Total Nitrogen (12%)	0520	11.29	0.0400	11.81	0.2302	0.0880	86	-2.28	010.99	0
010	Total Nitrogen (12%)	0415	11.46	0.0695	11.81	0.2302	0.0880	86	-1.53	010.11	0
010	Total Nitrogen (12%)	0415	11.46	0.0446	11.81	0.2302	0.0880	86	-1.52	010.12	0
010	Total Nitrogen (12%)	0545	11.47	0.0500	11.81	0.2302	0.0880	86	-1.52	010.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010	Total Nitrogen (12%)	0027	11.52	0.4000	11.81	0.2302	0.0880	86	-1.28	010.60	0
010	Total Nitrogen (12%)	0472	11.57	0.0100	11.81	0.2302	0.0880	86	-1.09	010.60	0
010	Total Nitrogen (12%)	0389	11.60	0.0700	11.81	0.2302	0.0880	86	-0.96	010.60	0
010	Total Nitrogen (12%)	0493	11.60	0.1000	11.81	0.2302	0.0880	86	-0.93	010.99	0
010	Total Nitrogen (12%)	0114	11.64	0.3400	11.81	0.2302	0.0880	86	-0.76	010.11	0
010	Total Nitrogen (12%)	0023	11.64	0.1380	11.81	0.2302	0.0880	86	-0.74	010.60	0
010	Total Nitrogen (12%)	0234	11.65	0.0800	11.81	0.2302	0.0880	86	-0.72	010.60	0
010	Total Nitrogen (12%)	0035	11.66	0.0100	11.81	0.2302	0.0880	86	-0.70	010.60	0
010	Total Nitrogen (12%)	0106	11.66	0.0400	11.81	0.2302	0.0880	86	-0.67	010.60	0
010	Total Nitrogen (12%)	0390	11.67	0.1300	11.81	0.2302	0.0880	86	-0.65	010.60	0
010	Total Nitrogen (12%)	0368	11.67	0.0900	11.81	0.2302	0.0880	86	-0.63	010.60	0
010	Total Nitrogen (12%)	0416	11.68	0.1200	11.81	0.2302	0.0880	86	-0.59	010.11	0
010	Total Nitrogen (12%)	0220	11.69	0.0700	11.81	0.2302	0.0880	86	-0.56	010.11	0
010	Total Nitrogen (12%)	0018	11.70	0.0000	11.81	0.2302	0.0880	86	-0.50	010.60	0
010	Total Nitrogen (12%)	0043	11.70	0.1000	11.81	0.2302	0.0880	86	-0.50	010.60	0
010	Total Nitrogen (12%)	0177	11.72	0.0500	11.81	0.2302	0.0880	86	-0.43	010.60	0
010	Total Nitrogen (12%)	0543	11.72	0.0680	11.81	0.2302	0.0880	86	-0.43	010.60	0
010	Total Nitrogen (12%)	0105	11.73	0.1100	11.81	0.2302	0.0880	86	-0.39	010.11	0
010	Total Nitrogen (12%)	0041	11.74	0.0500	11.81	0.2302	0.0880	86	-0.35	010.60	0
010	Total Nitrogen (12%)	0105	11.75	0.0300	11.81	0.2302	0.0880	86	-0.30	010.60	0
010	Total Nitrogen (12%)	0055	11.75	0.0600	11.81	0.2302	0.0880	86	-0.28	010.60	0
010	Total Nitrogen (12%)	0481	11.75	0.1000	11.81	0.2302	0.0880	86	-0.28	010.60	0
010	Total Nitrogen (12%)	0482	11.75	0.1000	11.81	0.2302	0.0880	86	-0.28	010.60	0
010	Total Nitrogen (12%)	0360	11.76	0.0000	11.81	0.2302	0.0880	86	-0.24	010.60	0
010	Total Nitrogen (12%)	0405	11.77	0.0300	11.81	0.2302	0.0880	86	-0.22	010.60	0
010	Total Nitrogen (12%)	0451	11.77	0.0300	11.81	0.2302	0.0880	86	-0.22	010.60	0
010	Total Nitrogen (12%)	0300	11.77	0.0300	11.81	0.2302	0.0880	86	-0.22	010.99	0
010	Total Nitrogen (12%)	0483	11.77	0.0000	11.81	0.2302	0.0880	86	-0.20	010.60	0
010	Total Nitrogen (12%)	0028	11.78	0.1600	11.81	0.2302	0.0880	86	-0.15	010.60	0
010	Total Nitrogen (12%)	0034	11.78	0.0200	11.81	0.2302	0.0880	86	-0.15	010.60	0
010	Total Nitrogen (12%)	0037	11.79	0.1390	11.81	0.2302	0.0880	86	-0.12	010.60	0
010	Total Nitrogen (12%)	0086	11.79	0.0130	11.81	0.2302	0.0880	86	-0.11	010.60	0
010	Total Nitrogen (12%)	0007	11.80	0.0000	11.81	0.2302	0.0880	86	-0.07	010.60	0
010	Total Nitrogen (12%)	0157	11.80	0.0000	11.81	0.2302	0.0880	86	-0.07	010.60	0
010	Total Nitrogen (12%)	0523	11.80	0.0000	11.81	0.2302	0.0880	86	-0.07	010.60	0
010	Total Nitrogen (12%)	0527	11.81	0.0990	11.81	0.2302	0.0880	86	-0.01	010.60	0
010	Total Nitrogen (12%)	0231	11.82	0.0800	11.81	0.2302	0.0880	86	0.02	010.60	0
010	Total Nitrogen (12%)	0486	11.84	0.0100	11.81	0.2302	0.0880	86	0.09	010.60	0
010	Total Nitrogen (12%)	0136	11.84	0.0200	11.81	0.2302	0.0880	86	0.11	010.60	0
010	Total Nitrogen (12%)	0292	11.85	0.0100	11.81	0.2302	0.0880	86	0.13	010.60	0
010	Total Nitrogen (12%)	0233	11.85	0.0900	11.81	0.2302	0.0880	86	0.13	010.60	0
010	Total Nitrogen (12%)	0040	11.85	0.1000	11.81	0.2302	0.0880	86	0.15	010.60	0
010	Total Nitrogen (12%)	0377	11.87	0.0400	11.81	0.2302	0.0880	86	0.24	010.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010	Total Nitrogen (12%)	0538	11.87	0.0600	11.81	0.2302	0.0880	86	0.24	010.99	0
010	Total Nitrogen (12%)	0494	11.88	0.0000	11.81	0.2302	0.0880	86	0.28	010.60	0
010	Total Nitrogen (12%)	0356	11.89	0.2100	11.81	0.2302	0.0880	86	0.30	010.60	0
010	Total Nitrogen (12%)	0547	11.90	0.0100	11.81	0.2302	0.0880	86	0.35	010.60	0
010	Total Nitrogen (12%)	0324	11.90	0.0000	11.81	0.2302	0.0880	86	0.37	010.60	0
010	Total Nitrogen (12%)	0049	11.94	0.1300	11.81	0.2302	0.0880	86	0.52	010.60	0
010	Total Nitrogen (12%)	0550	11.94	0.1000	11.81	0.2302	0.0880	86	0.54	010.60	0
010	Total Nitrogen (12%)	0537	11.95	0.0500	11.81	0.2302	0.0880	86	0.56	010.11	0
010	Total Nitrogen (12%)	0255	11.95	0.0900	11.81	0.2302	0.0880	86	0.58	010.60	0
010	Total Nitrogen (12%)	0354	11.95	0.1000	11.81	0.2302	0.0880	86	0.59	010.60	0
010	Total Nitrogen (12%)	0291	11.96	0.0100	11.81	0.2302	0.0880	86	0.61	010.60	0
010	Total Nitrogen (12%)	0444	11.96	0.1100	11.81	0.2302	0.0880	86	0.61	010.60	0
010	Total Nitrogen (12%)	0029	11.98	0.0700	11.81	0.2302	0.0880	86	0.70	010.60	0
010	Total Nitrogen (12%)	0519	11.99	0.0100	11.81	0.2302	0.0880	86	0.74	010.99	0
010	Total Nitrogen (12%)	0524	11.99	0.0150	11.81	0.2302	0.0880	86	0.75	010.99	0
010	Total Nitrogen (12%)	0532	12.01	0.3400	11.81	0.2302	0.0880	86	0.85	010.99	0
010	Total Nitrogen (12%)	0073	12.02	0.0900	11.81	0.2302	0.0880	86	0.87	010.60	0
010	Total Nitrogen (12%)	0452	12.03	0.0300	11.81	0.2302	0.0880	86	0.91	010.60	0
010	Total Nitrogen (12%)	0025	12.04	0.1600	11.81	0.2302	0.0880	86	0.98	010.60	0
010	Total Nitrogen (12%)	0307	12.04	0.1130	11.81	0.2302	0.0880	86	0.99	010.60	0
010	Total Nitrogen (12%)	0501	12.05	0.0200	11.81	0.2302	0.0880	86	1.02	010.60	0
010	Total Nitrogen (12%)	0423	12.07	0.0800	11.81	0.2302	0.0880	86	1.11	010.60	0
010	Total Nitrogen (12%)	0521	12.08	0.0000	11.81	0.2302	0.0880	86	1.14	010.60	0
010	Total Nitrogen (12%)	0117	12.10	0.0000	11.81	0.2302	0.0880	86	1.24	010.60	0
010	Total Nitrogen (12%)	0421	12.10	0.0600	11.81	0.2302	0.0880	86	1.24	010.60	0
010	Total Nitrogen (12%)	0534	12.15	0.1000	11.81	0.2302	0.0880	86	1.46	010.60	0
010	Total Nitrogen (12%)	0498	12.15	0.3000	11.81	0.2302	0.0880	86	1.46	010.12	0
010	Total Nitrogen (12%)	0402	12.16	0.2600	11.81	0.2302	0.0880	86	1.50	010.60	0
010	Total Nitrogen (12%)	0230	12.30	0.0000	11.81	0.2302	0.0880	86	2.11	010.60	0
010	Total Nitrogen (12%)	0546	12.50‡	0.0600	11.81	0.2302	0.0880	86	2.98	010.11	0
010	Total Nitrogen (12%)	0481	12.60‡	0.2000	11.81	0.2302	0.0880	86	3.41	010.99	0
010	Total Nitrogen (12%)	0443	12.63‡	0.3200	11.81	0.2302	0.0880	86	3.54	010.60	0
010	Total Nitrogen (12%)	0510	12.99‡	0.3239	11.81	0.2302	0.0880	86	5.09	010.11	0
010	Total Nitrogen (12%)	0542	11.65	0.6890	11.81	0.2302	0.0880	86	-0.72	010.60	1
010	Total Nitrogen (12%)	0325	12.30	0.8000	11.81	0.2302	0.0880	86	2.11	010.60	1
020	Total Phosphorus as P2O5 (%)	0390	22.98	0.9700	25.76	0.7873	0.3986	56	-3.54	020.50	0
020	Total Phosphorus as P2O5 (%)	0157	24.35	0.5000	25.76	0.7873	0.3986	56	-1.79	020.50	0
020	Total Phosphorus as P2O5 (%)	0550	24.42	0.5300	25.76	0.7873	0.3986	56	-1.71	020.20	0
020	Total Phosphorus as P2O5 (%)	0423	24.60	0.9900	25.76	0.7873	0.3986	56	-1.48	020.50	0
020	Total Phosphorus as P2O5 (%)	0534	24.61	0.0100	25.76	0.7873	0.3986	56	-1.47	020.20	0
020	Total Phosphorus as P2O5 (%)	0309	24.67	0.4500	25.76	0.7873	0.3986	56	-1.39	020.20	0
020	Total Phosphorus as P2O5 (%)	0520	24.73	1.040	25.76	0.7873	0.3986	56	-1.31	020.99	0
020	Total Phosphorus as P2O5 (%)	0501	24.80	0.0000	25.76	0.7873	0.3986	56	-1.22	020.50	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
020	Total Phosphorus as P2O5 (%)	0443	24.95	0.6900	25.76	0.7873	0.3986	56	-1.03	020.99	0
020	Total Phosphorus as P2O5 (%)	0416	25.16	0.4900	25.76	0.7873	0.3986	56	-0.77	020.20	0
020	Total Phosphorus as P2O5 (%)	0523	25.20	0.6000	25.76	0.7873	0.3986	56	-0.71	020.50	0
020	Total Phosphorus as P2O5 (%)	0444	25.21	0.3100	25.76	0.7873	0.3986	56	-0.70	020.50	0
020	Total Phosphorus as P2O5 (%)	0522	25.22	0.1900	25.76	0.7873	0.3986	56	-0.69	020.20	0
020	Total Phosphorus as P2O5 (%)	0027	25.29	0.2900	25.76	0.7873	0.3986	56	-0.60	020.20	0
020	Total Phosphorus as P2O5 (%)	0291	25.29	0.0200	25.76	0.7873	0.3986	56	-0.60	020.50	0
020	Total Phosphorus as P2O5 (%)	0405	25.42	0.1400	25.76	0.7873	0.3986	56	-0.43	020.20	0
020	Total Phosphorus as P2O5 (%)	0489	25.51	0.0100	25.76	0.7873	0.3986	56	-0.32	020.20	0
020	Total Phosphorus as P2O5 (%)	0169	25.53	0.0600	25.76	0.7873	0.3986	56	-0.29	020.20	0
020	Total Phosphorus as P2O5 (%)	0421	25.55	0.1000	25.76	0.7873	0.3986	56	-0.27	020.50	0
020	Total Phosphorus as P2O5 (%)	0527	25.61	0.3000	25.76	0.7873	0.3986	56	-0.19	020.50	0
020	Total Phosphorus as P2O5 (%)	0521	25.66	0.0000	25.76	0.7873	0.3986	56	-0.12	020.50	0
020	Total Phosphorus as P2O5 (%)	0105	25.67	0.2000	25.76	0.7873	0.3986	56	-0.11	020.40	0
020	Total Phosphorus as P2O5 (%)	0472	25.68	0.2500	25.76	0.7873	0.3986	56	-0.11	020.50	0
020	Total Phosphorus as P2O5 (%)	0371	25.70	0.0000	25.76	0.7873	0.3986	56	-0.08	020.20	0
020	Total Phosphorus as P2O5 (%)	0105	25.71	0.0600	25.76	0.7873	0.3986	56	-0.06	020.10	0
020	Total Phosphorus as P2O5 (%)	0433	25.74	0.0200	25.76	0.7873	0.3986	56	-0.02	020.50	0
020	Total Phosphorus as P2O5 (%)	0157	25.75	0.1000	25.76	0.7873	0.3986	56	-0.01	020.10	0
020	Total Phosphorus as P2O5 (%)	0292	25.76	0.0200	25.76	0.7873	0.3986	56	0.00	020.20	0
020	Total Phosphorus as P2O5 (%)	0510	25.77	0.2846	25.76	0.7873	0.3986	56	0.01	020.20	0
020	Total Phosphorus as P2O5 (%)	0444	25.78	0.3400	25.76	0.7873	0.3986	56	0.03	020.10	0
020	Total Phosphorus as P2O5 (%)	0547	25.80	0.2000	25.76	0.7873	0.3986	56	0.05	020.20	0
