

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 190611

Grade 1-17-1

Statistical Summary

Analytes: 35

Labs Reporting: 98

Issue Date : 07/31/2019

Analyte Code	Analyte Sample # 190611	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Analyte IA Ratio	Average Range (R-bar)	Horwitz %RSD
001	Ammoniacal Nitrogen (%)	3	3	0.1417	0.0208	0.1417		0.0208	0.0150	14.68%		0.0156	5.37%
005	Urea Nitrogen (%)	1		0.0344									
009	Ammoniacal Plus Nitrate Nitrogen (%)	1		0.1450									
010	Total Nitrogen (0.9%)	77	73	0.3881	0.2948	0.3102	0.4900	0.1123	0.0164	36.18%	0.53	0.0253	4.77%
020	Total Phosphorus as P2O5 (%)	51	49	19.67	2.178	20.12		0.9062	0.1618	4.50%		0.2549	2.55%
030	Citrate Insoluble Phosphorus as P2O5 (%)	1		3.990									
040	Indirect Available Phosphorus as P2O5 (17%)	2	2	16.88	0.5056								
041	Direct Available Phosphorus as P2O5 (17%)	53	52	16.53	1.290	16.54	0.7027	1.175	0.2037	7.11%	3.90	0.2026	2.62%
048	Water Soluble Phosphorus as P2O5 (%)	12	11	13.93	0.6850	14.03		0.2996	0.1129	2.14%		0.1858	2.69%
050	Soluble Potassium as K2O (0.9%)	67	61	0.2921	0.2479	0.2242	0.4100	0.0975	0.0156	43.50%	0.55	0.0164	5.01%
060	Water (Free) (%)	6	5	1.642	0.1809	1.642		0.1809	0.1011	11.02%		0.0555	3.71%
101	Acid Soluble Calcium (20%)	58	57	21.96	4.052	22.55	1.0000	1.557	0.2577	6.90%	3.63	0.3808	2.50%
121	Acid Soluble Magnesium (%)	24	23	0.3872	0.0766	0.3947	0.2197	0.0503	0.0131	12.75%	0.53	0.0160	4.60%
131	Water Soluble Magnesium (%)	1		0.4285									
143	Elemental Sulfur (%)	8	7	9.149	4.160	10.07		2.291	1.082	22.76%		0.0443	2.83%
145	Sulfate Sulfur, HCl soluble (%)	12	12	10.86	1.703	11.37		0.4200	0.1516	3.69%		0.1189	2.77%
148	Total Sulfur (11%)	50	49	11.18	0.8057	11.26	0.7632	0.5951	0.1063	5.28%	1.82	0.2050	2.78%
149	Sulfur - HNO3 soluble (%)	4	4	11.09	0.4972	11.09		0.4972	0.3107	4.48%		0.1911	2.78%
151	Acid Soluble Arsenic (ppm)	24	19	5.899	3.108	5.911		3.502	1.004	59.25%		0.6137	12.24%
165	Acid Soluble Boron (%)	12	10	0.0053	0.0038	0.0052	0.0038	0.0041	0.0016	78.24%	2.50	0.0007	8.83%
181	Acid Soluble Cadmium (ppm)	30	28	12.16	2.621	12.16		2.971	0.7019	24.43%		0.6653	10.98%
190	Water Soluble Chlorine (%)	2	2	0.1075	0.0460								
191	Acid Soluble Chromium (ppm)	30	27	123.1	20.62	123.8		21.81	5.248	17.62%		3.345	7.75%
202	Acid Soluble Cobalt (ppm)	28	25	7.381	2.645	7.224	3.1672	2.559	0.6399	35.43%	1.88	0.3441	11.88%
221	Acid Soluble Copper (%)	35	21	0.0010	0.0006	0.0009	0.0051	0.0005	0.0001	54.57%	0.23	0.0002	11.49%
241	Acid Soluble Iron (%)	25	23	0.2554	0.0319	0.2535	0.0304	0.0262	0.0068	10.33%	2.01	0.0080	4.92%
251	Acid Soluble Lead (ppm)	26	21	3.991	4.296	2.992		1.188	0.3241	39.72%		0.4316	13.56%
261	Acid Soluble Manganese (%)	16	14	0.0037	0.0011	0.0036	0.0054	0.0009	0.0003	24.29%	0.38	0.0004	9.33%
281	Acid Soluble Mercury (ppm)	14	5	0.0264	0.0324	0.0264		0.0324	0.0181	122.68%		0.0022	27.64%
289	Acid Soluble Molybdenum (ppm)	29	21	3.437	1.629	3.556	2.0669	1.356	0.3700	38.14%	1.53	0.2011	13.22%
291	Acid Soluble Nickel (ppm)	30	28	10.50	2.428	10.48		2.523	0.5961	24.09%		0.5305	11.23%
301	Acid Soluble Selenium (ppm)	20	17	29.26	16.23	29.05		17.46	5.292	60.10%		1.200	9.63%
311	Sodium (%)	11	10	0.5319	0.0183	0.5320	0.0582	0.0204	0.0081	3.83%	0.82	0.0075	4.40%

Analyte Code	Analyte Sample # 190611	# 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
321	Acid Soluble Zinc (%)	44	40	0.0178	0.0047	0.0179	0.0068	0.0037	0.0007	20.78%	1.28	0.0017	7.33%
325	Water Soluble Zinc (%)	2	0	0.0050									

The Analyte IA Ratio = 2.33 * Robust SD / IA at the Analyte Assigned Value. IA ratios of 1 and less indicate participant data dispersion is as good or less than the IA. Red indicates the IA ratio is significantly greater than 1, Orange indicates marginally greater than 1, Green indicates IA ratio is not significantly greater than 1 and Grey indicates < 6 labs reporting.

