

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 191111

Turf fertilizer w/Si

### Statistical Summary

# Analytes: 30

# Labs Reporting: 70

Issue Date : 12/31/2019

Analyte Code	Analyte Sample # 191111	# 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 (%)	1		0.0838									
010	Total Nitrogen (%)	6	6	0.1148	0.0350	0.1188	0.4900	0.0300	0.0153	25.27%	0.14	0.0262	5.51%
020	Total Phosphorus as P2O5 (%)	7	5	0.0408	0.0175	0.0408		0.0175	0.0098	42.85%		0.0047	6.47%
030	Citrate Insoluble Phosphorus as P2O5 (%)	1		0.0950									
041	Direct Available Phosphorus as P2O5 (%)	3	2	0.0923	0.0605	0.0923	0.6700	0.0605	0.0534	65.54%	0.21	0.0295	5.73%
050	Soluble Potassium as K2O (%)	11	9	0.4793	0.1563	0.4812	0.4100	0.1176	0.0490	24.45%	0.67	0.0353	4.47%
060	Water (Free) (%)	2	2	2.021	0.4727								
101	Acid Soluble Calcium (24%)	60	59	24.40	1.200	24.41	1.0000	1.122	0.1825	4.59%	2.61	0.3932	2.47%
121	Acid Soluble Magnesium (5%)	62	61	4.994	0.3632	5.027	0.4514	0.2960	0.0474	5.89%	1.53	0.1564	3.14%
131	Water Soluble Magnesium (%)	5	5	1.997	2.693	1.997		2.693	1.505	134.87%		0.0925	3.60%
143	Elemental Sulfur (%)	2	2	4.090	0.5869								
148	Total Sulfur (%)	10	10	4.116	0.4940	4.159	0.4080	0.4229	0.1672	10.17%	2.42	0.1259	3.23%
149	Sulfur - HNO3 soluble (%)	2	2	3.434	0.4539								
151	Acid Soluble Arsenic (ppm)	16	10	1.279	0.4607	1.243		0.4353	0.1721	35.01%		0.3874	15.48%
165	Acid Soluble Boron (%)	12	11	0.0112	0.0063	0.0107	0.0046	0.0057	0.0021	53.06%	2.87	0.0014	7.92%
181	Acid Soluble Cadmium (ppm)	17	6	0.5305	0.9897	0.1739		0.1544	0.0788	88.74%		0.0453	20.81%
191	Acid Soluble Chromium (ppm)	16	16	1,877	934.0	1,774		810.9	253.4	45.72%		233.8	5.19%
202	Acid Soluble Cobalt (ppm)	18	17	45.80	11.77	46.37	14.9114	12.07	3.660	26.04%	1.89	3.208	8.98%
221	Acid Soluble Copper (%)	41	38	0.0173	0.0296	0.0076	0.0058	0.0063	0.0013	81.87%	2.53	0.0026	8.33%
241	Acid Soluble Iron (%)	58	58	3.665	0.3897	3.703	0.3753	0.3324	0.0546	8.98%	2.06	0.1227	3.28%
251	Acid Soluble Lead (ppm)	16	11	4.140	5.664	2.740		1.833	0.6908	66.90%		0.2935	13.75%
261	Acid Soluble Manganese (%)	54	53	0.6040	0.0560	0.6020	0.0652	0.0370	0.0064	6.15%	1.32	0.0193	4.32%
281	Acid Soluble Mercury (ppm)	9	5	0.0771	0.0997	0.0771		0.0997	0.0557	129.31%		0.0054	23.53%
289	Acid Soluble Molybdenum (30ppm)	30	29	50.71	19.62	52.36	16.7070	17.15	3.981	32.76%	2.39	4.210	8.82%
291	Acid Soluble Nickel (ppm)	19	18	272.8	72.80	276.7		73.55	21.67	26.58%		26.42	6.86%
301	Acid Soluble Selenium (ppm)	11	8	6.336	2.545	6.343		2.675	1.182	42.17%		0.4561	12.11%
311	Sodium (%)	9	8	1.113	0.0626	1.108	0.1158	0.0573	0.0253	5.17%	1.15	0.0174	3.94%
321	Acid Soluble Zinc (%)	34	30	0.0076	0.0149	0.0036	0.0054	0.0026	0.0006	71.03%	1.11	0.0014	9.33%
325	Water Soluble Zinc (%)	1		0.0100									
431	Soluble Si in nonliquids (1.9%)	1		7.350									

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.

Horwitz %RSD	
Average Range (R-bar)	
Analyte IA Ratio	
Robust % RSD	
Robust Uncertainty (U)	
Robust sd	
IA at Analyte Value	
Assigned Value Robust Mean	
Raw SD	
Raw Mean	
# Tests in Robust Calculations	
# Tests Submitted	
Analyte Sample # 191111	
Analyte Code	