020	Total Phosphorus as P2O5 (%)	0096	25.80	0.1000	25.76	0.7873	0.3986	56	0.05	020.40	0
020	Total Phosphorus as P2O5 (%)	0489	25.82	0.0400	25.76	0.7873	0.3986	56	0.08	020.30	0
020	Total Phosphorus as P2O5 (%)	0481	25.83	0.3300	25.76	0.7873	0.3986	56	0.08	020.20	0
020	Total Phosphorus as P2O5 (%)	0356	25.84	0.0500	25.76	0.7873	0.3986	56	0.10	020.20	0
020	Total Phosphorus as P2O5 (%)	0493	25.85	0.1000	25.76	0.7873	0.3986	56	0.12	020.10	0
020	Total Phosphorus as P2O5 (%)	0324	25.85	0.3000	25.76	0.7873	0.3986	56	0.12	020.20	0
020	Total Phosphorus as P2O5 (%)	0231	25.86	0.0200	25.76	0.7873	0.3986	56	0.13	020.20	0
020	Total Phosphorus as P2O5 (%)	0114	25.88	0.0400	25.76	0.7873	0.3986	56	0.15	020.10	0
020	Total Phosphorus as P2O5 (%)	0394	25.95	0.0600	25.76	0.7873	0.3986	56	0.25	020.20	0
020	Total Phosphorus as P2O5 (%)	0035	26.03	0.1400	25.76	0.7873	0.3986	56	0.34	020.40	0
020	Total Phosphorus as P2O5 (%)	0042	26.12	2.610	25.76	0.7873	0.3986	56	0.45	020.50	0
020	Total Phosphorus as P2O5 (%)	0552	26.13	1.170	25.76	0.7873	0.3986	56	0.46	020.50	0
020	Total Phosphorus as P2O5 (%)	0519	26.23	0.0600	25.76	0.7873	0.3986	56	0.60	020.99	0
020	Total Phosphorus as P2O5 (%)	0402	26.31	0.3200	25.76	0.7873	0.3986	56	0.70	020.50	0
020	Total Phosphorus as P2O5 (%)	0546	26.40	0.9600	25.76	0.7873	0.3986	56	0.81	020.50	0
020	Total Phosphorus as P2O5 (%)	0524	26.43	0.1161	25.76	0.7873	0.3986	56	0.85	020.50	0
020	Total Phosphorus as P2O5 (%)	0516	26.64	0.3100	25.76	0.7873	0.3986	56	1.11	020.20	0
020	Total Phosphorus as P2O5 (%)	0482	26.95	0.7000	25.76	0.7873	0.3986	56	1.51	020.50	0
020	Total Phosphorus as P2O5 (%)	0451	27.32	0.8900	25.76	0.7873	0.3986	56	1.98	020.50	0
020	Total Phosphorus as P2O5 (%)	0234	27.40	0.0400	25.76	0.7873	0.3986	56	2.08	020.50	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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020	Total Phosphorus as P2O5 (%)	0368	27.56	0.5073	25.76	0.7873	0.3986	56	2.29	020.50	0
020	Total Phosphorus as P2O5 (%)	0483	28.30	0.2300	25.76	0.7873	0.3986	56	3.22	020.50	0
020	Total Phosphorus as P2O5 (%)	0543	28.39	2.281	25.76	0.7873	0.3986	56	3.35	020.50	0
020	Total Phosphorus as P2O5 (%)	0300	29.19	0.5000	25.76	0.7873	0.3986	56	4.36	020.20	0
020	Total Phosphorus as P2O5 (%)	0255	31.01	1.283	25.76	0.7873	0.3986	56	6.66	020.50	0
020	Total Phosphorus as P2O5 (%)	0515	30.76	12.70	25.76	0.7873	0.3986	56	6.36	020.99	1
020	Total Phosphorus as P2O5 (%)	0476	2.446	0.1165	25.76	0.7873	0.3986	56	-29.61	020.20	2
030	Citrate Insoluble Phosphorus as P2O5 (%)	0096	0.3950	0.0300				1		030.40	0
040	Indirect Available Phosphorus as P2O5 (24%)	0394	0.8970†	0.0080	19.80	12.68	0.0695	4	-1.49	040.99	0
040	Indirect Available Phosphorus as P2O5 (24%)	0405	24.92‡	0.1400	19.80	12.68	0.0695	4	0.40	040.20	0
040	Indirect Available Phosphorus as P2O5 (24%)	0096	25.42‡	0.1300	19.80	12.68	0.0695	4	0.44	040.40	0
040	Indirect Available Phosphorus as P2O5 (24%)	0300	27.98‡	0.0000	19.80	12.68	0.0695	4	0.65	040.20	0
041	Direct Available Phosphorus as P2O5 (24%)	0423	22.70†	0.1300	25.16	0.7238	0.2564	57	-3.41	041.51	0
041	Direct Available Phosphorus as P2O5 (24%)	0542	23.78†	0.1000	25.16	0.7238	0.2564	57	-1.91	041.51	0
041	Direct Available Phosphorus as P2O5 (24%)	0397	23.96†	0.0700	25.16	0.7238	0.2564	57	-1.67	041.60	0
041	Direct Available Phosphorus as P2O5 (24%)	0544	24.07†	0.1300	25.16	0.7238	0.2564	57	-1.52	041.21	0
041	Direct Available Phosphorus as P2O5 (24%)	0519	24.09†	0.0100	25.16	0.7238	0.2564	57	-1.49	041.99	0
041	Direct Available Phosphorus as P2O5 (24%)	0498	24.15†	0.9000	25.16	0.7238	0.2564	57	-1.40	041.20	0
041	Direct Available Phosphorus as P2O5 (24%)	0325	24.25†	1.100	25.16	0.7238	0.2564	57	-1.26	041.50	0
041	Direct Available Phosphorus as P2O5 (24%)	0522	24.28†	0.0600	25.16	0.7238	0.2564	57	-1.22	041.21	0
041	Direct Available Phosphorus as P2O5 (24%)	0533	24.36†	0.0600	25.16	0.7238	0.2564	57	-1.11	041.99	0
041	Direct Available Phosphorus as P2O5 (24%)	0472	24.38†	0.1000	25.16	0.7238	0.2564	57	-1.08	041.60	0
041	Direct Available Phosphorus as P2O5 (24%)	0452	24.43†	0.0400	25.16	0.7238	0.2564	57	-1.01	041.50	0
041	Direct Available Phosphorus as P2O5 (24%)	0545	24.47	0.0700	25.16	0.7238	0.2564	57	-0.97	041.99	0
041	Direct Available Phosphorus as P2O5 (24%)	0532	24.54	0.3200	25.16	0.7238	0.2564	57	-0.86	041.99	0
041	Direct Available Phosphorus as P2O5 (24%)	0073	24.58	0.2100	25.16	0.7238	0.2564	57	-0.81	041.60	0
041	Direct Available Phosphorus as P2O5 (24%)	0106	24.65	0.2600	25.16	0.7238	0.2564	57	-0.71	041.21	0
041	Direct Available Phosphorus as P2O5 (24%)	0549	24.65	0.1000	25.16	0.7238	0.2564	57	-0.71	041.99	0
041	Direct Available Phosphorus as P2O5 (24%)	0040	24.70	0.0000	25.16	0.7238	0.2564	57	-0.64	041.51	0
041	Direct Available Phosphorus as P2O5 (24%)	0494	24.84	0.9400	25.16	0.7238	0.2564	57	-0.45	041.10	0
041	Direct Available Phosphorus as P2O5 (24%)	0360	24.90	0.0300	25.16	0.7238	0.2564	57	-0.37	041.51	0
041	Direct Available Phosphorus as P2O5 (24%)	0009	25.00	0.0000	25.16	0.7238	0.2564	57	-0.23	041.10	0
041	Direct Available Phosphorus as P2O5 (24%)	0522	25.04	0.0400	25.16	0.7238	0.2564	57	-0.17	041.11	0
041	Direct Available Phosphorus as P2O5 (24%)	0177	25.05	0.2047	25.16	0.7238	0.2564	57	-0.15	041.60	0
041	Direct Available Phosphorus as P2O5 (24%)	0043	25.08	0.1000	25.16	0.7238	0.2564	57	-0.12	041.51	0
041	Direct Available Phosphorus as P2O5 (24%)	0049	25.12	0.1900	25.16	0.7238	0.2564	57	-0.07	041.10	0
041	Direct Available Phosphorus as P2O5 (24%)	0029	25.12	0.3000	25.16	0.7238	0.2564	57	-0.06	041.60	0
041	Direct Available Phosphorus as P2O5 (24%)	0220	25.14	0.0800	25.16	0.7238	0.2564	57	-0.03	041.11	0
041	Direct Available Phosphorus as P2O5 (24%)	0177	25.17	0.4048	25.16	0.7238	0.2564	57	0.01	041.10	0
041	Direct Available Phosphorus as P2O5 (24%)	0086	25.24	0.0551	25.16	0.7238	0.2564	57	0.10	041.10	0
041	Direct Available Phosphorus as P2O5 (24%)	0037	25.33	0.8870	25.16	0.7238	0.2564	57	0.23	041.51	0
041	Direct Available Phosphorus as P2O5 (24%)	0041	25.35	0.3300	25.16	0.7238	0.2564	57	0.25	041.10	0
041	Direct Available Phosphorus as P2O5 (24%)	0351	25.37	0.7033	25.16	0.7238	0.2564	57	0.28	041.11	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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041	Direct Available Phosphorus as P2O5 (24%)	0105	25.38	0.1900	25.16	0.7238	0.2564	57	0.29	041.11	0
041	Direct Available Phosphorus as P2O5 (24%)	0537	25.39	0.4700	25.16	0.7238	0.2564	57	0.31	041.99	0
041	Direct Available Phosphorus as P2O5 (24%)	0538	25.43	0.1500	25.16	0.7238	0.2564	57	0.36	041.99	0
041	Direct Available Phosphorus as P2O5 (24%)	0535	25.45	0.1000	25.16	0.7238	0.2564	57	0.40	041.21	0
041	Direct Available Phosphorus as P2O5 (24%)	0535	25.45	0.1000	25.16	0.7238	0.2564	57	0.40	041.99	0
041	Direct Available Phosphorus as P2O5 (24%)	0486	25.46	0.2900	25.16	0.7238	0.2564	57	0.40	041.60	0
041	Direct Available Phosphorus as P2O5 (24%)	0377	25.48	0.0300	25.16	0.7238	0.2564	57	0.43	041.51	0
041	Direct Available Phosphorus as P2O5 (24%)	0535	25.50	0.2000	25.16	0.7238	0.2564	57	0.46	041.60	0
041	Direct Available Phosphorus as P2O5 (24%)	0231	25.54	0.0500	25.16	0.7238	0.2564	57	0.51	041.60	0
041	Direct Available Phosphorus as P2O5 (24%)	0007	25.60	1.200	25.16	0.7238	0.2564	57	0.60	041.50	0
041	Direct Available Phosphorus as P2O5 (24%)	0018	25.65	0.9000	25.16	0.7238	0.2564	57	0.67	041.40	0
041	Direct Available Phosphorus as P2O5 (24%)	0055	25.66	0.1300	25.16	0.7238	0.2564	57	0.68	041.60	0
041	Direct Available Phosphorus as P2O5 (24%)	0117	25.67	0.2000	25.16	0.7238	0.2564	57	0.70	041.51	0
041	Direct Available Phosphorus as P2O5 (24%)	0055	25.68	0.0200	25.16	0.7238	0.2564	57	0.71	041.10	0
041	Direct Available Phosphorus as P2O5 (24%)	0494	25.68	0.6200	25.16	0.7238	0.2564	57	0.71	041.51	0
041	Direct Available Phosphorus as P2O5 (24%)	0105	25.69	0.1100	25.16	0.7238	0.2564	57	0.72	041.60	0
041	Direct Available Phosphorus as P2O5 (24%)	0028	25.70	0.0200	25.16	0.7238	0.2564	57	0.74	041.40	0
041	Direct Available Phosphorus as P2O5 (24%)	0233	25.72	0.0400	25.16	0.7238	0.2564	57	0.77	041.50	0
041	Direct Available Phosphorus as P2O5 (24%)	0025	25.78	0.1800	25.16	0.7238	0.2564	57	0.85	041.51	0
041	Direct Available Phosphorus as P2O5 (24%)	0539	25.80	0.2900	25.16	0.7238	0.2564	57	0.87	041.99	0
041	Direct Available Phosphorus as P2O5 (24%)	0117	26.05‡	0.1000	25.16	0.7238	0.2564	57	1.22	041.11	0
041	Direct Available Phosphorus as P2O5 (24%)	0540	26.07‡	0.2600	25.16	0.7238	0.2564	57	1.25	041.99	0
041	Direct Available Phosphorus as P2O5 (24%)	0034	26.25‡	0.0300	25.16	0.7238	0.2564	57	1.49	041.60	0
041	Direct Available Phosphorus as P2O5 (24%)	0485	26.26‡	0.1826	25.16	0.7238	0.2564	57	1.51	041.11	0
041	Direct Available Phosphorus as P2O5 (24%)	0023	26.36‡	0.1300	25.16	0.7238	0.2564	57	1.65	041.51	0
041	Direct Available Phosphorus as P2O5 (24%)	0354	26.95‡	0.7000	25.16	0.7238	0.2564	57	2.47	041.60	0
041	Direct Available Phosphorus as P2O5 (24%)	0230	23.05†	2.900	25.16	0.7238	0.2564	57	-2.92	041.40	1
041	Direct Available Phosphorus as P2O5 (24%)	0307	24.36†	2.300	25.16	0.7238	0.2564	57	-1.11	041.99	1
048	Water Soluble Phosphorus as P2O5 (%)	0309	18.13	0.3600	18.37	0.2008	0.1295	4	-1.20	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0522	18.29	0.1300	18.37	0.2008	0.1295	4	-0.43	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0096	18.50	0.0000	18.37	0.2008	0.1295	4	0.64	048.40	0
048	Water Soluble Phosphorus as P2O5 (%)	0394	18.57	0.0280	18.37	0.2008	0.1295	4	0.98	048.20	0