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 190611

Grade 1-17-1

Lab Values

Analytes: 35

Labs Reporting: 98

Issue Date : 07/31/2019

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 (%)	0423	0.1250	0.0100	0.1417	0.0208	0.0156	3	-0.80	001.99	0
001	Ammoniacal Nitrogen (%)	0096	0.1350	0.0100	0.1417	0.0208	0.0156	3	-0.32	001.99	0
001	Ammoniacal Nitrogen (%)	0524	0.1650	0.0269	0.1417	0.0208	0.0156	3	1.12	001.99	0
005	Urea Nitrogen (%)	0524	0.0344	0.0267				1		005.99	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0200	0.1450	0.0100				1		009.10	0
010	Total Nitrogen (0.9%)	0055	0.1340	0.0480	0.3102	0.1123	0.0253	73	-1.57	010.60	0
010	Total Nitrogen (0.9%)	0368	0.1350	0.0700	0.3102	0.1123	0.0253	73	-1.56	010.60	0
010	Total Nitrogen (0.9%)	0043	0.1700	0.0000	0.3102	0.1123	0.0253	73	-1.25	010.60	0
010	Total Nitrogen (0.9%)	0105	0.1700	0.0000	0.3102	0.1123	0.0253	73	-1.25	010.60	0
010	Total Nitrogen (0.9%)	0416	0.1800	0.0000	0.3102	0.1123	0.0253	73	-1.16	010.11	0
010	Total Nitrogen (0.9%)	0106	0.1800	0.0200	0.3102	0.1123	0.0253	73	-1.16	010.60	0
010	Total Nitrogen (0.9%)	0533	0.1900	0.0200	0.3102	0.1123	0.0253	73	-1.07	010.11	0
010	Total Nitrogen (0.9%)	0390	0.2000	0.0400	0.3102	0.1123	0.0253	73	-0.98	010.60	0
010	Total Nitrogen (0.9%)	0360	0.2050	0.0100	0.3102	0.1123	0.0253	73	-0.94	010.60	0
010	Total Nitrogen (0.9%)	0521	0.2067	0.0000	0.3102	0.1123	0.0253	73	-0.92	010.60	0
010	Total Nitrogen (0.9%)	0486	0.2100	0.0200	0.3102	0.1123	0.0253	73	-0.89	010.60	0
010	Total Nitrogen (0.9%)	0292	0.2250	0.0100	0.3102	0.1123	0.0253	73	-0.76	010.60	0
010	Total Nitrogen (0.9%)	0136	0.2300	0.0200	0.3102	0.1123	0.0253	73	-0.71	010.60	0
010	Total Nitrogen (0.9%)	0255	0.2300	0.0040	0.3102	0.1123	0.0253	73	-0.71	010.60	0
010	Total Nitrogen (0.9%)	0422	0.2315	0.0030	0.3102	0.1123	0.0253	73	-0.70	010.60	0
010	Total Nitrogen (0.9%)	0371	0.2350	0.0100	0.3102	0.1123	0.0253	73	-0.67	010.11	0
010	Total Nitrogen (0.9%)	0423	0.2350	0.0100	0.3102	0.1123	0.0253	73	-0.67	010.60	0
010	Total Nitrogen (0.9%)	0522	0.2400	0.0200	0.3102	0.1123	0.0253	73	-0.63	010.11	0
010	Total Nitrogen (0.9%)	0546	0.2400	0.0200	0.3102	0.1123	0.0253	73	-0.63	010.11	0
010	Total Nitrogen (0.9%)	0472	0.2400	0.0000	0.3102	0.1123	0.0253	73	-0.63	010.60	0
010	Total Nitrogen (0.9%)	0177	0.2410	0.0040	0.3102	0.1123	0.0253	73	-0.62	010.60	0
010	Total Nitrogen (0.9%)	0527	0.2425	0.0110	0.3102	0.1123	0.0253	73	-0.60	010.60	0
010	Total Nitrogen (0.9%)	0086	0.2478	0.0017	0.3102	0.1123	0.0253	73	-0.56	010.60	0
010	Total Nitrogen (0.9%)	0034	0.2485	0.0550	0.3102	0.1123	0.0253	73	-0.55	010.60	0
010	Total Nitrogen (0.9%)	0105	0.2500	0.0600	0.3102	0.1123	0.0253	73	-0.54	010.11	0
010	Total Nitrogen (0.9%)	0493	0.2500	0.0200	0.3102	0.1123	0.0253	73	-0.54	010.99	0
010	Total Nitrogen (0.9%)	0394	0.2540	0.0040	0.3102	0.1123	0.0253	73	-0.50	010.99	0
010	Total Nitrogen (0.9%)	0485	0.2545	0.0010	0.3102	0.1123	0.0253	73	-0.50	010.60	0
010	Total Nitrogen (0.9%)	0452	0.2550	0.0100	0.3102	0.1123	0.0253	73	-0.49	010.60	0
010	Total Nitrogen (0.9%)	0220	0.2600	0.0400	0.3102	0.1123	0.0253	73	-0.45	010.99	0
010	Total Nitrogen (0.9%)	0513	0.2600	0.0200	0.3102	0.1123	0.0253	73	-0.45	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 (0.9%)	0483	0.2610	0.0020	0.3102	0.1123	0.0253	73	-0.44	010.60	0
010	Total Nitrogen (0.9%)	0389	0.2700	0.0000	0.3102	0.1123	0.0253	73	-0.36	010.60	0
010	Total Nitrogen (0.9%)	0324	0.2705	0.0130	0.3102	0.1123	0.0253	73	-0.35	010.60	0
010	Total Nitrogen (0.9%)	0451	0.2775	0.0770	0.3102	0.1123	0.0253	73	-0.29	010.60	0
010	Total Nitrogen (0.9%)	0421	0.2800	0.0400	0.3102	0.1123	0.0253	73	-0.27	010.60	0
010	Total Nitrogen (0.9%)	0482	0.2800	0.0200	0.3102	0.1123	0.0253	73	-0.27	010.60	0
010	Total Nitrogen (0.9%)	0325	0.2850	0.0100	0.3102	0.1123	0.0253	73	-0.22	010.60	0
010	Total Nitrogen (0.9%)	0023	0.3000	0.0000	0.3102	0.1123	0.0253	73	-0.09	010.60	0
010	Total Nitrogen (0.9%)	0230	0.3000	0.0000	0.3102	0.1123	0.0253	73	-0.09	010.60	0
010	Total Nitrogen (0.9%)	0523	0.3000	0.0000	0.3102	0.1123	0.0253	73	-0.09	010.60	0
010	Total Nitrogen (0.9%)	0547	0.3000	0.0200	0.3102	0.1123	0.0253	73	-0.09	010.60	0
010	Total Nitrogen (0.9%)	0501	0.3035	0.0050	0.3102	0.1123	0.0253	73	-0.06	010.60	0
010	Total Nitrogen (0.9%)	0131	0.3150	0.0100	0.3102	0.1123	0.0253	73	0.04	010.60	0
010	Total Nitrogen (0.9%)	0029	0.3230	0.0040	0.3102	0.1123	0.0253	73	0.11	010.60	0
010	Total Nitrogen (0.9%)	0450	0.3300	0.0600	0.3102	0.1123	0.0253	73	0.18	010.60	0
010	Total Nitrogen (0.9%)	0354	0.3300	0.0140	0.3102	0.1123	0.0253	73	0.18	010.60	0
010	Total Nitrogen (0.9%)	0443	0.3400	0.0000	0.3102	0.1123	0.0253	73	0.27	010.60	0
010	Total Nitrogen (0.9%)	0498	0.3500	0.1000	0.3102	0.1123	0.0253	73	0.35	010.12	0
010	Total Nitrogen (0.9%)	0040	0.3500	0.1000	0.3102	0.1123	0.0253	73	0.35	010.60	0
010	Total Nitrogen (0.9%)	0018	0.3670	0.0180	0.3102	0.1123	0.0253	73	0.51	010.60	0
010	Total Nitrogen (0.9%)	0231	0.3700	0.0400	0.3102	0.1123	0.0253	73	0.53	010.60	0
010	Total Nitrogen (0.9%)	0291	0.3700	0.0000	0.3102	0.1123	0.0253	73	0.53	010.60	0
010	Total Nitrogen (0.9%)	0444	0.3700	0.0200	0.3102	0.1123	0.0253	73	0.53	010.60	0
010	Total Nitrogen (0.9%)	0419	0.3730	0.0300	0.3102	0.1123	0.0253	73	0.56	010.60	0
010	Total Nitrogen (0.9%)	0377	0.3750	0.0040	0.3102	0.1123	0.0253	73	0.58	010.60	0
010	Total Nitrogen (0.9%)	0037	0.3775	0.1290	0.3102	0.1123	0.0253	73	0.60	010.60	0
010	Total Nitrogen (0.9%)	0402	0.4150	0.0100	0.3102	0.1123	0.0253	73	0.93	010.60	0
010	Total Nitrogen (0.9%)	0550	0.4200	0.0000	0.3102	0.1123	0.0253	73	0.98	010.60	0
010	Total Nitrogen (0.9%)	0553	0.4200	0.0400	0.3102	0.1123	0.0253	73	0.98	010.99	0
010	Total Nitrogen (0.9%)	0096	0.4450	0.0100	0.3102	0.1123	0.0253	73	1.20	010.60	0
010	Total Nitrogen (0.9%)	0042	0.4500	0.1000	0.3102	0.1123	0.0253	73	1.25	010.60	0
010	Total Nitrogen (0.9%)	0027	0.5975	0.0090	0.3102	0.1123	0.0253	73	2.56	010.99	0
010	Total Nitrogen (0.9%)	0476	0.7961	0.0419	0.3102	0.1123	0.0253	73	4.33	010.99	0
010	Total Nitrogen (0.9%)	0532	0.8550‡	0.0700	0.3102	0.1123	0.0253	73	4.85	010.99	0
010	Total Nitrogen (0.9%)	0540	0.8700‡	0.0400	0.3102	0.1123	0.0253	73	4.99	010.11	0
010	Total Nitrogen (0.9%)	0560	0.9010‡	0.0060	0.3102	0.1123	0.0253	73	5.26	010.99	0
010	Total Nitrogen (0.9%)	0481	0.9050‡	0.1100	0.3102	0.1123	0.0253	73	5.30	010.99	0
010	Total Nitrogen (0.9%)	0531	0.9200‡	0.0200	0.3102	0.1123	0.0253	73	5.43	010.11	0
010	Total Nitrogen (0.9%)	0531	0.9300‡	0.0200	0.3102	0.1123	0.0253	73	5.52	010.99	0
010	Total Nitrogen (0.9%)	0520	0.9400‡	0.0600	0.3102	0.1123	0.0253	73	5.61	010.99	0
010	Total Nitrogen (0.9%)	0524	1.442‡	0.0120	0.3102	0.1123	0.0253	73	10.08	010.99	0
010	Total Nitrogen (0.9%)	0526	1.806‡	0.0293	0.3102	0.1123	0.0253	73	13.32	010.17	0
010	Total Nitrogen (0.9%)	0561	0.3950	0.1500	0.3102	0.1123	0.0253	73	0.76	010.60	1
010	Total Nitrogen (0.9%)	0309	0.7300	0.1400	0.3102	0.1123	0.0253	73	3.74	010.11	1
010	Total Nitrogen (0.9%)	0555	< 0.5		0.3102	0.1123	0.0253	73		010.60	5
010	Total Nitrogen (0.9%)	0117	< 0.64		0.3102	0.1123	0.0253	73		010.60	5
020	Total Phosphorus as P2O5 (%)	0524	9.858	0.0301	20.12	0.9062	0.2549	49	-11.33	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 (%)	0553	12.95	0.5000	20.12	0.9062	0.2549	49	-7.91	020.20	0
020	Total Phosphorus as P2O5 (%)	0291	16.11	0.0100	20.12	0.9062	0.2549	49	-4.43	020.50	0
020	Total Phosphorus as P2O5 (%)	0451	16.37	1.120	20.12	0.9062	0.2549	49	-4.14	020.50	0
020	Total Phosphorus as P2O5 (%)	0498	16.50	0.8000	20.12	0.9062	0.2549	49	-4.00	020.20	0
020	Total Phosphorus as P2O5 (%)	0501	17.65	0.3000	20.12	0.9062	0.2549	49	-2.73	020.50	0
020	Total Phosphorus as P2O5 (%)	0515	18.08	0.8350	20.12	0.9062	0.2549	49	-2.25	020.99	0
020	Total Phosphorus as P2O5 (%)	0443	18.62	0.4500	20.12	0.9062	0.2549	49	-1.66	020.99	0
020	Total Phosphorus as P2O5 (%)	0309	18.96	0.0300	20.12	0.9062	0.2549	49	-1.29	020.20	0
020	Total Phosphorus as P2O5 (%)	0390	19.19	0.1200	20.12	0.9062	0.2549	49	-1.03	020.50	0
020	Total Phosphorus as P2O5 (%)	0423	19.33	0.3600	20.12	0.9062	0.2549	49	-0.87	020.50	0
020	Total Phosphorus as P2O5 (%)	0027	19.36	0.1210	20.12	0.9062	0.2549	49	-0.84	020.20	0
020	Total Phosphorus as P2O5 (%)	0522	19.77	0.0100	20.12	0.9062	0.2549	49	-0.39	020.20	0
020	Total Phosphorus as P2O5 (%)	0472	19.89	0.1700	20.12	0.9062	0.2549	49	-0.26	020.50	0
020	Total Phosphorus as P2O5 (%)	0547	19.95	0.3000	20.12	0.9062	0.2549	49	-0.19	020.50	0
020	Total Phosphorus as P2O5 (%)	0476	19.98	0.4914	20.12	0.9062	0.2549	49	-0.16	020.20	0
020	Total Phosphorus as P2O5 (%)	0521	20.08	0.0000	20.12	0.9062	0.2549	49	-0.04	020.50	0
020	Total Phosphorus as P2O5 (%)	0520	20.09	0.1800	20.12	0.9062	0.2549	49	-0.03	020.99	0
020	Total Phosphorus as P2O5 (%)	0444	20.13	0.3600	20.12	0.9062	0.2549	49	0.01	020.10	0
020	Total Phosphorus as P2O5 (%)	0368	20.14	0.1541	20.12	0.9062	0.2549	49	0.02	020.50	0
020	Total Phosphorus as P2O5 (%)	0513	20.22	0.0700	20.12	0.9062	0.2549	49	0.10	020.99	0
020	Total Phosphorus as P2O5 (%)	0371	20.25	0.1000	20.12	0.9062	0.2549	49	0.14	020.20	0
020	Total Phosphorus as P2O5 (%)	0493	20.30	0.1000	20.12	0.9062	0.2549	49	0.20	020.10	0
020	Total Phosphorus as P2O5 (%)	0523	20.30	0.4000	20.12	0.9062	0.2549	49	0.20	020.50	0
020	Total Phosphorus as P2O5 (%)	0394	20.33	0.0080	20.12	0.9062	0.2549	49	0.23	020.20	0
020	Total Phosphorus as P2O5 (%)	0035	20.34	0.2000	20.12	0.9062	0.2549	49	0.24	020.40	0
020	Total Phosphorus as P2O5 (%)	0415	20.37	0.4599	20.12	0.9062	0.2549	49	0.28	020.20	0
020	Total Phosphorus as P2O5 (%)	0493	20.40	0.0400	20.12	0.9062	0.2549	49	0.31	020.20	0
020	Total Phosphorus as P2O5 (%)	0555	20.42	0.0200	20.12	0.9062	0.2549	49	0.33	020.50	0
020	Total Phosphorus as P2O5 (%)	0389	20.47	0.0600	20.12	0.9062	0.2549	49	0.38	020.50	0
020	Total Phosphorus as P2O5 (%)	0292	20.49	0.5700	20.12	0.9062	0.2549	49	0.40	020.20	0
020	Total Phosphorus as P2O5 (%)	0433	20.50	0.2300	20.12	0.9062	0.2549	49	0.41	020.50	0
020	Total Phosphorus as P2O5 (%)	0324	20.50	0.2000	20.12	0.9062	0.2549	49	0.42	020.20	0
020	Total Phosphorus as P2O5 (%)	0096	20.51	0.2700	20.12	0.9062	0.2549	49	0.42	020.40	0
020	Total Phosphorus as P2O5 (%)	0231	20.51	0.0200	20.12	0.9062	0.2549	49	0.43	020.20	0
020	Total Phosphorus as P2O5 (%)	0405	20.54	0.1400	20.12	0.9062	0.2549	49	0.46	020.20	0
020	Total Phosphorus as P2O5 (%)	0402	20.59	0.0900	20.12	0.9062	0.2549	49	0.51	020.50	0
020	Total Phosphorus as P2O5 (%)	0481	20.60	0.2000	20.12	0.9062	0.2549	49	0.53	020.20	0
020	Total Phosphorus as P2O5 (%)	0169	20.63	0.0700	20.12	0.9062	0.2549	49	0.56	020.20	0
020	Total Phosphorus as P2O5 (%)	0510	20.66	0.0952	20.12	0.9062	0.2549	49	0.60	020.20	0
020	Total Phosphorus as P2O5 (%)	0416	20.67	0.0200	20.12	0.9062	0.2549	49	0.61	020.20	0
020	Total Phosphorus as P2O5 (%)	0444	20.83	0.0600	20.12	0.9062	0.2549	49	0.78	020.50	0
020	Total Phosphorus as P2O5 (%)	0546	20.93	0.1820	20.12	0.9062	0.2549	49	0.89	020.50	0
020	Total Phosphorus as P2O5 (%)	0527	20.94	0.0242	20.12	0.9062	0.2549	49	0.90	020.50	0
020	Total Phosphorus as P2O5 (%)	0483	20.96	0.2100	20.12	0.9062	0.2549	49	0.92	020.50	0