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### Lab Values

# Analytes: 30

# Labs Reporting: 70

Issue Date : 12/31/2019

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 (%)	0524	0.0838	0.0109				1		001.99	0
010	Total Nitrogen (%)	0472	0.0500	0.0000	0.1188	0.0300	0.0262	6	-2.04	010.60	0
010	Total Nitrogen (%)	0516	0.1150	0.0500	0.1188	0.0300	0.0262	6	-0.11	010.60	0
010	Total Nitrogen (%)	0354	0.1180	0.0300	0.1188	0.0300	0.0262	6	-0.02	010.60	0
010	Total Nitrogen (%)	0325	0.1200	0.0000	0.1188	0.0300	0.0262	6	0.04	010.60	0
010	Total Nitrogen (%)	0524	0.1311	0.0073	0.1188	0.0300	0.0262	6	0.36	010.99	0
010	Total Nitrogen (%)	0482	0.1550	0.0700	0.1188	0.0300	0.0262	6	1.07	010.60	0
020	Total Phosphorus as P2O5 (%)	0524	0.0227	0.0008	0.0408	0.0175	0.0047	5	-0.90	020.50	0
020	Total Phosphorus as P2O5 (%)	0515	0.0281	0.0022	0.0408	0.0175	0.0047	5	-0.63	020.99	0
020	Total Phosphorus as P2O5 (%)	0527	0.0372	0.0007	0.0408	0.0175	0.0047	5	-0.18	020.50	0
020	Total Phosphorus as P2O5 (%)	0389	0.0500	0.0000	0.0408	0.0175	0.0047	5	0.46	020.50	0
020	Total Phosphorus as P2O5 (%)	0546	0.0660	0.0200	0.0408	0.0175	0.0047	5	1.26	020.50	0
020	Total Phosphorus as P2O5 (%)	0516	0.3400	0.3400	0.0408	0.0175	0.0047	5	14.94	020.50	1
020	Total Phosphorus as P2O5 (%)	0552	0.0000	0.0000	0.0408	0.0175	0.0047	5		020.50	4
030	Citrate Insoluble Phosphorus as P2O5 (%)	0450	0.0950	0.1300				1		030.20	0
041	Direct Available Phosphorus as P2O5 (%)	0354	0.0495	0.0090				2		041.21	0
041	Direct Available Phosphorus as P2O5 (%)	0009	0.1350	0.0500				2		041.10	0
041	Direct Available Phosphorus as P2O5 (%)	0325	< 0.1					2		041.50	5
050	Soluble Potassium as K2O (%)	0472	0.1800	0.0000	0.4812	0.1176	0.0353	9	-2.36	050.31	0
050	Soluble Potassium as K2O (%)	0423	0.3925	0.0030	0.4812	0.1176	0.0353	9	-0.70	050.52	0
050	Soluble Potassium as K2O (%)	0354	0.4145	0.0370	0.4812	0.1176	0.0353	9	-0.52	050.52	0
050	Soluble Potassium as K2O (%)	0524	0.4787	0.1354	0.4812	0.1176	0.0353	9	-0.02	050.99	0
050	Soluble Potassium as K2O (%)	0546	0.4825	0.0130	0.4812	0.1176	0.0353	9	0.01	050.99	0
050	Soluble Potassium as K2O (%)	0482	0.4850	0.0100	0.4812	0.1176	0.0353	9	0.03	050.99	0
050	Soluble Potassium as K2O (%)	0527	0.5453	0.0091	0.4812	0.1176	0.0353	9	0.50	050.99	0
050	Soluble Potassium as K2O (%)	0389	0.5700	0.0000	0.4812	0.1176	0.0353	9	0.70	050.99	0
050	Soluble Potassium as K2O (%)	0516	0.7650	0.1100	0.4812	0.1176	0.0353	9	2.23	050.99	0
050	Soluble Potassium as K2O (%)	0552	0.0000	0.0000	0.4812	0.1176	0.0353	9		050.99	4
050	Soluble Potassium as K2O (%)	0325	< 0.1		0.4812	0.1176	0.0353	9		050.99	5
060	Water (Free) (%)	0510	1.687	0.0380				2		060.99	0
060	Water (Free) (%)	0513	2.355	0.0500				2		060.00	0
101	Acid Soluble Calcium (24%)	0510	20.41†	0.0900	24.41	1.122	0.3932	59	-3.56	101.70	0
101	Acid Soluble Calcium (24%)	0516	22.40†	0.6000	24.41	1.122	0.3932	59	-1.79	101.99	0
101	Acid Soluble Calcium (24%)	0513	22.41†	0.0300	24.41	1.122	0.3932	59	-1.79	101.00	0
101	Acid Soluble Calcium (24%)	0177	22.57†	0.1056	24.41	1.122	0.3932	59	-1.64	101.33	0
101	Acid Soluble Calcium (24%)	0095	22.74†	0.1300	24.41	1.122	0.3932	59	-1.49	101.32	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 (24%)	0493	22.95†	0.3000	24.41	1.122	0.3932	59	-1.30	101.30	0
101	Acid Soluble Calcium (24%)	0405	23.05†	0.3000	24.41	1.122	0.3932	59	-1.21	101.99	0
101	Acid Soluble Calcium (24%)	0472	23.15†	1.100	24.41	1.122	0.3932	59	-1.12	101.30	0
101	Acid Soluble Calcium (24%)	0476	23.23†	0.1100	24.41	1.122	0.3932	59	-1.05	101.70	0
101	Acid Soluble Calcium (24%)	0521	23.29†	0.0000	24.41	1.122	0.3932	59	-1.00	101.32	0
101	Acid Soluble Calcium (24%)	0292	23.32†	0.0700	24.41	1.122	0.3932	59	-0.97	101.33	0
101	Acid Soluble Calcium (24%)	0234	23.55	0.9000	24.41	1.122	0.3932	59	-0.77	101.30	0
101	Acid Soluble Calcium (24%)	0025	23.55	0.1000	24.41	1.122	0.3932	59	-0.77	101.33	0
101	Acid Soluble Calcium (24%)	0451	23.59	0.5700	24.41	1.122	0.3932	59	-0.73	101.30	0
101	Acid Soluble Calcium (24%)	0055	23.74	0.0900	24.41	1.122	0.3932	59	-0.60	101.33	0
101	Acid Soluble Calcium (24%)	0538	23.75	0.5000	24.41	1.122	0.3932	59	-0.59	101.00	0
101	Acid Soluble Calcium (24%)	0444	23.75	0.4600	24.41	1.122	0.3932	59	-0.59	101.30	0
101	Acid Soluble Calcium (24%)	0117	23.86	1.094	24.41	1.122	0.3932	59	-0.49	101.33	0
101	Acid Soluble Calcium (24%)	0040	23.90	0.0900	24.41	1.122	0.3932	59	-0.46	101.33	0
101	Acid Soluble Calcium (24%)	0043	23.90	0.3200	24.41	1.122	0.3932	59	-0.45	101.33	0
101	Acid Soluble Calcium (24%)	0023	23.95	0.1000	24.41	1.122	0.3932	59	-0.41	101.30	0
101	Acid Soluble Calcium (24%)	0009	24.00	0.0000	24.41	1.122	0.3932	59	-0.36	101.33	0
101	Acid Soluble Calcium (24%)	0231	24.01	0.1700	24.41	1.122	0.3932	59	-0.36	101.30	0
101	Acid Soluble Calcium (24%)	0354	24.10	0.2000	24.41	1.122	0.3932	59	-0.28	101.30	0
101	Acid Soluble Calcium (24%)	0501	24.23	0.2490	24.41	1.122	0.3932	59	-0.16	101.99	0
101	Acid Soluble Calcium (24%)	0106	24.37	0.5346	24.41	1.122	0.3932	59	-0.04	101.33	0
101	Acid Soluble Calcium (24%)	0561	24.49	0.2100	24.41	1.122	0.3932	59	0.07	101.99	0
101	Acid Soluble Calcium (24%)	0558	24.50	0.2000	24.41	1.122	0.3932	59	0.08	101.99	0
101	Acid Soluble Calcium (24%)	0423	24.51	0.0600	24.41	1.122	0.3932	59	0.09	101.32	0
101	Acid Soluble Calcium (24%)	0368	24.52	0.0339	24.41	1.122	0.3932	59	0.10	101.99	0
101	Acid Soluble Calcium (24%)	0550	24.54	0.2100	24.41	1.122	0.3932	59	0.11	101.00	0
101	Acid Soluble Calcium (24%)	0544	24.56	0.0900	24.41	1.122	0.3932	59	0.13	101.70	0
101	Acid Soluble Calcium (24%)	0073	24.60	0.3700	24.41	1.122	0.3932	59	0.17	101.30	0
101	Acid Soluble Calcium (24%)	0035	24.60	0.8000	24.41	1.122	0.3932	59	0.17	101.30	0
101	Acid Soluble Calcium (24%)	0389	24.62	0.2400	24.41	1.122	0.3932	59	0.19	101.99	0
101	Acid Soluble Calcium (24%)	0377	24.66	0.0200	24.41	1.122	0.3932	59	0.22	101.30	0
101	Acid Soluble Calcium (24%)	0102	24.69	0.0300	24.41	1.122	0.3932	59	0.25	101.30	0
101	Acid Soluble Calcium (24%)	0534	24.72	0.3000	24.41	1.122	0.3932	59	0.28	101.00	0
101	Acid Soluble Calcium (24%)	0482	24.75	0.1000	24.41	1.122	0.3932	59	0.30	101.30	0
101	Acid Soluble Calcium (24%)	0096	24.78	0.0200	24.41	1.122	0.3932	59	0.33	101.30	0