050	Soluble Potassium as K2O (12%)	0481	11.68†	0.0200	12.89	0.5615	0.2367	97	-2.16	050.99	0
050	Soluble Potassium as K2O (12%)	0443	11.69†	0.1500	12.89	0.5615	0.2367	97	-2.15	050.60	0
050	Soluble Potassium as K2O (12%)	0533	11.82†	0.2300	12.89	0.5615	0.2367	97	-1.92	050.99	0
050	Soluble Potassium as K2O (12%)	0472	11.84†	0.3700	12.89	0.5615	0.2367	97	-1.88	050.31	0
050	Soluble Potassium as K2O (12%)	0476	11.91†	0.0754	12.89	0.5615	0.2367	97	-1.74	050.99	0
050	Soluble Potassium as K2O (12%)	0230	11.95†	0.1000	12.89	0.5615	0.2367	97	-1.68	050.00	0
050	Soluble Potassium as K2O (12%)	0519	12.08	0.0100	12.89	0.5615	0.2367	97	-1.46	050.99	0
050	Soluble Potassium as K2O (12%)	0510	12.08	0.1877	12.89	0.5615	0.2367	97	-1.44	050.60	0
050	Soluble Potassium as K2O (12%)	0325	12.10	0.8000	12.89	0.5615	0.2367	97	-1.41	050.99	0
050	Soluble Potassium as K2O (12%)	0522	12.12	0.3100	12.89	0.5615	0.2367	97	-1.38	050.00	0
050	Soluble Potassium as K2O (12%)	0486	12.20	0.0100	12.89	0.5615	0.2367	97	-1.24	050.52	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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050	Soluble Potassium as K2O (12%)	0532	12.27	0.2900	12.89	0.5615	0.2367	97	-1.12	050.99	0
050	Soluble Potassium as K2O (12%)	0055	12.34	0.0100	12.89	0.5615	0.2367	97	-0.99	050.50	0
050	Soluble Potassium as K2O (12%)	0157	12.35	0.9000	12.89	0.5615	0.2367	97	-0.97	050.50	0
050	Soluble Potassium as K2O (12%)	0402	12.37	0.0700	12.89	0.5615	0.2367	97	-0.94	050.99	0
050	Soluble Potassium as K2O (12%)	0421	12.40	0.2000	12.89	0.5615	0.2367	97	-0.88	050.99	0
050	Soluble Potassium as K2O (12%)	0029	12.42	0.4700	12.89	0.5615	0.2367	97	-0.85	050.62	0
050	Soluble Potassium as K2O (12%)	0307	12.43	0.3500	12.89	0.5615	0.2367	97	-0.83	050.99	0
050	Soluble Potassium as K2O (12%)	0405	12.46	0.0100	12.89	0.5615	0.2367	97	-0.78	050.00	0
050	Soluble Potassium as K2O (12%)	0444	12.48	0.2600	12.89	0.5615	0.2367	97	-0.73	050.99	0
050	Soluble Potassium as K2O (12%)	0498	12.50	0.2000	12.89	0.5615	0.2367	97	-0.70	050.31	0
050	Soluble Potassium as K2O (12%)	0544	12.52	0.1700	12.89	0.5615	0.2367	97	-0.67	050.00	0
050	Soluble Potassium as K2O (12%)	0027	12.52	0.2200	12.89	0.5615	0.2367	97	-0.66	050.99	0
050	Soluble Potassium as K2O (12%)	0309	12.54	0.2400	12.89	0.5615	0.2367	97	-0.63	050.30	0
050	Soluble Potassium as K2O (12%)	0040	12.55	0.1000	12.89	0.5615	0.2367	97	-0.61	050.30	0
050	Soluble Potassium as K2O (12%)	0018	12.55	0.5000	12.89	0.5615	0.2367	97	-0.61	050.62	0
050	Soluble Potassium as K2O (12%)	0037	12.59	0.1500	12.89	0.5615	0.2367	97	-0.55	050.52	0
050	Soluble Potassium as K2O (12%)	0041	12.59	0.0500	12.89	0.5615	0.2367	97	-0.55	050.60	0
050	Soluble Potassium as K2O (12%)	0034	12.59	0.1100	12.89	0.5615	0.2367	97	-0.55	050.62	0
050	Soluble Potassium as K2O (12%)	0169	12.60	0.0800	12.89	0.5615	0.2367	97	-0.52	050.60	0
050	Soluble Potassium as K2O (12%)	0106	12.61	0.7100	12.89	0.5615	0.2367	97	-0.51	050.50	0
050	Soluble Potassium as K2O (12%)	0390	12.61	0.3600	12.89	0.5615	0.2367	97	-0.50	050.50	0
050	Soluble Potassium as K2O (12%)	0049	12.63	0.2600	12.89	0.5615	0.2367	97	-0.47	050.00	0
050	Soluble Potassium as K2O (12%)	0549	12.65	0.1000	12.89	0.5615	0.2367	97	-0.43	050.99	0
050	Soluble Potassium as K2O (12%)	0416	12.65	0.0000	12.89	0.5615	0.2367	97	-0.43	050.00	0
050	Soluble Potassium as K2O (12%)	0545	12.65	0.1400	12.89	0.5615	0.2367	97	-0.43	050.99	0
050	Soluble Potassium as K2O (12%)	0377	12.66	0.1200	12.89	0.5615	0.2367	97	-0.41	050.52	0
050	Soluble Potassium as K2O (12%)	0527	12.68	0.0400	12.89	0.5615	0.2367	97	-0.38	050.99	0
050	Soluble Potassium as K2O (12%)	0394	12.69	0.0120	12.89	0.5615	0.2367	97	-0.35	050.99	0
050	Soluble Potassium as K2O (12%)	0444	12.70	0.6000	12.89	0.5615	0.2367	97	-0.34	050.50	0
050	Soluble Potassium as K2O (12%)	0007	12.70	0.8000	12.89	0.5615	0.2367	97	-0.34	050.51	0
050	Soluble Potassium as K2O (12%)	0360	12.72	0.2100	12.89	0.5615	0.2367	97	-0.32	050.52	0
050	Soluble Potassium as K2O (12%)	0105	12.74	0.0300	12.89	0.5615	0.2367	97	-0.28	050.62	0
050	Soluble Potassium as K2O (12%)	0220	12.75	0.0200	12.89	0.5615	0.2367	97	-0.25	050.00	0
050	Soluble Potassium as K2O (12%)	0095	12.76	0.6500	12.89	0.5615	0.2367	97	-0.24	050.62	0
050	Soluble Potassium as K2O (12%)	0542	12.77	0.3300	12.89	0.5615	0.2367	97	-0.23	050.52	0
050	Soluble Potassium as K2O (12%)	0483	12.77	0.0000	12.89	0.5615	0.2367	97	-0.22	050.51	0
050	Soluble Potassium as K2O (12%)	0546	12.82	0.0900	12.89	0.5615	0.2367	97	-0.14	050.99	0
050	Soluble Potassium as K2O (12%)	0105	12.85	0.0200	12.89	0.5615	0.2367	97	-0.08	050.60	0
050	Soluble Potassium as K2O (12%)	0231	12.86	0.0600	12.89	0.5615	0.2367	97	-0.06	050.00	0
050	Soluble Potassium as K2O (12%)	0552	12.95	0.5900	12.89	0.5615	0.2367	97	0.09	050.99	0
050	Soluble Potassium as K2O (12%)	0489	12.98	0.0100	12.89	0.5615	0.2367	97	0.15	050.00	0
050	Soluble Potassium as K2O (12%)	0521	12.98	0.0000	12.89	0.5615	0.2367	97	0.16	050.99	0
050	Soluble Potassium as K2O (12%)	0043	13.01	0.1400	12.89	0.5615	0.2367	97	0.21	050.52	0

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050	Soluble Potassium as K2O (12%)	0433	13.02	0.0100	12.89	0.5615	0.2367	97	0.22	050.99	0
050	Soluble Potassium as K2O (12%)	0117	13.04	0.2000	12.89	0.5615	0.2367	97	0.26	050.52	0
050	Soluble Potassium as K2O (12%)	0523	13.05	0.3000	12.89	0.5615	0.2367	97	0.28	050.99	0
050	Soluble Potassium as K2O (12%)	0543	13.06	0.5400	12.89	0.5615	0.2367	97	0.30	050.52	0
050	Soluble Potassium as K2O (12%)	0547	13.06	0.0400	12.89	0.5615	0.2367	97	0.30	050.51	0
050	Soluble Potassium as K2O (12%)	0086	13.07	0.3461	12.89	0.5615	0.2367	97	0.32	050.50	0
050	Soluble Potassium as K2O (12%)	0520	13.09	0.3400	12.89	0.5615	0.2367	97	0.35	050.99	0
050	Soluble Potassium as K2O (12%)	0550	13.13	0.1800	12.89	0.5615	0.2367	97	0.42	050.00	0
050	Soluble Potassium as K2O (12%)	0537	13.15	0.2100	12.89	0.5615	0.2367	97	0.45	050.99	0
050	Soluble Potassium as K2O (12%)	0539	13.16	0.1600	12.89	0.5615	0.2367	97	0.48	050.99	0
050	Soluble Potassium as K2O (12%)	0291	13.17	0.1300	12.89	0.5615	0.2367	97	0.49	050.51	0
050	Soluble Potassium as K2O (12%)	0035	13.19	0.3400	12.89	0.5615	0.2367	97	0.53	050.61	0
050	Soluble Potassium as K2O (12%)	0025	13.20	0.2200	12.89	0.5615	0.2367	97	0.55	050.52	0
050	Soluble Potassium as K2O (12%)	0540	13.20	0.1000	12.89	0.5615	0.2367	97	0.55	050.99	0
050	Soluble Potassium as K2O (12%)	0028	13.21	0.0200	12.89	0.5615	0.2367	97	0.57	050.62	0
050	Soluble Potassium as K2O (12%)	0177	13.21	0.1604	12.89	0.5615	0.2367	97	0.57	050.99	0
050	Soluble Potassium as K2O (12%)	0452	13.23	0.0300	12.89	0.5615	0.2367	97	0.59	050.51	0
050	Soluble Potassium as K2O (12%)	0494	13.23	0.2200	12.89	0.5615	0.2367	97	0.60	050.00	0
050	Soluble Potassium as K2O (12%)	0535	13.25	0.1000	12.89	0.5615	0.2367	97	0.64	050.61	0
050	Soluble Potassium as K2O (12%)	0493	13.25	0.1000	12.89	0.5615	0.2367	97	0.64	050.99	0
050	Soluble Potassium as K2O (12%)	0535	13.25	0.1000	12.89	0.5615	0.2367	97	0.64	050.99	0
050	Soluble Potassium as K2O (12%)	0538	13.28	0.0500	12.89	0.5615	0.2367	97	0.68	050.99	0
050	Soluble Potassium as K2O (12%)	0324	13.30	0.4000	12.89	0.5615	0.2367	97	0.73	050.50	0
050	Soluble Potassium as K2O (12%)	0055	13.33	0.0000	12.89	0.5615	0.2367	97	0.78	050.00	0
050	Soluble Potassium as K2O (12%)	0356	13.35	0.4100	12.89	0.5615	0.2367	97	0.81	050.30	0
050	Soluble Potassium as K2O (12%)	0397	13.36	0.0900	12.89	0.5615	0.2367	97	0.83	050.50	0
050	Soluble Potassium as K2O (12%)	0255	13.36	1.071	12.89	0.5615	0.2367	97	0.83	050.99	0
050	Soluble Potassium as K2O (12%)	0494	13.41	0.7100	12.89	0.5615	0.2367	97	0.91	050.52	0
050	Soluble Potassium as K2O (12%)	0423	13.44	0.1300	12.89	0.5615	0.2367	97	0.97	050.52	0
050	Soluble Potassium as K2O (12%)	0354	13.50	0.8000	12.89	0.5615	0.2367	97	1.08	050.52	0
050	Soluble Potassium as K2O (12%)	0292	13.58	0.1500	12.89	0.5615	0.2367	97	1.22	050.50	0
050	Soluble Potassium as K2O (12%)	0233	13.60	0.6200	12.89	0.5615	0.2367	97	1.26	050.52	0
050	Soluble Potassium as K2O (12%)	0524	13.65	0.0724	12.89	0.5615	0.2367	97	1.34	050.99	0
050	Soluble Potassium as K2O (12%)	0451	13.65	0.0600	12.89	0.5615	0.2367	97	1.35	050.99	0
050	Soluble Potassium as K2O (12%)	0042	13.69	1.100	12.89	0.5615	0.2367	97	1.42	050.99	0
050	Soluble Potassium as K2O (12%)	0516	13.69	0.2710	12.89	0.5615	0.2367	97	1.43	050.99	0
050	Soluble Potassium as K2O (12%)	0485	13.80‡	0.1600	12.89	0.5615	0.2367	97	1.62	050.52	0
050	Soluble Potassium as K2O (12%)	0368	13.95‡	0.0750	12.89	0.5615	0.2367	97	1.89	050.99	0
050	Soluble Potassium as K2O (12%)	0300	14.02‡	0.1000	12.89	0.5615	0.2367	97	2.01	050.99	0
050	Soluble Potassium as K2O (12%)	0114	14.13‡	0.5600	12.89	0.5615	0.2367	97	2.20	050.00	0
050	Soluble Potassium as K2O (12%)	0023	14.42‡	0.0900	12.89	0.5615	0.2367	97	2.71	050.52	0
050	Soluble Potassium as K2O (12%)	0096	14.94‡	0.0600	12.89	0.5615	0.2367	97	3.65	050.99	0
050	Soluble Potassium as K2O (12%)	0234	16.42‡	0.2000	12.89	0.5615	0.2367	97	6.28	050.99	0

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050	Soluble Potassium as K2O (12%)	0482	11.65†	2.300	12.89	0.5615	0.2367	97	-2.21	050.99	1
060	Water (Free) (%)	0007	0.8600	0.0200	1.256	0.2342	0.0225	5	-1.69	060.00	0
060	Water (Free) (%)	0416	1.275	0.0094	1.256	0.2342	0.0225	5	0.08	060.00	0
060	Water (Free) (%)	0096	1.285	0.0300	1.256	0.2342	0.0225	5	0.12	060.00	0
060	Water (Free) (%)	0055	1.425	0.0500	1.256	0.2342	0.0225	5	0.72	060.99	0
060	Water (Free) (%)	0510	1.437	0.0029	1.256	0.2342	0.0225	5	0.77	060.99	0