020	Total Phosphorus as P2O5 (%)	0482	21.35	0.3000	20.12	0.9062	0.2549	49	1.36	020.50	0
020	Total Phosphorus as P2O5 (%)	0255	21.45	0.0710	20.12	0.9062	0.2549	49	1.47	020.50	0
020	Total Phosphorus as P2O5 (%)	0042	21.65	1.500	20.12	0.9062	0.2549	49	1.69	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 (%)	0422	23.34	0.4400	20.12	0.9062	0.2549	49	3.55	020.50	0
020	Total Phosphorus as P2O5 (%)	0552	20.83	2.050	20.12	0.9062	0.2549	49	0.78	020.50	1
020	Total Phosphorus as P2O5 (%)	0550	21.35	2.450	20.12	0.9062	0.2549	49	1.35	020.20	1
030	Citrate Insoluble Phosphorus as P2O5 (%)	0096	3.990	0.0200				1		030.40	0
040	Indirect Available Phosphorus as P2O5 (17%)	0096	16.52‡	0.2400				2		040.40	0
040	Indirect Available Phosphorus as P2O5 (17%)	0561	17.24‡	0.1300				2		040.20	0
041	Direct Available Phosphorus as P2O5 (17%)	0200	12.02‡	0.0800	16.54	1.175	0.2026	52	-3.84	041.21	0
041	Direct Available Phosphorus as P2O5 (17%)	0360	14.97‡	0.1700	16.54	1.175	0.2026	52	-1.34	041.51	0
041	Direct Available Phosphorus as P2O5 (17%)	0027	15.07‡	0.2500	16.54	1.175	0.2026	52	-1.25	041.20	0
041	Direct Available Phosphorus as P2O5 (17%)	0325	15.10‡	0.0000	16.54	1.175	0.2026	52	-1.22	041.50	0
041	Direct Available Phosphorus as P2O5 (17%)	0486	15.15‡	0.3100	16.54	1.175	0.2026	52	-1.18	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0095	15.20‡	0.0800	16.54	1.175	0.2026	52	-1.14	041.40	0
041	Direct Available Phosphorus as P2O5 (17%)	0394	15.21‡	0.0010	16.54	1.175	0.2026	52	-1.13	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0055	15.33‡	0.3300	16.54	1.175	0.2026	52	-1.03	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0177	15.35‡	0.0600	16.54	1.175	0.2026	52	-1.01	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0220	15.41‡	0.1000	16.54	1.175	0.2026	52	-0.96	041.11	0
041	Direct Available Phosphorus as P2O5 (17%)	0040	15.45‡	0.3000	16.54	1.175	0.2026	52	-0.93	041.51	0
041	Direct Available Phosphorus as P2O5 (17%)	0043	15.50‡	0.0400	16.54	1.175	0.2026	52	-0.88	041.51	0
041	Direct Available Phosphorus as P2O5 (17%)	0106	15.54‡	0.2500	16.54	1.175	0.2026	52	-0.85	041.21	0
041	Direct Available Phosphorus as P2O5 (17%)	0025	15.55‡	0.3000	16.54	1.175	0.2026	52	-0.84	041.51	0
041	Direct Available Phosphorus as P2O5 (17%)	0102	15.60‡	0.2000	16.54	1.175	0.2026	52	-0.80	041.10	0
041	Direct Available Phosphorus as P2O5 (17%)	0230	15.60‡	0.8000	16.54	1.175	0.2026	52	-0.80	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0368	15.68‡	0.0691	16.54	1.175	0.2026	52	-0.73	041.50	0
041	Direct Available Phosphorus as P2O5 (17%)	0419	15.77‡	0.1000	16.54	1.175	0.2026	52	-0.65	041.20	0
041	Direct Available Phosphorus as P2O5 (17%)	0423	15.80‡	0.2900	16.54	1.175	0.2026	52	-0.63	041.51	0
041	Direct Available Phosphorus as P2O5 (17%)	0452	15.88	0.0100	16.54	1.175	0.2026	52	-0.56	041.50	0
041	Direct Available Phosphorus as P2O5 (17%)	0177	15.88	0.0831	16.54	1.175	0.2026	52	-0.56	041.10	0
041	Direct Available Phosphorus as P2O5 (17%)	0131	16.07	0.0430	16.54	1.175	0.2026	52	-0.39	041.50	0
041	Direct Available Phosphorus as P2O5 (17%)	0086	16.38	0.0066	16.54	1.175	0.2026	52	-0.14	041.10	0
041	Direct Available Phosphorus as P2O5 (17%)	0377	16.55	0.0100	16.54	1.175	0.2026	52	0.01	041.51	0
041	Direct Available Phosphorus as P2O5 (17%)	0055	16.68	0.1500	16.54	1.175	0.2026	52	0.12	041.10	0
041	Direct Available Phosphorus as P2O5 (17%)	0405	16.76	0.0400	16.54	1.175	0.2026	52	0.19	041.99	0
041	Direct Available Phosphorus as P2O5 (17%)	0231	16.78	0.3200	16.54	1.175	0.2026	52	0.21	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0537	17.00	0.2000	16.54	1.175	0.2026	52	0.39	041.99	0
041	Direct Available Phosphorus as P2O5 (17%)	0533	17.01	0.1700	16.54	1.175	0.2026	52	0.40	041.99	0
041	Direct Available Phosphorus as P2O5 (17%)	0531	17.01	0.0600	16.54	1.175	0.2026	52	0.40	041.99	0
041	Direct Available Phosphorus as P2O5 (17%)	0532	17.01	0.1000	16.54	1.175	0.2026	52	0.40	041.99	0
041	Direct Available Phosphorus as P2O5 (17%)	0560	17.07	0.2200	16.54	1.175	0.2026	52	0.45	041.99	0
041	Direct Available Phosphorus as P2O5 (17%)	0540	17.08	0.0900	16.54	1.175	0.2026	52	0.46	041.99	0
041	Direct Available Phosphorus as P2O5 (17%)	0472	17.09	0.0600	16.54	1.175	0.2026	52	0.47	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0494	17.10	0.3300	16.54	1.175	0.2026	52	0.47	041.10	0
041	Direct Available Phosphorus as P2O5 (17%)	0522	17.19	0.0200	16.54	1.175	0.2026	52	0.56	041.21	0
041	Direct Available Phosphorus as P2O5 (17%)	0034	17.29‡	0.7250	16.54	1.175	0.2026	52	0.64	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0354	17.30‡	0.6000	16.54	1.175	0.2026	52	0.65	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0307	17.30‡	0.2400	16.54	1.175	0.2026	52	0.65	041.99	0
041	Direct Available Phosphorus as P2O5 (17%)	0041	17.45‡	0.3300	16.54	1.175	0.2026	52	0.77	041.10	0
041	Direct Available Phosphorus as P2O5 (17%)	0536	17.55‡	0.2500	16.54	1.175	0.2026	52	0.86	041.99	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				
041	Direct Available Phosphorus as P2O5 (17%)	0018	17.55‡	0.3000	16.54	1.175	0.2026	52	0.86	041.40	0
041	Direct Available Phosphorus as P2O5 (17%)	0073	17.60‡	0.1800	16.54	1.175	0.2026	52	0.90	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0513	17.61‡	0.0900	16.54	1.175	0.2026	52	0.91	041.11	0
041	Direct Available Phosphorus as P2O5 (17%)	0072	17.70‡	0.1540	16.54	1.175	0.2026	52	0.99	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0233	17.78‡	0.7500	16.54	1.175	0.2026	52	1.05	041.51	0
041	Direct Available Phosphorus as P2O5 (17%)	0526	17.81‡	0.0100	16.54	1.175	0.2026	52	1.08	041.21	0
041	Direct Available Phosphorus as P2O5 (17%)	0485	17.88‡	0.0788	16.54	1.175	0.2026	52	1.14	041.11	0
041	Direct Available Phosphorus as P2O5 (17%)	0023	18.00‡	0.2000	16.54	1.175	0.2026	52	1.24	041.51	0
041	Direct Available Phosphorus as P2O5 (17%)	0037	18.02‡	0.1170	16.54	1.175	0.2026	52	1.26	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0029	18.58‡	0.0700	16.54	1.175	0.2026	52	1.73	041.60	0
041	Direct Available Phosphorus as P2O5 (17%)	0421	20.40‡	0.8000	16.54	1.175	0.2026	52	3.29	041.50	0
041	Direct Available Phosphorus as P2O5 (17%)	0009	17.50‡	1.000	16.54	1.175	0.2026	52	0.82	041.10	1
048	Water Soluble Phosphorus as P2O5 (%)	0560	12.09	0.0300	14.03	0.2996	0.1858	11	-6.48	048.99	0
048	Water Soluble Phosphorus as P2O5 (%)	0561	13.72	0.1300	14.03	0.2996	0.1858	11	-1.04	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0096	13.86	0.2400	14.03	0.2996	0.1858	11	-0.55	048.40	0
048	Water Soluble Phosphorus as P2O5 (%)	0220	13.94	0.0700	14.03	0.2996	0.1858	11	-0.30	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0520	13.95	0.3100	14.03	0.2996	0.1858	11	-0.27	048.99	0
048	Water Soluble Phosphorus as P2O5 (%)	0444	13.97	0.7800	14.03	0.2996	0.1858	11	-0.19	048.10	0
048	Water Soluble Phosphorus as P2O5 (%)	0526	14.08	0.1522	14.03	0.2996	0.1858	11	0.18	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0405	14.19	0.0500	14.03	0.2996	0.1858	11	0.53	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0513	14.24	0.0600	14.03	0.2996	0.1858	11	0.71	048.99	0
048	Water Soluble Phosphorus as P2O5 (%)	0394	14.30	0.0520	14.03	0.2996	0.1858	11	0.93	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0444	14.89	0.1700	14.03	0.2996	0.1858	11	2.87	048.50	0
048	Water Soluble Phosphorus as P2O5 (%)	0550	15.94	2.050	14.03	0.2996	0.1858	11	6.37	048.20	1
050	Soluble Potassium as K2O (0.9%)	0526	0.1064	0.0039	0.2242	0.0975	0.0164	61	-1.21	050.60	0
050	Soluble Potassium as K2O (0.9%)	0292	0.1100	0.0200	0.2242	0.0975	0.0164	61	-1.17	050.50	0
050	Soluble Potassium as K2O (0.9%)	0200	0.1200	0.0000	0.2242	0.0975	0.0164	61	-1.07	050.60	0
050	Soluble Potassium as K2O (0.9%)	0561	0.1300	0.0000	0.2242	0.0975	0.0164	61	-0.97	050.50	0
050	Soluble Potassium as K2O (0.9%)	0452	0.1300	0.0000	0.2242	0.0975	0.0164	61	-0.97	050.51	0
050	Soluble Potassium as K2O (0.9%)	0377	0.1400	0.0600	0.2242	0.0975	0.0164	61	-0.86	050.52	0
050	Soluble Potassium as K2O (0.9%)	0486	0.1400	0.0200	0.2242	0.0975	0.0164	61	-0.86	050.52	0
050	Soluble Potassium as K2O (0.9%)	0476	0.1419	0.0009	0.2242	0.0975	0.0164	61	-0.84	050.99	0
050	Soluble Potassium as K2O (0.9%)	0535	0.1490	0.0020	0.2242	0.0975	0.0164	61	-0.77	050.61	0
050	Soluble Potassium as K2O (0.9%)	0535	0.1490	0.0020	0.2242	0.0975	0.0164	61	-0.77	050.62	0
050	Soluble Potassium as K2O (0.9%)	0043	0.1500	0.0000	0.2242	0.0975	0.0164	61	-0.76	050.52	0
050	Soluble Potassium as K2O (0.9%)	0354	0.1505	0.0070	0.2242	0.0975	0.0164	61	-0.76	050.52	0
050	Soluble Potassium as K2O (0.9%)	0533	0.1550	0.0100	0.2242	0.0975	0.0164	61	-0.71	050.99	0
050	Soluble Potassium as K2O (0.9%)	0419	0.1560	0.0040	0.2242	0.0975	0.0164	61	-0.70	050.50	0
050	Soluble Potassium as K2O (0.9%)	0394	0.1560	0.0020	0.2242	0.0975	0.0164	61	-0.70	050.99	0
050	Soluble Potassium as K2O (0.9%)	0421	0.1650	0.0300	0.2242	0.0975	0.0164	61	-0.61	050.99	0
050	Soluble Potassium as K2O (0.9%)	0136	0.1650	0.0100	0.2242	0.0975	0.0164	61	-0.61	050.30	0
050	Soluble Potassium as K2O (0.9%)	0106	0.1650	0.0100	0.2242	0.0975	0.0164	61	-0.61	050.50	0
050	Soluble Potassium as K2O (0.9%)	0547	0.1700	0.0000	0.2242	0.0975	0.0164	61	-0.56	050.51	0
050	Soluble Potassium as K2O (0.9%)	0371	0.1700	0.0000	0.2242	0.0975	0.0164	61	-0.56	050.99	0
050	Soluble Potassium as K2O (0.9%)	0157	0.1715	0.0010	0.2242	0.0975	0.0164	61	-0.54	050.30	0
050	Soluble Potassium as K2O (0.9%)	0481	0.1750	0.0100	0.2242	0.0975	0.0164	61	-0.50	050.99	0
050	Soluble Potassium as K2O (0.9%)	0368	0.1764	0.0138	0.2242	0.0975	0.0164	61	-0.49	050.51	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050	Soluble Potassium as K2O (0.9%)	0055	0.1785	0.0250	0.2242	0.0975	0.0164	61	-0.47	050.50	0
050	Soluble Potassium as K2O (0.9%)	0220	0.1800	0.0000	0.2242	0.0975	0.0164	61	-0.45	050.99	0
050	Soluble Potassium as K2O (0.9%)	0527	0.1805	0.0098	0.2242	0.0975	0.0164	61	-0.45	050.99	0
050	Soluble Potassium as K2O (0.9%)	0513	0.1850	0.0100	0.2242	0.0975	0.0164	61	-0.40	050.62	0
050	Soluble Potassium as K2O (0.9%)	0524	0.1873	0.0089	0.2242	0.0975	0.0164	61	-0.38	050.99	0
050	Soluble Potassium as K2O (0.9%)	0096	0.1900	0.0000	0.2242	0.0975	0.0164	61	-0.35	050.99	0
050	Soluble Potassium as K2O (0.9%)	0423	0.1950	0.0100	0.2242	0.0975	0.0164	61	-0.30	050.52	0
050	Soluble Potassium as K2O (0.9%)	0105	0.1950	0.0700	0.2242	0.0975	0.0164	61	-0.30	050.60	0
050	Soluble Potassium as K2O (0.9%)	0493	0.1950	0.0100	0.2242	0.0975	0.0164	61	-0.30	050.99	0
050	Soluble Potassium as K2O (0.9%)	0422	0.1990	0.0180	0.2242	0.0975	0.0164	61	-0.26	050.50	0
050	Soluble Potassium as K2O (0.9%)	0040	0.2000	0.0000	0.2242	0.0975	0.0164	61	-0.25	050.30	0
050	Soluble Potassium as K2O (0.9%)	0482	0.2000	0.0000	0.2242	0.0975	0.0164	61	-0.25	050.99	0
050	Soluble Potassium as K2O (0.9%)	0546	0.2010	0.0020	0.2242	0.0975	0.0164	61	-0.24	050.99	0
050	Soluble Potassium as K2O (0.9%)	0521	0.2094	0.0000	0.2242	0.0975	0.0164	61	-0.15	050.99	0
050	Soluble Potassium as K2O (0.9%)	0255	0.2115	0.0090	0.2242	0.0975	0.0164	61	-0.13	050.99	0