101	Acid Soluble Calcium (24%)	0037	24.83	0.9750	24.41	1.122	0.3932	59	0.38	101.33	0
101	Acid Soluble Calcium (24%)	0527	24.84	0.6311	24.41	1.122	0.3932	59	0.38	101.33	0
101	Acid Soluble Calcium (24%)	0360	24.91	0.2100	24.41	1.122	0.3932	59	0.44	101.30	0
101	Acid Soluble Calcium (24%)	0231	24.95	0.1000	24.41	1.122	0.3932	59	0.48	101.99	0
101	Acid Soluble Calcium (24%)	0520	24.95	0.3000	24.41	1.122	0.3932	59	0.48	101.99	0
101	Acid Soluble Calcium (24%)	0034	25.01	0.0200	24.41	1.122	0.3932	59	0.54	101.33	0
101	Acid Soluble Calcium (24%)	0371	25.30	0.2000	24.41	1.122	0.3932	59	0.79	101.30	0
101	Acid Soluble Calcium (24%)	0486	25.41‡	0.3800	24.41	1.122	0.3932	59	0.89	101.33	0
101	Acid Soluble Calcium (24%)	0027	25.43‡	0.3200	24.41	1.122	0.3932	59	0.91	101.99	0
101	Acid Soluble Calcium (24%)	0552	25.43‡	2.120	24.41	1.122	0.3932	59	0.91	101.99	0
101	Acid Soluble Calcium (24%)	0390	25.65‡	2.700	24.41	1.122	0.3932	59	1.11	101.99	0
101	Acid Soluble Calcium (24%)	0546	25.67‡	0.5184	24.41	1.122	0.3932	59	1.13	101.03	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				
101	Acid Soluble Calcium (24%)	0553	25.85‡	0.3000	24.41	1.122	0.3932	59	1.29	101.00	0
101	Acid Soluble Calcium (24%)	0452	26.07‡	0.1100	24.41	1.122	0.3932	59	1.48	101.30	0
101	Acid Soluble Calcium (24%)	0433	26.29‡	0.0100	24.41	1.122	0.3932	59	1.67	101.30	0
101	Acid Soluble Calcium (24%)	0049	26.35‡	2.700	24.41	1.122	0.3932	59	1.73	101.30	0
101	Acid Soluble Calcium (24%)	0325	26.35‡	0.3000	24.41	1.122	0.3932	59	1.73	101.30	0
101	Acid Soluble Calcium (24%)	0555	26.75‡	0.3000	24.41	1.122	0.3932	59	2.09	101.30	0
101	Acid Soluble Calcium (24%)	0255	27.29‡	0.1050	24.41	1.122	0.3932	59	2.57	101.30	0
101	Acid Soluble Calcium (24%)	0543	29.87‡	9.620	24.41	1.122	0.3932	59	4.87	101.33	1
121	Acid Soluble Magnesium (5%)	0524	3.371†	0.5731	5.027	0.2960	0.1564	61	-5.60	121.99	0
121	Acid Soluble Magnesium (5%)	0515	4.297†	0.3236	5.027	0.2960	0.1564	61	-2.47	121.99	0
121	Acid Soluble Magnesium (5%)	0389	4.395†	0.0300	5.027	0.2960	0.1564	61	-2.14	121.99	0
121	Acid Soluble Magnesium (5%)	0476	4.409†	0.0728	5.027	0.2960	0.1564	61	-2.09	121.70	0
121	Acid Soluble Magnesium (5%)	0485	4.416†	0.2150	5.027	0.2960	0.1564	61	-2.07	121.00	0
121	Acid Soluble Magnesium (5%)	0043	4.450†	0.1400	5.027	0.2960	0.1564	61	-1.95	121.33	0
121	Acid Soluble Magnesium (5%)	0433	4.524†	0.0100	5.027	0.2960	0.1564	61	-1.70	121.30	0
121	Acid Soluble Magnesium (5%)	0102	4.595	0.1900	5.027	0.2960	0.1564	61	-1.46	121.30	0
121	Acid Soluble Magnesium (5%)	0550	4.715	0.0900	5.027	0.2960	0.1564	61	-1.05	121.00	0
121	Acid Soluble Magnesium (5%)	0405	4.730	0.1600	5.027	0.2960	0.1564	61	-1.00	121.99	0
121	Acid Soluble Magnesium (5%)	0037	4.744	0.0380	5.027	0.2960	0.1564	61	-0.96	121.33	0
121	Acid Soluble Magnesium (5%)	0543	4.765	0.2100	5.027	0.2960	0.1564	61	-0.89	121.33	0
121	Acid Soluble Magnesium (5%)	0515	4.776	0.5005	5.027	0.2960	0.1564	61	-0.85	121.33	0
121	Acid Soluble Magnesium (5%)	0023	4.800	0.4000	5.027	0.2960	0.1564	61	-0.77	121.30	0
121	Acid Soluble Magnesium (5%)	0516	4.800	0.0000	5.027	0.2960	0.1564	61	-0.77	121.99	0
121	Acid Soluble Magnesium (5%)	0292	4.815	0.0100	5.027	0.2960	0.1564	61	-0.72	121.32	0
121	Acid Soluble Magnesium (5%)	0055	4.880	0.1200	5.027	0.2960	0.1564	61	-0.50	121.33	0
121	Acid Soluble Magnesium (5%)	0106	4.883	0.2365	5.027	0.2960	0.1564	61	-0.49	121.33	0
121	Acid Soluble Magnesium (5%)	0451	4.890	0.0400	5.027	0.2960	0.1564	61	-0.46	121.30	0
121	Acid Soluble Magnesium (5%)	0444	4.895	0.1700	5.027	0.2960	0.1564	61	-0.45	121.30	0
121	Acid Soluble Magnesium (5%)	0009	4.900	0.0000	5.027	0.2960	0.1564	61	-0.43	121.33	0
121	Acid Soluble Magnesium (5%)	0073	4.930	0.0600	5.027	0.2960	0.1564	61	-0.33	121.30	0
121	Acid Soluble Magnesium (5%)	0482	4.960	0.0000	5.027	0.2960	0.1564	61	-0.23	121.30	0
121	Acid Soluble Magnesium (5%)	0231	4.970	0.0200	5.027	0.2960	0.1564	61	-0.19	121.30	0
121	Acid Soluble Magnesium (5%)	0390	4.990	0.7600	5.027	0.2960	0.1564	61	-0.13	121.30	0
121	Acid Soluble Magnesium (5%)	0501	5.020	0.0000	5.027	0.2960	0.1564	61	-0.02	121.99	0
121	Acid Soluble Magnesium (5%)	0025	5.025	0.0700	5.027	0.2960	0.1564	61	-0.01	121.33	0
121	Acid Soluble Magnesium (5%)	0040	5.055	0.0100	5.027	0.2960	0.1564	61	0.09	121.00	0
121	Acid Soluble Magnesium (5%)	0368	5.056	0.1417	5.027	0.2960	0.1564	61	0.10	121.99	0
121	Acid Soluble Magnesium (5%)	0117	5.071	0.2939	5.027	0.2960	0.1564	61	0.15	121.33	0
121	Acid Soluble Magnesium (5%)	0177	5.074	0.0118	5.027	0.2960	0.1564	61	0.16	121.33	0
121	Acid Soluble Magnesium (5%)	0493	5.075	0.0500	5.027	0.2960	0.1564	61	0.16	121.30	0
121	Acid Soluble Magnesium (5%)	0255	5.083	0.2390	5.027	0.2960	0.1564	61	0.19	121.30	0
121	Acid Soluble Magnesium (5%)	0377	5.085	0.0700	5.027	0.2960	0.1564	61	0.20	121.30	0
121	Acid Soluble Magnesium (5%)	0096	5.100	0.0400	5.027	0.2960	0.1564	61	0.25	121.30	0
121	Acid Soluble Magnesium (5%)	0552	5.125	0.3700	5.027	0.2960	0.1564	61	0.33	121.99	0
121	Acid Soluble Magnesium (5%)	0354	5.140	0.0000	5.027	0.2960	0.1564	61	0.38	121.30	0
121	Acid Soluble Magnesium (5%)	0027	5.144	0.3620	5.027	0.2960	0.1564	61	0.40	121.99	0
121	Acid Soluble Magnesium (5%)	0423	5.145	0.0300	5.027	0.2960	0.1564	61	0.40	121.32	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 (5%)	0234	5.150	0.1000	5.027	0.2960	0.1564	61	0.42	121.30	0
121	Acid Soluble Magnesium (5%)	0325	5.150	0.3000	5.027	0.2960	0.1564	61	0.42	121.30	0
121	Acid Soluble Magnesium (5%)	0049	5.160	0.4800	5.027	0.2960	0.1564	61	0.45	121.30	0
121	Acid Soluble Magnesium (5%)	0558	5.160	0.1200	5.027	0.2960	0.1564	61	0.45	121.99	0
121	Acid Soluble Magnesium (5%)	0360	5.165	0.0300	5.027	0.2960	0.1564	61	0.47	121.30	0
121	Acid Soluble Magnesium (5%)	0034	5.169	0.0500	5.027	0.2960	0.1564	61	0.48	121.33	0
121	Acid Soluble Magnesium (5%)	0546	5.188	0.1017	5.027	0.2960	0.1564	61	0.55	121.03	0
121	Acid Soluble Magnesium (5%)	0553	5.195	0.4100	5.027	0.2960	0.1564	61	0.57	121.00	0
121	Acid Soluble Magnesium (5%)	0095	5.210	0.0600	5.027	0.2960	0.1564	61	0.62	121.32	0
121	Acid Soluble Magnesium (5%)	0534	5.230	0.1600	5.027	0.2960	0.1564	61	0.69	121.00	0
121	Acid Soluble Magnesium (5%)	0521	5.230	0.0000	5.027	0.2960	0.1564	61	0.69	121.32	0
121	Acid Soluble Magnesium (5%)	0371	5.240	0.0800	5.027	0.2960	0.1564	61	0.72	121.30	0
