

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 151011

15-5-10

### Statistical Summary

# Analytes: 36

# Labs Reporting: 78

Issue Date : 11/30/2015

Analyte Code	Analyte	# 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	IA %RSD	Average Range (R-bar)	Horwitz %RSD
001	Ammoniacal Nitrogen (%)	21	21	13.48	0.8130	13.68		0.3319	0.0512	2.43%		0.1237	2.70%
002	Nitrate Nitrogen (%)	12	12	1.034	0.6833	0.7708		0.0993	0.0203	12.88%		0.0384	4.16%
009	Ammoniacal Plus Nitrate Nitrogen (%)	6	6	14.66	0.3223	14.66		0.3655	0.1055	2.49%		0.1017	2.67%
010	Total Nitrogen (15%)	64	62	14.50	0.8259	14.45	0.6391	0.2353	0.0211	1.63%	2.21%	0.1099	2.68%
020	Total Phosphorus as P2O5 (%)	44	42	4.983	0.1756	4.983		0.1016	0.0111	2.04%		0.1067	3.14%
030	Citrate Insoluble Phosphorus as P2O5 (%)	2	2	0.0350	0.0354								
040	Indirect Available Phosphorus as P2O5 (5%)	4	4	16.85	23.63	16.85	0.7042	23.63	8.354	140.27%	2.09%	0.0925	2.61%
041	Direct Available Phosphorus as P2O5 (5%)	39	38	4.949	0.1437	4.956	0.6700	0.1064	0.0122	2.15%	6.76%	0.0681	3.14%
048	Water Soluble Phosphorus as P2O5 (%)	7	7	10.72	16.41	4.637		0.1730	0.0462	3.73%		0.1100	3.18%
050	Soluble Potassium as K2O (10%)	72	69	10.27	0.4534	10.26	0.7115	0.3007	0.0256	2.93%	3.47%	0.1552	2.82%
060	Water (Free) (%)	6	6	0.5179	0.3188	0.4676		0.2462	0.0711	52.66%		0.0625	4.48%
101	Acid Soluble Calcium (%)	17	17	0.8805	0.1088	0.9035		0.0661	0.0113	7.32%		0.0247	4.06%
121	Acid Soluble Magnesium (1%)	50	49	1.195	0.2656	1.166	0.2583	0.0640	0.0065	5.49%	11.07%	0.0306	3.91%
131	Water Soluble Magnesium (%)	8	8	1.152	0.1921	1.124		0.1444	0.0361	12.85%		0.0382	3.93%
143	Elemental Sulfur (%)	3	3	17.18	0.8910	17.18		0.8910	0.3637	5.19%		0.1567	2.61%
145	Sulfate Sulfur, HCl soluble (%)	7	7	16.79	0.8992	16.95		0.6235	0.1666	3.68%		0.1800	2.61%
148	Total Sulfur (15%)	28	27	16.41	0.9186	16.62	1.0000	0.4377	0.0596	2.63%	3.01%	0.2028	2.62%
149	Sulfur - HNO3 soluble (%)	2	2	16.18	0.4603								
151	Acid Soluble Arsenic (ppm)	10	9	3.746	0.5626	3.746		0.6379	0.1504	17.03%		0.3208	13.11%
165	Acid Soluble Boron (0.1%)	29	28	0.1532	0.0251	0.1501	0.0255	0.0122	0.0016	8.12%	8.50%	0.0039	5.32%
171	Water Soluble Boron (%)	2	2	0.1453	0.0074								
181	Acid Soluble Cadmium (ppm)	14	13	4.846	1.565	4.621		0.4850	0.0951	10.50%		0.2562	12.71%
190	Water Soluble Chlorine (8%)	14	14	6.197	0.6784	6.260	0.6310	0.2043	0.0386	3.26%	5.04%	0.0793	3.03%
191	Acid Soluble Chromium (ppm)	14	13	83.44	16.51	85.32		13.75	2.698	16.12%		3.029	8.19%
202	Acid Soluble Cobalt (ppm)	13	12	8.696	4.059	8.045		2.695	0.5501	33.50%		0.3530	11.69%
221	Acid Soluble Copper (%)	22	20	1.527	6.814	0.0032		0.0003	0.0001	9.89%		0.0128	9.49%
241	Acid Soluble Iron (1%)	48	48	1.348	0.2996	1.416	0.1466	0.1562	0.0159	11.03%	5.18%	0.0571	3.80%
251	Acid Soluble Lead (ppm)	15	14	7.047	2.177	7.250		1.825	0.3449	25.17%		0.9496	11.87%
261	Acid Soluble Manganese (%)	15	14	0.0128	0.0040	0.0138		0.0025	0.0005	18.14%		0.0016	7.62%
281	Acid Soluble Mercury (ppm)	3	2	0.0123	0.0032	0.0123		0.0032	0.0016	25.98%		0.0002	31.03%
289	Acid Soluble Molybdenum (ppm)	12	10	7.769	2.374	7.184		0.9012	0.2015	12.54%		0.3624	11.89%

Analyte Code	Analyte	# 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	IA %RSD	Average Range (R-bar)	Horwitz %RSD
291	Acid Soluble Nickel (ppm)	17	16	35.93	4.673	35.96		4.250	0.7514	11.82%		1.069	9.33%
301	Acid Soluble Selenium (ppm)	5	2	0.3683	0.2309	0.3683		0.2309	0.1154	62.69%		0.2145	18.59%
311	Sodium (%)	8	8	0.2151	0.0157	0.2130		0.0135	0.0034	6.33%		0.0101	5.05%
321	Acid Soluble Zinc (0.1%)	50	47	0.1505	0.0112	0.1507	0.0201	0.0102	0.0011	6.79%	6.66%	0.0044	5.32%
325	Water Soluble Zinc (%)	1		0.0850									