050	Soluble Potassium as K2O (0.9%)	0501	0.2220	0.0380	0.2242	0.0975	0.0164	61	-0.02	050.99	0
050	Soluble Potassium as K2O (0.9%)	0324	0.2285	0.0090	0.2242	0.0975	0.0164	61	0.04	050.50	0
050	Soluble Potassium as K2O (0.9%)	0231	0.2300	0.0200	0.2242	0.0975	0.0164	61	0.06	050.30	0
050	Soluble Potassium as K2O (0.9%)	0498	0.2400	0.0000	0.2242	0.0975	0.0164	61	0.16	050.10	0
050	Soluble Potassium as K2O (0.9%)	0291	0.2400	0.0000	0.2242	0.0975	0.0164	61	0.16	050.51	0
050	Soluble Potassium as K2O (0.9%)	0230	0.2445	0.0370	0.2242	0.0975	0.0164	61	0.21	050.50	0
050	Soluble Potassium as K2O (0.9%)	0389	0.2500	0.0000	0.2242	0.0975	0.0164	61	0.26	050.99	0
050	Soluble Potassium as K2O (0.9%)	0523	0.2500	0.1000	0.2242	0.0975	0.0164	61	0.26	050.99	0
050	Soluble Potassium as K2O (0.9%)	0444	0.2950	0.0100	0.2242	0.0975	0.0164	61	0.73	050.50	0
050	Soluble Potassium as K2O (0.9%)	0483	0.3250	0.0100	0.2242	0.0975	0.0164	61	1.03	050.51	0
050	Soluble Potassium as K2O (0.9%)	0390	0.3565	0.0010	0.2242	0.0975	0.0164	61	1.36	050.50	0
050	Soluble Potassium as K2O (0.9%)	0325	0.4000	0.0000	0.2242	0.0975	0.0164	61	1.80	050.99	0
050	Soluble Potassium as K2O (0.9%)	0416	0.4550	0.0500	0.2242	0.0975	0.0164	61	2.37	050.00	0
050	Soluble Potassium as K2O (0.9%)	0552	0.4550	0.1300	0.2242	0.0975	0.0164	61	2.37	050.99	0
050	Soluble Potassium as K2O (0.9%)	0309	0.5000	0.0000	0.2242	0.0975	0.0164	61	2.83	050.30	0
050	Soluble Potassium as K2O (0.9%)	0018	0.5015	0.0150	0.2242	0.0975	0.0164	61	2.84	050.62	0
050	Soluble Potassium as K2O (0.9%)	0402	0.5560	0.0260	0.2242	0.0975	0.0164	61	3.40	050.99	0
050	Soluble Potassium as K2O (0.9%)	0522	0.6300	0.0200	0.2242	0.0975	0.0164	61	4.16	050.00	0
050	Soluble Potassium as K2O (0.9%)	0560	0.9065‡	0.0050	0.2242	0.0975	0.0164	61	7.00	050.99	0
050	Soluble Potassium as K2O (0.9%)	0532	0.9550‡	0.0300	0.2242	0.0975	0.0164	61	7.49	050.99	0
050	Soluble Potassium as K2O (0.9%)	0055	0.9700‡	0.0600	0.2242	0.0975	0.0164	61	7.65	050.00	0
050	Soluble Potassium as K2O (0.9%)	0041	1.030‡	0.0600	0.2242	0.0975	0.0164	61	8.26	050.60	0
050	Soluble Potassium as K2O (0.9%)	0550	1.230‡	0.0000	0.2242	0.0975	0.0164	61	10.31	050.00	0
050	Soluble Potassium as K2O (0.9%)	0023	0.5000	0.2000	0.2242	0.0975	0.0164	61	2.83	050.52	1
050	Soluble Potassium as K2O (0.9%)	0443	12.12‡	0.3900	0.2242	0.0975	0.0164	61	121.92	050.60	2
050	Soluble Potassium as K2O (0.9%)	0042	0.0000	0.0000	0.2242	0.0975	0.0164	61		050.99	4
050	Soluble Potassium as K2O (0.9%)	0485	< 0.3		0.2242	0.0975	0.0164	61		050.52	5
050	Soluble Potassium as K2O (0.9%)	0555	< 0.5		0.2242	0.0975	0.0164	61		050.51	5
050	Soluble Potassium as K2O (0.9%)	0027	< 0.6		0.2242	0.0975	0.0164	61		050.99	5
060	Water (Free) (%)	0513	1.390	0.0400	1.642	0.1809	0.0555	5	-1.21	060.99	0
060	Water (Free) (%)	0055	1.615	0.1900	1.642	0.1809	0.0555	5	-0.13	060.99	0
060	Water (Free) (%)	0416	1.634	0.0008	1.642	0.1809	0.0555	5	-0.04	060.00	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				
060	Water (Free) (%)	0096	1.670	0.0400	1.642	0.1809	0.0555	5	0.14	060.00	0
060	Water (Free) (%)	0510	1.899	0.0066	1.642	0.1809	0.0555	5	1.24	060.99	0
060	Water (Free) (%)	0055	2.100	0.6000	1.642	0.1809	0.0555	5	2.21	060.30	1
101	Acid Soluble Calcium (20%)	0292	1.655†	0.0100	22.55	1.557	0.3808	57	-13.42	101.33	0
101	Acid Soluble Calcium (20%)	0476	6.398†	0.1431	22.55	1.557	0.3808	57	-10.37	101.99	0
101	Acid Soluble Calcium (20%)	0510	17.61†	0.1937	22.55	1.557	0.3808	57	-3.17	101.70	0
101	Acid Soluble Calcium (20%)	0451	18.25†	1.450	22.55	1.557	0.3808	57	-2.76	101.30	0
101	Acid Soluble Calcium (20%)	0526	18.55†	0.2890	22.55	1.557	0.3808	57	-2.56	101.03	0
101	Acid Soluble Calcium (20%)	0520	19.04†	0.3300	22.55	1.557	0.3808	57	-2.26	101.99	0
101	Acid Soluble Calcium (20%)	0472	19.37†	0.3300	22.55	1.557	0.3808	57	-2.04	101.30	0
101	Acid Soluble Calcium (20%)	0521	19.40†	0.0000	22.55	1.557	0.3808	57	-2.02	101.32	0
101	Acid Soluble Calcium (20%)	0324	20.50†	0.2000	22.55	1.557	0.3808	57	-1.31	101.30	0
101	Acid Soluble Calcium (20%)	0102	20.63†	0.0001	22.55	1.557	0.3808	57	-1.23	101.30	0
101	Acid Soluble Calcium (20%)	0555	20.81†	2.174	22.55	1.557	0.3808	57	-1.11	101.33	0
101	Acid Soluble Calcium (20%)	0043	20.85†	0.6800	22.55	1.557	0.3808	57	-1.09	101.33	0
101	Acid Soluble Calcium (20%)	0255	21.37†	0.3410	22.55	1.557	0.3808	57	-0.75	101.30	0
101	Acid Soluble Calcium (20%)	0486	21.61	0.1500	22.55	1.557	0.3808	57	-0.60	101.33	0
101	Acid Soluble Calcium (20%)	0177	21.63	0.4079	22.55	1.557	0.3808	57	-0.59	101.33	0
101	Acid Soluble Calcium (20%)	0481	21.75	0.0300	22.55	1.557	0.3808	57	-0.51	101.99	0
101	Acid Soluble Calcium (20%)	0055	22.25	0.1300	22.55	1.557	0.3808	57	-0.19	101.33	0
101	Acid Soluble Calcium (20%)	0117	22.26	0.1880	22.55	1.557	0.3808	57	-0.18	101.33	0
101	Acid Soluble Calcium (20%)	0095	22.32	0.0100	22.55	1.557	0.3808	57	-0.15	101.32	0
101	Acid Soluble Calcium (20%)	0360	22.36	0.0700	22.55	1.557	0.3808	57	-0.12	101.30	0
101	Acid Soluble Calcium (20%)	0200	22.48	0.0100	22.55	1.557	0.3808	57	-0.05	101.70	0
101	Acid Soluble Calcium (20%)	0009	22.50	1.000	22.55	1.557	0.3808	57	-0.03	101.33	0
101	Acid Soluble Calcium (20%)	0513	22.54	0.0700	22.55	1.557	0.3808	57	-0.01	101.00	0
101	Acid Soluble Calcium (20%)	0040	22.58	0.6600	22.55	1.557	0.3808	57	0.02	101.33	0
101	Acid Soluble Calcium (20%)	0106	22.59	0.3798	22.55	1.557	0.3808	57	0.03	101.33	0
101	Acid Soluble Calcium (20%)	0368	22.63	0.2062	22.55	1.557	0.3808	57	0.05	101.99	0
101	Acid Soluble Calcium (20%)	0552	22.70	1.000	22.55	1.557	0.3808	57	0.10	101.99	0
101	Acid Soluble Calcium (20%)	0494	22.73	0.5802	22.55	1.557	0.3808	57	0.12	101.33	0
101	Acid Soluble Calcium (20%)	0485	22.78	0.0600	22.55	1.557	0.3808	57	0.15	101.00	0
101	Acid Soluble Calcium (20%)	0402	22.82	0.6600	22.55	1.557	0.3808	57	0.18	101.30	0
101	Acid Soluble Calcium (20%)	0354	22.85	0.5000	22.55	1.557	0.3808	57	0.20	101.30	0
101	Acid Soluble Calcium (20%)	0136	23.00	2.000	22.55	1.557	0.3808	57	0.29	101.33	0
101	Acid Soluble Calcium (20%)	0423	23.03	0.3600	22.55	1.557	0.3808	57	0.31	101.32	0
101	Acid Soluble Calcium (20%)	0037	23.03	0.4300	22.55	1.557	0.3808	57	0.31	101.33	0
101	Acid Soluble Calcium (20%)	0561	23.09	0.0500	22.55	1.557	0.3808	57	0.35	101.99	0
101	Acid Soluble Calcium (20%)	0231	23.09	0.0200	22.55	1.557	0.3808	57	0.35	101.30	0
101	Acid Soluble Calcium (20%)	0035	23.20	0.2000	22.55	1.557	0.3808	57	0.42	101.30	0
101	Acid Soluble Calcium (20%)	0522	23.22	0.0100	22.55	1.557	0.3808	57	0.43	101.70	0
101	Acid Soluble Calcium (20%)	0433	23.28	0.1000	22.55	1.557	0.3808	57	0.47	101.30	0
101	Acid Soluble Calcium (20%)	0041	23.30	0.0000	22.55	1.557	0.3808	57	0.48	101.30	0
101	Acid Soluble Calcium (20%)	0483	23.40	0.2000	22.55	1.557	0.3808	57	0.55	101.30	0
101	Acid Soluble Calcium (20%)	0096	23.41	0.7000	22.55	1.557	0.3808	57	0.56	101.30	0
101	Acid Soluble Calcium (20%)	0527	23.41	0.2400	22.55	1.557	0.3808	57	0.56	101.33	0
101	Acid Soluble Calcium (20%)	0027	23.41	0.1850	22.55	1.557	0.3808	57	0.56	101.99	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				
101	Acid Soluble Calcium (20%)	0389	23.47	0.1400	22.55	1.557	0.3808	57	0.59	101.99	0
101	Acid Soluble Calcium (20%)	0233	23.50	0.3700	22.55	1.557	0.3808	57	0.61	101.33	0
101	Acid Soluble Calcium (20%)	0546	23.52	0.0800	22.55	1.557	0.3808	57	0.62	101.33	0
101	Acid Soluble Calcium (20%)	0482	23.75‡	0.5000	22.55	1.557	0.3808	57	0.77	101.30	0
101	Acid Soluble Calcium (20%)	0421	23.75‡	0.3000	22.55	1.557	0.3808	57	0.77	101.33	0
101	Acid Soluble Calcium (20%)	0291	23.92‡	0.0200	22.55	1.557	0.3808	57	0.88	101.30	0
101	Acid Soluble Calcium (20%)	0523	24.05‡	0.5000	22.55	1.557	0.3808	57	0.97	101.99	0
101	Acid Soluble Calcium (20%)	0444	24.18‡	0.4100	22.55	1.557	0.3808	57	1.05	101.30	0
101	Acid Soluble Calcium (20%)	0405	24.40‡	0.0000	22.55	1.557	0.3808	57	1.19	101.99	0
101	Acid Soluble Calcium (20%)	0553	25.20‡	0.6000	22.55	1.557	0.3808	57	1.71	101.00	0
101	Acid Soluble Calcium (20%)	0394	25.24‡	0.4880	22.55	1.557	0.3808	57	1.73	101.32	0
101	Acid Soluble Calcium (20%)	0029	25.43‡	0.5300	22.55	1.557	0.3808	57	1.85	101.00	0
101	Acid Soluble Calcium (20%)	0550	31.92‡	1.020	22.55	1.557	0.3808	57	6.02	101.00	0
101	Acid Soluble Calcium (20%)	0042	21.94	4.810	22.55	1.557	0.3808	57	-0.39	101.99	1
121	Acid Soluble Magnesium (%)	0451	0.1115	0.0010	0.3947	0.0503	0.0160	23	-5.63	121.30	0
121	Acid Soluble Magnesium (%)	0105	0.3025	0.0290	0.3947	0.0503	0.0160	23	-1.83	121.03	0
121	Acid Soluble Magnesium (%)	0136	0.3450	0.0100	0.3947	0.0503	0.0160	23	-0.99	121.33	0
121	Acid Soluble Magnesium (%)	0515	0.3456	0.0148	0.3947	0.0503	0.0160	23	-0.97	121.99	0
121	Acid Soluble Magnesium (%)	0524	0.3526	0.0029	0.3947	0.0503	0.0160	23	-0.84	121.99	0
121	Acid Soluble Magnesium (%)	0546	0.3657	0.0021	0.3947	0.0503	0.0160	23	-0.58	121.03	0
121	Acid Soluble Magnesium (%)	0106	0.3659	0.0213	0.3947	0.0503	0.0160	23	-0.57	121.33	0
121	Acid Soluble Magnesium (%)	0307	0.3665	0.0010	0.3947	0.0503	0.0160	23	-0.56	121.99	0
121	Acid Soluble Magnesium (%)	0450	0.3700	0.1400	0.3947	0.0503	0.0160	23	-0.49	121.99	0
121	Acid Soluble Magnesium (%)	0515	0.3814	0.0398	0.3947	0.0503	0.0160	23	-0.26	121.33	0
121	Acid Soluble Magnesium (%)	0009	0.3850	0.0100	0.3947	0.0503	0.0160	23	-0.19	121.33	0
121	Acid Soluble Magnesium (%)	0423	0.3950	0.0020	0.3947	0.0503	0.0160	23	0.01	121.32	0
121	Acid Soluble Magnesium (%)	0521	0.3963	0.0000	0.3947	0.0503	0.0160	23	0.03	121.32	0
121	Acid Soluble Magnesium (%)	0389	0.4100	0.0000	0.3947	0.0503	0.0160	23	0.30	121.99	0
121	Acid Soluble Magnesium (%)	0354	0.4150	0.0100	0.3947	0.0503	0.0160	23	0.40	121.30	0
121	Acid Soluble Magnesium (%)	0035	0.4205	0.0010	0.3947	0.0503	0.0160	23	0.51	121.30	0
121	Acid Soluble Magnesium (%)	0494	0.4278	0.0092	0.3947	0.0503	0.0160	23	0.66	121.33	0
121	Acid Soluble Magnesium (%)	0390	0.4285	0.0170	0.3947	0.0503	0.0160	23	0.67	121.30	0
121	Acid Soluble Magnesium (%)	0096	0.4350	0.0100	0.3947	0.0503	0.0160	23	0.80	121.30	0
121	Acid Soluble Magnesium (%)	0527	0.4429	0.0051	0.3947	0.0503	0.0160	23	0.96	121.33	0
121	Acid Soluble Magnesium (%)	0472	0.4500	0.0000	0.3947	0.0503	0.0160	23	1.10	121.30	0
121	Acid Soluble Magnesium (%)	0483	0.4870	0.0060	0.3947	0.0503	0.0160	23	1.83	121.30	0
121	Acid Soluble Magnesium (%)	0553	0.5070	0.0360	0.3947	0.0503	0.0160	23	2.23	121.00	0
121	Acid Soluble Magnesium (%)	0552	0.3900	0.2600	0.3947	0.0503	0.0160	23	-0.09	121.99	1
131	Water Soluble Magnesium (%)	0553	0.4285	0.0290				1		131.00	0
143	Elemental Sulfur (%)	0095	0.2150	0.0500	10.07	2.291	0.0443	7	-3.89	143.00	0
143	Elemental Sulfur (%)	0472	7.765	0.1300	10.07	2.291	0.0443	7	-0.91	143.99	0
143	Elemental Sulfur (%)	0390	10.80	0.0300	10.07	2.291	0.0443	7	0.29	143.99	0
143	Elemental Sulfur (%)	0368	10.88	0.0804	10.07	2.291	0.0443	7	0.32	143.99	0
143	Elemental Sulfur (%)	0481	11.00	0.0000	10.07	2.291	0.0443	7	0.37	143.99	0
143	Elemental Sulfur (%)	0291	11.64	0.0100	10.07	2.291	0.0443	7	0.62	143.99	0
143	Elemental Sulfur (%)	0389	11.76	0.0100	10.07	2.291	0.0443	7	0.67	143.99	0
143	Elemental Sulfur (%)	0255	11.07	0.3800	10.07	2.291	0.0443	7	0.40	143.99	1