121	Acid Soluble Magnesium (5%)	0513	5.335	0.0100	5.027	0.2960	0.1564	61	1.04	121.00	0
121	Acid Soluble Magnesium (5%)	0452	5.360	0.1600	5.027	0.2960	0.1564	61	1.13	121.30	0
121	Acid Soluble Magnesium (5%)	0527	5.376	0.1480	5.027	0.2960	0.1564	61	1.18	121.33	0
121	Acid Soluble Magnesium (5%)	0231	5.400	0.2000	5.027	0.2960	0.1564	61	1.26	121.99	0
121	Acid Soluble Magnesium (5%)	0450	5.400	0.1000	5.027	0.2960	0.1564	61	1.26	121.99	0
121	Acid Soluble Magnesium (5%)	0486	5.410	0.0400	5.027	0.2960	0.1564	61	1.29	121.33	0
121	Acid Soluble Magnesium (5%)	0029	5.417	0.4050	5.027	0.2960	0.1564	61	1.32	121.00	0
121	Acid Soluble Magnesium (5%)	0472	5.455	0.2100	5.027	0.2960	0.1564	61	1.45	121.30	0
121	Acid Soluble Magnesium (5%)	0561	5.460	0.1200	5.027	0.2960	0.1564	61	1.46	121.33	0
121	Acid Soluble Magnesium (5%)	0520	5.700±	0.2000	5.027	0.2960	0.1564	61	2.27	121.99	0
121	Acid Soluble Magnesium (5%)	0035	4.900	0.8400	5.027	0.2960	0.1564	61	-0.43	121.30	1
131	Water Soluble Magnesium (%)	0538	0.0205	0.0010	1.997	2.693	0.0925	5	-0.73	131.00	0
131	Water Soluble Magnesium (%)	0405	0.0350	0.0000	1.997	2.693	0.0925	5	-0.73	131.99	0
131	Water Soluble Magnesium (%)	0550	0.0352	0.0096	1.997	2.693	0.0925	5	-0.73	131.00	0
131	Water Soluble Magnesium (%)	0555	4.900	0.4000	1.997	2.693	0.0925	5	1.08	131.30	0
131	Water Soluble Magnesium (%)	0510	4.993	0.0517	1.997	2.693	0.0925	5	1.11	131.70	0
143	Elemental Sulfur (%)	0472	3.675	0.1300				2		143.99	0
143	Elemental Sulfur (%)	0389	4.505	0.0900				2		143.99	0
148	Total Sulfur (%)	0542	3.027	0.0340	4.159	0.4229	0.1259	10	-2.49	148.07	0
148	Total Sulfur (%)	0450	3.840	0.2000	4.159	0.4229	0.1259	10	-0.70	148.99	0
148	Total Sulfur (%)	0516	3.900	0.4000	4.159	0.4229	0.1259	10	-0.57	148.99	0
148	Total Sulfur (%)	0354	4.070	0.0600	4.159	0.4229	0.1259	10	-0.20	148.99	0
148	Total Sulfur (%)	0521	4.094	0.0000	4.159	0.4229	0.1259	10	-0.14	148.07	0
148	Total Sulfur (%)	0096	4.145	0.0300	4.159	0.4229	0.1259	10	-0.03	148.99	0
148	Total Sulfur (%)	0546	4.247	0.1081	4.159	0.4229	0.1259	10	0.19	148.07	0
148	Total Sulfur (%)	0515	4.341	0.0261	4.159	0.4229	0.1259	10	0.40	148.07	0
148	Total Sulfur (%)	0527	4.636	0.2506	4.159	0.4229	0.1259	10	1.05	148.07	0
148	Total Sulfur (%)	0482	4.855	0.1500	4.159	0.4229	0.1259	10	1.53	148.99	0
149	Sulfur - HNO3 soluble (%)	0524	3.113	0.2452				2		149.04	0
149	Sulfur - HNO3 soluble (%)	0423	3.755	0.0900				2		149.04	0
151	Acid Soluble Arsenic (ppm)	0550	0.6115	0.0150	1.243	0.4353	0.3874	10	-1.45	151.00	0
151	Acid Soluble Arsenic (ppm)	0390	0.9105	0.0670	1.243	0.4353	0.3874	10	-0.76	151.99	0
151	Acid Soluble Arsenic (ppm)	0405	1.000	0.0000	1.243	0.4353	0.3874	10	-0.56	151.99	0
151	Acid Soluble Arsenic (ppm)	0524	1.059	0.2770	1.243	0.4353	0.3874	10	-0.42	151.30	0
151	Acid Soluble Arsenic (ppm)	0450	1.150	0.1000	1.243	0.4353	0.3874	10	-0.21	151.30	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				
151	Acid Soluble Arsenic (ppm)	0009	1.300	0.0000	1.243	0.4353	0.3874	10	0.13	151.99	0
151	Acid Soluble Arsenic (ppm)	0255	1.353	0.3480	1.243	0.4353	0.3874	10	0.25	151.30	0
151	Acid Soluble Arsenic (ppm)	0501	1.420	0.0200	1.243	0.4353	0.3874	10	0.41	151.30	0
151	Acid Soluble Arsenic (ppm)	0515	1.734	1.817	1.243	0.4353	0.3874	10	1.13	151.34	0
151	Acid Soluble Arsenic (ppm)	0368	2.255	1.230	1.243	0.4353	0.3874	10	2.32	151.34	0
151	Acid Soluble Arsenic (ppm)	0515	4.632	3.185	1.243	0.4353	0.3874	10	7.78	151.33	1
151	Acid Soluble Arsenic (ppm)	0527	< 0.0001		1.243	0.4353	0.3874	10		151.33	5
151	Acid Soluble Arsenic (ppm)	0555	< 0.5		1.243	0.4353	0.3874	10		151.30	5
151	Acid Soluble Arsenic (ppm)	0009	< 5		1.243	0.4353	0.3874	10		151.33	5
151	Acid Soluble Arsenic (ppm)	0117	< 10		1.243	0.4353	0.3874	10		151.33	5
151	Acid Soluble Arsenic (ppm)	0027	< 20		1.243	0.4353	0.3874	10		151.30	5
165	Acid Soluble Boron (%)	0106	0.0020	0.0012	0.0107	0.0057	0.0014	11	-1.53	165.30	0
165	Acid Soluble Boron (%)	0515	0.0055	0.0002	0.0107	0.0057	0.0014	11	-0.91	165.99	0
165	Acid Soluble Boron (%)	0009	0.0068	0.0001	0.0107	0.0057	0.0014	11	-0.69	165.99	0
165	Acid Soluble Boron (%)	0524	0.0092	0.0001	0.0107	0.0057	0.0014	11	-0.27	165.99	0
165	Acid Soluble Boron (%)	0423	0.0095	0.0010	0.0107	0.0057	0.0014	11	-0.21	165.99	0
165	Acid Soluble Boron (%)	0354	0.0100	0.0000	0.0107	0.0057	0.0014	11	-0.12	165.30	0
165	Acid Soluble Boron (%)	0482	0.0100	0.0000	0.0107	0.0057	0.0014	11	-0.12	165.99	0
165	Acid Soluble Boron (%)	0472	0.0150	0.0100	0.0107	0.0057	0.0014	11	0.76	165.99	0
165	Acid Soluble Boron (%)	0516	0.0150	0.0020	0.0107	0.0057	0.0014	11	0.76	165.99	0
165	Acid Soluble Boron (%)	0527	0.0152	0.0010	0.0107	0.0057	0.0014	11	0.80	165.99	0
165	Acid Soluble Boron (%)	0542	0.0253	0.0002	0.0107	0.0057	0.0014	11	2.58	165.30	0
165	Acid Soluble Boron (%)	0552	0.3850	0.0900	0.0107	0.0057	0.0014	11	66.07	165.99	2
181	Acid Soluble Cadmium (ppm)	0390	0.0627	0.0068	0.1739	0.1544	0.0453	6	-0.72	181.99	0
181	Acid Soluble Cadmium (ppm)	0501	0.0660	0.0020	0.1739	0.1544	0.0453	6	-0.70	181.30	0
181	Acid Soluble Cadmium (ppm)	0405	0.0950	0.0100	0.1739	0.1544	0.0453	6	-0.51	181.99	0
181	Acid Soluble Cadmium (ppm)	0450	0.1500	0.1000	0.1739	0.1544	0.0453	6	-0.16	181.30	0
181	Acid Soluble Cadmium (ppm)	0255	0.2645	0.0630	0.1739	0.1544	0.0453	6	0.59	181.30	0
181	Acid Soluble Cadmium (ppm)	0550	2.545	0.0900	0.1739	0.1544	0.0453	6	15.36	181.00	0
181	Acid Soluble Cadmium (ppm)	0524	0.7637	0.6005	0.1739	0.1544	0.0453	6	3.82	181.30	1
181	Acid Soluble Cadmium (ppm)	0515	0.0000	0.0000	0.1739	0.1544	0.0453	6		181.33	4
181	Acid Soluble Cadmium (ppm)	0515	0.0000	0.0000	0.1739	0.1544	0.0453	6		181.34	4
181	Acid Soluble Cadmium (ppm)	0527	< 0.0001		0.1739	0.1544	0.0453	6		181.33	5
181	Acid Soluble Cadmium (ppm)	0389	< 0.05		0.1739	0.1544	0.0453	6		181.30	5
181	Acid Soluble Cadmium (ppm)	0009	< 0.05		0.1739	0.1544	0.0453	6		181.99	5
181	Acid Soluble Cadmium (ppm)	0368	< 0.1		0.1739	0.1544	0.0453	6		181.34	5
181	Acid Soluble Cadmium (ppm)	0555	< 0.5		0.1739	0.1544	0.0453	6		181.30	5
181	Acid Soluble Cadmium (ppm)	0009	< 2		0.1739	0.1544	0.0453	6		181.33	5
181	Acid Soluble Cadmium (ppm)	0117	< 5		0.1739	0.1544	0.0453	6		181.33	5
181	Acid Soluble Cadmium (ppm)	0027	< 20		0.1739	0.1544	0.0453	6		181.30	5