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# Analytes: 36

Sample # 151011

Lab Values

# Labs Reporting: 78

15-5-10

Issue Date : 11/30/2015

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 (%)	0405	11.17	0.0300	13.68	0.3319	0.1237	21	-7.57	001.10	0
001	Ammoniacal Nitrogen (%)	0368	11.90	0.2800	13.68	0.3319	0.1237	21	-5.35	001.99	0
001	Ammoniacal Nitrogen (%)	0230	12.05	0.1000	13.68	0.3319	0.1237	21	-4.90	001.10	0
001	Ammoniacal Nitrogen (%)	0397	13.02	0.2400	13.68	0.3319	0.1237	21	-1.98	001.99	0
001	Ammoniacal Nitrogen (%)	0510	13.51	0.0700	13.68	0.3319	0.1237	21	-0.52	001.99	0
001	Ammoniacal Nitrogen (%)	0394	13.59	0.1600	13.68	0.3319	0.1237	21	-0.26	001.99	0
001	Ammoniacal Nitrogen (%)	0027	13.61	0.1100	13.68	0.3319	0.1237	21	-0.21	001.99	0
001	Ammoniacal Nitrogen (%)	0371	13.62	0.0100	13.68	0.3319	0.1237	21	-0.18	001.99	0
001	Ammoniacal Nitrogen (%)	0169	13.63	0.0500	13.68	0.3319	0.1237	21	-0.15	001.10	0
001	Ammoniacal Nitrogen (%)	0177	13.64	0.0383	13.68	0.3319	0.1237	21	-0.11	001.10	0
001	Ammoniacal Nitrogen (%)	0481	13.64	0.0600	13.68	0.3319	0.1237	21	-0.11	001.10	0
001	Ammoniacal Nitrogen (%)	0500	13.64	0.0200	13.68	0.3319	0.1237	21	-0.11	001.10	0
001	Ammoniacal Nitrogen (%)	0444	13.74	0.1600	13.68	0.3319	0.1237	21	0.19	001.10	0
001	Ammoniacal Nitrogen (%)	0456	13.82	0.1300	13.68	0.3319	0.1237	21	0.42	001.10	0
001	Ammoniacal Nitrogen (%)	0096	13.84	0.0300	13.68	0.3319	0.1237	21	0.48	001.99	0
001	Ammoniacal Nitrogen (%)	0420	13.95	0.1000	13.68	0.3319	0.1237	21	0.83	001.99	0
001	Ammoniacal Nitrogen (%)	0487	13.95	0.3000	13.68	0.3319	0.1237	21	0.83	001.99	0
001	Ammoniacal Nitrogen (%)	0506	14.00	0.4000	13.68	0.3319	0.1237	21	0.98	001.99	0
001	Ammoniacal Nitrogen (%)	0498	14.25	0.1000	13.68	0.3319	0.1237	21	1.73	001.10	0
001	Ammoniacal Nitrogen (%)	0513	14.30	0.0200	13.68	0.3319	0.1237	21	1.88	001.99	0
001	Ammoniacal Nitrogen (%)	0486	14.31	0.1900	13.68	0.3319	0.1237	21	1.90	001.10	0
002	Nitrate Nitrogen (%)	0394	0.6000	0.0000	0.7708	0.0993	0.0384	12	-1.72	002.99	0
002	Nitrate Nitrogen (%)	0368	0.6485	0.0870	0.7708	0.0993	0.0384	12	-1.23	002.99	0
002	Nitrate Nitrogen (%)	0027	0.7200	0.0240	0.7708	0.0993	0.0384	12	-0.51	002.99	0
002	Nitrate Nitrogen (%)	0029	0.7250	0.0100	0.7708	0.0993	0.0384	12	-0.46	002.99	0
002	Nitrate Nitrogen (%)	0371	0.7300	0.0000	0.7708	0.0993	0.0384	12	-0.41	002.99	0
002	Nitrate Nitrogen (%)	0486	0.7600	0.0000	0.7708	0.0993	0.0384	12	-0.11	002.99	0
002	Nitrate Nitrogen (%)	0420	0.7650	0.0300	0.7708	0.0993	0.0384	12	-0.06	002.99	0
002	Nitrate Nitrogen (%)	0513	0.7900	0.0400	0.7708	0.0993	0.0384	12	0.19	002.99	0
002	Nitrate Nitrogen (%)	0029	0.8400	0.0800	0.7708	0.0993	0.0384	12	0.70	002.20	0
002	Nitrate Nitrogen (%)	0498	0.8500	0.1000	0.7708	0.0993	0.0384	12	0.80	002.99	0
002	Nitrate Nitrogen (%)	0230	2.420	0.0000	0.7708	0.0993	0.0384	12	16.61	002.20	0
002	Nitrate Nitrogen (%)	0506	2.555	0.0900	0.7708	0.0993	0.0384	12	17.97	002.99	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				
009	Ammoniacal Plus Nitrate Nitrogen (%)	0169	14.30	0.0600	14.66	0.3655	0.1017	6	-0.99	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0397	14.33	0.1900	14.66	0.3655	0.1017	6	-0.92	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0090	14.57	0.1400	14.66	0.3655	0.1017	6	-0.25	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0420	14.76	0.1500	14.66	0.3655	0.1017	6	0.25	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0444	14.94	0.0500	14.66	0.3655	0.1017	6	0.75	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0513	15.09	0.0200	14.66	0.3655	0.1017	6	1.17	009.99	0
010	Total Nitrogen (15%)	0405	11.21*	0.0100	14.45	0.2353	0.1099	62	-13.81	010.60	0
010	Total Nitrogen (15%)	0114	13.38*	0.0700	14.45	0.2353	0.1099	62	-4.58	010.11	0