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				
145	Sulfate Sulfur, HCl soluble (%)	0444	5.790	0.0800	11.37	0.4200	0.1189	12	-13.29	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0444	9.605	0.1100	11.37	0.4200	0.1189	12	-4.21	145.99	0
145	Sulfate Sulfur, HCl soluble (%)	0200	11.19	0.0800	11.37	0.4200	0.1189	12	-0.43	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0106	11.26	0.0800	11.37	0.4200	0.1189	12	-0.27	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0095	11.28	0.0800	11.37	0.4200	0.1189	12	-0.22	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0476	11.34	0.2120	11.37	0.4200	0.1189	12	-0.07	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0522	11.35	0.0100	11.37	0.4200	0.1189	12	-0.06	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0485	11.57	0.0842	11.37	0.4200	0.1189	12	0.48	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0405	11.64	0.1400	11.37	0.4200	0.1189	12	0.64	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0561	11.70	0.1300	11.37	0.4200	0.1189	12	0.77	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0550	11.70	0.1200	11.37	0.4200	0.1189	12	0.78	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0498	11.95	0.3000	11.37	0.4200	0.1189	12	1.38	145.00	0
148	Total Sulfur (11%)	0515	8.250†	0.0956	11.26	0.5951	0.2050	49	-5.06	148.07	0
148	Total Sulfur (11%)	0371	8.430†	0.0000	11.26	0.5951	0.2050	49	-4.76	148.99	0
148	Total Sulfur (11%)	0402	10.01†	0.0100	11.26	0.5951	0.2050	49	-2.11	148.07	0
148	Total Sulfur (11%)	0307	10.12†	0.1900	11.26	0.5951	0.2050	49	-1.93	148.99	0
148	Total Sulfur (11%)	0520	10.32†	0.0500	11.26	0.5951	0.2050	49	-1.59	148.99	0
148	Total Sulfur (11%)	0043	10.37†	0.1400	11.26	0.5951	0.2050	49	-1.50	148.07	0
148	Total Sulfur (11%)	0523	10.49†	0.1500	11.26	0.5951	0.2050	49	-1.31	148.99	0
148	Total Sulfur (11%)	0486	10.50†	0.1300	11.26	0.5951	0.2050	49	-1.29	148.07	0
148	Total Sulfur (11%)	0450	10.50†	0.2000	11.26	0.5951	0.2050	49	-1.28	148.99	0
148	Total Sulfur (11%)	0444	10.56	0.2700	11.26	0.5951	0.2050	49	-1.19	148.07	0
148	Total Sulfur (11%)	0117	10.78	0.3080	11.26	0.5951	0.2050	49	-0.81	148.07	0
148	Total Sulfur (11%)	0444	11.04	0.0700	11.26	0.5951	0.2050	49	-0.38	148.01	0
148	Total Sulfur (11%)	0040	11.05	0.1000	11.26	0.5951	0.2050	49	-0.36	148.07	0
148	Total Sulfur (11%)	0560	11.11	0.0600	11.26	0.5951	0.2050	49	-0.26	148.99	0
148	Total Sulfur (11%)	0096	11.13	0.4100	11.26	0.5951	0.2050	49	-0.23	148.99	0
148	Total Sulfur (11%)	0433	11.16	0.0200	11.26	0.5951	0.2050	49	-0.17	148.99	0
148	Total Sulfur (11%)	0493	11.20	0.1000	11.26	0.5951	0.2050	49	-0.11	148.00	0
148	Total Sulfur (11%)	0231	11.20	0.2000	11.26	0.5951	0.2050	49	-0.11	148.01	0
148	Total Sulfur (11%)	0421	11.20	0.4000	11.26	0.5951	0.2050	49	-0.11	148.07	0
148	Total Sulfur (11%)	0177	11.22	0.1948	11.26	0.5951	0.2050	49	-0.08	148.07	0
148	Total Sulfur (11%)	0419	11.25	0.5700	11.26	0.5951	0.2050	49	-0.03	148.00	0
148	Total Sulfur (11%)	0105	11.25	0.1600	11.26	0.5951	0.2050	49	-0.02	148.01	0
148	Total Sulfur (11%)	0555	11.25	0.3570	11.26	0.5951	0.2050	49	-0.02	148.00	0
148	Total Sulfur (11%)	0157	11.30	0.2000	11.26	0.5951	0.2050	49	0.06	148.00	0
148	Total Sulfur (11%)	0494	11.31	0.4363	11.26	0.5951	0.2050	49	0.08	148.07	0
148	Total Sulfur (11%)	0354	11.35	0.1000	11.26	0.5951	0.2050	49	0.15	148.99	0
148	Total Sulfur (11%)	0037	11.41	0.3960	11.26	0.5951	0.2050	49	0.25	148.07	0
148	Total Sulfur (11%)	0131	11.42	0.0700	11.26	0.5951	0.2050	49	0.25	148.00	0
148	Total Sulfur (11%)	0546	11.43	0.2840	11.26	0.5951	0.2050	49	0.28	148.07	0
148	Total Sulfur (11%)	0025	11.45	0.2600	11.26	0.5951	0.2050	49	0.31	148.00	0
148	Total Sulfur (11%)	0023	11.45	0.1000	11.26	0.5951	0.2050	49	0.31	148.07	0
148	Total Sulfur (11%)	0029	11.47	0.4500	11.26	0.5951	0.2050	49	0.34	148.00	0
148	Total Sulfur (11%)	0233	11.47	0.0900	11.26	0.5951	0.2050	49	0.34	148.01	0
148	Total Sulfur (11%)	0230	11.48	0.0600	11.26	0.5951	0.2050	49	0.36	148.01	0
148	Total Sulfur (11%)	0095	11.50	0.0300	11.26	0.5951	0.2050	49	0.39	148.01	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				
148	Total Sulfur (11%)	0324	11.50	0.8000	11.26	0.5951	0.2050	49	0.40	148.01	0
148	Total Sulfur (11%)	0029	11.53	0.0300	11.26	0.5951	0.2050	49	0.44	148.01	0
148	Total Sulfur (11%)	0527	11.63	0.0871	11.26	0.5951	0.2050	49	0.62	148.07	0
148	Total Sulfur (11%)	0102	11.65	0.0000	11.26	0.5951	0.2050	49	0.65	148.07	0
148	Total Sulfur (11%)	0055	11.67	0.0800	11.26	0.5951	0.2050	49	0.68	148.01	0
148	Total Sulfur (11%)	0394	11.71	0.0320	11.26	0.5951	0.2050	49	0.75	148.07	0
148	Total Sulfur (11%)	0233	11.81	0.0900	11.26	0.5951	0.2050	49	0.91	148.07	0
148	Total Sulfur (11%)	0136	11.87	0.2200	11.26	0.5951	0.2050	49	1.02	148.00	0
148	Total Sulfur (11%)	0483	11.90	0.8000	11.26	0.5951	0.2050	49	1.07	148.07	0
148	Total Sulfur (11%)	0405	11.96	0.1400	11.26	0.5951	0.2050	49	1.17	148.99	0
148	Total Sulfur (11%)	0526	12.11‡	0.6165	11.26	0.5951	0.2050	49	1.42	148.01	0
148	Total Sulfur (11%)	0220	12.17‡	0.0900	11.26	0.5951	0.2050	49	1.52	148.99	0
148	Total Sulfur (11%)	0482	12.20‡	0.0000	11.26	0.5951	0.2050	49	1.57	148.99	0
148	Total Sulfur (11%)	0451	12.70‡	0.4000	11.26	0.5951	0.2050	49	2.41	148.00	0
148	Total Sulfur (11%)	0292	0.9050†	0.0100	11.26	0.5951	0.2050	49	-17.40	148.07	2
149	Sulfur - HNO3 soluble (%)	0524	10.52	0.4343	11.09	0.4972	0.1911	4	-1.14	149.04	0
149	Sulfur - HNO3 soluble (%)	0423	10.87	0.0700	11.09	0.4972	0.1911	4	-0.44	149.04	0
149	Sulfur - HNO3 soluble (%)	0501	11.30	0.2600	11.09	0.4972	0.1911	4	0.43	149.04	0
149	Sulfur - HNO3 soluble (%)	0521	11.66	0.0000	11.09	0.4972	0.1911	4	1.15	149.04	0
151	Acid Soluble Arsenic (ppm)	0520	0.4450	0.0100	5.911	3.502	0.6137	19	-1.56	151.99	0
151	Acid Soluble Arsenic (ppm)	0498	1.550	0.1000	5.911	3.502	0.6137	19	-1.25	151.00	0
151	Acid Soluble Arsenic (ppm)	0481	2.375	0.1500	5.911	3.502	0.6137	19	-1.01	151.99	0
151	Acid Soluble Arsenic (ppm)	0096	3.100	0.0000	5.911	3.502	0.6137	19	-0.80	151.30	0
151	Acid Soluble Arsenic (ppm)	0527	3.129	0.0976	5.911	3.502	0.6137	19	-0.79	151.33	0
151	Acid Soluble Arsenic (ppm)	0515	3.861	0.8860	5.911	3.502	0.6137	19	-0.59	151.33	0
151	Acid Soluble Arsenic (ppm)	0515	4.027	1.798	5.911	3.502	0.6137	19	-0.54	151.34	0
151	Acid Soluble Arsenic (ppm)	0450	4.400	0.8000	5.911	3.502	0.6137	19	-0.43	151.30	0
151	Acid Soluble Arsenic (ppm)	0405	5.000	2.000	5.911	3.502	0.6137	19	-0.26	151.99	0
151	Acid Soluble Arsenic (ppm)	0220	5.550	0.1000	5.911	3.502	0.6137	19	-0.10	151.33	0
151	Acid Soluble Arsenic (ppm)	0476	5.776	0.1150	5.911	3.502	0.6137	19	-0.04	151.99	0
151	Acid Soluble Arsenic (ppm)	0523	7.820	0.0200	5.911	3.502	0.6137	19	0.55	151.30	0
151	Acid Soluble Arsenic (ppm)	0255	8.818	0.4680	5.911	3.502	0.6137	19	0.83	151.30	0
151	Acid Soluble Arsenic (ppm)	0501	8.820	0.1000	5.911	3.502	0.6137	19	0.83	151.30	0
151	Acid Soluble Arsenic (ppm)	0524	9.031	0.9165	5.911	3.502	0.6137	19	0.89	151.30	0
151	Acid Soluble Arsenic (ppm)	0037	9.111	1.139	5.911	3.502	0.6137	19	0.91	151.33	0
151	Acid Soluble Arsenic (ppm)	0494	9.178	0.5605	5.911	3.502	0.6137	19	0.93	151.33	0
151	Acid Soluble Arsenic (ppm)	0368	9.600	1.400	5.911	3.502	0.6137	19	1.05	151.34	0
151	Acid Soluble Arsenic (ppm)	0009	10.50	1.000	5.911	3.502	0.6137	19	1.31	151.99	0
151	Acid Soluble Arsenic (ppm)	0550	< 0.08		5.911	3.502	0.6137	19		151.00	5
151	Acid Soluble Arsenic (ppm)	0555	< 0.5		5.911	3.502	0.6137	19		151.30	5
151	Acid Soluble Arsenic (ppm)	0009	< 10		5.911	3.502	0.6137	19		151.33	5
151	Acid Soluble Arsenic (ppm)	0117	< 10		5.911	3.502	0.6137	19		151.33	5
151	Acid Soluble Arsenic (ppm)	0526	< 50		5.911	3.502	0.6137	19		151.00	5
165	Acid Soluble Boron (%)	0136	0.0020	0.0000	0.0052	0.0041	0.0007	10	-0.79	165.30	0
165	Acid Soluble Boron (%)	0106	0.0022	0.0018	0.0052	0.0041	0.0007	10	-0.74	165.30	0
165	Acid Soluble Boron (%)	0546	0.0024	0.0000	0.0052	0.0041	0.0007	10	-0.69	165.99	0
165	Acid Soluble Boron (%)	0009	0.0029	0.0001	0.0052	0.0041	0.0007	10	-0.58	165.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
165	Acid Soluble Boron (%)	0524	0.0032	0.0001	0.0052	0.0041	0.0007	10	-0.50	165.99	0
165	Acid Soluble Boron (%)	0423	0.0034	0.0006	0.0052	0.0041	0.0007	10	-0.44	165.99	0
165	Acid Soluble Boron (%)	0389	0.0055	0.0022	0.0052	0.0041	0.0007	10	0.08	165.30	0
165	Acid Soluble Boron (%)	0527	0.0091	0.0016	0.0052	0.0041	0.0007	10	0.96	165.99	0
165	Acid Soluble Boron (%)	0472	0.0100	0.0000	0.0052	0.0041	0.0007	10	1.19	165.99	0
165	Acid Soluble Boron (%)	0483	0.0125	0.0010	0.0052	0.0041	0.0007	10	1.80	165.99	0
165	Acid Soluble Boron (%)	0354	0.0350	0.0100	0.0052	0.0041	0.0007	10	7.35	165.30	1
165	Acid Soluble Boron (%)	0552	0.0000	0.0000	0.0052	0.0041	0.0007	10		165.99	4
181	Acid Soluble Cadmium (ppm)	0255	7.687	0.0260	12.16	2.971	0.6653	28	-1.51	181.30	0
181	Acid Soluble Cadmium (ppm)	0096	7.950	1.900	12.16	2.971	0.6653	28	-1.42	181.30	0
181	Acid Soluble Cadmium (ppm)	0444	8.170	0.0800	12.16	2.971	0.6653	28	-1.34	181.30	0
181	Acid Soluble Cadmium (ppm)	0515	9.518	0.3110	12.16	2.971	0.6653	28	-0.89	181.34	0
181	Acid Soluble Cadmium (ppm)	0520	9.610	1.520	12.16	2.971	0.6653	28	-0.86	181.99	0
181	Acid Soluble Cadmium (ppm)	0523	9.665	0.0300	12.16	2.971	0.6653	28	-0.84	181.30	0
181	Acid Soluble Cadmium (ppm)	0450	10.05	1.700	12.16	2.971	0.6653	28	-0.71	181.30	0
181	Acid Soluble Cadmium (ppm)	0389	10.08	0.4300	12.16	2.971	0.6653	28	-0.70	181.30	0
181	Acid Soluble Cadmium (ppm)	0035	10.13	1.740	12.16	2.971	0.6653	28	-0.68	181.30	0
181	Acid Soluble Cadmium (ppm)	0524	10.29	0.2660	12.16	2.971	0.6653	28	-0.63	181.30	0