191	Acid Soluble Chromium (ppm)	0550	755.1	19.87	1,774	810.9	233.8	16	-1.26	191.00	0
191	Acid Soluble Chromium (ppm)	0444	873.5	43.00	1,774	810.9	233.8	16	-1.11	191.30	0
191	Acid Soluble Chromium (ppm)	0524	1,125	86.35	1,774	810.9	233.8	16	-0.80	191.30	0
191	Acid Soluble Chromium (ppm)	0555	1,245	101.0	1,774	810.9	233.8	16	-0.65	191.30	0
191	Acid Soluble Chromium (ppm)	0035	1,330	222.0	1,774	810.9	233.8	16	-0.55	191.30	0
191	Acid Soluble Chromium (ppm)	0482	1,434	252.0	1,774	810.9	233.8	16	-0.42	191.30	0
191	Acid Soluble Chromium (ppm)	0450	1,522	2.000	1,774	810.9	233.8	16	-0.31	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)	0027	1,526	123.0	1,774	810.9	233.8	16	-0.31	191.30	0
191	Acid Soluble Chromium (ppm)	0368	1,691	83.60	1,774	810.9	233.8	16	-0.10	191.34	0
191	Acid Soluble Chromium (ppm)	0096	1,757	17.00	1,774	810.9	233.8	16	-0.02	191.30	0
191	Acid Soluble Chromium (ppm)	0515	1,981	130.4	1,774	810.9	233.8	16	0.26	191.34	0
191	Acid Soluble Chromium (ppm)	0037	2,057	53.50	1,774	810.9	233.8	16	0.35	191.33	0
191	Acid Soluble Chromium (ppm)	0527	2,113	3.325	1,774	810.9	233.8	16	0.42	191.33	0
191	Acid Soluble Chromium (ppm)	0009	3,000	200.0	1,774	810.9	233.8	16	1.51	191.33	0
191	Acid Soluble Chromium (ppm)	0009	3,500	1,200	1,774	810.9	233.8	16	2.13	191.99	0
191	Acid Soluble Chromium (ppm)	0515	4,128	1,203	1,774	810.9	233.8	16	2.90	191.33	0
202	Acid Soluble Cobalt (ppm)	0035	21.50	1.000	46.37	12.07	3.208	17	-2.06	202.30	0
202	Acid Soluble Cobalt (ppm)	0389	25.24	3.270	46.37	12.07	3.208	17	-1.75	202.30	0
202	Acid Soluble Cobalt (ppm)	0524	30.50	2.771	46.37	12.07	3.208	17	-1.31	202.30	0
202	Acid Soluble Cobalt (ppm)	0482	33.35	9.900	46.37	12.07	3.208	17	-1.08	202.30	0
202	Acid Soluble Cobalt (ppm)	0405	43.50	0.6000	46.37	12.07	3.208	17	-0.24	202.99	0
202	Acid Soluble Cobalt (ppm)	0527	44.59	2.503	46.37	12.07	3.208	17	-0.15	202.33	0
202	Acid Soluble Cobalt (ppm)	0255	44.96	0.8620	46.37	12.07	3.208	17	-0.12	202.99	0
202	Acid Soluble Cobalt (ppm)	0423	45.51	1.330	46.37	12.07	3.208	17	-0.07	202.32	0
202	Acid Soluble Cobalt (ppm)	0096	47.60	1.000	46.37	12.07	3.208	17	0.10	202.30	0
202	Acid Soluble Cobalt (ppm)	0027	48.17	7.486	46.37	12.07	3.208	17	0.15	202.30	0
202	Acid Soluble Cobalt (ppm)	0515	53.19	2.221	46.37	12.07	3.208	17	0.56	202.34	0
202	Acid Soluble Cobalt (ppm)	0390	53.70	3.400	46.37	12.07	3.208	17	0.61	202.99	0
202	Acid Soluble Cobalt (ppm)	0546	55.77	1.715	46.37	12.07	3.208	17	0.78	202.33	0
202	Acid Soluble Cobalt (ppm)	0009	56.00	0.0000	46.37	12.07	3.208	17	0.80	202.33	0
202	Acid Soluble Cobalt (ppm)	0515	56.65	8.490	46.37	12.07	3.208	17	0.85	202.33	0
202	Acid Soluble Cobalt (ppm)	0501	57.80	0.9900	46.37	12.07	3.208	17	0.95	202.34	0
202	Acid Soluble Cobalt (ppm)	0009	60.50	7.000	46.37	12.07	3.208	17	1.17	202.99	0
202	Acid Soluble Cobalt (ppm)	0555	< 0.5		46.37	12.07	3.208	17		202.30	5
221	Acid Soluble Copper (%)	0377	0.0030	0.0000	0.0076	0.0063	0.0026	38	-0.74	221.30	0
221	Acid Soluble Copper (%)	0390	0.0031	0.0002	0.0076	0.0063	0.0026	38	-0.73	221.99	0
221	Acid Soluble Copper (%)	0524	0.0032	0.0002	0.0076	0.0063	0.0026	38	-0.71	221.99	0
221	Acid Soluble Copper (%)	0049	0.0035	0.0006	0.0076	0.0063	0.0026	38	-0.66	221.30	0
221	Acid Soluble Copper (%)	0521	0.0035	0.0000	0.0076	0.0063	0.0026	38	-0.66	221.32	0
221	Acid Soluble Copper (%)	0027	0.0035	0.0010	0.0076	0.0063	0.0026	38	-0.66	221.99	0
221	Acid Soluble Copper (%)	0516	0.0035	0.0010	0.0076	0.0063	0.0026	38	-0.66	221.99	0
221	Acid Soluble Copper (%)	0035	0.0036	0.0001	0.0076	0.0063	0.0026	38	-0.65	221.30	0
221	Acid Soluble Copper (%)	0553	0.0040	0.0001	0.0076	0.0063	0.0026	38	-0.59	221.00	0
221	Acid Soluble Copper (%)	0389	0.0040	0.0001	0.0076	0.0063	0.0026	38	-0.59	221.99	0
221	Acid Soluble Copper (%)	0368	0.0041	0.0005	0.0076	0.0063	0.0026	38	-0.57	221.99	0
221	Acid Soluble Copper (%)	0009	0.0042	0.0001	0.0076	0.0063	0.0026	38	-0.56	221.33	0
221	Acid Soluble Copper (%)	0009	0.0043	0.0005	0.0076	0.0063	0.0026	38	-0.54	221.99	0
221	Acid Soluble Copper (%)	0546	0.0044	0.0001	0.0076	0.0063	0.0026	38	-0.53	221.33	0
221	Acid Soluble Copper (%)	0029	0.0045	0.0006	0.0076	0.0063	0.0026	38	-0.50	221.00	0
221	Acid Soluble Copper (%)	0055	0.0045	0.0002	0.0076	0.0063	0.0026	38	-0.50	221.33	0
221	Acid Soluble Copper (%)	0095	0.0046	0.0003	0.0076	0.0063	0.0026	38	-0.49	221.32	0
221	Acid Soluble Copper (%)	0360	0.0046	0.0010	0.0076	0.0063	0.0026	38	-0.49	221.30	0
221	Acid Soluble Copper (%)	0117	0.0048	0.0001	0.0076	0.0063	0.0026	38	-0.46	221.33	0
221	Acid Soluble Copper (%)	0106	0.0048	0.0016	0.0076	0.0063	0.0026	38	-0.45	221.33	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				
221	Acid Soluble Copper (%)	0423	0.0050	0.0000	0.0076	0.0063	0.0026	38	-0.42	221.32	0
221	Acid Soluble Copper (%)	0405	0.0050	0.0000	0.0076	0.0063	0.0026	38	-0.42	221.99	0
221	Acid Soluble Copper (%)	0527	0.0052	0.0001	0.0076	0.0063	0.0026	38	-0.40	221.33	0
221	Acid Soluble Copper (%)	0533	0.0057	0.0002	0.0076	0.0063	0.0026	38	-0.31	221.00	0
221	Acid Soluble Copper (%)	0535	0.0059	0.0002	0.0076	0.0063	0.0026	38	-0.28	221.00	0
221	Acid Soluble Copper (%)	0536	0.0060	0.0004	0.0076	0.0063	0.0026	38	-0.26	221.00	0
221	Acid Soluble Copper (%)	0550	0.0061	0.0004	0.0076	0.0063	0.0026	38	-0.25	221.00	0
221	Acid Soluble Copper (%)	0354	0.0065	0.0010	0.0076	0.0063	0.0026	38	-0.18	221.30	0
221	Acid Soluble Copper (%)	0255	0.0125	0.0050	0.0076	0.0063	0.0026	38	0.78	221.30	0
221	Acid Soluble Copper (%)	0234	0.0200	0.0200	0.0076	0.0063	0.0026	38	1.98	221.30	0
221	Acid Soluble Copper (%)	0043	0.0300	0.0000	0.0076	0.0063	0.0026	38	3.58	221.32	0
221	Acid Soluble Copper (%)	0515	0.0460	0.0060	0.0076	0.0063	0.0026	38	6.13	221.33	0
221	Acid Soluble Copper (%)	0555	0.0475	0.0030	0.0076	0.0063	0.0026	38	6.37	221.33	0
221	Acid Soluble Copper (%)	0515	0.0495	0.0010	0.0076	0.0063	0.0026	38	6.69	221.99	0
221	Acid Soluble Copper (%)	0534	0.0505	0.0110	0.0076	0.0063	0.0026	38	6.85	221.00	0
221	Acid Soluble Copper (%)	0485	0.0555	0.0010	0.0076	0.0063	0.0026	38	7.65	221.00	0
221	Acid Soluble Copper (%)	0538	0.0610	0.0020	0.0076	0.0063	0.0026	38	8.53	221.00	0
221	Acid Soluble Copper (%)	0552	0.1600	0.0400	0.0076	0.0063	0.0026	38	24.36	221.30	0