010	Total Nitrogen (15%)	0397	13.45*	0.1700	14.45	0.2353	0.1099	62	-4.29	010.12	0
010	Total Nitrogen (15%)	0472	13.55*	0.4400	14.45	0.2353	0.1099	62	-3.84	010.60	0
010	Total Nitrogen (15%)	0185	14.00	0.0300	14.45	0.2353	0.1099	62	-1.95	010.12	0
010	Total Nitrogen (15%)	0377	14.06	0.0300	14.45	0.2353	0.1099	62	-1.69	010.60	0
010	Total Nitrogen (15%)	0456	14.10	0.0400	14.45	0.2353	0.1099	62	-1.50	010.11	0
010	Total Nitrogen (15%)	0131	14.15	0.0900	14.45	0.2353	0.1099	62	-1.30	010.60	0
010	Total Nitrogen (15%)	0275	14.17	0.0920	14.45	0.2353	0.1099	62	-1.19	010.60	0
010	Total Nitrogen (15%)	0037	14.20	0.1600	14.45	0.2353	0.1099	62	-1.08	010.60	0
010	Total Nitrogen (15%)	0416	14.22	0.0100	14.45	0.2353	0.1099	62	-1.01	010.12	0
010	Total Nitrogen (15%)	0041	14.27	0.0300	14.45	0.2353	0.1099	62	-0.80	010.60	0
010	Total Nitrogen (15%)	0211	14.28	0.0300	14.45	0.2353	0.1099	62	-0.76	010.11	0
010	Total Nitrogen (15%)	0356	14.29	0.0900	14.45	0.2353	0.1099	62	-0.72	010.60	0
010	Total Nitrogen (15%)	0230	14.30	0.0000	14.45	0.2353	0.1099	62	-0.65	010.60	0
010	Total Nitrogen (15%)	0234	14.33	0.0300	14.45	0.2353	0.1099	62	-0.55	010.60	0
010	Total Nitrogen (15%)	0368	14.35	0.0460	14.45	0.2353	0.1099	62	-0.45	010.60	0
010	Total Nitrogen (15%)	0102	14.35	0.1000	14.45	0.2353	0.1099	62	-0.44	010.60	0
010	Total Nitrogen (15%)	0157	14.35	0.1000	14.45	0.2353	0.1099	62	-0.44	010.60	0
010	Total Nitrogen (15%)	0043	14.37	0.0500	14.45	0.2353	0.1099	62	-0.38	010.60	0
010	Total Nitrogen (15%)	0096	14.38	0.0400	14.45	0.2353	0.1099	62	-0.31	010.60	0
010	Total Nitrogen (15%)	0309	14.40	0.4400	14.45	0.2353	0.1099	62	-0.23	010.11	0
010	Total Nitrogen (15%)	0493	14.40	0.1000	14.45	0.2353	0.1099	62	-0.23	010.99	0
010	Total Nitrogen (15%)	0007	14.40	0.0000	14.45	0.2353	0.1099	62	-0.23	010.60	0
010	Total Nitrogen (15%)	0035	14.40	0.1600	14.45	0.2353	0.1099	62	-0.23	010.60	0
010	Total Nitrogen (15%)	0394	14.40	0.0000	14.45	0.2353	0.1099	62	-0.23	010.60	0
010	Total Nitrogen (15%)	0105	14.43	0.0500	14.45	0.2353	0.1099	62	-0.12	010.11	0
010	Total Nitrogen (15%)	0291	14.43	0.0100	14.45	0.2353	0.1099	62	-0.12	010.60	0
010	Total Nitrogen (15%)	0136	14.43	0.0200	14.45	0.2353	0.1099	62	-0.10	010.60	0
010	Total Nitrogen (15%)	0231	14.44	0.0100	14.45	0.2353	0.1099	62	-0.08	010.60	0
010	Total Nitrogen (15%)	0233	14.44	0.1400	14.45	0.2353	0.1099	62	-0.06	010.60	0
010	Total Nitrogen (15%)	0292	14.44	0.0200	14.45	0.2353	0.1099	62	-0.06	010.60	0
010	Total Nitrogen (15%)	0095	14.45	0.2700	14.45	0.2353	0.1099	62	-0.04	010.60	0
010	Total Nitrogen (15%)	0354	14.45	0.1250	14.45	0.2353	0.1099	62	-0.02	010.60	0
010	Total Nitrogen (15%)	0482	14.45	0.1000	14.45	0.2353	0.1099	62	-0.01	010.60	0
010	Total Nitrogen (15%)	0421	14.46	0.0700	14.45	0.2353	0.1099	62	0.01	010.60	0
010	Total Nitrogen (15%)	0360	14.49	0.3700	14.45	0.2353	0.1099	62	0.13	010.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010	Total Nitrogen (15%)	0324	14.50	0.0000	14.45	0.2353	0.1099	62	0.20	010.60	0
010	Total Nitrogen (15%)	0451	14.50	0.1000	14.45	0.2353	0.1099	62	0.20	010.60	0
010	Total Nitrogen (15%)	0025	14.51	0.0300	14.45	0.2353	0.1099	62	0.22	010.60	0
010	Total Nitrogen (15%)	0034	14.53	0.2300	14.45	0.2353	0.1099	62	0.30	010.60	0
010	Total Nitrogen (15%)	0162	14.54	0.0800	14.45	0.2353	0.1099	62	0.36	010.60	0
010	Total Nitrogen (15%)	0105	14.55	0.1730	14.45	0.2353	0.1099	62	0.43	010.60	0
010	Total Nitrogen (15%)	0481	14.57	0.0900	14.45	0.2353	0.1099	62	0.47	010.12	0
010	Total Nitrogen (15%)	0029	14.57	0.1100	14.45	0.2353	0.1099	62	0.47	010.60	0
010	Total Nitrogen (15%)	0325	14.60	0.4000	14.45	0.2353	0.1099	62	0.62	010.60	0
010	Total Nitrogen (15%)	0485	14.62	0.1300	14.45	0.2353	0.1099	62	0.69	010.60	0
010	Total Nitrogen (15%)	0055	14.62	0.2350	14.45	0.2353	0.1099	62	0.72	010.60	0