181	Acid Soluble Cadmium (ppm)	0515	10.61	1.600	12.16	2.971	0.6653	28	-0.52	181.33	0
181	Acid Soluble Cadmium (ppm)	0476	11.22	0.1580	12.16	2.971	0.6653	28	-0.32	181.99	0
181	Acid Soluble Cadmium (ppm)	0419	11.65	0.1800	12.16	2.971	0.6653	28	-0.17	181.32	0
181	Acid Soluble Cadmium (ppm)	0481	12.35	0.1000	12.16	2.971	0.6653	28	0.06	181.99	0
181	Acid Soluble Cadmium (ppm)	0526	12.37	1.484	12.16	2.971	0.6653	28	0.07	181.00	0
181	Acid Soluble Cadmium (ppm)	0394	12.60	0.2000	12.16	2.971	0.6653	28	0.15	181.30	0
181	Acid Soluble Cadmium (ppm)	0009	13.00	0.0000	12.16	2.971	0.6653	28	0.28	181.33	0
181	Acid Soluble Cadmium (ppm)	0368	13.75	1.700	12.16	2.971	0.6653	28	0.54	181.34	0
181	Acid Soluble Cadmium (ppm)	0482	13.80	1.400	12.16	2.971	0.6653	28	0.55	181.30	0
181	Acid Soluble Cadmium (ppm)	0220	13.90	0.0000	12.16	2.971	0.6653	28	0.59	181.33	0
181	Acid Soluble Cadmium (ppm)	0117	14.21	0.3620	12.16	2.971	0.6653	28	0.69	181.33	0
181	Acid Soluble Cadmium (ppm)	0498	14.35	0.9000	12.16	2.971	0.6653	28	0.74	181.00	0
181	Acid Soluble Cadmium (ppm)	0037	14.50	0.2110	12.16	2.971	0.6653	28	0.79	181.33	0
181	Acid Soluble Cadmium (ppm)	0009	15.00	0.0000	12.16	2.971	0.6653	28	0.96	181.99	0
181	Acid Soluble Cadmium (ppm)	0527	15.27	0.4436	12.16	2.971	0.6653	28	1.05	181.33	0
181	Acid Soluble Cadmium (ppm)	0494	15.61	0.8176	12.16	2.971	0.6653	28	1.16	181.33	0
181	Acid Soluble Cadmium (ppm)	0501	16.54	0.6700	12.16	2.971	0.6653	28	1.47	181.30	0
181	Acid Soluble Cadmium (ppm)	0405	16.60	0.4000	12.16	2.971	0.6653	28	1.49	181.99	0
181	Acid Soluble Cadmium (ppm)	0550	15.68	4.620	12.16	2.971	0.6653	28	1.18	181.00	1
181	Acid Soluble Cadmium (ppm)	0555	< 0.5		12.16	2.971	0.6653	28		181.30	5
190	Water Soluble Chlorine (%)	0513	0.0750	0.0100				2		190.99	0
190	Water Soluble Chlorine (%)	0105	0.1400	0.0800				2		190.00	0
191	Acid Soluble Chromium (ppm)	0550	76.54	0.3800	123.8	21.81	3.345	27	-2.17	191.00	0
191	Acid Soluble Chromium (ppm)	0444	86.89	1.570	123.8	21.81	3.345	27	-1.69	191.30	0
191	Acid Soluble Chromium (ppm)	0035	92.80	6.000	123.8	21.81	3.345	27	-1.42	191.30	0
191	Acid Soluble Chromium (ppm)	0482	96.90	12.20	123.8	21.81	3.345	27	-1.23	191.30	0
191	Acid Soluble Chromium (ppm)	0520	98.79	7.140	123.8	21.81	3.345	27	-1.15	191.99	0
191	Acid Soluble Chromium (ppm)	0394	103.5	1.000	123.8	21.81	3.345	27	-0.93	191.30	0
191	Acid Soluble Chromium (ppm)	0389	103.5	9.320	123.8	21.81	3.345	27	-0.93	191.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
191	Acid Soluble Chromium (ppm)	0419	112.5	2.400	123.8	21.81	3.345	27	-0.52	191.32	0
191	Acid Soluble Chromium (ppm)	0476	113.8	4.873	123.8	21.81	3.345	27	-0.46	191.99	0
191	Acid Soluble Chromium (ppm)	0136	116.5	11.00	123.8	21.81	3.345	27	-0.33	191.33	0
191	Acid Soluble Chromium (ppm)	0498	119.6	6.300	123.8	21.81	3.345	27	-0.19	191.00	0
191	Acid Soluble Chromium (ppm)	0515	122.6	3.573	123.8	21.81	3.345	27	-0.05	191.34	0
191	Acid Soluble Chromium (ppm)	0368	123.0	2.000	123.8	21.81	3.345	27	-0.04	191.34	0
191	Acid Soluble Chromium (ppm)	0009	130.0	0.0000	123.8	21.81	3.345	27	0.29	191.33	0
191	Acid Soluble Chromium (ppm)	0220	135.5	0.3000	123.8	21.81	3.345	27	0.54	191.33	0
191	Acid Soluble Chromium (ppm)	0117	136.2	3.090	123.8	21.81	3.345	27	0.57	191.33	0
191	Acid Soluble Chromium (ppm)	0501	136.2	2.110	123.8	21.81	3.345	27	0.57	191.30	0
191	Acid Soluble Chromium (ppm)	0037	137.0	2.822	123.8	21.81	3.345	27	0.61	191.33	0
191	Acid Soluble Chromium (ppm)	0096	137.4	1.400	123.8	21.81	3.345	27	0.62	191.30	0
191	Acid Soluble Chromium (ppm)	0515	139.5	2.051	123.8	21.81	3.345	27	0.72	191.33	0
191	Acid Soluble Chromium (ppm)	0494	140.0	1.214	123.8	21.81	3.345	27	0.74	191.33	0
191	Acid Soluble Chromium (ppm)	0009	140.0	0.0000	123.8	21.81	3.345	27	0.74	191.99	0
191	Acid Soluble Chromium (ppm)	0527	140.0	1.784	123.8	21.81	3.345	27	0.75	191.33	0
191	Acid Soluble Chromium (ppm)	0561	140.3	1.100	123.8	21.81	3.345	27	0.76	191.30	0
191	Acid Soluble Chromium (ppm)	0526	140.4	0.9012	123.8	21.81	3.345	27	0.76	191.00	0
191	Acid Soluble Chromium (ppm)	0405	147.5	3.000	123.8	21.81	3.345	27	1.09	191.99	0
191	Acid Soluble Chromium (ppm)	0481	156.3	2.800	123.8	21.81	3.345	27	1.49	191.99	0
191	Acid Soluble Chromium (ppm)	0450	109.5	17.00	123.8	21.81	3.345	27	-0.65	191.30	1
191	Acid Soluble Chromium (ppm)	0524	1,102	7.877	123.8	21.81	3.345	27	44.85	191.30	2
191	Acid Soluble Chromium (ppm)	0555	< 0.5		123.8	21.81	3.345	27		191.30	5
202	Acid Soluble Cobalt (ppm)	0561	3.250	0.1000	7.224	2.559	0.3441	25	-1.55	202.30	0
202	Acid Soluble Cobalt (ppm)	0419	3.615	0.2500	7.224	2.559	0.3441	25	-1.41	202.32	0
202	Acid Soluble Cobalt (ppm)	0515	4.086	0.3590	7.224	2.559	0.3441	25	-1.23	202.34	0
202	Acid Soluble Cobalt (ppm)	0482	4.600	0.6000	7.224	2.559	0.3441	25	-1.03	202.30	0
202	Acid Soluble Cobalt (ppm)	0255	4.847	0.7410	7.224	2.559	0.3441	25	-0.93	202.99	0
202	Acid Soluble Cobalt (ppm)	0524	4.936	0.3632	7.224	2.559	0.3441	25	-0.89	202.30	0
202	Acid Soluble Cobalt (ppm)	0515	5.900	1.380	7.224	2.559	0.3441	25	-0.52	202.33	0
202	Acid Soluble Cobalt (ppm)	0546	6.284	0.1048	7.224	2.559	0.3441	25	-0.37	202.33	0
202	Acid Soluble Cobalt (ppm)	0368	6.350	0.1000	7.224	2.559	0.3441	25	-0.34	202.34	0
202	Acid Soluble Cobalt (ppm)	0035	6.460	0.4000	7.224	2.559	0.3441	25	-0.30	202.30	0
202	Acid Soluble Cobalt (ppm)	0096	6.870	0.0000	7.224	2.559	0.3441	25	-0.14	202.30	0
202	Acid Soluble Cobalt (ppm)	0523	6.940	0.1000	7.224	2.559	0.3441	25	-0.11	202.30	0
202	Acid Soluble Cobalt (ppm)	0220	7.200	0.4000	7.224	2.559	0.3441	25	-0.01	202.33	0
202	Acid Soluble Cobalt (ppm)	0476	7.297	0.0910	7.224	2.559	0.3441	25	0.03	202.99	0
202	Acid Soluble Cobalt (ppm)	0527	7.323	1.071	7.224	2.559	0.3441	25	0.04	202.33	0
202	Acid Soluble Cobalt (ppm)	0501	7.705	0.1500	7.224	2.559	0.3441	25	0.19	202.34	0
202	Acid Soluble Cobalt (ppm)	0423	8.070	0.0800	7.224	2.559	0.3441	25	0.33	202.32	0
202	Acid Soluble Cobalt (ppm)	0009	8.450	0.3000	7.224	2.559	0.3441	25	0.48	202.33	0
202	Acid Soluble Cobalt (ppm)	0009	9.100	0.0000	7.224	2.559	0.3441	25	0.73	202.99	0
202	Acid Soluble Cobalt (ppm)	0389	9.150	0.0200	7.224	2.559	0.3441	25	0.75	202.30	0
202	Acid Soluble Cobalt (ppm)	0037	9.220	0.0570	7.224	2.559	0.3441	25	0.78	202.33	0
202	Acid Soluble Cobalt (ppm)	0494	10.19	1.432	7.224	2.559	0.3441	25	1.16	202.33	0
202	Acid Soluble Cobalt (ppm)	0117	10.50	0.1040	7.224	2.559	0.3441	25	1.28	202.33	0
202	Acid Soluble Cobalt (ppm)	0405	11.40	0.4000	7.224	2.559	0.3441	25	1.63	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)	0526	14.79	0.0000	7.224	2.559	0.3441	25	2.96	202.00	0
202	Acid Soluble Cobalt (ppm)	0520	< 0.04		7.224	2.559	0.3441	25		202.99	5
202	Acid Soluble Cobalt (ppm)	0555	< 0.5		7.224	2.559	0.3441	25		202.30	5
202	Acid Soluble Cobalt (ppm)	0481	< 20		7.224	2.559	0.3441	25		202.99	5
221	Acid Soluble Copper (%)	0096	0.0002	0.0000	0.0009	0.0005	0.0002	21	-1.43	221.30	0
221	Acid Soluble Copper (%)	0476	0.0004	0.0000	0.0009	0.0005	0.0002	21	-1.02	221.99	0
221	Acid Soluble Copper (%)	0106	0.0005	0.0003	0.0009	0.0005	0.0002	21	-0.92	221.33	0
221	Acid Soluble Copper (%)	0524	0.0005	0.0000	0.0009	0.0005	0.0002	21	-0.82	221.99	0
221	Acid Soluble Copper (%)	0389	0.0006	0.0000	0.0009	0.0005	0.0002	21	-0.62	221.99	0
221	Acid Soluble Copper (%)	0095	0.0007	0.0000	0.0009	0.0005	0.0002	21	-0.41	221.32	0
221	Acid Soluble Copper (%)	0220	0.0007	0.0000	0.0009	0.0005	0.0002	21	-0.41	221.33	0
221	Acid Soluble Copper (%)	0527	0.0007	0.0000	0.0009	0.0005	0.0002	21	-0.41	221.33	0
221	Acid Soluble Copper (%)	0546	0.0007	0.0000	0.0009	0.0005	0.0002	21	-0.41	221.33	0
221	Acid Soluble Copper (%)	0483	0.0008	0.0001	0.0009	0.0005	0.0002	21	-0.31	221.30	0
221	Acid Soluble Copper (%)	0494	0.0008	0.0003	0.0009	0.0005	0.0002	21	-0.31	221.33	0
221	Acid Soluble Copper (%)	0515	0.0008	0.0001	0.0009	0.0005	0.0002	21	-0.31	221.33	0
221	Acid Soluble Copper (%)	0515	0.0010	0.0001	0.0009	0.0005	0.0002	21	0.09	221.99	0
221	Acid Soluble Copper (%)	0498	0.0010	0.0000	0.0009	0.0005	0.0002	21	0.20	221.00	0
221	Acid Soluble Copper (%)	0041	0.0010	0.0000	0.0009	0.0005	0.0002	21	0.20	221.30	0
221	Acid Soluble Copper (%)	0037	0.0010	0.0000	0.0009	0.0005	0.0002	21	0.20	221.33	0
221	Acid Soluble Copper (%)	0535	0.0013	0.0001	0.0009	0.0005	0.0002	21	0.70	221.00	0
221	Acid Soluble Copper (%)	0553	0.0017	0.0001	0.0009	0.0005	0.0002	21	1.52	221.00	0
221	Acid Soluble Copper (%)	0550	0.0020	0.0018	0.0009	0.0005	0.0002	21	2.23	221.00	0
221	Acid Soluble Copper (%)	0523	0.0020	0.0000	0.0009	0.0005	0.0002	21	2.23	221.99	0
221	Acid Soluble Copper (%)	0402	0.0023	0.0003	0.0009	0.0005	0.0002	21	2.73	221.30	0
221	Acid Soluble Copper (%)	0368	6.300	3.800	0.0009	0.0005	0.0002	21	12780.33	221.99	1
221	Acid Soluble Copper (%)	0043	10.74	0.0100	0.0009	0.0005	0.0002	21	21778.58	221.32	2
221	Acid Soluble Copper (%)	0255	0.0000	0.0000	0.0009	0.0005	0.0002	21		221.30	4
221	Acid Soluble Copper (%)	0552	0.0000	0.0000	0.0009	0.0005	0.0002	21		221.30	4
221	Acid Soluble Copper (%)	0035	< 0.0004		0.0009	0.0005	0.0002	21		221.30	5
221	Acid Soluble Copper (%)	0117	< 0.0005		0.0009	0.0005	0.0002	21		221.33	5
221	Acid Soluble Copper (%)	0009	< 0.0008		0.0009	0.0005	0.0002	21		221.99	5
221	Acid Soluble Copper (%)	0481	< 0.001		0.0009	0.0005	0.0002	21		221.99	5
221	Acid Soluble Copper (%)	0009	< 0.0025		0.0009	0.0005	0.0002	21		221.33	5
221	Acid Soluble Copper (%)	0027	< 0.003		0.0009	0.0005	0.0002	21		221.99	5
221	Acid Soluble Copper (%)	0526	< 0.0045		0.0009	0.0005	0.0002	21		221.03	5