101	Acid Soluble Calcium (%)	0035	3.655	0.1300	4.334	0.3172	0.0808	19	-2.14	101.30	0
101	Acid Soluble Calcium (%)	0086	3.992	0.0693	4.334	0.3172	0.0808	19	-1.08	101.33	0
101	Acid Soluble Calcium (%)	0106	4.096	0.0346	4.334	0.3172	0.0808	19	-0.75	101.33	0
101	Acid Soluble Calcium (%)	0354	4.140	0.1000	4.334	0.3172	0.0808	19	-0.61	101.30	0
101	Acid Soluble Calcium (%)	0009	4.150	0.3000	4.334	0.3172	0.0808	19	-0.58	101.33	0
101	Acid Soluble Calcium (%)	0482	4.190	0.2000	4.334	0.3172	0.0808	19	-0.45	101.30	0
101	Acid Soluble Calcium (%)	0521	4.191	0.0000	4.334	0.3172	0.0808	19	-0.45	101.32	0
101	Acid Soluble Calcium (%)	0096	4.195	0.1500	4.334	0.3172	0.0808	19	-0.44	101.30	0
101	Acid Soluble Calcium (%)	0421	4.210	0.0600	4.334	0.3172	0.0808	19	-0.39	101.33	0
101	Acid Soluble Calcium (%)	0117	4.224	0.1150	4.334	0.3172	0.0808	19	-0.35	101.33	0
101	Acid Soluble Calcium (%)	0034	4.247	0.0000	4.334	0.3172	0.0808	19	-0.28	101.33	0
101	Acid Soluble Calcium (%)	0472	4.380	0.0200	4.334	0.3172	0.0808	19	0.14	101.30	0
101	Acid Soluble Calcium (%)	0231	4.400	0.0800	4.334	0.3172	0.0808	19	0.21	101.30	0
101	Acid Soluble Calcium (%)	0105	4.480	0.0120	4.334	0.3172	0.0808	19	0.46	101.03	0
101	Acid Soluble Calcium (%)	0527	4.499	0.0140	4.334	0.3172	0.0808	19	0.52	101.33	0
101	Acid Soluble Calcium (%)	0423	4.700	0.0200	4.334	0.3172	0.0808	19	1.15	101.32	0
101	Acid Soluble Calcium (%)	0552	4.780	0.2000	4.334	0.3172	0.0808	19	1.41	101.99	0
101	Acid Soluble Calcium (%)	0402	4.855	0.0300	4.334	0.3172	0.0808	19	1.64	101.30	0
101	Acid Soluble Calcium (%)	0483	4.940	0.0000	4.334	0.3172	0.0808	19	1.91	101.30	0
121	Acid Soluble Magnesium (1.2%)	0230	0.8435†	0.0130	1.451	0.1306	0.0399	67	-4.65	121.30	0
121	Acid Soluble Magnesium (1.2%)	0027	1.114†	0.0470	1.451	0.1306	0.0399	67	-2.59	121.99	0
121	Acid Soluble Magnesium (1.2%)	0516	1.127†	0.0132	1.451	0.1306	0.0399	67	-2.48	121.00	0
121	Acid Soluble Magnesium (1.2%)	0486	1.210	0.0000	1.451	0.1306	0.0399	67	-1.85	121.33	0
121	Acid Soluble Magnesium (1.2%)	0360	1.212	0.0100	1.451	0.1306	0.0399	67	-1.83	121.30	0
121	Acid Soluble Magnesium (1.2%)	0476	1.233	0.0251	1.451	0.1306	0.0399	67	-1.67	121.99	0
121	Acid Soluble Magnesium (1.2%)	0035	1.265	0.0100	1.451	0.1306	0.0399	67	-1.43	121.30	0
121	Acid Soluble Magnesium (1.2%)	0519	1.290	0.0200	1.451	0.1306	0.0399	67	-1.23	121.99	0
121	Acid Soluble Magnesium (1.2%)	0515	1.315	0.0547	1.451	0.1306	0.0399	67	-1.04	121.33	0
121	Acid Soluble Magnesium (1.2%)	0106	1.318	0.0235	1.451	0.1306	0.0399	67	-1.02	121.33	0
121	Acid Soluble Magnesium (1.2%)	0042	1.320	0.0200	1.451	0.1306	0.0399	67	-1.00	121.99	0
121	Acid Soluble Magnesium (1.2%)	0397	1.322	0.0413	1.451	0.1306	0.0399	67	-0.99	121.33	0
121	Acid Soluble Magnesium (1.2%)	0177	1.335	0.0226	1.451	0.1306	0.0399	67	-0.89	121.33	0
121	Acid Soluble Magnesium (1.2%)	0444	1.345	0.0500	1.451	0.1306	0.0399	67	-0.81	121.30	0
121	Acid Soluble Magnesium (1.2%)	0009	1.350	0.1000	1.451	0.1306	0.0399	67	-0.78	121.33	0
121	Acid Soluble Magnesium (1.2%)	0520	1.350	0.1000	1.451	0.1306	0.0399	67	-0.78	121.99	0
121	Acid Soluble Magnesium (1.2%)	0231	1.370	0.0400	1.451	0.1306	0.0399	67	-0.62	121.30	0
121	Acid Soluble Magnesium (1.2%)	0105	1.386	0.0320	1.451	0.1306	0.0399	67	-0.50	121.03	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
121	Acid Soluble Magnesium (1.2%)	0291	1.395	0.0100	1.451	0.1306	0.0399	67	-0.43	121.30	0
121	Acid Soluble Magnesium (1.2%)	0041	1.400	0.1000	1.451	0.1306	0.0399	67	-0.39	121.30	0
121	Acid Soluble Magnesium (1.2%)	0157	1.400	0.0400	1.451	0.1306	0.0399	67	-0.39	121.30	0
121	Acid Soluble Magnesium (1.2%)	0055	1.400	0.0400	1.451	0.1306	0.0399	67	-0.39	121.33	0
121	Acid Soluble Magnesium (1.2%)	0501	1.400	0.0000	1.451	0.1306	0.0399	67	-0.39	121.99	0
121	Acid Soluble Magnesium (1.2%)	0523	1.400	0.2000	1.451	0.1306	0.0399	67	-0.39	121.99	0
121	Acid Soluble Magnesium (1.2%)	0324	1.405	0.1500	1.451	0.1306	0.0399	67	-0.35	121.30	0
121	Acid Soluble Magnesium (1.2%)	0157	1.410	0.0000	1.451	0.1306	0.0399	67	-0.32	121.00	0
121	Acid Soluble Magnesium (1.2%)	0546	1.415	0.0100	1.451	0.1306	0.0399	67	-0.28	121.33	0
121	Acid Soluble Magnesium (1.2%)	0524	1.424	0.0131	1.451	0.1306	0.0399	67	-0.21	121.99	0
121	Acid Soluble Magnesium (1.2%)	0096	1.425	0.0500	1.451	0.1306	0.0399	67	-0.20	121.30	0
121	Acid Soluble Magnesium (1.2%)	0086	1.426	0.1401	1.451	0.1306	0.0399	67	-0.20	121.33	0
121	Acid Soluble Magnesium (1.2%)	0040	1.435	0.0100	1.451	0.1306	0.0399	67	-0.12	121.00	0
121	Acid Soluble Magnesium (1.2%)	0034	1.448	0.0280	1.451	0.1306	0.0399	67	-0.02	121.33	0
121	Acid Soluble Magnesium (1.2%)	0292	1.450	0.0000	1.451	0.1306	0.0399	67	-0.01	121.32	0
121	Acid Soluble Magnesium (1.2%)	0233	1.459	0.0380	1.451	0.1306	0.0399	67	0.06	121.30	0
121	Acid Soluble Magnesium (1.2%)	0481	1.460	0.0000	1.451	0.1306	0.0399	67	0.07	121.99	0
121	Acid Soluble Magnesium (1.2%)	0494	1.465	0.0762	1.451	0.1306	0.0399	67	0.11	121.33	0
121	Acid Soluble Magnesium (1.2%)	0023	1.472	0.0210	1.451	0.1306	0.0399	67	0.16	121.33	0
121	Acid Soluble Magnesium (1.2%)	0354	1.475	0.0100	1.451	0.1306	0.0399	67	0.18	121.30	0
121	Acid Soluble Magnesium (1.2%)	0037	1.476	0.0420	1.451	0.1306	0.0399	67	0.19	121.33	0
121	Acid Soluble Magnesium (1.2%)	0049	1.479	0.0349	1.451	0.1306	0.0399	67	0.21	121.30	0
121	Acid Soluble Magnesium (1.2%)	0482	1.490	0.0600	1.451	0.1306	0.0399	67	0.30	121.30	0
121	Acid Soluble Magnesium (1.2%)	0025	1.491	0.0330	1.451	0.1306	0.0399	67	0.30	121.33	0
121	Acid Soluble Magnesium (1.2%)	0489	1.495	0.0100	1.451	0.1306	0.0399	67	0.34	121.00	0
121	Acid Soluble Magnesium (1.2%)	0451	1.495	0.0300	1.451	0.1306	0.0399	67	0.34	121.30	0
121	Acid Soluble Magnesium (1.2%)	0521	1.499	0.0000	1.451	0.1306	0.0399	67	0.37	121.32	0
121	Acid Soluble Magnesium (1.2%)	0234	1.500	0.0000	1.451	0.1306	0.0399	67	0.37	121.30	0
121	Acid Soluble Magnesium (1.2%)	0423	1.503	0.0050	1.451	0.1306	0.0399	67	0.39	121.32	0
121	Acid Soluble Magnesium (1.2%)	0522	1.505	0.0500	1.451	0.1306	0.0399	67	0.41	121.70	0
121	Acid Soluble Magnesium (1.2%)	0255	1.511	0.0430	1.451	0.1306	0.0399	67	0.45	121.30	0
121	Acid Soluble Magnesium (1.2%)	0421	1.520	0.0000	1.451	0.1306	0.0399	67	0.53	121.33	0
121	Acid Soluble Magnesium (1.2%)	0394	1.525	0.0100	1.451	0.1306	0.0399	67	0.56	121.32	0
121	Acid Soluble Magnesium (1.2%)	0169	1.540	0.0800	1.451	0.1306	0.0399	67	0.68	121.00	0
121	Acid Soluble Magnesium (1.2%)	0498	1.550	0.1000	1.451	0.1306	0.0399	67	0.76	121.00	0
121	Acid Soluble Magnesium (1.2%)	0117	1.560	0.0140	1.451	0.1306	0.0399	67	0.83	121.33	0
121	Acid Soluble Magnesium (1.2%)	0552	1.575	0.1700	1.451	0.1306	0.0399	67	0.95	121.99	0
121	Acid Soluble Magnesium (1.2%)	0029	1.576	0.0470	1.451	0.1306	0.0399	67	0.95	121.00	0
121	Acid Soluble Magnesium (1.2%)	0483	1.580	0.0200	1.451	0.1306	0.0399	67	0.99	121.30	0
121	Acid Soluble Magnesium (1.2%)	0043	1.595	0.0100	1.451	0.1306	0.0399	67	1.10	121.32	0
121	Acid Soluble Magnesium (1.2%)	0368	1.601	0.0153	1.451	0.1306	0.0399	67	1.15	121.99	0
121	Acid Soluble Magnesium (1.2%)	0433	1.608	0.0070	1.451	0.1306	0.0399	67	1.20	121.30	0
121	Acid Soluble Magnesium (1.2%)	0527	1.617	0.0030	1.451	0.1306	0.0399	67	1.27	121.33	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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121	Acid Soluble Magnesium (1.2%)	0220	1.685	0.0700	1.451	0.1306	0.0399	67	1.79	121.33	0
121	Acid Soluble Magnesium (1.2%)	0472	1.705	0.0100	1.451	0.1306	0.0399	67	1.94	121.30	0
121	Acid Soluble Magnesium (1.2%)	0489	1.710	0.0200	1.451	0.1306	0.0399	67	1.98	121.70	0
121	Acid Soluble Magnesium (1.2%)	0515	2.013‡	0.1583	1.451	0.1306	0.0399	67	4.30	121.99	0
121	Acid Soluble Magnesium (1.2%)	0309	2.350‡	0.0600	1.451	0.1306	0.0399	67	6.88	121.00	0
121	Acid Soluble Magnesium (1.2%)	0476	2.501‡	0.0128	1.451	0.1306	0.0399	67	8.04	121.70	0
121	Acid Soluble Magnesium (1.2%)	0550	1.905‡	0.8500	1.451	0.1306	0.0399	67	3.47	121.00	1
131	Water Soluble Magnesium (%)	0543	1.374	0.0100				2		131.30	0
131	Water Soluble Magnesium (%)	0510	1.702	0.0574				2		131.70	0
143	Elemental Sulfur (%)	0405	0.3145	0.0090	0.9489	0.3560	0.0062	5	-1.56	143.00	0
143	Elemental Sulfur (%)	0291	1.065	0.0100	0.9489	0.3560	0.0062	5	0.28	143.99	0
143	Elemental Sulfur (%)	0472	1.090	0.0000	0.9489	0.3560	0.0062	5	0.35	143.99	0
143	Elemental Sulfur (%)	0481	1.135	0.0100	0.9489	0.3560	0.0062	5	0.46	143.99	0
143	Elemental Sulfur (%)	0255	1.140	0.0020	0.9489	0.3560	0.0062	5	0.47	143.99	0
143	Elemental Sulfur (%)	0095	0.4100	0.1000	0.9489	0.3560	0.0062	5	-1.32	143.99	1
145	Sulfate Sulfur, HCl soluble (%)	0405	1.020	0.0600	1.171	0.1150	0.0274	10	-1.22	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0444	1.040	0.0400	1.171	0.1150	0.0274	10	-1.06	145.99	0
145	Sulfate Sulfur, HCl soluble (%)	0095	1.085	0.0100	1.171	0.1150	0.0274	10	-0.70	145.99	0
145	Sulfate Sulfur, HCl soluble (%)	0027	1.170	0.0600	1.171	0.1150	0.0274	10	-0.01	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0106	1.175	0.0100	1.171	0.1150	0.0274	10	0.03	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0544	1.175	0.0100	1.171	0.1150	0.0274	10	0.03	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0522	1.205	0.0100	1.171	0.1150	0.0274	10	0.27	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0550	1.215	0.0300	1.171	0.1150	0.0274	10	0.36	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0397	1.282	0.0037	1.171	0.1150	0.0274	10	0.90	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0169	1.550	0.0400	1.171	0.1150	0.0274	10	3.06	145.99	0
145	Sulfate Sulfur, HCl soluble (%)	0444	1.125	0.1700	1.171	0.1150	0.0274	10	-0.37	145.00	1