010	Total Nitrogen (15%)	0177	14.66	0.0200	14.45	0.2353	0.1099	62	0.88	010.60	0
010	Total Nitrogen (15%)	0406	14.67	0.0400	14.45	0.2353	0.1099	62	0.92	010.60	0
010	Total Nitrogen (15%)	0073	14.69	0.0100	14.45	0.2353	0.1099	62	0.98	010.60	0
010	Total Nitrogen (15%)	0423	14.71	0.0300	14.45	0.2353	0.1099	62	1.07	010.60	0
010	Total Nitrogen (15%)	0040	14.75	0.5000	14.45	0.2353	0.1099	62	1.26	010.60	0
010	Total Nitrogen (15%)	0510	14.77	0.1400	14.45	0.2353	0.1099	62	1.35	010.11	0
010	Total Nitrogen (15%)	0042	14.90	0.2000	14.45	0.2353	0.1099	62	1.90	010.60	0
010	Total Nitrogen (15%)	0498	15.10	0.0000	14.45	0.2353	0.1099	62	2.75	010.12	0
010	Total Nitrogen (15%)	0260	15.19	0.0300	14.45	0.2353	0.1099	62	3.11	010.60	0
010	Total Nitrogen (15%)	0444	15.21	0.1400	14.45	0.2353	0.1099	62	3.22	010.60	0
010	Total Nitrogen (15%)	0389	15.24	0.0800	14.45	0.2353	0.1099	62	3.34	010.60	0
010	Total Nitrogen (15%)	0117	15.25	0.1000	14.45	0.2353	0.1099	62	3.39	010.60	0
010	Total Nitrogen (15%)	0506	16.55	0.3000	14.45	0.2353	0.1099	62	8.91	010.99	0
010	Total Nitrogen (15%)	0516	18.85	0.1000	14.45	0.2353	0.1099	62	18.69	010.60	0
010	Total Nitrogen (15%)	0394	12.80*	1.700	14.45	0.2353	0.1099	62	-7.03	010.99	1
010	Total Nitrogen (15%)	0371	4.960*	0.0000	14.45	0.2353	0.1099	62	-40.35	010.11	2
020	Total Phosphorus as P2O5 (%)	0472	4.580	0.0600	4.983	0.1016	0.1067	42	-3.97	020.50	0
020	Total Phosphorus as P2O5 (%)	0157	4.630	0.1600	4.983	0.1016	0.1067	42	-3.48	020.50	0
020	Total Phosphorus as P2O5 (%)	0307	4.693	0.0320	4.983	0.1016	0.1067	42	-2.86	020.50	0
020	Total Phosphorus as P2O5 (%)	0035	4.770	0.1800	4.983	0.1016	0.1067	42	-2.10	020.40	0
020	Total Phosphorus as P2O5 (%)	0456	4.810	0.1000	4.983	0.1016	0.1067	42	-1.70	020.40	0
020	Total Phosphorus as P2O5 (%)	0402	4.850	0.0200	4.983	0.1016	0.1067	42	-1.31	020.50	0
020	Total Phosphorus as P2O5 (%)	0500	4.870	0.0000	4.983	0.1016	0.1067	42	-1.11	020.20	0
020	Total Phosphorus as P2O5 (%)	0515	4.896	0.4520	4.983	0.1016	0.1067	42	-0.86	020.99	0
020	Total Phosphorus as P2O5 (%)	0309	4.900	0.0600	4.983	0.1016	0.1067	42	-0.82	020.20	0
020	Total Phosphorus as P2O5 (%)	0444	4.905	0.3700	4.983	0.1016	0.1067	42	-0.77	020.10	0
020	Total Phosphorus as P2O5 (%)	0169	4.910	0.0400	4.983	0.1016	0.1067	42	-0.72	020.20	0
020	Total Phosphorus as P2O5 (%)	0368	4.920	0.0540	4.983	0.1016	0.1067	42	-0.62	020.50	0
020	Total Phosphorus as P2O5 (%)	0416	4.925	0.0300	4.983	0.1016	0.1067	42	-0.57	020.20	0
020	Total Phosphorus as P2O5 (%)	0177	4.944	0.0017	4.983	0.1016	0.1067	42	-0.38	020.20	0
020	Total Phosphorus as P2O5 (%)	0428	4.950	0.1188	4.983	0.1016	0.1067	42	-0.33	020.20	0
020	Total Phosphorus as P2O5 (%)	0027	4.957	0.2110	4.983	0.1016	0.1067	42	-0.26	020.20	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 (%)	0234	4.960	0.6000	4.983	0.1016	0.1067	42	-0.23	020.50	0
020	Total Phosphorus as P2O5 (%)	0096	4.970	0.0400	4.983	0.1016	0.1067	42	-0.13	020.40	0
020	Total Phosphorus as P2O5 (%)	0513	4.980	0.0200	4.983	0.1016	0.1067	42	-0.03	020.99	0
020	Total Phosphorus as P2O5 (%)	0420	4.990	0.0800	4.983	0.1016	0.1067	42	0.07	020.20	0
020	Total Phosphorus as P2O5 (%)	0482	4.995	0.3700	4.983	0.1016	0.1067	42	0.12	020.50	0
020	Total Phosphorus as P2O5 (%)	0356	4.995	0.2300	4.983	0.1016	0.1067	42	0.12	020.20	0
020	Total Phosphorus as P2O5 (%)	0157	5.000	0.1000	4.983	0.1016	0.1067	42	0.17	020.10	0
020	Total Phosphorus as P2O5 (%)	0394	5.000	0.0000	4.983	0.1016	0.1067	42	0.17	020.20	0
020	Total Phosphorus as P2O5 (%)	0487	5.000	0.0000	4.983	0.1016	0.1067	42	0.17	020.99	0
020	Total Phosphorus as P2O5 (%)	0105	5.005	0.0500	4.983	0.1016	0.1067	42	0.21	020.10	0
020	Total Phosphorus as P2O5 (%)	0506	5.010	0.2200	4.983	0.1016	0.1067	42	0.26	020.20	0
020	Total Phosphorus as P2O5 (%)	0510	5.010	0.0200	4.983	0.1016	0.1067	42	0.26	020.20	0