221	Acid Soluble Copper (%)	0354	< 0.01		0.0009	0.0005	0.0002	21		221.30	5
221	Acid Soluble Copper (%)	0555	< 0.5		0.0009	0.0005	0.0002	21		221.33	5
221	Acid Soluble Copper (%)	0405	< 0.5		0.0009	0.0005	0.0002	21		221.99	5
241	Acid Soluble Iron (%)	0531	0.1943	0.0214	0.2535	0.0262	0.0080	23	-2.26	241.00	0
241	Acid Soluble Iron (%)	0524	0.2148	0.0047	0.2535	0.0262	0.0080	23	-1.48	241.99	0
241	Acid Soluble Iron (%)	0105	0.2165	0.0470	0.2535	0.0262	0.0080	23	-1.41	241.03	0
241	Acid Soluble Iron (%)	0521	0.2192	0.0000	0.2535	0.0262	0.0080	23	-1.31	241.32	0
241	Acid Soluble Iron (%)	0106	0.2300	0.0071	0.2535	0.0262	0.0080	23	-0.90	241.33	0
241	Acid Soluble Iron (%)	0096	0.2400	0.0000	0.2535	0.0262	0.0080	23	-0.52	241.30	0
241	Acid Soluble Iron (%)	0035	0.2455	0.0190	0.2535	0.0262	0.0080	23	-0.31	241.30	0
241	Acid Soluble Iron (%)	0515	0.2488	0.0004	0.2535	0.0262	0.0080	23	-0.18	241.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
241	Acid Soluble Iron (%)	0423	0.2490	0.0040	0.2535	0.0262	0.0080	23	-0.17	241.32	0
241	Acid Soluble Iron (%)	0354	0.2500	0.0200	0.2535	0.0262	0.0080	23	-0.13	241.30	0
241	Acid Soluble Iron (%)	0402	0.2501	0.0022	0.2535	0.0262	0.0080	23	-0.13	241.30	0
241	Acid Soluble Iron (%)	0535	0.2515	0.0030	0.2535	0.0262	0.0080	23	-0.08	241.00	0
241	Acid Soluble Iron (%)	0546	0.2561	0.0008	0.2535	0.0262	0.0080	23	0.10	241.33	0
241	Acid Soluble Iron (%)	0389	0.2600	0.0000	0.2535	0.0262	0.0080	23	0.25	241.99	0
241	Acid Soluble Iron (%)	0009	0.2650	0.0100	0.2535	0.0262	0.0080	23	0.44	241.33	0
241	Acid Soluble Iron (%)	0483	0.2670	0.0080	0.2535	0.0262	0.0080	23	0.51	241.30	0
241	Acid Soluble Iron (%)	0472	0.2700	0.0000	0.2535	0.0262	0.0080	23	0.63	241.30	0
241	Acid Soluble Iron (%)	0553	0.2745	0.0190	0.2535	0.0262	0.0080	23	0.80	241.00	0
241	Acid Soluble Iron (%)	0527	0.2750	0.0004	0.2535	0.0262	0.0080	23	0.82	241.33	0
241	Acid Soluble Iron (%)	0494	0.2772	0.0039	0.2535	0.0262	0.0080	23	0.90	241.33	0
241	Acid Soluble Iron (%)	0482	0.2800	0.0000	0.2535	0.0262	0.0080	23	1.01	241.30	0
241	Acid Soluble Iron (%)	0515	0.2841	0.0022	0.2535	0.0262	0.0080	23	1.17	241.33	0
241	Acid Soluble Iron (%)	0552	0.3550	0.0100	0.2535	0.0262	0.0080	23	3.87	241.30	0
241	Acid Soluble Iron (%)	0136	0.2500	0.0600	0.2535	0.0262	0.0080	23	-0.13	241.33	1
241	Acid Soluble Iron (%)	0027	< 0.005		0.2535	0.0262	0.0080	23		241.99	5
251	Acid Soluble Lead (ppm)	0255	1.628	0.0450	2.992	1.188	0.4316	21	-1.15	251.30	0
251	Acid Soluble Lead (ppm)	0096	1.700	0.2000	2.992	1.188	0.4316	21	-1.09	251.30	0
251	Acid Soluble Lead (ppm)	0450	1.750	0.5000	2.992	1.188	0.4316	21	-1.05	251.30	0
251	Acid Soluble Lead (ppm)	0444	1.910	0.0800	2.992	1.188	0.4316	21	-0.91	251.30	0
251	Acid Soluble Lead (ppm)	0389	2.068	0.0310	2.992	1.188	0.4316	21	-0.78	251.30	0
251	Acid Soluble Lead (ppm)	0481	2.100	0.0000	2.992	1.188	0.4316	21	-0.75	251.99	0
251	Acid Soluble Lead (ppm)	0419	2.175	0.9500	2.992	1.188	0.4316	21	-0.69	251.32	0
251	Acid Soluble Lead (ppm)	0520	2.240	0.0600	2.992	1.188	0.4316	21	-0.63	251.99	0
251	Acid Soluble Lead (ppm)	0476	2.481	0.1620	2.992	1.188	0.4316	21	-0.43	251.99	0
251	Acid Soluble Lead (ppm)	0394	2.650	0.4800	2.992	1.188	0.4316	21	-0.29	251.30	0
251	Acid Soluble Lead (ppm)	0515	2.854	1.028	2.992	1.188	0.4316	21	-0.12	251.33	0
251	Acid Soluble Lead (ppm)	0524	3.073	0.0925	2.992	1.188	0.4316	21	0.07	251.30	0
251	Acid Soluble Lead (ppm)	0037	3.340	0.4220	2.992	1.188	0.4316	21	0.29	251.33	0
251	Acid Soluble Lead (ppm)	0527	3.423	0.0012	2.992	1.188	0.4316	21	0.36	251.33	0
251	Acid Soluble Lead (ppm)	0501	3.430	0.0400	2.992	1.188	0.4316	21	0.37	251.30	0
251	Acid Soluble Lead (ppm)	0482	3.730	0.2800	2.992	1.188	0.4316	21	0.62	251.30	0
251	Acid Soluble Lead (ppm)	0523	3.830	0.0400	2.992	1.188	0.4316	21	0.71	251.30	0
251	Acid Soluble Lead (ppm)	0220	4.250	0.9000	2.992	1.188	0.4316	21	1.06	251.33	0
251	Acid Soluble Lead (ppm)	0405	4.650	1.100	2.992	1.188	0.4316	21	1.40	251.99	0
251	Acid Soluble Lead (ppm)	0526	9.221	1.192	2.992	1.188	0.4316	21	5.24	251.00	0
251	Acid Soluble Lead (ppm)	0550	21.31	1.461	2.992	1.188	0.4316	21	15.42	251.00	0
251	Acid Soluble Lead (ppm)	0555	< 0.5		2.992	1.188	0.4316	21		251.30	5
251	Acid Soluble Lead (ppm)	0368	< 0.5		2.992	1.188	0.4316	21		251.34	5
251	Acid Soluble Lead (ppm)	0009	< 5		2.992	1.188	0.4316	21		251.33	5
251	Acid Soluble Lead (ppm)	0117	< 5		2.992	1.188	0.4316	21		251.33	5
251	Acid Soluble Lead (ppm)	0009	< 10		2.992	1.188	0.4316	21		251.99	5
261	Acid Soluble Manganese (%)	0106	0.0018	0.0004	0.0036	0.0009	0.0004	14	-2.06	261.35	0
261	Acid Soluble Manganese (%)	0515	0.0022	0.0015	0.0036	0.0009	0.0004	14	-1.66	261.99	0
261	Acid Soluble Manganese (%)	0531	0.0029	0.0003	0.0036	0.0009	0.0004	14	-0.86	261.12	0
261	Acid Soluble Manganese (%)	0535	0.0033	0.0001	0.0036	0.0009	0.0004	14	-0.41	261.12	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 (%)	0096	0.0034	0.0001	0.0036	0.0009	0.0004	14	-0.29	261.30	0
261	Acid Soluble Manganese (%)	0546	0.0034	0.0000	0.0036	0.0009	0.0004	14	-0.24	261.35	0
261	Acid Soluble Manganese (%)	0389	0.0037	0.0000	0.0036	0.0009	0.0004	14	0.11	261.99	0
261	Acid Soluble Manganese (%)	0524	0.0037	0.0002	0.0036	0.0009	0.0004	14	0.11	261.99	0
261	Acid Soluble Manganese (%)	0105	0.0039	0.0003	0.0036	0.0009	0.0004	14	0.28	261.15	0
261	Acid Soluble Manganese (%)	0035	0.0040	0.0002	0.0036	0.0009	0.0004	14	0.45	261.30	0
261	Acid Soluble Manganese (%)	0009	0.0041	0.0001	0.0036	0.0009	0.0004	14	0.50	261.35	0
261	Acid Soluble Manganese (%)	0527	0.0044	0.0003	0.0036	0.0009	0.0004	14	0.85	261.35	0
261	Acid Soluble Manganese (%)	0423	0.0045	0.0010	0.0036	0.0009	0.0004	14	1.02	261.34	0
261	Acid Soluble Manganese (%)	0553	0.0067	0.0009	0.0036	0.0009	0.0004	14	3.47	261.00	0
261	Acid Soluble Manganese (%)	0552	0.1650	0.0900	0.0036	0.0009	0.0004	14	184.18	261.32	2
261	Acid Soluble Manganese (%)	0354	< 0.01		0.0036	0.0009	0.0004	14		261.30	5
281	Acid Soluble Mercury (ppm)	0550	0.0023	0.0005	0.0264	0.0324	0.0022	5	-0.75	281.00	0
281	Acid Soluble Mercury (ppm)	0561	0.0025	0.0010	0.0264	0.0324	0.0022	5	-0.74	281.99	0
281	Acid Soluble Mercury (ppm)	0368	0.0148	0.0004	0.0264	0.0324	0.0022	5	-0.36	281.99	0
281	Acid Soluble Mercury (ppm)	0501	0.0325	0.0090	0.0264	0.0324	0.0022	5	0.19	281.30	0
281	Acid Soluble Mercury (ppm)	0220	0.0800	0.0000	0.0264	0.0324	0.0022	5	1.65	281.99	0
281	Acid Soluble Mercury (ppm)	0035	19.15	0.1000	0.0264	0.0324	0.0022	5	590.23	281.99	1
281	Acid Soluble Mercury (ppm)	0450	0.0000	0.0000	0.0264	0.0324	0.0022	5		281.30	4
281	Acid Soluble Mercury (ppm)	0515	0.0000	0.0000	0.0264	0.0324	0.0022	5		281.30	4
281	Acid Soluble Mercury (ppm)	0527	< 0.0001		0.0264	0.0324	0.0022	5		281.30	5
281	Acid Soluble Mercury (ppm)	0520	< 0.007		0.0264	0.0324	0.0022	5		281.99	5
281	Acid Soluble Mercury (ppm)	0405	< 0.01		0.0264	0.0324	0.0022	5		281.99	5
281	Acid Soluble Mercury (ppm)	0117	< 0.2		0.0264	0.0324	0.0022	5		281.00	5
281	Acid Soluble Mercury (ppm)	0481	< 0.5		0.0264	0.0324	0.0022	5		281.99	5
281	Acid Soluble Mercury (ppm)	0526	< 60		0.0264	0.0324	0.0022	5		281.00	5
289	Acid Soluble Molybdenum (ppm)	0106	0.0004	0.0000	3.556	1.356	0.2011	21	-2.62	289.33	0
289	Acid Soluble Molybdenum (ppm)	0433	0.0240	0.0000	3.556	1.356	0.2011	21	-2.60	289.30	0
289	Acid Soluble Molybdenum (ppm)	0515	0.9862	1.293	3.556	1.356	0.2011	21	-1.89	289.33	0
289	Acid Soluble Molybdenum (ppm)	0096	2.450	0.3000	3.556	1.356	0.2011	21	-0.82	289.30	0
289	Acid Soluble Molybdenum (ppm)	0419	2.755	0.0100	3.556	1.356	0.2011	21	-0.59	289.32	0
289	Acid Soluble Molybdenum (ppm)	0524	2.810	0.3269	3.556	1.356	0.2011	21	-0.55	289.30	0
289	Acid Soluble Molybdenum (ppm)	0035	2.860	0.2400	3.556	1.356	0.2011	21	-0.51	289.30	0
289	Acid Soluble Molybdenum (ppm)	0220	2.900	0.6000	3.556	1.356	0.2011	21	-0.48	289.33	0
289	Acid Soluble Molybdenum (ppm)	0389	3.243	0.1540	3.556	1.356	0.2011	21	-0.23	289.30	0
289	Acid Soluble Molybdenum (ppm)	0546	3.473	0.0236	3.556	1.356	0.2011	21	-0.06	289.33	0
289	Acid Soluble Molybdenum (ppm)	0476	3.752	0.1480	3.556	1.356	0.2011	21	0.14	289.99	0
289	Acid Soluble Molybdenum (ppm)	0423	4.120	0.0600	3.556	1.356	0.2011	21	0.42	289.33	0
289	Acid Soluble Molybdenum (ppm)	0117	4.204	0.0760	3.556	1.356	0.2011	21	0.48	289.33	0
289	Acid Soluble Molybdenum (ppm)	0009	4.300	0.2000	3.556	1.356	0.2011	21	0.55	289.99	0
289	Acid Soluble Molybdenum (ppm)	0405	4.330	0.1600	3.556	1.356	0.2011	21	0.57	289.99	0
289	Acid Soluble Molybdenum (ppm)	0527	4.383	0.0374	3.556	1.356	0.2011	21	0.61	289.33	0
289	Acid Soluble Molybdenum (ppm)	0037	4.407	0.1500	3.556	1.356	0.2011	21	0.63	289.33	0
289	Acid Soluble Molybdenum (ppm)	0501	4.590	0.0600	3.556	1.356	0.2011	21	0.76	289.34	0
289	Acid Soluble Molybdenum (ppm)	0255	4.668	0.0050	3.556	1.356	0.2011	21	0.82	289.30	0
289	Acid Soluble Molybdenum (ppm)	0550	5.280	0.2800	3.556	1.356	0.2011	21	1.27	289.00	0
289	Acid Soluble Molybdenum (ppm)	0561	6.650	0.1000	3.556	1.356	0.2011	21	2.28	289.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
289	Acid Soluble Molybdenum (ppm)	0515	4.188	2.603	3.556	1.356	0.2011	21	0.47	289.34	1
289	Acid Soluble Molybdenum (ppm)	0027	< 0.003		3.556	1.356	0.2011	21		289.30	5
289	Acid Soluble Molybdenum (ppm)	0526	< 0.021		3.556	1.356	0.2011	21		289.00	5
289	Acid Soluble Molybdenum (ppm)	0520	< 0.04		3.556	1.356	0.2011	21		289.99	5
289	Acid Soluble Molybdenum (ppm)	0368	< 0.1		3.556	1.356	0.2011	21		289.34	5
289	Acid Soluble Molybdenum (ppm)	0555	< 0.5		3.556	1.356	0.2011	21		289.30	5
289	Acid Soluble Molybdenum (ppm)	0009	< 4		3.556	1.356	0.2011	21		289.33	5