146	Total Sulfur in Liquid (1%)	0131	0.9629‡	0.0149				1		146.99	0
148	Total Sulfur (1%)	0360	0.9885	0.0430	1.161	0.1112	0.0448	39	-1.55	148.00	0
148	Total Sulfur (1%)	0394	1.000	0.0000	1.161	0.1112	0.0448	39	-1.45	148.07	0
148	Total Sulfur (1%)	0515	1.023	0.0170	1.161	0.1112	0.0448	39	-1.24	148.07	0
148	Total Sulfur (1%)	0527	1.026	0.0010	1.161	0.1112	0.0448	39	-1.22	148.07	0
148	Total Sulfur (1%)	0368	1.038	0.0082	1.161	0.1112	0.0448	39	-1.10	148.99	0
148	Total Sulfur (1%)	0520	1.040	0.0120	1.161	0.1112	0.0448	39	-1.09	148.99	0
148	Total Sulfur (1%)	0444	1.045	0.0300	1.161	0.1112	0.0448	39	-1.04	148.07	0
148	Total Sulfur (1%)	0486	1.060	0.0200	1.161	0.1112	0.0448	39	-0.91	148.07	0
148	Total Sulfur (1%)	0177	1.074	0.0197	1.161	0.1112	0.0448	39	-0.78	148.07	0
148	Total Sulfur (1%)	0433	1.078	0.0000	1.161	0.1112	0.0448	39	-0.74	148.99	0
148	Total Sulfur (1%)	0421	1.085	0.0900	1.161	0.1112	0.0448	39	-0.68	148.07	0
148	Total Sulfur (1%)	0096	1.095	0.0500	1.161	0.1112	0.0448	39	-0.59	148.99	0
148	Total Sulfur (1%)	0049	1.099	0.0021	1.161	0.1112	0.0448	39	-0.56	148.00	0
148	Total Sulfur (1%)	0037	1.133	0.0070	1.161	0.1112	0.0448	39	-0.25	148.07	0
148	Total Sulfur (1%)	0117	1.137	0.0440	1.161	0.1112	0.0448	39	-0.21	148.07	0
148	Total Sulfur (1%)	0233	1.140	0.0180	1.161	0.1112	0.0448	39	-0.19	148.07	0

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148	Total Sulfur (1%)	0231	1.145	0.0100	1.161	0.1112	0.0448	39	-0.14	148.99	0
148	Total Sulfur (1%)	0040	1.150	0.1000	1.161	0.1112	0.0448	39	-0.10	148.99	0
148	Total Sulfur (1%)	0105	1.155	0.0300	1.161	0.1112	0.0448	39	-0.05	148.01	0
148	Total Sulfur (1%)	0494	1.159	0.0417	1.161	0.1112	0.0448	39	-0.02	148.07	0
148	Total Sulfur (1%)	0354	1.160	0.0600	1.161	0.1112	0.0448	39	-0.01	148.99	0
148	Total Sulfur (1%)	0023	1.165	0.0290	1.161	0.1112	0.0448	39	0.03	148.07	0
148	Total Sulfur (1%)	0451	1.167	0.1120	1.161	0.1112	0.0448	39	0.06	148.00	0
148	Total Sulfur (1%)	0476	1.175	0.1273	1.161	0.1112	0.0448	39	0.13	148.01	0
148	Total Sulfur (1%)	0324	1.195	0.0900	1.161	0.1112	0.0448	39	0.31	148.01	0
148	Total Sulfur (1%)	0546	1.195	0.0700	1.161	0.1112	0.0448	39	0.31	148.07	0
148	Total Sulfur (1%)	0029	1.205	0.0500	1.161	0.1112	0.0448	39	0.40	148.01	0
148	Total Sulfur (1%)	0444	1.205	0.0100	1.161	0.1112	0.0448	39	0.40	148.01	0
148	Total Sulfur (1%)	0055	1.210	0.0200	1.161	0.1112	0.0448	39	0.44	148.01	0
148	Total Sulfur (1%)	0292	1.245	0.0100	1.161	0.1112	0.0448	39	0.76	148.07	0
148	Total Sulfur (1%)	0523	1.250	0.1000	1.161	0.1112	0.0448	39	0.80	148.99	0
148	Total Sulfur (1%)	0483	1.260	0.0200	1.161	0.1112	0.0448	39	0.89	148.07	0
148	Total Sulfur (1%)	0230	1.265	0.1500	1.161	0.1112	0.0448	39	0.94	148.01	0
148	Total Sulfur (1%)	0482	1.290	0.0000	1.161	0.1112	0.0448	39	1.16	148.99	0
148	Total Sulfur (1%)	0220	1.295	0.0500	1.161	0.1112	0.0448	39	1.21	148.99	0
148	Total Sulfur (1%)	0405	1.335	0.0700	1.161	0.1112	0.0448	39	1.57	148.01	0
148	Total Sulfur (1%)	0029	1.350	0.1170	1.161	0.1112	0.0448	39	1.70	148.00	0
148	Total Sulfur (1%)	0095	1.495‡	0.0900	1.161	0.1112	0.0448	39	3.01	148.01	0
148	Total Sulfur (1%)	0498	1.515‡	0.0300	1.161	0.1112	0.0448	39	3.19	148.01	0
148	Total Sulfur (1%)	0086	1.337	0.3923	1.161	0.1112	0.0448	39	1.58	148.07	1
149	Sulfur - HNO3 soluble (%)	0043	1.005	0.0500	1.091	0.0585	0.0209	6	-1.31	149.04	0
149	Sulfur - HNO3 soluble (%)	0521	1.080	0.0000	1.091	0.0585	0.0209	6	-0.17	149.04	0
149	Sulfur - HNO3 soluble (%)	0519	1.090	0.0200	1.091	0.0585	0.0209	6	-0.02	149.04	0
149	Sulfur - HNO3 soluble (%)	0501	1.100	0.0000	1.091	0.0585	0.0209	6	0.13	149.04	0
149	Sulfur - HNO3 soluble (%)	0524	1.107	0.0052	1.091	0.0585	0.0209	6	0.24	149.04	0
149	Sulfur - HNO3 soluble (%)	0423	1.165	0.0500	1.091	0.0585	0.0209	6	1.12	149.04	0
151	Acid Soluble Arsenic (ppm)	0550	3.110	3.340	8.859	2.153	0.7740	21	-2.67	151.00	0
151	Acid Soluble Arsenic (ppm)	0498	4.950	0.1000	8.859	2.153	0.7740	21	-1.82	151.00	0
151	Acid Soluble Arsenic (ppm)	0230	5.695	0.1100	8.859	2.153	0.7740	21	-1.47	151.34	0
151	Acid Soluble Arsenic (ppm)	0009	6.750	0.1000	8.859	2.153	0.7740	21	-0.98	151.33	0
151	Acid Soluble Arsenic (ppm)	0096	7.450	0.3000	8.859	2.153	0.7740	21	-0.65	151.30	0
151	Acid Soluble Arsenic (ppm)	0515	7.579	0.6550	8.859	2.153	0.7740	21	-0.59	151.33	0
151	Acid Soluble Arsenic (ppm)	0389	7.974	1.388	8.859	2.153	0.7740	21	-0.41	151.30	0
151	Acid Soluble Arsenic (ppm)	0481	8.290	0.2200	8.859	2.153	0.7740	21	-0.26	151.99	0
151	Acid Soluble Arsenic (ppm)	0220	8.750	0.7000	8.859	2.153	0.7740	21	-0.05	151.99	0
151	Acid Soluble Arsenic (ppm)	0086	8.784	1.022	8.859	2.153	0.7740	21	-0.03	151.33	0
151	Acid Soluble Arsenic (ppm)	0476	8.979	0.2055	8.859	2.153	0.7740	21	0.06	151.99	0
151	Acid Soluble Arsenic (ppm)	0527	9.166	0.0280	8.859	2.153	0.7740	21	0.14	151.33	0
151	Acid Soluble Arsenic (ppm)	0117	9.356	0.2550	8.859	2.153	0.7740	21	0.23	151.33	0

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151	Acid Soluble Arsenic (ppm)	0368	9.924	1.362	8.859	2.153	0.7740	21	0.49	151.34	0
151	Acid Soluble Arsenic (ppm)	0037	10.49	0.0210	8.859	2.153	0.7740	21	0.76	151.33	0
151	Acid Soluble Arsenic (ppm)	0009	10.50	1.000	8.859	2.153	0.7740	21	0.76	151.99	0
151	Acid Soluble Arsenic (ppm)	0519	10.50	0.0400	8.859	2.153	0.7740	21	0.76	151.99	0
151	Acid Soluble Arsenic (ppm)	0255	10.53	0.4450	8.859	2.153	0.7740	21	0.78	151.30	0
151	Acid Soluble Arsenic (ppm)	0515	10.65	3.594	8.859	2.153	0.7740	21	0.83	151.34	0
151	Acid Soluble Arsenic (ppm)	0494	11.32	1.340	8.859	2.153	0.7740	21	1.14	151.33	0
151	Acid Soluble Arsenic (ppm)	0520	20.66	0.0300	8.859	2.153	0.7740	21	5.48	151.99	0
165	Acid Soluble Boron (0.04%)	0230	0.03260†	0.0018	0.0587	0.0138	0.0293	47	-1.89	165.99	0
165	Acid Soluble Boron (0.04%)	0539	0.04000†	0.0020	0.0587	0.0138	0.0293	47	-1.35	165.00	0
165	Acid Soluble Boron (0.04%)	0397	0.04115†	0.0039	0.0587	0.0138	0.0293	47	-1.27	165.00	0
165	Acid Soluble Boron (0.04%)	0535	0.04150†	0.0010	0.0587	0.0138	0.0293	47	-1.24	165.00	0
165	Acid Soluble Boron (0.04%)	0540	0.04400†	0.0040	0.0587	0.0138	0.0293	47	-1.06	165.00	0
165	Acid Soluble Boron (0.04%)	0481	0.04500†	0.0100	0.0587	0.0138	0.0293	47	-0.99	165.00	0
165	Acid Soluble Boron (0.04%)	0519	0.04500†	0.0100	0.0587	0.0138	0.0293	47	-0.99	165.99	0
165	Acid Soluble Boron (0.04%)	0524	0.04635†	0.0003	0.0587	0.0138	0.0293	47	-0.89	165.99	0
165	Acid Soluble Boron (0.04%)	0515	0.04670†	0.0048	0.0587	0.0138	0.0293	47	-0.87	165.99	0
165	Acid Soluble Boron (0.04%)	0042	0.0500	0.0000	0.0587	0.0138	0.0293	47	-0.63	165.99	0
165	Acid Soluble Boron (0.04%)	0486	0.0500	0.0000	0.0587	0.0138	0.0293	47	-0.63	165.99	0
165	Acid Soluble Boron (0.04%)	0476	0.0501	0.0049	0.0587	0.0138	0.0293	47	-0.62	165.99	0
165	Acid Soluble Boron (0.04%)	0029	0.0505	0.0010	0.0587	0.0138	0.0293	47	-0.59	165.00	0
165	Acid Soluble Boron (0.04%)	0324	0.0510	0.0040	0.0587	0.0138	0.0293	47	-0.56	165.30	0
165	Acid Soluble Boron (0.04%)	0106	0.0511	0.0143	0.0587	0.0138	0.0293	47	-0.55	165.30	0
165	Acid Soluble Boron (0.04%)	0055	0.0515	0.0010	0.0587	0.0138	0.0293	47	-0.52	165.00	0
165	Acid Soluble Boron (0.04%)	0086	0.0522	0.0003	0.0587	0.0138	0.0293	47	-0.47	165.99	0
165	Acid Soluble Boron (0.04%)	0421	0.0525	0.0010	0.0587	0.0138	0.0293	47	-0.45	165.99	0
165	Acid Soluble Boron (0.04%)	0394	0.0532	0.0029	0.0587	0.0138	0.0293	47	-0.40	165.30	0
165	Acid Soluble Boron (0.04%)	0009	0.0545	0.0090	0.0587	0.0138	0.0293	47	-0.30	165.99	0
165	Acid Soluble Boron (0.04%)	0255	0.0545	0.0030	0.0587	0.0138	0.0293	47	-0.30	165.99	0
165	Acid Soluble Boron (0.04%)	0501	0.0550	0.0100	0.0587	0.0138	0.0293	47	-0.27	165.99	0
165	Acid Soluble Boron (0.04%)	0546	0.0550	0.0040	0.0587	0.0138	0.0293	47	-0.27	165.99	0
165	Acid Soluble Boron (0.04%)	0423	0.0565	0.0010	0.0587	0.0138	0.0293	47	-0.16	165.99	0
165	Acid Soluble Boron (0.04%)	0040	0.0575	0.0030	0.0587	0.0138	0.0293	47	-0.08	165.30	0
165	Acid Soluble Boron (0.04%)	0037	0.0575	0.0010	0.0587	0.0138	0.0293	47	-0.08	165.30	0
165	Acid Soluble Boron (0.04%)	0117	0.0599	0.0001	0.0587	0.0138	0.0293	47	0.09	165.99	0
165	Acid Soluble Boron (0.04%)	0169	0.0600	0.0020	0.0587	0.0138	0.0293	47	0.10	165.00	0
165	Acid Soluble Boron (0.04%)	0354	0.0600	0.0000	0.0587	0.0138	0.0293	47	0.10	165.30	0
165	Acid Soluble Boron (0.04%)	0360	0.0600	0.0040	0.0587	0.0138	0.0293	47	0.10	165.99	0
165	Acid Soluble Boron (0.04%)	0472	0.0600	0.0000	0.0587	0.0138	0.0293	47	0.10	165.99	0
165	Acid Soluble Boron (0.04%)	0482	0.0600	0.0000	0.0587	0.0138	0.0293	47	0.10	165.99	0
165	Acid Soluble Boron (0.04%)	0444	0.0620	0.0000	0.0587	0.0138	0.0293	47	0.24	165.30	0
165	Acid Soluble Boron (0.04%)	0494	0.0649	0.0016	0.0587	0.0138	0.0293	47	0.45	165.30	0
165	Acid Soluble Boron (0.04%)	0220	0.0690	0.0020	0.0587	0.0138	0.0293	47	0.75	165.00	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
165	Acid Soluble Boron (0.04%)	0023	0.0700	0.0000	0.0587	0.0138	0.0293	47	0.82	165.30	0
165	Acid Soluble Boron (0.04%)	0231	0.0700	0.0000	0.0587	0.0138	0.0293	47	0.82	165.99	0
165	Acid Soluble Boron (0.04%)	0521	0.07200‡	0.0000	0.0587	0.0138	0.0293	47	0.97	165.30	0
165	Acid Soluble Boron (0.04%)	0368	0.07360‡	0.0022	0.0587	0.0138	0.0293	47	1.08	165.99	0
165	Acid Soluble Boron (0.04%)	0527	0.07400‡	0.0040	0.0587	0.0138	0.0293	47	1.11	165.99	0
165	Acid Soluble Boron (0.04%)	0043	0.07650‡	0.0050	0.0587	0.0138	0.0293	47	1.29	165.30	0
165	Acid Soluble Boron (0.04%)	0433	0.07850‡	0.0010	0.0587	0.0138	0.0293	47	1.44	165.30	0
165	Acid Soluble Boron (0.04%)	0309	0.08000‡	0.0000	0.0587	0.0138	0.0293	47	1.55	165.00	0