020	Total Phosphorus as P2O5 (%)	0211	5.015	0.0500	4.983	0.1016	0.1067	42	0.31	020.10	0
020	Total Phosphorus as P2O5 (%)	0389	5.020	0.2000	4.983	0.1016	0.1067	42	0.36	020.50	0
020	Total Phosphorus as P2O5 (%)	0105	5.025	0.1700	4.983	0.1016	0.1067	42	0.41	020.40	0
020	Total Phosphorus as P2O5 (%)	0324	5.040	0.0000	4.983	0.1016	0.1067	42	0.56	020.20	0
020	Total Phosphorus as P2O5 (%)	0090	5.050	0.0800	4.983	0.1016	0.1067	42	0.66	020.10	0
020	Total Phosphorus as P2O5 (%)	0292	5.060	0.0200	4.983	0.1016	0.1067	42	0.76	020.20	0
020	Total Phosphorus as P2O5 (%)	0481	5.065	0.0300	4.983	0.1016	0.1067	42	0.81	020.20	0
020	Total Phosphorus as P2O5 (%)	0231	5.080	0.1000	4.983	0.1016	0.1067	42	0.95	020.20	0
020	Total Phosphorus as P2O5 (%)	0423	5.095	0.0300	4.983	0.1016	0.1067	42	1.10	020.50	0
020	Total Phosphorus as P2O5 (%)	0451	5.135	0.0900	4.983	0.1016	0.1067	42	1.49	020.50	0
020	Total Phosphorus as P2O5 (%)	0406	5.140	0.0200	4.983	0.1016	0.1067	42	1.54	020.20	0
020	Total Phosphorus as P2O5 (%)	0444	5.200	0.0200	4.983	0.1016	0.1067	42	2.13	020.50	0
020	Total Phosphorus as P2O5 (%)	0322	5.217	0.0020	4.983	0.1016	0.1067	42	2.30	020.10	0
020	Total Phosphorus as P2O5 (%)	0260	5.725	0.0500	4.983	0.1016	0.1067	42	7.30	020.50	0
020	Total Phosphorus as P2O5 (%)	0516	10.27	9.900	4.983	0.1016	0.1067	42	52.05	020.20	1
020	Total Phosphorus as P2O5 (%)	0405	52.30	0.0800	4.983	0.1016	0.1067	42	465.87	020.20	2
030	Citrate Insoluble Phosphorus as P2O5 (%)	0405	0.0100	0.0000	0.0350	0.0354	0.0200	2	-0.71	030.20	0
030	Citrate Insoluble Phosphorus as P2O5 (%)	0096	0.0600	0.0400	0.0350	0.0354	0.0200	2	0.71	030.40	0
040	Indirect Available Phosphorus as P2O5 (5%)	0096	4.915*	0.0700	16.85	23.63	0.0925	4	-0.50	040.40	0
040	Indirect Available Phosphorus as P2O5 (5%)	0513	4.980*	0.0200	16.85	23.63	0.0925	4	-0.50	040.99	0
040	Indirect Available Phosphorus as P2O5 (5%)	0498	5.200*	0.2000	16.85	23.63	0.0925	4	-0.49	040.40	0
040	Indirect Available Phosphorus as P2O5 (5%)	0405	52.29	0.0800	16.85	23.63	0.0925	4	1.50	040.20	0
041	Direct Available Phosphorus as P2O5 (5%)	0472	4.625	0.0500	4.956	0.1064	0.0681	38	-3.11	041.60	0
041	Direct Available Phosphorus as P2O5 (5%)	0230	4.710	0.0200	4.956	0.1064	0.0681	38	-2.31	041.99	0
041	Direct Available Phosphorus as P2O5 (5%)	0043	4.745	0.0100	4.956	0.1064	0.0681	38	-1.98	041.50	0
041	Direct Available Phosphorus as P2O5 (5%)	0231	4.760	0.0400	4.956	0.1064	0.0681	38	-1.84	041.60	0
041	Direct Available Phosphorus as P2O5 (5%)	0368	4.770	0.1898	4.956	0.1064	0.0681	38	-1.75	041.50	0
041	Direct Available Phosphorus as P2O5 (5%)	0233	4.772	0.3040	4.956	0.1064	0.0681	38	-1.73	041.50	0
041	Direct Available Phosphorus as P2O5 (5%)	0185	4.795	0.1500	4.956	0.1064	0.0681	38	-1.51	041.11	0
041	Direct Available Phosphorus as P2O5 (5%)	0325	4.800	0.2000	4.956	0.1064	0.0681	38	-1.46	041.50	0
041	Direct Available Phosphorus as P2O5 (5%)	0037	4.805	0.0300	4.956	0.1064	0.0681	38	-1.42	041.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
041	Direct Available Phosphorus as P2O5 (5%)	0095	4.880	0.0200	4.956	0.1064	0.0681	38	-0.71	041.40	0
041	Direct Available Phosphorus as P2O5 (5%)	0034	4.891	0.0347	4.956	0.1064	0.0681	38	-0.61	041.60	0
041	Direct Available Phosphorus as P2O5 (5%)	0055	4.900	0.0000	4.956	0.1064	0.0681	38	-0.53	041.21	0
041	Direct Available Phosphorus as P2O5 (5%)	0007	4.900	0.2000	4.956	0.1064	0.0681	38	-0.53	041.50	0
041	Direct Available Phosphorus as P2O5 (5%)	0506	4.910	0.1200	4.956	0.1064	0.0681	38	-0.43	041.99	0
041	Direct Available Phosphorus as P2O5 (5%)	0027	4.915	0.0100	4.956	0.1064	0.0681	38	-0.38	041.20	0
041	Direct Available Phosphorus as P2O5 (5%)	0377	4.925	0.0300	4.956	0.1064	0.0681	38	-0.29	041.51	0