289	Acid Soluble Molybdenum (ppm)	0481	< 50		3.556	1.356	0.2011	21		289.99	5
291	Acid Soluble Nickel (ppm)	0444	5.545	0.8100	10.48	2.523	0.5305	28	-1.95	291.30	0
291	Acid Soluble Nickel (ppm)	0255	6.759	0.2250	10.48	2.523	0.5305	28	-1.47	291.99	0
291	Acid Soluble Nickel (ppm)	0476	7.097	0.9050	10.48	2.523	0.5305	28	-1.34	291.99	0
291	Acid Soluble Nickel (ppm)	0035	7.785	0.2700	10.48	2.523	0.5305	28	-1.07	291.30	0
291	Acid Soluble Nickel (ppm)	0524	7.974	0.8212	10.48	2.523	0.5305	28	-0.99	291.30	0
291	Acid Soluble Nickel (ppm)	0482	8.400	1.400	10.48	2.523	0.5305	28	-0.82	291.30	0
291	Acid Soluble Nickel (ppm)	0096	8.650	0.1000	10.48	2.523	0.5305	28	-0.72	291.30	0
291	Acid Soluble Nickel (ppm)	0520	8.975	0.2300	10.48	2.523	0.5305	28	-0.60	291.99	0
291	Acid Soluble Nickel (ppm)	0515	9.162	0.1360	10.48	2.523	0.5305	28	-0.52	291.34	0
291	Acid Soluble Nickel (ppm)	0136	9.260	1.020	10.48	2.523	0.5305	28	-0.48	291.33	0
291	Acid Soluble Nickel (ppm)	0515	9.574	1.012	10.48	2.523	0.5305	28	-0.36	291.33	0
291	Acid Soluble Nickel (ppm)	0394	9.725	0.2100	10.48	2.523	0.5305	28	-0.30	291.30	0
291	Acid Soluble Nickel (ppm)	0450	10.00	2.000	10.48	2.523	0.5305	28	-0.19	291.30	0
291	Acid Soluble Nickel (ppm)	0419	10.20	0.1000	10.48	2.523	0.5305	28	-0.11	291.32	0
291	Acid Soluble Nickel (ppm)	0389	10.69	0.4800	10.48	2.523	0.5305	28	0.08	291.30	0
291	Acid Soluble Nickel (ppm)	0550	11.09	0.2800	10.48	2.523	0.5305	28	0.24	291.00	0
291	Acid Soluble Nickel (ppm)	0368	11.10	2.000	10.48	2.523	0.5305	28	0.25	291.34	0
291	Acid Soluble Nickel (ppm)	0481	11.20	0.0000	10.48	2.523	0.5305	28	0.29	291.99	0
291	Acid Soluble Nickel (ppm)	0220	12.00	0.2000	10.48	2.523	0.5305	28	0.60	291.33	0
291	Acid Soluble Nickel (ppm)	0561	12.20	0.2000	10.48	2.523	0.5305	28	0.68	291.30	0
291	Acid Soluble Nickel (ppm)	0037	12.46	0.0530	10.48	2.523	0.5305	28	0.78	291.33	0
291	Acid Soluble Nickel (ppm)	0009	12.50	1.000	10.48	2.523	0.5305	28	0.80	291.33	0
291	Acid Soluble Nickel (ppm)	0405	12.50	0.0000	10.48	2.523	0.5305	28	0.80	291.99	0
291	Acid Soluble Nickel (ppm)	0527	12.66	0.2446	10.48	2.523	0.5305	28	0.87	291.33	0
291	Acid Soluble Nickel (ppm)	0009	13.00	0.0000	10.48	2.523	0.5305	28	1.00	291.99	0
291	Acid Soluble Nickel (ppm)	0501	13.18	0.2300	10.48	2.523	0.5305	28	1.07	291.34	0
291	Acid Soluble Nickel (ppm)	0498	14.55	0.5000	10.48	2.523	0.5305	28	1.61	291.00	0
291	Acid Soluble Nickel (ppm)	0494	15.73	0.4264	10.48	2.523	0.5305	28	2.08	291.33	0
291	Acid Soluble Nickel (ppm)	0117	10.67	4.211	10.48	2.523	0.5305	28	0.07	291.33	1
291	Acid Soluble Nickel (ppm)	0555	< 0.5		10.48	2.523	0.5305	28		291.30	5
301	Acid Soluble Selenium (ppm)	0550	0.9767	0.1026	29.05	17.46	1.200	17	-1.61	301.00	0
301	Acid Soluble Selenium (ppm)	0520	4.035	0.7900	29.05	17.46	1.200	17	-1.43	301.99	0
301	Acid Soluble Selenium (ppm)	0220	17.90	0.2000	29.05	17.46	1.200	17	-0.64	301.33	0
301	Acid Soluble Selenium (ppm)	0524	18.77	1.300	29.05	17.46	1.200	17	-0.59	301.30	0
301	Acid Soluble Selenium (ppm)	0515	21.16	1.156	29.05	17.46	1.200	17	-0.45	301.34	0
301	Acid Soluble Selenium (ppm)	0515	21.29	2.101	29.05	17.46	1.200	17	-0.44	301.33	0
301	Acid Soluble Selenium (ppm)	0523	23.45	0.0400	29.05	17.46	1.200	17	-0.32	301.30	0
301	Acid Soluble Selenium (ppm)	0117	26.16	0.5660	29.05	17.46	1.200	17	-0.17	301.33	0
301	Acid Soluble Selenium (ppm)	0481	27.10	0.4000	29.05	17.46	1.200	17	-0.11	301.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
301	Acid Soluble Selenium (ppm)	0405	28.50	1.000	29.05	17.46	1.200	17	-0.03	301.99	0
301	Acid Soluble Selenium (ppm)	0037	28.66	1.185	29.05	17.46	1.200	17	-0.02	301.33	0
301	Acid Soluble Selenium (ppm)	0233	29.04	1.630	29.05	17.46	1.200	17	0.00	301.33	0
301	Acid Soluble Selenium (ppm)	0527	42.92	0.0761	29.05	17.46	1.200	17	0.79	301.33	0
301	Acid Soluble Selenium (ppm)	0501	46.01	2.780	29.05	17.46	1.200	17	0.97	301.30	0
301	Acid Soluble Selenium (ppm)	0009	48.00	2.000	29.05	17.46	1.200	17	1.09	301.99	0
301	Acid Soluble Selenium (ppm)	0476	52.69	0.1240	29.05	17.46	1.200	17	1.35	301.99	0
301	Acid Soluble Selenium (ppm)	0255	60.77	4.952	29.05	17.46	1.200	17	1.82	301.99	0
301	Acid Soluble Selenium (ppm)	0368	76.30	28.80	29.05	17.46	1.200	17	2.71	301.34	1
301	Acid Soluble Selenium (ppm)	0526	< 0.23		29.05	17.46	1.200	17		301.00	5
301	Acid Soluble Selenium (ppm)	0555	< 0.5		29.05	17.46	1.200	17		301.30	5
311	Sodium (%)	0035	0.5000	0.0020	0.5320	0.0204	0.0075	10	-1.46	311.33	0
311	Sodium (%)	0423	0.5120	0.0120	0.5320	0.0204	0.0075	10	-0.91	311.33	0
311	Sodium (%)	0494	0.5161	0.0170	0.5320	0.0204	0.0075	10	-0.72	311.33	0
311	Sodium (%)	0527	0.5262	0.0200	0.5320	0.0204	0.0075	10	-0.26	311.33	0
311	Sodium (%)	0009	0.5300	0.0000	0.5320	0.0204	0.0075	10	-0.09	311.33	0
311	Sodium (%)	0521	0.5368	0.0000	0.5320	0.0204	0.0075	10	0.22	311.32	0
311	Sodium (%)	0482	0.5450	0.0100	0.5320	0.0204	0.0075	10	0.59	311.99	0
311	Sodium (%)	0546	0.5475	0.0035	0.5320	0.0204	0.0075	10	0.70	311.33	0
311	Sodium (%)	0354	0.5500	0.0000	0.5320	0.0204	0.0075	10	0.82	311.99	0
311	Sodium (%)	0096	0.5550	0.0100	0.5320	0.0204	0.0075	10	1.05	311.99	0
311	Sodium (%)	0136	0.5150	0.1100	0.5320	0.0204	0.0075	10	-0.78	311.33	1
321	Acid Soluble Zinc (%)	0027	0.0040	0.0000	0.0179	0.0037	0.0017	40	-3.74	321.99	0
321	Acid Soluble Zinc (%)	0255	0.0060	0.0000	0.0179	0.0037	0.0017	40	-3.20	321.30	0
321	Acid Soluble Zinc (%)	0523	0.0115	0.0030	0.0179	0.0037	0.0017	40	-1.72	321.99	0
321	Acid Soluble Zinc (%)	0501	0.0128	0.0200	0.0179	0.0037	0.0017	40	-1.37	321.99	0
321	Acid Soluble Zinc (%)	0106	0.0132	0.0002	0.0179	0.0037	0.0017	40	-1.26	321.33	0
321	Acid Soluble Zinc (%)	0136	0.0140	0.0020	0.0179	0.0037	0.0017	40	-1.05	321.33	0
321	Acid Soluble Zinc (%)	0444	0.0140	0.0000	0.0179	0.0037	0.0017	40	-1.05	321.30	0
321	Acid Soluble Zinc (%)	0476	0.0148	0.0004	0.0179	0.0037	0.0017	40	-0.83	321.99	0
321	Acid Soluble Zinc (%)	0450	0.0153	0.0055	0.0179	0.0037	0.0017	40	-0.71	321.30	0
321	Acid Soluble Zinc (%)	0035	0.0155	0.0010	0.0179	0.0037	0.0017	40	-0.64	321.30	0
321	Acid Soluble Zinc (%)	0117	0.0160	0.0017	0.0179	0.0037	0.0017	40	-0.52	321.33	0
321	Acid Soluble Zinc (%)	0546	0.0162	0.0001	0.0179	0.0037	0.0017	40	-0.47	321.33	0
321	Acid Soluble Zinc (%)	0515	0.0163	0.0042	0.0179	0.0037	0.0017	40	-0.43	321.33	0
321	Acid Soluble Zinc (%)	0527	0.0169	0.0003	0.0179	0.0037	0.0017	40	-0.28	321.33	0
321	Acid Soluble Zinc (%)	0009	0.0170	0.0000	0.0179	0.0037	0.0017	40	-0.24	321.33	0
321	Acid Soluble Zinc (%)	0043	0.0170	0.0000	0.0179	0.0037	0.0017	40	-0.24	321.33	0
321	Acid Soluble Zinc (%)	0105	0.0171	0.0003	0.0179	0.0037	0.0017	40	-0.23	321.03	0
321	Acid Soluble Zinc (%)	0515	0.0175	0.0011	0.0179	0.0037	0.0017	40	-0.12	321.99	0
321	Acid Soluble Zinc (%)	0531	0.0175	0.0014	0.0179	0.0037	0.0017	40	-0.11	321.00	0
321	Acid Soluble Zinc (%)	0423	0.0175	0.0010	0.0179	0.0037	0.0017	40	-0.11	321.32	0
321	Acid Soluble Zinc (%)	0389	0.0175	0.0010	0.0179	0.0037	0.0017	40	-0.11	321.99	0
321	Acid Soluble Zinc (%)	0220	0.0179	0.0002	0.0179	0.0037	0.0017	40	0.00	321.33	0
321	Acid Soluble Zinc (%)	0481	0.0180	0.0000	0.0179	0.0037	0.0017	40	0.03	321.99	0
321	Acid Soluble Zinc (%)	0483	0.0187	0.0018	0.0179	0.0037	0.0017	40	0.22	321.30	0
321	Acid Soluble Zinc (%)	0535	0.0189	0.0003	0.0179	0.0037	0.0017	40	0.26	321.00	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				
321	Acid Soluble Zinc (%)	0037	0.0191	0.0007	0.0179	0.0037	0.0017	40	0.31	321.33	0
321	Acid Soluble Zinc (%)	0394	0.0194	0.0003	0.0179	0.0037	0.0017	40	0.39	321.32	0
321	Acid Soluble Zinc (%)	0324	0.0198	0.0020	0.0179	0.0037	0.0017	40	0.51	321.30	0
321	Acid Soluble Zinc (%)	0494	0.0199	0.0011	0.0179	0.0037	0.0017	40	0.53	321.33	0
321	Acid Soluble Zinc (%)	0498	0.0200	0.0000	0.0179	0.0037	0.0017	40	0.57	321.02	0
321	Acid Soluble Zinc (%)	0472	0.0200	0.0000	0.0179	0.0037	0.0017	40	0.57	321.30	0
321	Acid Soluble Zinc (%)	0524	0.0205	0.0003	0.0179	0.0037	0.0017	40	0.69	321.99	0
321	Acid Soluble Zinc (%)	0233	0.0213	0.0003	0.0179	0.0037	0.0017	40	0.90	321.33	0
321	Acid Soluble Zinc (%)	0550	0.0219	0.0029	0.0179	0.0037	0.0017	40	1.06	321.00	0
321	Acid Soluble Zinc (%)	0041	0.0220	0.0080	0.0179	0.0037	0.0017	40	1.10	321.30	0
321	Acid Soluble Zinc (%)	0096	0.0227	0.0007	0.0179	0.0037	0.0017	40	1.28	321.30	0
321	Acid Soluble Zinc (%)	0095	0.0229	0.0027	0.0179	0.0037	0.0017	40	1.33	321.32	0
321	Acid Soluble Zinc (%)	0553	0.0255	0.0030	0.0179	0.0037	0.0017	40	2.05	321.00	0
321	Acid Soluble Zinc (%)	0402	0.0258	0.0005	0.0179	0.0037	0.0017	40	2.11	321.30	0
321	Acid Soluble Zinc (%)	0482	0.0300	0.0000	0.0179	0.0037	0.0017	40	3.26	321.30	0
321	Acid Soluble Zinc (%)	0368	173.5	19.00	0.0179	0.0037	0.0017	40	46660.64	321.99	2
321	Acid Soluble Zinc (%)	0552	0.0000	0.0000	0.0179	0.0037	0.0017	40		321.30	4
321	Acid Soluble Zinc (%)	0354	< 0.01		0.0179	0.0037	0.0017	40		321.30	5
321	Acid Soluble Zinc (%)	0405	< 1		0.0179	0.0037	0.0017	40		321.99	5
325	Water Soluble Zinc (%)	0027	< 0.005					0		325.00	5
325	Water Soluble Zinc (%)	0555	< 0.5					0		325.30	5

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier, 3 = removed from stats, 4 = rejected due to 0s submitted and 5 = LOD. A 9 flag indicates a data problem - scores not calculated. Robust statistics not used if < 6 labs used in calculations, in this case the Z Scores are grey and included for information only. Your offset values are higher (‡) or lower (†) than the Robust Analyte value ± Investigational Allowance. Analyte codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely for the purpose of this Proficiency Testing program.