221	Acid Soluble Copper (%)	0543	0.1500	0.1000	0.0076	0.0063	0.0026	38	22.76	221.33	1
221	Acid Soluble Copper (%)	0292	0.0000	0.0000	0.0076	0.0063	0.0026	38		221.32	4
221	Acid Soluble Copper (%)	0558	< 0.01		0.0076	0.0063	0.0026	38		221.99	5
241	Acid Soluble Iron (%)	0501	2.265	0.0100	3.703	0.3324	0.1227	58	-4.33	241.99	0
241	Acid Soluble Iron (%)	0513	2.645	0.0700	3.703	0.3324	0.1227	58	-3.18	241.00	0
241	Acid Soluble Iron (%)	0555	3.000	0.4000	3.703	0.3324	0.1227	58	-2.12	241.30	0
241	Acid Soluble Iron (%)	0524	3.009	0.0291	3.703	0.3324	0.1227	58	-2.09	241.99	0
241	Acid Soluble Iron (%)	0543	3.010	0.3400	3.703	0.3324	0.1227	58	-2.08	241.33	0
241	Acid Soluble Iron (%)	0292	3.050	0.0000	3.703	0.3324	0.1227	58	-1.96	241.02	0
241	Acid Soluble Iron (%)	0516	3.100	0.0000	3.703	0.3324	0.1227	58	-1.81	241.99	0
241	Acid Soluble Iron (%)	0102	3.240	0.1600	3.703	0.3324	0.1227	58	-1.39	241.30	0
241	Acid Soluble Iron (%)	0472	3.255	0.2700	3.703	0.3324	0.1227	58	-1.35	241.30	0
241	Acid Soluble Iron (%)	0043	3.320	0.1600	3.703	0.3324	0.1227	58	-1.15	241.33	0
241	Acid Soluble Iron (%)	0234	3.350	0.1000	3.703	0.3324	0.1227	58	-1.06	241.30	0
241	Acid Soluble Iron (%)	0433	3.404	0.0200	3.703	0.3324	0.1227	58	-0.90	241.30	0
241	Acid Soluble Iron (%)	0515	3.449	0.1518	3.703	0.3324	0.1227	58	-0.76	241.99	0
241	Acid Soluble Iron (%)	0035	3.465	0.1500	3.703	0.3324	0.1227	58	-0.72	241.30	0
241	Acid Soluble Iron (%)	0558	3.515	0.0300	3.703	0.3324	0.1227	58	-0.57	241.99	0
241	Acid Soluble Iron (%)	0073	3.565	0.1100	3.703	0.3324	0.1227	58	-0.42	241.30	0
241	Acid Soluble Iron (%)	0405	3.580	0.0200	3.703	0.3324	0.1227	58	-0.37	241.99	0
241	Acid Soluble Iron (%)	0553	3.605	0.0100	3.703	0.3324	0.1227	58	-0.29	241.00	0
241	Acid Soluble Iron (%)	0515	3.610	0.2954	3.703	0.3324	0.1227	58	-0.28	241.33	0
241	Acid Soluble Iron (%)	0034	3.649	0.2420	3.703	0.3324	0.1227	58	-0.16	241.33	0
241	Acid Soluble Iron (%)	0037	3.650	0.0520	3.703	0.3324	0.1227	58	-0.16	241.33	0
241	Acid Soluble Iron (%)	0546	3.655	0.0824	3.703	0.3324	0.1227	58	-0.14	241.03	0
241	Acid Soluble Iron (%)	0552	3.660	0.0600	3.703	0.3324	0.1227	58	-0.13	241.30	0
241	Acid Soluble Iron (%)	0390	3.680	0.1600	3.703	0.3324	0.1227	58	-0.07	241.30	0
241	Acid Soluble Iron (%)	0055	3.695	0.0300	3.703	0.3324	0.1227	58	-0.02	241.33	0
241	Acid Soluble Iron (%)	0420	3.702	0.1400	3.703	0.3324	0.1227	58	0.00	241.30	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				
241	Acid Soluble Iron (%)	0255	3.725	0.3060	3.703	0.3324	0.1227	58	0.07	241.30	0
241	Acid Soluble Iron (%)	0027	3.728	0.1260	3.703	0.3324	0.1227	58	0.08	241.99	0
241	Acid Soluble Iron (%)	0451	3.735	0.0500	3.703	0.3324	0.1227	58	0.10	241.30	0
241	Acid Soluble Iron (%)	0025	3.735	0.0300	3.703	0.3324	0.1227	58	0.10	241.33	0
241	Acid Soluble Iron (%)	0106	3.736	0.2583	3.703	0.3324	0.1227	58	0.10	241.33	0
241	Acid Soluble Iron (%)	0485	3.743	0.0060	3.703	0.3324	0.1227	58	0.12	241.00	0
241	Acid Soluble Iron (%)	0389	3.785	0.0100	3.703	0.3324	0.1227	58	0.25	241.99	0
241	Acid Soluble Iron (%)	0231	3.790	0.1200	3.703	0.3324	0.1227	58	0.26	241.30	0
241	Acid Soluble Iron (%)	0117	3.793	0.1774	3.703	0.3324	0.1227	58	0.27	241.33	0
241	Acid Soluble Iron (%)	0534	3.800	0.0000	3.703	0.3324	0.1227	58	0.29	241.00	0
241	Acid Soluble Iron (%)	0009	3.800	0.2000	3.703	0.3324	0.1227	58	0.29	241.33	0
241	Acid Soluble Iron (%)	0482	3.810	0.4200	3.703	0.3324	0.1227	58	0.32	241.30	0
241	Acid Soluble Iron (%)	0521	3.845	0.0000	3.703	0.3324	0.1227	58	0.43	241.32	0
241	Acid Soluble Iron (%)	0493	3.850	0.1000	3.703	0.3324	0.1227	58	0.44	241.30	0
241	Acid Soluble Iron (%)	0550	3.850	0.1200	3.703	0.3324	0.1227	58	0.44	241.00	0
241	Acid Soluble Iron (%)	0368	3.880	0.1510	3.703	0.3324	0.1227	58	0.53	241.99	0
241	Acid Soluble Iron (%)	0444	3.880	0.0600	3.703	0.3324	0.1227	58	0.53	241.30	0
241	Acid Soluble Iron (%)	0049	3.935	0.3900	3.703	0.3324	0.1227	58	0.70	241.30	0
241	Acid Soluble Iron (%)	0354	3.945	0.0500	3.703	0.3324	0.1227	58	0.73	241.30	0
241	Acid Soluble Iron (%)	0423	3.945	0.0500	3.703	0.3324	0.1227	58	0.73	241.32	0
241	Acid Soluble Iron (%)	0360	3.955	0.0700	3.703	0.3324	0.1227	58	0.76	241.30	0
241	Acid Soluble Iron (%)	0096	3.960	0.1000	3.703	0.3324	0.1227	58	0.77	241.30	0
241	Acid Soluble Iron (%)	0095	3.980	0.1400	3.703	0.3324	0.1227	58	0.83	241.32	0
241	Acid Soluble Iron (%)	0177	4.041	0.0458	3.703	0.3324	0.1227	58	1.02	241.33	0
241	Acid Soluble Iron (%)	0536	4.050	0.1000	3.703	0.3324	0.1227	58	1.04	241.00	0
241	Acid Soluble Iron (%)	0531	4.075	0.0500	3.703	0.3324	0.1227	58	1.12	241.00	0
241	Acid Soluble Iron (%)	0377	4.105	0.1700	3.703	0.3324	0.1227	58	1.21	241.30	0
241	Acid Soluble Iron (%)	0533	4.150	0.1000	3.703	0.3324	0.1227	58	1.34	241.00	0
241	Acid Soluble Iron (%)	0535	4.150	0.1000	3.703	0.3324	0.1227	58	1.34	241.00	0
241	Acid Soluble Iron (%)	0538	4.150	0.1000	3.703	0.3324	0.1227	58	1.34	241.00	0
241	Acid Soluble Iron (%)	0029	4.171	0.3210	3.703	0.3324	0.1227	58	1.41	241.00	0
241	Acid Soluble Iron (%)	0527	4.336	0.1048	3.703	0.3324	0.1227	58	1.90	241.33	0
251	Acid Soluble Lead (ppm)	0009	1.400	0.4000	2.740	1.833	0.2935	11	-0.73	251.99	0
251	Acid Soluble Lead (ppm)	0524	1.648	0.3613	2.740	1.833	0.2935	11	-0.60	251.30	0
251	Acid Soluble Lead (ppm)	0405	1.700	0.0000	2.740	1.833	0.2935	11	-0.57	251.99	0
251	Acid Soluble Lead (ppm)	0255	1.704	0.2570	2.740	1.833	0.2935	11	-0.57	251.30	0
251	Acid Soluble Lead (ppm)	0450	1.850	0.3000	2.740	1.833	0.2935	11	-0.49	251.30	0
251	Acid Soluble Lead (ppm)	0390	1.930	0.0200	2.740	1.833	0.2935	11	-0.44	251.99	0
251	Acid Soluble Lead (ppm)	0527	2.062	0.0297	2.740	1.833	0.2935	11	-0.37	251.33	0
251	Acid Soluble Lead (ppm)	0501	2.210	0.0200	2.740	1.833	0.2935	11	-0.29	251.30	0
251	Acid Soluble Lead (ppm)	0515	4.657	1.423	2.740	1.833	0.2935	11	1.05	251.33	0
251	Acid Soluble Lead (ppm)	0117	5.672	0.3680	2.740	1.833	0.2935	11	1.60	251.33	0
251	Acid Soluble Lead (ppm)	0550	20.71	0.0500	2.740	1.833	0.2935	11	9.80	251.00	0
251	Acid Soluble Lead (ppm)	0515	3.340	6.096	2.740	1.833	0.2935	11	0.33	251.34	1
251	Acid Soluble Lead (ppm)	0555	< 0.5		2.740	1.833	0.2935	11		251.30	5
251	Acid Soluble Lead (ppm)	0368	< 0.8		2.740	1.833	0.2935	11		251.34	5
251	Acid Soluble Lead (ppm)	0009	< 6		2.740	1.833	0.2935	11		251.33	5