041	Direct Available Phosphorus as P2O5 (5%)	0043	4.935	0.0900	4.956	0.1064	0.0681	38	-0.20	041.60	0
041	Direct Available Phosphorus as P2O5 (5%)	0105	4.965	0.1300	4.956	0.1064	0.0681	38	0.09	041.60	0
041	Direct Available Phosphorus as P2O5 (5%)	0025	4.970	0.0200	4.956	0.1064	0.0681	38	0.13	041.51	0
041	Direct Available Phosphorus as P2O5 (5%)	0513	4.985	0.0300	4.956	0.1064	0.0681	38	0.27	041.60	0
041	Direct Available Phosphorus as P2O5 (5%)	0485	4.990	0.0200	4.956	0.1064	0.0681	38	0.32	041.11	0
041	Direct Available Phosphorus as P2O5 (5%)	0421	4.990	0.0200	4.956	0.1064	0.0681	38	0.32	041.51	0
041	Direct Available Phosphorus as P2O5 (5%)	0040	5.000	0.0000	4.956	0.1064	0.0681	38	0.41	041.10	0
041	Direct Available Phosphorus as P2O5 (5%)	0102	5.000	0.0000	4.956	0.1064	0.0681	38	0.41	041.10	0
041	Direct Available Phosphorus as P2O5 (5%)	0029	5.005	0.0300	4.956	0.1064	0.0681	38	0.46	041.60	0
041	Direct Available Phosphorus as P2O5 (5%)	0105	5.015	0.0500	4.956	0.1064	0.0681	38	0.56	041.11	0
041	Direct Available Phosphorus as P2O5 (5%)	0397	5.020	0.0800	4.956	0.1064	0.0681	38	0.60	041.60	0
041	Direct Available Phosphorus as P2O5 (5%)	0136	5.025	0.0700	4.956	0.1064	0.0681	38	0.65	041.60	0
041	Direct Available Phosphorus as P2O5 (5%)	0105	5.030	0.1400	4.956	0.1064	0.0681	38	0.70	041.10	0
041	Direct Available Phosphorus as P2O5 (5%)	0291	5.035	0.0100	4.956	0.1064	0.0681	38	0.74	041.50	0
041	Direct Available Phosphorus as P2O5 (5%)	0055	5.040	0.0000	4.956	0.1064	0.0681	38	0.79	041.11	0
041	Direct Available Phosphorus as P2O5 (5%)	0105	5.045	0.0300	4.956	0.1064	0.0681	38	0.84	041.99	0
041	Direct Available Phosphorus as P2O5 (5%)	0423	5.046	0.0730	4.956	0.1064	0.0681	38	0.84	041.51	0
041	Direct Available Phosphorus as P2O5 (5%)	0493	5.050	0.1000	4.956	0.1064	0.0681	38	0.88	041.10	0
041	Direct Available Phosphorus as P2O5 (5%)	0360	5.080	0.0200	4.956	0.1064	0.0681	38	1.17	041.51	0
041	Direct Available Phosphorus as P2O5 (5%)	0073	5.106	0.1910	4.956	0.1064	0.0681	38	1.41	041.60	0
041	Direct Available Phosphorus as P2O5 (5%)	0131	5.255	0.0300	4.956	0.1064	0.0681	38	2.81	041.51	0
041	Direct Available Phosphorus as P2O5 (5%)	0354	5.353	0.0460	4.956	0.1064	0.0681	38	3.73	041.60	0
041	Direct Available Phosphorus as P2O5 (5%)	0041	4.820	0.4200	4.956	0.1064	0.0681	38	-1.28	041.10	1
048	Water Soluble Phosphorus as P2O5 (%)	0513	3.775	0.0300	4.637	0.1730	0.1100	7	-4.98	048.99	0
048	Water Soluble Phosphorus as P2O5 (%)	0394	4.545	0.0100	4.637	0.1730	0.1100	7	-0.53	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0096	4.585	0.0100	4.637	0.1730	0.1100	7	-0.30	048.40	0
048	Water Soluble Phosphorus as P2O5 (%)	0309	4.605	0.2500	4.637	0.1730	0.1100	7	-0.19	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0444	4.700	0.3800	4.637	0.1730	0.1100	7	0.36	048.50	0
048	Water Soluble Phosphorus as P2O5 (%)	0420	4.890	0.0800	4.637	0.1730	0.1100	7	1.46	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0405	47.93	0.0100	4.637	0.1730	0.1100	7	250.18	048.20	0
050	Soluble Potassium as K2O (10%)	0510	9.100*	0.0000	10.26	0.3007	0.1552	69	-3.84	050.60	0
050	Soluble Potassium as K2O (10%)	0486	9.180*	0.0600	10.26	0.3007	0.1552	69	-3.58	050.52	0
050	Soluble Potassium as K2O (10%)	0157	9.515*	0.3100	10.26	0.3007	0.1552	69	-2.46	050.50	0
050	Soluble Potassium as K2O (10%)	0428	9.612	0.4873	10.26	0.3007	0.1552	69	-2.14	050.30	0
050	Soluble Potassium as K2O (10%)	0402	9.635	0.0700	10.26	0.3007	0.1552	69	-2.06	050.50	0
050	Soluble Potassium as K2O (10%)	0485	9.690	0.0200	10.26	0.3007	0.1552	69	-1.88	050.52	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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050	Soluble Potassium as K2O (10%)	0309	9.695	0.1700	10.26	0.3007	0.1552	69	-1.86	050.60	0
050	Soluble Potassium as K2O (10%)	0487	9.750	0.1000	10.26	0.3007	0.1552	69	-1.68	050.99	0