165	Acid Soluble Boron (0.04%)	0291	0.08000‡	0.0000	0.0587	0.0138	0.0293	47	1.55	165.99	0
165	Acid Soluble Boron (0.04%)	0498	0.09000‡	0.0200	0.0587	0.0138	0.0293	47	2.27	165.00	0
165	Acid Soluble Boron (0.04%)	0550	0.3623‡	0.5554	0.0587	0.0138	0.0293	47	22.00	165.00	0
165	Acid Soluble Boron (0.04%)	0552	0.4500‡	0.6800	0.0587	0.0138	0.0293	47	28.35	165.99	0
165	Acid Soluble Boron (0.04%)	0483	741.0‡	36.00	0.0587	0.0138	0.0293	47	53676.09	165.99	2
171	Water Soluble Boron (%)	0028	0.0430	0.0060	0.0664	0.0280	0.0071	7	-0.76	171.10	0
171	Water Soluble Boron (%)	0444	0.0500	0.0020	0.0664	0.0280	0.0071	7	-0.53	171.99	0
171	Water Soluble Boron (%)	0537	0.0510	0.0060	0.0664	0.0280	0.0071	7	-0.50	171.10	0
171	Water Soluble Boron (%)	0027	0.0585	0.0030	0.0664	0.0280	0.0071	7	-0.26	171.99	0
171	Water Soluble Boron (%)	0405	0.0600	0.0000	0.0664	0.0280	0.0071	7	-0.21	171.10	0
171	Water Soluble Boron (%)	0402	0.0950	0.0100	0.0664	0.0280	0.0071	7	0.92	171.99	0
171	Water Soluble Boron (%)	0543	0.1075	0.0230	0.0664	0.0280	0.0071	7	1.33	171.99	0
181	Acid Soluble Cadmium (ppm)	0096	1.850	0.1000	3.058	0.8487	0.1985	24	-1.42	181.30	0
181	Acid Soluble Cadmium (ppm)	0230	1.895	0.0300	3.058	0.8487	0.1985	24	-1.37	181.34	0
181	Acid Soluble Cadmium (ppm)	0444	2.150	0.0200	3.058	0.8487	0.1985	24	-1.07	181.30	0
181	Acid Soluble Cadmium (ppm)	0523	2.185	0.0300	3.058	0.8487	0.1985	24	-1.03	181.30	0
181	Acid Soluble Cadmium (ppm)	0481	2.335	0.0900	3.058	0.8487	0.1985	24	-0.85	181.99	0
181	Acid Soluble Cadmium (ppm)	0524	2.349	0.0017	3.058	0.8487	0.1985	24	-0.84	181.30	0
181	Acid Soluble Cadmium (ppm)	0368	2.392	0.0720	3.058	0.8487	0.1985	24	-0.79	181.34	0
181	Acid Soluble Cadmium (ppm)	0255	2.717	0.0330	3.058	0.8487	0.1985	24	-0.40	181.30	0
181	Acid Soluble Cadmium (ppm)	0009	2.800	0.0000	3.058	0.8487	0.1985	24	-0.30	181.33	0
181	Acid Soluble Cadmium (ppm)	0035	2.830	0.3200	3.058	0.8487	0.1985	24	-0.27	181.30	0
181	Acid Soluble Cadmium (ppm)	0086	3.039	0.0737	3.058	0.8487	0.1985	24	-0.02	181.33	0
181	Acid Soluble Cadmium (ppm)	0519	3.060	0.0200	3.058	0.8487	0.1985	24	0.00	181.99	0
181	Acid Soluble Cadmium (ppm)	0476	3.094	0.1097	3.058	0.8487	0.1985	24	0.04	181.99	0
181	Acid Soluble Cadmium (ppm)	0494	3.193	0.2909	3.058	0.8487	0.1985	24	0.16	181.33	0
181	Acid Soluble Cadmium (ppm)	0037	3.314	0.0110	3.058	0.8487	0.1985	24	0.30	181.33	0
181	Acid Soluble Cadmium (ppm)	0482	3.350	0.1000	3.058	0.8487	0.1985	24	0.34	181.30	0
181	Acid Soluble Cadmium (ppm)	0220	3.350	0.1000	3.058	0.8487	0.1985	24	0.34	181.99	0
181	Acid Soluble Cadmium (ppm)	0527	3.440	0.0370	3.058	0.8487	0.1985	24	0.45	181.33	0
181	Acid Soluble Cadmium (ppm)	0009	3.450	0.1000	3.058	0.8487	0.1985	24	0.46	181.99	0
181	Acid Soluble Cadmium (ppm)	0394	3.460	0.1400	3.058	0.8487	0.1985	24	0.47	181.30	0
181	Acid Soluble Cadmium (ppm)	0515	4.154	2.585	3.058	0.8487	0.1985	24	1.29	181.34	0
181	Acid Soluble Cadmium (ppm)	0550	4.740	0.0000	3.058	0.8487	0.1985	24	1.98	181.00	0
181	Acid Soluble Cadmium (ppm)	0520	5.180	0.0200	3.058	0.8487	0.1985	24	2.50	181.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
181	Acid Soluble Cadmium (ppm)	0498	5.580	0.4800	3.058	0.8487	0.1985	24	2.97	181.00	0
181	Acid Soluble Cadmium (ppm)	0515	5.098	3.711	3.058	0.8487	0.1985	24	2.40	181.33	1
191	Acid Soluble Chromium (ppm)	0230	42.75	0.1000	64.53	11.01	2.279	24	-1.98	191.34	0
191	Acid Soluble Chromium (ppm)	0523	44.30	0.1300	64.53	11.01	2.279	24	-1.84	191.30	0
191	Acid Soluble Chromium (ppm)	0498	46.77	1.610	64.53	11.01	2.279	24	-1.61	191.00	0
191	Acid Soluble Chromium (ppm)	0482	52.75	1.500	64.53	11.01	2.279	24	-1.07	191.30	0
191	Acid Soluble Chromium (ppm)	0444	54.15	4.270	64.53	11.01	2.279	24	-0.94	191.30	0
191	Acid Soluble Chromium (ppm)	0035	55.65	1.300	64.53	11.01	2.279	24	-0.81	191.30	0
191	Acid Soluble Chromium (ppm)	0519	59.47	0.1000	64.53	11.01	2.279	24	-0.46	191.99	0
191	Acid Soluble Chromium (ppm)	0394	61.00	0.6000	64.53	11.01	2.279	24	-0.32	191.30	0
191	Acid Soluble Chromium (ppm)	0481	62.09	1.970	64.53	11.01	2.279	24	-0.22	191.99	0
191	Acid Soluble Chromium (ppm)	0368	62.25	0.7170	64.53	11.01	2.279	24	-0.21	191.34	0
191	Acid Soluble Chromium (ppm)	0086	64.76	0.3610	64.53	11.01	2.279	24	0.02	191.33	0
191	Acid Soluble Chromium (ppm)	0494	65.36	2.368	64.53	11.01	2.279	24	0.07	191.33	0
191	Acid Soluble Chromium (ppm)	0009	65.50	7.000	64.53	11.01	2.279	24	0.09	191.33	0
191	Acid Soluble Chromium (ppm)	0527	67.71	0.1790	64.53	11.01	2.279	24	0.29	191.33	0
191	Acid Soluble Chromium (ppm)	0515	67.94	2.133	64.53	11.01	2.279	24	0.31	191.33	0
191	Acid Soluble Chromium (ppm)	0476	68.38	6.022	64.53	11.01	2.279	24	0.35	191.99	0
191	Acid Soluble Chromium (ppm)	0037	69.69	0.2640	64.53	11.01	2.279	24	0.47	191.33	0
191	Acid Soluble Chromium (ppm)	0096	70.90	1.400	64.53	11.01	2.279	24	0.58	191.30	0
191	Acid Soluble Chromium (ppm)	0009	73.00	8.000	64.53	11.01	2.279	24	0.77	191.99	0
191	Acid Soluble Chromium (ppm)	0220	73.50	1.000	64.53	11.01	2.279	24	0.81	191.99	0
191	Acid Soluble Chromium (ppm)	0117	73.71	2.160	64.53	11.01	2.279	24	0.83	191.33	0
191	Acid Soluble Chromium (ppm)	0520	77.51	0.0300	64.53	11.01	2.279	24	1.18	191.99	0
191	Acid Soluble Chromium (ppm)	0105	78.41	5.610	64.53	11.01	2.279	24	1.26	191.33	0
191	Acid Soluble Chromium (ppm)	0550	108.1	5.860	64.53	11.01	2.279	24	3.96	191.00	0
191	Acid Soluble Chromium (ppm)	0515	74.07	12.59	64.53	11.01	2.279	24	0.87	191.34	1
202	Acid Soluble Cobalt (ppm)	0546	0.6100	0.0200	3.697	1.398	0.4071	23	-2.21	202.33	0
202	Acid Soluble Cobalt (ppm)	0096	1.540	0.5600	3.697	1.398	0.4071	23	-1.54	202.30	0
202	Acid Soluble Cobalt (ppm)	0230	1.855	0.0500	3.697	1.398	0.4071	23	-1.32	202.34	0
202	Acid Soluble Cobalt (ppm)	0519	2.210	0.0400	3.697	1.398	0.4071	23	-1.06	202.99	0
202	Acid Soluble Cobalt (ppm)	0524	2.644	0.0375	3.697	1.398	0.4071	23	-0.75	202.30	0
202	Acid Soluble Cobalt (ppm)	0035	2.750	0.4800	3.697	1.398	0.4071	23	-0.68	202.30	0
202	Acid Soluble Cobalt (ppm)	0523	2.820	0.1000	3.697	1.398	0.4071	23	-0.63	202.30	0
202	Acid Soluble Cobalt (ppm)	0520	3.045	0.0100	3.697	1.398	0.4071	23	-0.47	202.99	0
202	Acid Soluble Cobalt (ppm)	0368	3.413	0.3840	3.697	1.398	0.4071	23	-0.20	202.34	0
202	Acid Soluble Cobalt (ppm)	0482	3.435	0.7300	3.697	1.398	0.4071	23	-0.19	202.30	0
202	Acid Soluble Cobalt (ppm)	0527	3.544	0.2160	3.697	1.398	0.4071	23	-0.11	202.33	0
202	Acid Soluble Cobalt (ppm)	0220	3.600	0.0000	3.697	1.398	0.4071	23	-0.07	202.99	0
202	Acid Soluble Cobalt (ppm)	0423	4.140	0.0400	3.697	1.398	0.4071	23	0.32	202.32	0
202	Acid Soluble Cobalt (ppm)	0255	4.155	0.1280	3.697	1.398	0.4071	23	0.33	202.99	0
202	Acid Soluble Cobalt (ppm)	0515	4.221	2.436	3.697	1.398	0.4071	23	0.37	202.34	0
202	Acid Soluble Cobalt (ppm)	0476	4.523	0.1863	3.697	1.398	0.4071	23	0.59	202.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
202	Acid Soluble Cobalt (ppm)	0086	4.609	0.2130	3.697	1.398	0.4071	23	0.65	202.33	0
202	Acid Soluble Cobalt (ppm)	0494	4.635	0.8948	3.697	1.398	0.4071	23	0.67	202.33	0
202	Acid Soluble Cobalt (ppm)	0037	4.930	0.3110	3.697	1.398	0.4071	23	0.88	202.33	0
202	Acid Soluble Cobalt (ppm)	0009	5.000	0.2000	3.697	1.398	0.4071	23	0.93	202.33	0
202	Acid Soluble Cobalt (ppm)	0117	5.007	0.1260	3.697	1.398	0.4071	23	0.94	202.33	0
202	Acid Soluble Cobalt (ppm)	0009	5.500	0.2000	3.697	1.398	0.4071	23	1.29	202.99	0
202	Acid Soluble Cobalt (ppm)	0498	13.00	2.000	3.697	1.398	0.4071	23	6.65	202.00	0
202	Acid Soluble Cobalt (ppm)	0515	6.097	4.180	3.697	1.398	0.4071	23	1.72	202.33	1
202	Acid Soluble Cobalt (ppm)	0027	29.50	1.000	3.697	1.398	0.4071	23	18.46	202.99	2
221	Acid Soluble Copper (%)	0230	0.0002	0.0000	0.0008	0.0007	0.0018	20	-0.84	221.30	0
221	Acid Soluble Copper (%)	0423	0.0002	0.0000	0.0008	0.0007	0.0018	20	-0.84	221.32	0
221	Acid Soluble Copper (%)	0521	0.0002	0.0000	0.0008	0.0007	0.0018	20	-0.84	221.32	0
221	Acid Soluble Copper (%)	0524	0.0002	0.0000	0.0008	0.0007	0.0018	20	-0.84	221.99	0
221	Acid Soluble Copper (%)	0086	0.0003	0.0000	0.0008	0.0007	0.0018	20	-0.70	221.33	0
221	Acid Soluble Copper (%)	0494	0.0003	0.0000	0.0008	0.0007	0.0018	20	-0.70	221.33	0
221	Acid Soluble Copper (%)	0546	0.0003	0.0000	0.0008	0.0007	0.0018	20	-0.70	221.33	0
221	Acid Soluble Copper (%)	0009	0.0003	0.0000	0.0008	0.0007	0.0018	20	-0.70	221.99	0
221	Acid Soluble Copper (%)	0009	0.0005	0.0003	0.0008	0.0007	0.0018	20	-0.50	221.33	0
221	Acid Soluble Copper (%)	0368	0.0005	0.0001	0.0008	0.0007	0.0018	20	-0.50	221.99	0
221	Acid Soluble Copper (%)	0394	0.0005	0.0000	0.0008	0.0007	0.0018	20	-0.43	221.32	0
221	Acid Soluble Copper (%)	0105	0.0009	0.0006	0.0008	0.0007	0.0018	20	0.13	221.33	0
221	Acid Soluble Copper (%)	0035	0.0010	0.0001	0.0008	0.0007	0.0018	20	0.19	221.30	0
221	Acid Soluble Copper (%)	0527	0.0010	0.0000	0.0008	0.0007	0.0018	20	0.26	221.33	0
221	Acid Soluble Copper (%)	0515	0.0011	0.0004	0.0008	0.0007	0.0018	20	0.40	221.33	0
221	Acid Soluble Copper (%)	0402	0.0015	0.0010	0.0008	0.0007	0.0018	20	0.95	221.30	0
221	Acid Soluble Copper (%)	0515	0.0017	0.0005	0.0008	0.0007	0.0018	20	1.16	221.99	0
221	Acid Soluble Copper (%)	0255	0.0025	0.0030	0.0008	0.0007	0.0018	20	2.34	221.30	0
221	Acid Soluble Copper (%)	0354	0.0100	0.0000	0.0008	0.0007	0.0018	20	12.69	221.30	0
221	Acid Soluble Copper (%)	0552	0.0350	0.0300	0.0008	0.0007	0.0018	20	47.22	221.30	0
221	Acid Soluble Copper (%)	0476	3.033	0.2861	0.0008	0.0007	0.0018	20	4187.85	221.99	2
241	Acid Soluble Iron (%)	0515	0.5283	0.0774	0.6252	0.0301	0.0190	25	-3.22	241.99	0
241	Acid Soluble Iron (%)	0546	0.5500	0.0200	0.6252	0.0301	0.0190	25	-2.50	241.33	0