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				
251	Acid Soluble Lead (ppm)	0027	< 20		2.740	1.833	0.2935	11		251.30	5
261	Acid Soluble Manganese (%)	0524	0.4081	0.0285	0.6020	0.0370	0.0193	53	-5.24	261.99	0
261	Acid Soluble Manganese (%)	0513	0.5100	0.0200	0.6020	0.0370	0.0193	53	-2.49	261.12	0
261	Acid Soluble Manganese (%)	0433	0.5260	0.0000	0.6020	0.0370	0.0193	53	-2.05	261.30	0
261	Acid Soluble Manganese (%)	0550	0.5430	0.0120	0.6020	0.0370	0.0193	53	-1.59	261.11	0
261	Acid Soluble Manganese (%)	0405	0.5440	0.0120	0.6020	0.0370	0.0193	53	-1.57	261.99	0
261	Acid Soluble Manganese (%)	0035	0.5490	0.0620	0.6020	0.0370	0.0193	53	-1.43	261.30	0
261	Acid Soluble Manganese (%)	0515	0.5503	0.0016	0.6020	0.0370	0.0193	53	-1.40	261.99	0
261	Acid Soluble Manganese (%)	0472	0.5560	0.0280	0.6020	0.0370	0.0193	53	-1.24	261.30	0
261	Acid Soluble Manganese (%)	0420	0.5727	0.0033	0.6020	0.0370	0.0193	53	-0.79	261.30	0
261	Acid Soluble Manganese (%)	0515	0.5744	0.0762	0.6020	0.0370	0.0193	53	-0.75	261.35	0
261	Acid Soluble Manganese (%)	0102	0.5775	0.0000	0.6020	0.0370	0.0193	53	-0.66	261.30	0
261	Acid Soluble Manganese (%)	0106	0.5779	0.0120	0.6020	0.0370	0.0193	53	-0.65	261.35	0
261	Acid Soluble Manganese (%)	0368	0.5831	0.0177	0.6020	0.0370	0.0193	53	-0.51	261.99	0
261	Acid Soluble Manganese (%)	0037	0.5845	0.0110	0.6020	0.0370	0.0193	53	-0.47	261.35	0
261	Acid Soluble Manganese (%)	0231	0.5850	0.0100	0.6020	0.0370	0.0193	53	-0.46	261.32	0
261	Acid Soluble Manganese (%)	0043	0.5850	0.0100	0.6020	0.0370	0.0193	53	-0.46	261.35	0
261	Acid Soluble Manganese (%)	0534	0.5900	0.0200	0.6020	0.0370	0.0193	53	-0.32	261.12	0
261	Acid Soluble Manganese (%)	0444	0.5900	0.0200	0.6020	0.0370	0.0193	53	-0.32	261.32	0
261	Acid Soluble Manganese (%)	0389	0.5900	0.0000	0.6020	0.0370	0.0193	53	-0.32	261.99	0
261	Acid Soluble Manganese (%)	0546	0.5930	0.0294	0.6020	0.0370	0.0193	53	-0.24	261.35	0
261	Acid Soluble Manganese (%)	0354	0.5950	0.0100	0.6020	0.0370	0.0193	53	-0.19	261.30	0
261	Acid Soluble Manganese (%)	0555	0.5950	0.0300	0.6020	0.0370	0.0193	53	-0.19	261.32	0
261	Acid Soluble Manganese (%)	0009	0.5950	0.0300	0.6020	0.0370	0.0193	53	-0.19	261.35	0
261	Acid Soluble Manganese (%)	0360	0.5955	0.0070	0.6020	0.0370	0.0193	53	-0.18	261.31	0
261	Acid Soluble Manganese (%)	0049	0.5955	0.0890	0.6020	0.0370	0.0193	53	-0.18	261.32	0
261	Acid Soluble Manganese (%)	0451	0.5995	0.0290	0.6020	0.0370	0.0193	53	-0.07	261.32	0
261	Acid Soluble Manganese (%)	0234	0.6000	0.0000	0.6020	0.0370	0.0193	53	-0.05	261.31	0
261	Acid Soluble Manganese (%)	0516	0.6000	0.0000	0.6020	0.0370	0.0193	53	-0.05	261.99	0
261	Acid Soluble Manganese (%)	0055	0.6050	0.0100	0.6020	0.0370	0.0193	53	0.08	261.35	0
261	Acid Soluble Manganese (%)	0255	0.6090	0.0360	0.6020	0.0370	0.0193	53	0.19	261.99	0
261	Acid Soluble Manganese (%)	0117	0.6095	0.0359	0.6020	0.0370	0.0193	53	0.20	261.35	0
261	Acid Soluble Manganese (%)	0025	0.6095	0.0370	0.6020	0.0370	0.0193	53	0.20	261.35	0
261	Acid Soluble Manganese (%)	0535	0.6100	0.0200	0.6020	0.0370	0.0193	53	0.22	261.12	0
261	Acid Soluble Manganese (%)	0536	0.6100	0.0200	0.6020	0.0370	0.0193	53	0.22	261.12	0
261	Acid Soluble Manganese (%)	0390	0.6135	0.0070	0.6020	0.0370	0.0193	53	0.31	261.30	0
261	Acid Soluble Manganese (%)	0096	0.6136	0.0024	0.6020	0.0370	0.0193	53	0.31	261.30	0
261	Acid Soluble Manganese (%)	0073	0.6155	0.0050	0.6020	0.0370	0.0193	53	0.36	261.30	0
261	Acid Soluble Manganese (%)	0177	0.6204	0.0259	0.6020	0.0370	0.0193	53	0.50	261.35	0
261	Acid Soluble Manganese (%)	0533	0.6250	0.0300	0.6020	0.0370	0.0193	53	0.62	261.12	0
261	Acid Soluble Manganese (%)	0482	0.6250	0.0100	0.6020	0.0370	0.0193	53	0.62	261.31	0
261	Acid Soluble Manganese (%)	0095	0.6250	0.0100	0.6020	0.0370	0.0193	53	0.62	261.34	0
261	Acid Soluble Manganese (%)	0485	0.6255	0.0074	0.6020	0.0370	0.0193	53	0.63	261.12	0
261	Acid Soluble Manganese (%)	0377	0.6295	0.0090	0.6020	0.0370	0.0193	53	0.74	261.32	0
261	Acid Soluble Manganese (%)	0538	0.6300	0.0200	0.6020	0.0370	0.0193	53	0.76	261.12	0
261	Acid Soluble Manganese (%)	0542	0.6357	0.0091	0.6020	0.0370	0.0193	53	0.91	261.34	0
261	Acid Soluble Manganese (%)	0027	0.6415	0.0850	0.6020	0.0370	0.0193	53	1.07	261.99	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				
261	Acid Soluble Manganese (%)	0423	0.6425	0.0270	0.6020	0.0370	0.0193	53	1.09	261.34	0
261	Acid Soluble Manganese (%)	0527	0.6579	0.0019	0.6020	0.0370	0.0193	53	1.51	261.35	0
261	Acid Soluble Manganese (%)	0292	0.6600	0.0000	0.6020	0.0370	0.0193	53	1.57	261.14	0
261	Acid Soluble Manganese (%)	0521	0.6944	0.0000	0.6020	0.0370	0.0193	53	2.50	261.34	0
261	Acid Soluble Manganese (%)	0552	0.7100	0.0400	0.6020	0.0370	0.0193	53	2.92	261.32	0
261	Acid Soluble Manganese (%)	0553	0.7175	0.0050	0.6020	0.0370	0.0193	53	3.12	261.00	0
261	Acid Soluble Manganese (%)	0558	0.8100	0.0000	0.6020	0.0370	0.0193	53	5.62	261.99	0
261	Acid Soluble Manganese (%)	0543	0.6050	0.1100	0.6020	0.0370	0.0193	53	0.08	261.35	1
281	Acid Soluble Mercury (ppm)	0405	0.0250	0.0100	0.0771	0.0997	0.0054	5	-0.46	281.99	0
281	Acid Soluble Mercury (ppm)	0368	0.0298	0.0008	0.0771	0.0997	0.0054	5	-0.41	281.99	0
281	Acid Soluble Mercury (ppm)	0390	0.0321	0.0040	0.0771	0.0997	0.0054	5	-0.39	281.99	0
281	Acid Soluble Mercury (ppm)	0035	0.0436	0.0023	0.0771	0.0997	0.0054	5	-0.29	281.99	0
281	Acid Soluble Mercury (ppm)	0501	0.2550	0.0100	0.0771	0.0997	0.0054	5	1.56	281.30	0
281	Acid Soluble Mercury (ppm)	0550	20.40	0.4000	0.0771	0.0997	0.0054	5	177.95	281.00	2
281	Acid Soluble Mercury (ppm)	0515	0.0000	0.0000	0.0771	0.0997	0.0054	5		281.30	4
281	Acid Soluble Mercury (ppm)	0527	< 0.0001		0.0771	0.0997	0.0054	5		281.30	5
281	Acid Soluble Mercury (ppm)	0009	< 0.044		0.0771	0.0997	0.0054	5		281.99	5
289	Acid Soluble Molybdenum (30ppm)	0106	0.00715†	0.0001	52.36	17.15	4.210	29	-3.05	289.33	0
289	Acid Soluble Molybdenum (30ppm)	0543	0.1750†	0.1100	52.36	17.15	4.210	29	-3.04	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0234	29.50†	1.000	52.36	17.15	4.210	29	-1.33	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0035	30.05†	6.100	52.36	17.15	4.210	29	-1.30	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0501	30.72†	0.2600	52.36	17.15	4.210	29	-1.26	289.34	0
289	Acid Soluble Molybdenum (30ppm)	0550	34.27†	0.1400	52.36	17.15	4.210	29	-1.05	289.00	0
289	Acid Soluble Molybdenum (30ppm)	0377	36.36	4.850	52.36	17.15	4.210	29	-0.93	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0368	39.48	0.4100	52.36	17.15	4.210	29	-0.75	289.34	0
289	Acid Soluble Molybdenum (30ppm)	0049	46.60	7.000	52.36	17.15	4.210	29	-0.34	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0102	46.98	10.07	52.36	17.15	4.210	29	-0.31	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0486	50.00	8.000	52.36	17.15	4.210	29	-0.14	289.33	0
289	Acid Soluble Molybdenum (30ppm)	0444	52.69	1.160	52.36	17.15	4.210	29	0.02	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0423	53.55	2.030	52.36	17.15	4.210	29	0.07	289.33	0
289	Acid Soluble Molybdenum (30ppm)	0433	56.00	2.000	52.36	17.15	4.210	29	0.21	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0515	56.58	0.7200	52.36	17.15	4.210	29	0.25	289.34	0
289	Acid Soluble Molybdenum (30ppm)	0096	57.00	1.800	52.36	17.15	4.210	29	0.27	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0009	57.00	8.000	52.36	17.15	4.210	29	0.27	289.33	0
289	Acid Soluble Molybdenum (30ppm)	0452	57.48	0.4300	52.36	17.15	4.210	29	0.30	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0390	58.00	1.200	52.36	17.15	4.210	29	0.33	289.99	0
289	Acid Soluble Molybdenum (30ppm)	0524	58.75	5.802	52.36	17.15	4.210	29	0.37	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0546	60.03	5.375	52.36	17.15	4.210	29	0.45	289.33	0
289	Acid Soluble Molybdenum (30ppm)	0037	62.23	1.690	52.36	17.15	4.210	29	0.58	289.33	0
289	Acid Soluble Molybdenum (30ppm)	0405	63.70	3.400	52.36	17.15	4.210	29	0.66	289.99	0
289	Acid Soluble Molybdenum (30ppm)	0009	64.50	13.00	52.36	17.15	4.210	29	0.71	289.99	0
289	Acid Soluble Molybdenum (30ppm)	0516	65.00	10.00	52.36	17.15	4.210	29	0.74	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0450	72.00‡	14.00	52.36	17.15	4.210	29	1.15	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0527	73.54‡	2.285	52.36	17.15	4.210	29	1.23	289.33	0
289	Acid Soluble Molybdenum (30ppm)	0027	75.00‡	10.00	52.36	17.15	4.210	29	1.32	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0255	83.54‡	1.266	52.36	17.15	4.210	29	1.82	289.30	0
289	Acid Soluble Molybdenum (30ppm)	0555	236.5‡	7.000	52.36	17.15	4.210	29	10.74	289.30	2

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				
291	Acid Soluble Nickel (ppm)	0550	111.3	0.0500	276.7	73.55	26.42	18	-2.25	291.00	0
291	Acid Soluble Nickel (ppm)	0444	151.0	2.000	276.7	73.55	26.42	18	-1.71	291.30	0
291	Acid Soluble Nickel (ppm)	0035	185.0	2.000	276.7	73.55	26.42	18	-1.25	291.30	0
291	Acid Soluble Nickel (ppm)	0482	188.5	1.000	276.7	73.55	26.42	18	-1.20	291.30	0
291	Acid Soluble Nickel (ppm)	0255	235.5	24.51	276.7	73.55	26.42	18	-0.56	291.99	0
291	Acid Soluble Nickel (ppm)	0027	257.3	44.45	276.7	73.55	26.42	18	-0.26	291.30	0
291	Acid Soluble Nickel (ppm)	0450	270.5	9.000	276.7	73.55	26.42	18	-0.08	291.30	0
291	Acid Soluble Nickel (ppm)	0515	276.5	16.74	276.7	73.55	26.42	18	0.00	291.34	0
291	Acid Soluble Nickel (ppm)	0368	284.4	51.55	276.7	73.55	26.42	18	0.10	291.34	0
291	Acid Soluble Nickel (ppm)	0524	288.6	12.00	276.7	73.55	26.42	18	0.16	291.30	0
291	Acid Soluble Nickel (ppm)	0405	299.5	23.00	276.7	73.55	26.42	18	0.31	291.99	0
291	Acid Soluble Nickel (ppm)	0096	302.0	20.00	276.7	73.55	26.42	18	0.34	291.30	0
291	Acid Soluble Nickel (ppm)	0009	330.0	40.00	276.7	73.55	26.42	18	0.72	291.33	0
291	Acid Soluble Nickel (ppm)	0037	333.1	6.373	276.7	73.55	26.42	18	0.77	291.33	0
291	Acid Soluble Nickel (ppm)	0527	339.5	11.70	276.7	73.55	26.42	18	0.85	291.33	0
291	Acid Soluble Nickel (ppm)	0117	343.5	57.00	276.7	73.55	26.42	18	0.91	291.33	0
291	Acid Soluble Nickel (ppm)	0515	349.6	84.17	276.7	73.55	26.42	18	0.99	291.33	0
291	Acid Soluble Nickel (ppm)	0009	365.0	70.00	276.7	73.55	26.42	18	1.20	291.99	0
291	Acid Soluble Nickel (ppm)	0555	< 0.5		276.7	73.55	26.42	18		291.30	5
301	Acid Soluble Selenium (ppm)	0524	1.940	0.0400	6.343	2.675	0.4561	8	-1.51	301.30	0
301	Acid Soluble Selenium (ppm)	0527	4.907	0.9454	6.343	2.675	0.4561	8	-0.49	301.33	0
301	Acid Soluble Selenium (ppm)	0405	5.000	0.0000	6.343	2.675	0.4561	8	-0.46	301.99	0
301	Acid Soluble Selenium (ppm)	0390	6.350	0.4600	6.343	2.675	0.4561	8	0.00	301.99	0
301	Acid Soluble Selenium (ppm)	0501	6.860	0.2200	6.343	2.675	0.4561	8	0.18	301.30	0
301	Acid Soluble Selenium (ppm)	0009	7.050	0.1000	6.343	2.675	0.4561	8	0.24	301.99	0
301	Acid Soluble Selenium (ppm)	0037	7.889	1.328	6.343	2.675	0.4561	8	0.53	301.33	0
301	Acid Soluble Selenium (ppm)	0255	10.69	0.5550	6.343	2.675	0.4561	8	1.49	301.99	0
301	Acid Soluble Selenium (ppm)	0555	945.0	110.0	6.343	2.675	0.4561	8	320.97	301.30	2
301	Acid Soluble Selenium (ppm)	0027	< 20		6.343	2.675	0.4561	8		301.30	5
301	Acid Soluble Selenium (ppm)	0009	< 22		6.343	2.675	0.4561	8		301.33	5
311	Sodium (%)	0423	1.035	0.0100	1.108	0.0573	0.0174	8	-1.16	311.33	0
311	Sodium (%)	0521	1.056	0.0000	1.108	0.0573	0.0174	8	-0.82	311.32	0
311	Sodium (%)	0354	1.095	0.0500	1.108	0.0573	0.0174	8	-0.20	311.99	0
311	Sodium (%)	0009	1.100	0.0000	1.108	0.0573	0.0174	8	-0.12	311.33	0
311	Sodium (%)	0482	1.100	0.0200	1.108	0.0573	0.0174	8	-0.12	311.99	0
311	Sodium (%)	0096	1.135	0.0100	1.108	0.0573	0.0174	8	0.44	311.99	0
311	Sodium (%)	0546	1.147	0.0161	1.108	0.0573	0.0174	8	0.62	311.33	0
311	Sodium (%)	0527	1.239	0.0334	1.108	0.0573	0.0174	8	2.09	311.33	0
311	Sodium (%)	0035	1.105	0.1300	1.108	0.0573	0.0174	8	-0.04	311.33	1
321	Acid Soluble Zinc (%)	0096	0.0007	0.0000	0.0036	0.0026	0.0014	30	-1.13	321.30	0
321	Acid Soluble Zinc (%)	0035	0.0008	0.0007	0.0036	0.0026	0.0014	30	-1.11	321.30	0
321	Acid Soluble Zinc (%)	0515	0.0017	0.0010	0.0036	0.0026	0.0014	30	-0.74	321.99	0
321	Acid Soluble Zinc (%)	0515	0.0018	0.0007	0.0036	0.0026	0.0014	30	-0.72	321.33	0
321	Acid Soluble Zinc (%)	0055	0.0018	0.0003	0.0036	0.0026	0.0014	30	-0.72	321.33	0
321	Acid Soluble Zinc (%)	0390	0.0018	0.0002	0.0036	0.0026	0.0014	30	-0.70	321.30	0
321	Acid Soluble Zinc (%)	0524	0.0019	0.0001	0.0036	0.0026	0.0014	30	-0.68	321.99	0
321	Acid Soluble Zinc (%)	0423	0.0020	0.0000	0.0036	0.0026	0.0014	30	-0.62	321.32	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 (%)	0043	0.0020	0.0000	0.0036	0.0026	0.0014	30	-0.62	321.33	0
321	Acid Soluble Zinc (%)	0405	0.0020	0.0000	0.0036	0.0026	0.0014	30	-0.62	321.99	0
321	Acid Soluble Zinc (%)	0095	0.0021	0.0004	0.0036	0.0026	0.0014	30	-0.59	321.32	0
321	Acid Soluble Zinc (%)	0542	0.0025	0.0009	0.0036	0.0026	0.0014	30	-0.45	321.32	0
321	Acid Soluble Zinc (%)	0377	0.0025	0.0010	0.0036	0.0026	0.0014	30	-0.43	321.30	0
321	Acid Soluble Zinc (%)	0389	0.0026	0.0001	0.0036	0.0026	0.0014	30	-0.41	321.99	0
321	Acid Soluble Zinc (%)	0368	0.0028	0.0005	0.0036	0.0026	0.0014	30	-0.33	321.99	0
321	Acid Soluble Zinc (%)	0029	0.0028	0.0002	0.0036	0.0026	0.0014	30	-0.31	321.00	0
321	Acid Soluble Zinc (%)	0527	0.0028	0.0006	0.0036	0.0026	0.0014	30	-0.31	321.33	0
321	Acid Soluble Zinc (%)	0546	0.0028	0.0004	0.0036	0.0026	0.0014	30	-0.31	321.33	0
321	Acid Soluble Zinc (%)	0009	0.0031	0.0006	0.0036	0.0026	0.0014	30	-0.19	321.33	0
321	Acid Soluble Zinc (%)	0553	0.0035	0.0001	0.0036	0.0026	0.0014	30	-0.06	321.00	0
321	Acid Soluble Zinc (%)	0550	0.0036	0.0009	0.0036	0.0026	0.0014	30	-0.02	321.00	0
321	Acid Soluble Zinc (%)	0516	0.0045	0.0010	0.0036	0.0026	0.0014	30	0.35	321.99	0
321	Acid Soluble Zinc (%)	0535	0.0059	0.0002	0.0036	0.0026	0.0014	30	0.90	321.00	0
321	Acid Soluble Zinc (%)	0354	0.0065	0.0010	0.0036	0.0026	0.0014	30	1.14	321.30	0
321	Acid Soluble Zinc (%)	0533	0.0067	0.0002	0.0036	0.0026	0.0014	30	1.22	321.00	0
321	Acid Soluble Zinc (%)	0292	0.0100	0.0000	0.0036	0.0026	0.0014	30	2.51	321.30	0
321	Acid Soluble Zinc (%)	0482	0.0100	0.0000	0.0036	0.0026	0.0014	30	2.51	321.30	0
321	Acid Soluble Zinc (%)	0255	0.0175	0.0250	0.0036	0.0026	0.0014	30	5.44	321.30	0
321	Acid Soluble Zinc (%)	0485	0.0465	0.0013	0.0036	0.0026	0.0014	30	16.78	321.00	0
321	Acid Soluble Zinc (%)	0538	0.0725	0.0050	0.0036	0.0026	0.0014	30	26.98	321.00	0
321	Acid Soluble Zinc (%)	0543	0.1550	0.1100	0.0036	0.0026	0.0014	30	59.27	321.33	2
321	Acid Soluble Zinc (%)	0552	0.0100	0.0200	0.0036	0.0026	0.0014	30		321.30	4
321	Acid Soluble Zinc (%)	0027	< 0.0025		0.0036	0.0026	0.0014	30		321.99	5
321	Acid Soluble Zinc (%)	0558	< 0.05		0.0036	0.0026	0.0014	30		321.99	5
325	Water Soluble Zinc (%)	0555	0.0100	0.0000				1		325.30	0
431	Soluble Si in nonliquids (1.9%)	0550	7.350	0.1000				1		431.99	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, 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.