241	Acid Soluble Iron (%)	0106	0.5686	0.0156	0.6252	0.0301	0.0190	25	-1.88	241.33	0
241	Acid Soluble Iron (%)	0515	0.5857	0.0259	0.6252	0.0301	0.0190	25	-1.31	241.33	0
241	Acid Soluble Iron (%)	0034	0.6085	0.0010	0.6252	0.0301	0.0190	25	-0.55	241.33	0
241	Acid Soluble Iron (%)	0009	0.6100	0.0600	0.6252	0.0301	0.0190	25	-0.50	241.33	0
241	Acid Soluble Iron (%)	0421	0.6150	0.0100	0.6252	0.0301	0.0190	25	-0.34	241.33	0
241	Acid Soluble Iron (%)	0086	0.6155	0.0019	0.6252	0.0301	0.0190	25	-0.32	241.33	0
241	Acid Soluble Iron (%)	0521	0.6180	0.0000	0.6252	0.0301	0.0190	25	-0.24	241.32	0
241	Acid Soluble Iron (%)	0035	0.6185	0.0130	0.6252	0.0301	0.0190	25	-0.22	241.30	0
241	Acid Soluble Iron (%)	0025	0.6203	0.0311	0.6252	0.0301	0.0190	25	-0.16	241.33	0
241	Acid Soluble Iron (%)	0105	0.6212	0.0825	0.6252	0.0301	0.0190	25	-0.13	241.03	0
241	Acid Soluble Iron (%)	0494	0.6221	0.0176	0.6252	0.0301	0.0190	25	-0.10	241.33	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
241	Acid Soluble Iron (%)	0117	0.6226	0.0130	0.6252	0.0301	0.0190	25	-0.09	241.33	0
241	Acid Soluble Iron (%)	0096	0.6250	0.0300	0.6252	0.0301	0.0190	25	-0.01	241.30	0
241	Acid Soluble Iron (%)	0231	0.6300	0.0000	0.6252	0.0301	0.0190	25	0.16	241.30	0
241	Acid Soluble Iron (%)	0472	0.6400	0.0000	0.6252	0.0301	0.0190	25	0.49	241.30	0
241	Acid Soluble Iron (%)	0423	0.6405	0.0010	0.6252	0.0301	0.0190	25	0.51	241.32	0
241	Acid Soluble Iron (%)	0402	0.6450	0.0100	0.6252	0.0301	0.0190	25	0.66	241.30	0
241	Acid Soluble Iron (%)	0023	0.6455	0.0010	0.6252	0.0301	0.0190	25	0.67	241.33	0
241	Acid Soluble Iron (%)	0524	0.6456	0.0028	0.6252	0.0301	0.0190	25	0.68	241.99	0
241	Acid Soluble Iron (%)	0354	0.6500	0.0000	0.6252	0.0301	0.0190	25	0.82	241.30	0
241	Acid Soluble Iron (%)	0527	0.6720	0.0120	0.6252	0.0301	0.0190	25	1.55	241.33	0
241	Acid Soluble Iron (%)	0552	0.6800	0.0400	0.6252	0.0301	0.0190	25	1.82	241.30	0
241	Acid Soluble Iron (%)	0482	0.6950	0.0100	0.6252	0.0301	0.0190	25	2.32	241.30	0
241	Acid Soluble Iron (%)	0483	6,940	120.0	0.6252	0.0301	0.0190	25	230489.04	241.30	2
251	Acid Soluble Lead (ppm)	0498	1.380	0.2200	4.099	1.543	0.5516	23	-1.76	251.00	0
251	Acid Soluble Lead (ppm)	0444	2.140	0.1600	4.099	1.543	0.5516	23	-1.27	251.30	0
251	Acid Soluble Lead (ppm)	0523	2.865	0.0900	4.099	1.543	0.5516	23	-0.80	251.30	0
251	Acid Soluble Lead (ppm)	0230	3.000	0.3200	4.099	1.543	0.5516	23	-0.71	251.34	0
251	Acid Soluble Lead (ppm)	0009	3.200	0.8000	4.099	1.543	0.5516	23	-0.58	251.33	0
251	Acid Soluble Lead (ppm)	0009	3.250	0.1000	4.099	1.543	0.5516	23	-0.55	251.99	0
251	Acid Soluble Lead (ppm)	0096	3.400	0.4000	4.099	1.543	0.5516	23	-0.45	251.30	0
251	Acid Soluble Lead (ppm)	0255	3.442	0.0370	4.099	1.543	0.5516	23	-0.43	251.30	0
251	Acid Soluble Lead (ppm)	0524	3.470	0.0088	4.099	1.543	0.5516	23	-0.41	251.30	0
251	Acid Soluble Lead (ppm)	0481	3.470	0.0800	4.099	1.543	0.5516	23	-0.41	251.99	0
251	Acid Soluble Lead (ppm)	0515	3.525	2.649	4.099	1.543	0.5516	23	-0.37	251.34	0
251	Acid Soluble Lead (ppm)	0037	3.673	0.1940	4.099	1.543	0.5516	23	-0.28	251.33	0
251	Acid Soluble Lead (ppm)	0086	3.701	0.4309	4.099	1.543	0.5516	23	-0.26	251.33	0
251	Acid Soluble Lead (ppm)	0519	3.895	0.1100	4.099	1.543	0.5516	23	-0.13	251.99	0
251	Acid Soluble Lead (ppm)	0220	4.250	0.3000	4.099	1.543	0.5516	23	0.10	251.99	0
251	Acid Soluble Lead (ppm)	0494	4.374	0.0703	4.099	1.543	0.5516	23	0.18	251.33	0
251	Acid Soluble Lead (ppm)	0482	4.720	0.6400	4.099	1.543	0.5516	23	0.40	251.30	0
251	Acid Soluble Lead (ppm)	0527	4.725	0.0250	4.099	1.543	0.5516	23	0.41	251.33	0
251	Acid Soluble Lead (ppm)	0394	5.890	0.2400	4.099	1.543	0.5516	23	1.16	251.30	0
251	Acid Soluble Lead (ppm)	0515	6.284	2.656	4.099	1.543	0.5516	23	1.42	251.33	0
251	Acid Soluble Lead (ppm)	0476	6.397	0.1550	4.099	1.543	0.5516	23	1.49	251.99	0
251	Acid Soluble Lead (ppm)	0035	8.765	2.870	4.099	1.543	0.5516	23	3.02	251.30	0
251	Acid Soluble Lead (ppm)	0520	11.04	0.1300	4.099	1.543	0.5516	23	4.50	251.99	0
251	Acid Soluble Lead (ppm)	0550	29.68	1.170	4.099	1.543	0.5516	23	16.58	251.00	2
251	Acid Soluble Lead (ppm)	0368	0.0000	0.0000	4.099	1.543	0.5516	23		251.34	4
261	Acid Soluble Manganese (%)	0354	0.0100	0.0000	0.0185	0.0017	0.0028	23	-5.09	261.30	0
261	Acid Soluble Manganese (%)	0106	0.0159	0.0002	0.0185	0.0017	0.0028	23	-1.55	261.35	0
261	Acid Soluble Manganese (%)	0049	0.0164	0.0013	0.0185	0.0017	0.0028	23	-1.28	261.32	0
261	Acid Soluble Manganese (%)	0515	0.0165	0.0010	0.0185	0.0017	0.0028	23	-1.19	261.99	0
261	Acid Soluble Manganese (%)	0546	0.0172	0.0006	0.0185	0.0017	0.0028	23	-0.77	261.35	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
261	Acid Soluble Manganese (%)	0524	0.0174	0.0004	0.0185	0.0017	0.0028	23	-0.65	261.99	0
261	Acid Soluble Manganese (%)	0105	0.0177	0.0046	0.0185	0.0017	0.0028	23	-0.47	261.15	0
261	Acid Soluble Manganese (%)	0009	0.0180	0.0020	0.0185	0.0017	0.0028	23	-0.29	261.35	0
261	Acid Soluble Manganese (%)	0035	0.0182	0.0005	0.0185	0.0017	0.0028	23	-0.20	261.30	0
261	Acid Soluble Manganese (%)	0521	0.0182	0.0000	0.0185	0.0017	0.0028	23	-0.17	261.34	0
261	Acid Soluble Manganese (%)	0494	0.0183	0.0007	0.0185	0.0017	0.0028	23	-0.14	261.35	0
261	Acid Soluble Manganese (%)	0086	0.0184	0.0003	0.0185	0.0017	0.0028	23	-0.08	261.35	0
261	Acid Soluble Manganese (%)	0023	0.0185	0.0010	0.0185	0.0017	0.0028	23	0.01	261.35	0
261	Acid Soluble Manganese (%)	0117	0.0189	0.0006	0.0185	0.0017	0.0028	23	0.25	261.35	0
261	Acid Soluble Manganese (%)	0527	0.0190	0.0000	0.0185	0.0017	0.0028	23	0.31	261.35	0
261	Acid Soluble Manganese (%)	0096	0.0191	0.0007	0.0185	0.0017	0.0028	23	0.34	261.30	0
261	Acid Soluble Manganese (%)	0472	0.0200	0.0000	0.0185	0.0017	0.0028	23	0.91	261.30	0
261	Acid Soluble Manganese (%)	0482	0.0200	0.0000	0.0185	0.0017	0.0028	23	0.91	261.31	0
261	Acid Soluble Manganese (%)	0231	0.0200	0.0000	0.0185	0.0017	0.0028	23	0.91	261.32	0
261	Acid Soluble Manganese (%)	0402	0.0200	0.0000	0.0185	0.0017	0.0028	23	0.91	261.32	0
261	Acid Soluble Manganese (%)	0421	0.0200	0.0000	0.0185	0.0017	0.0028	23	0.91	261.35	0
261	Acid Soluble Manganese (%)	0423	0.0205	0.0010	0.0185	0.0017	0.0028	23	1.21	261.34	0
261	Acid Soluble Manganese (%)	0552	0.1150	0.0500	0.0185	0.0017	0.0028	23	57.90	261.32	0
261	Acid Soluble Manganese (%)	0483	68.60	7.000	0.0185	0.0017	0.0028	23	41140.52	261.32	2
261	Acid Soluble Manganese (%)	0515	0.0130	0.0260	0.0185	0.0017	0.0028	23		261.35	4
281	Acid Soluble Mercury (ppm)	0519	0.0150	0.0100				1		281.99	0
281	Acid Soluble Mercury (ppm)	0515	0.0000	0.0000				1		281.30	4
289	Acid Soluble Molybdenum (ppm)	0476	2.676	0.0195	7.586	1.938	0.6969	25	-2.53	289.99	0
289	Acid Soluble Molybdenum (ppm)	0230	4.690	0.0600	7.586	1.938	0.6969	25	-1.49	289.34	0
289	Acid Soluble Molybdenum (ppm)	0521	4.968	0.0000	7.586	1.938	0.6969	25	-1.35	289.30	0
289	Acid Soluble Molybdenum (ppm)	0433	5.504	0.0029	7.586	1.938	0.6969	25	-1.07	289.30	0
289	Acid Soluble Molybdenum (ppm)	0096	5.900	0.4000	7.586	1.938	0.6969	25	-0.87	289.30	0
289	Acid Soluble Molybdenum (ppm)	0524	6.278	0.0165	7.586	1.938	0.6969	25	-0.67	289.30	0
289	Acid Soluble Molybdenum (ppm)	0394	6.677	0.0000	7.586	1.938	0.6969	25	-0.47	289.32	0
289	Acid Soluble Molybdenum (ppm)	0515	6.789	2.585	7.586	1.938	0.6969	25	-0.41	289.34	0
289	Acid Soluble Molybdenum (ppm)	0009	6.850	1.700	7.586	1.938	0.6969	25	-0.38	289.33	0
289	Acid Soluble Molybdenum (ppm)	0086	6.996	0.3637	7.586	1.938	0.6969	25	-0.30	289.33	0
289	Acid Soluble Molybdenum (ppm)	0546	7.295	0.1300	7.586	1.938	0.6969	25	-0.15	289.33	0
289	Acid Soluble Molybdenum (ppm)	0423	7.680	0.1000	7.586	1.938	0.6969	25	0.05	289.33	0
289	Acid Soluble Molybdenum (ppm)	0494	7.695	1.149	7.586	1.938	0.6969	25	0.06	289.33	0
289	Acid Soluble Molybdenum (ppm)	0220	7.900	0.2000	7.586	1.938	0.6969	25	0.16	289.99	0
289	Acid Soluble Molybdenum (ppm)	0037	7.925	0.0710	7.586	1.938	0.6969	25	0.17	289.33	0
289	Acid Soluble Molybdenum (ppm)	0117	7.960	0.1140	7.586	1.938	0.6969	25	0.19	289.33	0
289	Acid Soluble Molybdenum (ppm)	0515	8.102	2.756	7.586	1.938	0.6969	25	0.27	289.33	0
289	Acid Soluble Molybdenum (ppm)	0520	8.400	0.0400	7.586	1.938	0.6969	25	0.42	289.99	0
289	Acid Soluble Molybdenum (ppm)	0106	8.500	1.000	7.586	1.938	0.6969	25	0.47	289.33	0
289	Acid Soluble Molybdenum (ppm)	0527	8.588	0.0360	7.586	1.938	0.6969	25	0.52	289.33	0
289	Acid Soluble Molybdenum (ppm)	0009	9.350	0.9000	7.586	1.938	0.6969	25	0.91	289.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
289	Acid Soluble Molybdenum (ppm)	0105	9.451	1.338	7.586	1.938	0.6969	25	0.96	289.33	0
289	Acid Soluble Molybdenum (ppm)	0255	11.32	1.604	7.586	1.938	0.6969	25	1.93	289.30	0
289	Acid Soluble Molybdenum (ppm)	0550	12.18	2.480	7.586	1.938	0.6969	25	2.37	289.99	0
289	Acid Soluble Molybdenum (ppm)	0368	12.55	0.3580	7.586	1.938	0.6969	25	2.56	289.34	0
289	Acid Soluble Molybdenum (ppm)	0035	7.660	6.880	7.586	1.938	0.6969	25	0.04	289.30	1
289	Acid Soluble Molybdenum (ppm)	0519	33.95	0.1100	7.586	1.938	0.6969	25	13.60	289.30	2
291	Acid Soluble Nickel (ppm)	0230	9.175	0.2700	15.23	3.522	0.9249	25	-1.72	291.34	0
291	Acid Soluble Nickel (ppm)	0444	9.845	0.9700	15.23	3.522	0.9249	25	-1.53	291.30	0
291	Acid Soluble Nickel (ppm)	0524	10.67	0.0585	15.23	3.522	0.9249	25	-1.29	291.30	0
291	Acid Soluble Nickel (ppm)	0096	11.25	1.100	15.23	3.522	0.9249	25	-1.13	291.30	0
291	Acid Soluble Nickel (ppm)	0482	11.60	1.000	15.23	3.522	0.9249	25	-1.03	291.30	0
291	Acid Soluble Nickel (ppm)	0481	11.96	1.340	15.23	3.522	0.9249	25	-0.93	291.99	0
291	Acid Soluble Nickel (ppm)	0521	13.61	0.0000	15.23	3.522	0.9249	25	-0.46	291.30	0
291	Acid Soluble Nickel (ppm)	0515	14.10	3.275	15.23	3.522	0.9249	25	-0.32	291.34	0
291	Acid Soluble Nickel (ppm)	0519	14.46	0.0800	15.23	3.522	0.9249	25	-0.22	291.99	0
291	Acid Soluble Nickel (ppm)	0394	14.80	0.2000	15.23	3.522	0.9249	25	-0.12	291.30	0
291	Acid Soluble Nickel (ppm)	0527	14.97	0.1500	15.23	3.522	0.9249	25	-0.07	291.33	0
291	Acid Soluble Nickel (ppm)	0255	15.39	0.1110	15.23	3.522	0.9249	25	0.05	291.99	0
291	Acid Soluble Nickel (ppm)	0220	15.40	0.2000	15.23	3.522	0.9249	25	0.05	291.99	0
291	Acid Soluble Nickel (ppm)	0368	15.48	0.6260	15.23	3.522	0.9249	25	0.07	291.34	0
291	Acid Soluble Nickel (ppm)	0086	16.26	0.8490	15.23	3.522	0.9249	25	0.29	291.33	0
291	Acid Soluble Nickel (ppm)	0494	16.28	0.6979	15.23	3.522	0.9249	25	0.30	291.33	0
291	Acid Soluble Nickel (ppm)	0037	16.53	0.2410	15.23	3.522	0.9249	25	0.37	291.33	0
291	Acid Soluble Nickel (ppm)	0476	16.74	0.4340	15.23	3.522	0.9249	25	0.43	291.99	0
291	Acid Soluble Nickel (ppm)	0009	17.00	2.000	15.23	3.522	0.9249	25	0.50	291.33	0
291	Acid Soluble Nickel (ppm)	0515	17.09	3.199	15.23	3.522	0.9249	25	0.53	291.33	0
291	Acid Soluble Nickel (ppm)	0117	17.72	0.1600	15.23	3.522	0.9249	25	0.71	291.33	0
291	Acid Soluble Nickel (ppm)	0009	18.00	0.0000	15.23	3.522	0.9249	25	0.79	291.99	0
291	Acid Soluble Nickel (ppm)	0520	21.97	0.0800	15.23	3.522	0.9249	25	1.91	291.99	0
291	Acid Soluble Nickel (ppm)	0105	24.69	3.050	15.23	3.522	0.9249	25	2.68	291.33	0
291	Acid Soluble Nickel (ppm)	0550	43.48	3.030	15.23	3.522	0.9249	25	8.02	291.00	0
291	Acid Soluble Nickel (ppm)	0035	17.70	8.600	15.23	3.522	0.9249	25	0.70	291.30	1
301	Acid Soluble Selenium (ppm)	0389	0.3221	0.0085	4.631	4.706	0.5914	10	-0.92	301.30	0
301	Acid Soluble Selenium (ppm)	0524	0.5250	0.1300	4.631	4.706	0.5914	10	-0.87	301.30	0
301	Acid Soluble Selenium (ppm)	0220	1.100	0.0000	4.631	4.706	0.5914	10	-0.75	301.99	0
301	Acid Soluble Selenium (ppm)	0519	1.515	0.0300	4.631	4.706	0.5914	10	-0.66	301.99	0
301	Acid Soluble Selenium (ppm)	0515	2.061	1.337	4.631	4.706	0.5914	10	-0.55	301.34	0
301	Acid Soluble Selenium (ppm)	0009	5.050	1.700	4.631	4.706	0.5914	10	0.09	301.33	0
301	Acid Soluble Selenium (ppm)	0527	5.950	0.0400	4.631	4.706	0.5914	10	0.28	301.33	0
301	Acid Soluble Selenium (ppm)	0476	8.947	0.6341	4.631	4.706	0.5914	10	0.92	301.99	0
301	Acid Soluble Selenium (ppm)	0009	9.150	0.5000	4.631	4.706	0.5914	10	0.96	301.99	0
301	Acid Soluble Selenium (ppm)	0255	30.61	1.534	4.631	4.706	0.5914	10	5.52	301.99	0
301	Acid Soluble Selenium (ppm)	0368	0.0000	0.0000	4.631	4.706	0.5914	10		301.34	4

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
301	Acid Soluble Selenium (ppm)	0515	0.7575	1.515	4.631	4.706	0.5914	10		301.33	4
311	Sodium (%)	0009	0.3550	0.0300	0.4003	0.0346	0.0171	11	-1.23	311.33	0
311	Sodium (%)	0035	0.3695	0.0410	0.4003	0.0346	0.0171	11	-0.83	311.33	0
311	Sodium (%)	0521	0.3826	0.0000	0.4003	0.0346	0.0171	11	-0.48	311.32	0
311	Sodium (%)	0086	0.3849	0.0028	0.4003	0.0346	0.0171	11	-0.42	311.33	0
311	Sodium (%)	0034	0.3935	0.0110	0.4003	0.0346	0.0171	11	-0.18	311.33	0
311	Sodium (%)	0096	0.3950	0.0300	0.4003	0.0346	0.0171	11	-0.14	311.99	0
311	Sodium (%)	0482	0.3950	0.0100	0.4003	0.0346	0.0171	11	-0.14	311.99	0
311	Sodium (%)	0354	0.4100	0.0200	0.4003	0.0346	0.0171	11	0.26	311.99	0
311	Sodium (%)	0423	0.4135	0.0050	0.4003	0.0346	0.0171	11	0.36	311.33	0
311	Sodium (%)	0117	0.4666	0.0322	0.4003	0.0346	0.0171	11	1.79	311.33	0
311	Sodium (%)	0527	0.4970	0.0060	0.4003	0.0346	0.0171	11	2.61	311.33	0
321	Acid Soluble Zinc (0.02%)	0230	0.01550†	0.0008	0.0266	0.0043	0.0067	58	-2.61	321.30	0
321	Acid Soluble Zinc (0.02%)	0027	0.01750†	0.0010	0.0266	0.0043	0.0067	58	-2.14	321.99	0
321	Acid Soluble Zinc (0.02%)	0043	0.01850†	0.0010	0.0266	0.0043	0.0067	58	-1.90	321.32	0
321	Acid Soluble Zinc (0.02%)	0472	0.0200	0.0000	0.0266	0.0043	0.0067	58	-1.55	321.30	0
321	Acid Soluble Zinc (0.02%)	0519	0.0200	0.0000	0.0266	0.0043	0.0067	58	-1.55	321.99	0
321	Acid Soluble Zinc (0.02%)	0535	0.0205	0.0010	0.0266	0.0043	0.0067	58	-1.43	321.00	0
321	Acid Soluble Zinc (0.02%)	0539	0.0205	0.0010	0.0266	0.0043	0.0067	58	-1.43	321.00	0
321	Acid Soluble Zinc (0.02%)	0106	0.0208	0.0024	0.0266	0.0043	0.0067	58	-1.36	321.33	0
321	Acid Soluble Zinc (0.02%)	0360	0.0215	0.0010	0.0266	0.0043	0.0067	58	-1.20	321.30	0
321	Acid Soluble Zinc (0.02%)	0537	0.0225	0.0010	0.0266	0.0043	0.0067	58	-0.96	321.99	0
321	Acid Soluble Zinc (0.02%)	0476	0.0227	0.0008	0.0266	0.0043	0.0067	58	-0.92	321.99	0
321	Acid Soluble Zinc (0.02%)	0540	0.0235	0.0050	0.0266	0.0043	0.0067	58	-0.73	321.00	0
321	Acid Soluble Zinc (0.02%)	0169	0.0240	0.0060	0.0266	0.0043	0.0067	58	-0.61	321.00	0
321	Acid Soluble Zinc (0.02%)	0433	0.0245	0.0010	0.0266	0.0043	0.0067	58	-0.49	321.30	0
321	Acid Soluble Zinc (0.02%)	0220	0.0245	0.0010	0.0266	0.0043	0.0067	58	-0.49	321.33	0
321	Acid Soluble Zinc (0.02%)	0324	0.0250	0.0020	0.0266	0.0043	0.0067	58	-0.38	321.30	0
321	Acid Soluble Zinc (0.02%)	0354	0.0250	0.0100	0.0266	0.0043	0.0067	58	-0.38	321.30	0
321	Acid Soluble Zinc (0.02%)	0421	0.0250	0.0100	0.0266	0.0043	0.0067	58	-0.38	321.33	0
321	Acid Soluble Zinc (0.02%)	0486	0.0250	0.0000	0.0266	0.0043	0.0067	58	-0.38	321.33	0
321	Acid Soluble Zinc (0.02%)	0397	0.0251	0.0009	0.0266	0.0043	0.0067	58	-0.37	321.33	0
321	Acid Soluble Zinc (0.02%)	0515	0.0252	0.0029	0.0266	0.0043	0.0067	58	-0.34	321.99	0
321	Acid Soluble Zinc (0.02%)	0394	0.0255	0.0010	0.0266	0.0043	0.0067	58	-0.26	321.32	0
321	Acid Soluble Zinc (0.02%)	0042	0.0255	0.0030	0.0266	0.0043	0.0067	58	-0.26	321.99	0
321	Acid Soluble Zinc (0.02%)	0029	0.0258	0.0009	0.0266	0.0043	0.0067	58	-0.20	321.00	0
321	Acid Soluble Zinc (0.02%)	0117	0.0259	0.0019	0.0266	0.0043	0.0067	58	-0.18	321.33	0
321	Acid Soluble Zinc (0.02%)	0515	0.0259	0.0001	0.0266	0.0043	0.0067	58	-0.18	321.33	0
321	Acid Soluble Zinc (0.02%)	0521	0.0259	0.0000	0.0266	0.0043	0.0067	58	-0.17	321.32	0
321	Acid Soluble Zinc (0.02%)	0055	0.0265	0.0010	0.0266	0.0043	0.0067	58	-0.03	321.33	0
321	Acid Soluble Zinc (0.02%)	0546	0.0265	0.0010	0.0266	0.0043	0.0067	58	-0.03	321.33	0
321	Acid Soluble Zinc (0.02%)	0523	0.0265	0.0030	0.0266	0.0043	0.0067	58	-0.03	321.99	0
321	Acid Soluble Zinc (0.02%)	0368	0.0270	0.0005	0.0266	0.0043	0.0067	58	0.08	321.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321	Acid Soluble Zinc (0.02%)	0444	0.0270	0.0000	0.0266	0.0043	0.0067	58	0.09	321.30	0
321	Acid Soluble Zinc (0.02%)	0023	0.0270	0.0020	0.0266	0.0043	0.0067	58	0.09	321.33	0
321	Acid Soluble Zinc (0.02%)	0037	0.0270	0.0020	0.0266	0.0043	0.0067	58	0.09	321.33	0
321	Acid Soluble Zinc (0.02%)	0096	0.0278	0.0007	0.0266	0.0043	0.0067	58	0.27	321.30	0
321	Acid Soluble Zinc (0.02%)	0550	0.0280	0.0020	0.0266	0.0043	0.0067	58	0.33	321.00	0
321	Acid Soluble Zinc (0.02%)	0009	0.0280	0.0080	0.0266	0.0043	0.0067	58	0.33	321.33	0
321	Acid Soluble Zinc (0.02%)	0025	0.0280	0.0010	0.0266	0.0043	0.0067	58	0.33	321.33	0
321	Acid Soluble Zinc (0.02%)	0494	0.0284	0.0032	0.0266	0.0043	0.0067	58	0.42	321.33	0
321	Acid Soluble Zinc (0.02%)	0527	0.0285	0.0010	0.0266	0.0043	0.0067	58	0.44	321.33	0
321	Acid Soluble Zinc (0.02%)	0524	0.0287	0.0002	0.0266	0.0043	0.0067	58	0.49	321.99	0
321	Acid Soluble Zinc (0.02%)	0105	0.0289	0.0018	0.0266	0.0043	0.0067	58	0.54	321.03	0
321	Acid Soluble Zinc (0.02%)	0035	0.0291	0.0005	0.0266	0.0043	0.0067	58	0.57	321.30	0
321	Acid Soluble Zinc (0.02%)	0233	0.0299	0.0005	0.0266	0.0043	0.0067	58	0.76	321.30	0
321	Acid Soluble Zinc (0.02%)	0498	0.0300	0.0000	0.0266	0.0043	0.0067	58	0.80	321.00	0
321	Acid Soluble Zinc (0.02%)	0231	0.0300	0.0000	0.0266	0.0043	0.0067	58	0.80	321.30	0
321	Acid Soluble Zinc (0.02%)	0291	0.0300	0.0000	0.0266	0.0043	0.0067	58	0.80	321.30	0
321	Acid Soluble Zinc (0.02%)	0292	0.0300	0.0000	0.0266	0.0043	0.0067	58	0.80	321.30	0
321	Acid Soluble Zinc (0.02%)	0402	0.0300	0.0000	0.0266	0.0043	0.0067	58	0.80	321.30	0
321	Acid Soluble Zinc (0.02%)	0482	0.0300	0.0000	0.0266	0.0043	0.0067	58	0.80	321.30	0
321	Acid Soluble Zinc (0.02%)	0255	0.0310	0.0020	0.0266	0.0043	0.0067	58	1.03	321.30	0
321	Acid Soluble Zinc (0.02%)	0105	0.0320	0.0038	0.0266	0.0043	0.0067	58	1.27	321.33	0
321	Acid Soluble Zinc (0.02%)	0481	0.0320	0.0000	0.0266	0.0043	0.0067	58	1.27	321.99	0
321	Acid Soluble Zinc (0.02%)	0041	0.0330	0.0060	0.0266	0.0043	0.0067	58	1.50	321.30	0
321	Acid Soluble Zinc (0.02%)	0423	0.04050‡	0.0010	0.0266	0.0043	0.0067	58	3.26	321.32	0
321	Acid Soluble Zinc (0.02%)	0516	0.04875‡	0.0027	0.0266	0.0043	0.0067	58	5.20	321.00	0
321	Acid Soluble Zinc (0.02%)	0552	0.09000‡	0.0200	0.0266	0.0043	0.0067	58	14.87	321.30	0
321	Acid Soluble Zinc (0.02%)	0086	0.1592‡	0.2677	0.0266	0.0043	0.0067	58	31.10	321.33	0
321	Acid Soluble Zinc (0.02%)	0483	303.0‡	12.00	0.0266	0.0043	0.0067	58	71089.79	321.30	1
321	Acid Soluble Zinc (0.02%)	0520	348.7‡	0.7300	0.0266	0.0043	0.0067	58	81821.06	321.99	2
325	Water Soluble Zinc (%)	0543	0.0295	0.0530				1		325.30	0

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier and a 4 flag indicates rejected due to 0 value submitted. A 9 flag indicates a data problem - scores not calculated. Robust statistics not used if < 6 labs used in calculations, in this case the Z Scores are grey and included for information only. Your offset values are higher (‡) or lower (†) than the Robust Analyte value ± Investigational Allowance. Analyte codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely for the purpose of this Proficiency Testing program.