050	Soluble Potassium as K2O (10%)	0472	9.765	0.1300	10.26	0.3007	0.1552	69	-1.63	050.31	0
050	Soluble Potassium as K2O (10%)	0500	9.825	0.0300	10.26	0.3007	0.1552	69	-1.43	050.99	0
050	Soluble Potassium as K2O (10%)	0325	9.950	0.3000	10.26	0.3007	0.1552	69	-1.02	050.99	0
050	Soluble Potassium as K2O (10%)	0177	9.951	0.1117	10.26	0.3007	0.1552	69	-1.01	050.99	0
050	Soluble Potassium as K2O (10%)	0444	9.970	0.4600	10.26	0.3007	0.1552	69	-0.95	050.50	0
050	Soluble Potassium as K2O (10%)	0456	9.970	0.1800	10.26	0.3007	0.1552	69	-0.95	050.61	0
050	Soluble Potassium as K2O (10%)	0516	9.975	0.1500	10.26	0.3007	0.1552	69	-0.93	050.30	0
050	Soluble Potassium as K2O (10%)	0055	10.02	0.0200	10.26	0.3007	0.1552	69	-0.78	050.50	0
050	Soluble Potassium as K2O (10%)	0481	10.10	0.3600	10.26	0.3007	0.1552	69	-0.52	050.99	0
050	Soluble Potassium as K2O (10%)	0040	10.10	0.4000	10.26	0.3007	0.1552	69	-0.52	050.30	0
050	Soluble Potassium as K2O (10%)	0482	10.10	0.6000	10.26	0.3007	0.1552	69	-0.52	050.99	0
050	Soluble Potassium as K2O (10%)	0035	10.12	0.0300	10.26	0.3007	0.1552	69	-0.47	050.61	0
050	Soluble Potassium as K2O (10%)	0037	10.13	0.1100	10.26	0.3007	0.1552	69	-0.43	050.62	0
050	Soluble Potassium as K2O (10%)	0423	10.14	0.1020	10.26	0.3007	0.1552	69	-0.40	050.52	0
050	Soluble Potassium as K2O (10%)	0034	10.14	0.0151	10.26	0.3007	0.1552	69	-0.37	050.62	0
050	Soluble Potassium as K2O (10%)	0105	10.15	0.1500	10.26	0.3007	0.1552	69	-0.37	050.62	0
050	Soluble Potassium as K2O (10%)	0322	10.16	0.0060	10.26	0.3007	0.1552	69	-0.31	050.10	0
050	Soluble Potassium as K2O (10%)	0096	10.19	0.3300	10.26	0.3007	0.1552	69	-0.24	050.99	0
050	Soluble Potassium as K2O (10%)	0007	10.20	0.4000	10.26	0.3007	0.1552	69	-0.19	050.51	0
050	Soluble Potassium as K2O (10%)	0025	10.20	0.0000	10.26	0.3007	0.1552	69	-0.19	050.52	0
050	Soluble Potassium as K2O (10%)	0498	10.20	0.4000	10.26	0.3007	0.1552	69	-0.19	050.99	0
050	Soluble Potassium as K2O (10%)	0105	10.21	0.0300	10.26	0.3007	0.1552	69	-0.17	050.99	0
050	Soluble Potassium as K2O (10%)	0354	10.22	0.2300	10.26	0.3007	0.1552	69	-0.14	050.52	0
050	Soluble Potassium as K2O (10%)	0114	10.22	0.0600	10.26	0.3007	0.1552	69	-0.12	050.00	0
050	Soluble Potassium as K2O (10%)	0291	10.22	0.0400	10.26	0.3007	0.1552	69	-0.12	050.51	0
050	Soluble Potassium as K2O (10%)	0136	10.24	0.0400	10.26	0.3007	0.1552	69	-0.05	050.30	0
050	Soluble Potassium as K2O (10%)	0506	10.25	0.1000	10.26	0.3007	0.1552	69	-0.02	050.99	0
050	Soluble Potassium as K2O (10%)	0234	10.28	0.2400	10.26	0.3007	0.1552	69	0.08	050.99	0
050	Soluble Potassium as K2O (10%)	0211	10.29	0.0200	10.26	0.3007	0.1552	69	0.11	050.00	0
050	Soluble Potassium as K2O (10%)	0292	10.29	0.1200	10.26	0.3007	0.1552	69	0.11	050.50	0
050	Soluble Potassium as K2O (10%)	0041	10.29	0.0200	10.26	0.3007	0.1552	69	0.11	050.60	0
050	Soluble Potassium as K2O (10%)	0157	10.30	0.2000	10.26	0.3007	0.1552	69	0.15	050.30	0
050	Soluble Potassium as K2O (10%)	0368	10.31	0.0530	10.26	0.3007	0.1552	69	0.17	050.99	0
050	Soluble Potassium as K2O (10%)	0394	10.32	0.0300	10.26	0.3007	0.1552	69	0.20	050.99	0
050	Soluble Potassium as K2O (10%)	0090	10.32	0.1600	10.26	0.3007	0.1552	69	0.21	050.00	0
050	Soluble Potassium as K2O (10%)	0073	10.32	0.0800	10.26	0.3007	0.1552	69	0.21	050.30	0
050	Soluble Potassium as K2O (10%)	0027	10.33	0.1600	10.26	0.3007	0.1552	69	0.24	050.99	0
050	Soluble Potassium as K2O (10%)	0043	10.33	0.0600	10.26	0.3007	0.1552	69	0.25	050.51	0
050	Soluble Potassium as K2O (10%)	0231	10.35	0.0000	10.26	0.3007	0.1552	69	0.31	050.00	0
050	Soluble Potassium as K2O (10%)	0029	10.38	0.0200	10.26	0.3007	0.1552	69	0.41	050.62	0
050	Soluble Potassium as K2O (10%)	0095	10.40	0.0300	10.26	0.3007	0.1552	69	0.46	050.62	0



Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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050	Soluble Potassium as K2O (10%)	0105	10.40	0.0800	10.26	0.3007	0.1552	69	0.48	050.60	0
050	Soluble Potassium as K2O (10%)	0377	10.44	0.0900	10.26	0.3007	0.1552	69	0.60	050.52	0
050	Soluble Potassium as K2O (10%)	0324	10.45	0.7000	10.26	0.3007	0.1552	69	0.65	050.50	0
050	Soluble Potassium as K2O (10%)	0131	10.47	0.0600	10.26	0.3007	0.1552	69	0.71	050.52	0
050	Soluble Potassium as K2O (10%)	0444	10.48	0.4000	10.26	0.3007	0.1552	69	0.75	050.99	0
050	Soluble Potassium as K2O (10%)	0416	10.54	0.0000	10.26	0.3007	0.1552	69	0.95	050.00	0
050	Soluble Potassium as K2O (10%)	0169	10.56	0.0400	10.26	0.3007	0.1552	69	1.01	050.60	0
050	Soluble Potassium as K2O (10%)	0420	10.57	0.0530	10.26	0.3007	0.1552	69	1.05	050.50	0
050	Soluble Potassium as K2O (10%)	0360	10.58	0.0900	10.26	0.3007	0.1552	69	1.06	050.52	0
050	Soluble Potassium as K2O (10%)	0397	10.61	0.0270	10.26	0.3007	0.1552	69	1.18	050.50	0
050	Soluble Potassium as K2O (10%)	0055	10.62	0.0400	10.26	0.3007	0.1552	69	1.21	050.00	0
050	Soluble Potassium as K2O (10%)	0389	10.70	0.1200	10.26	0.3007	0.1552	69	1.48	050.99	0
050	Soluble Potassium as K2O (10%)	0421	10.74	0.0600	10.26	0.3007	0.1552	69	1.61	050.52	0
050	Soluble Potassium as K2O (10%)	0307	10.75	0.2660	10.26	0.3007	0.1552	69	1.63	050.99	0
050	Soluble Potassium as K2O (10%)	0043	10.79	0.1300	10.26	0.3007	0.1552	69	1.76	050.99	0
050	Soluble Potassium as K2O (10%)	0356	10.94	0.2000	10.26	0.3007	0.1552	69	2.28	050.30	0
050	Soluble Potassium as K2O (10%)	0406	11.20	0.0300	10.26	0.3007	0.1552	69	3.12	050.50	0
050	Soluble Potassium as K2O (10%)	0230	11.40	0.4000	10.26	0.3007	0.1552	69	3.81	050.00	0
050	Soluble Potassium as K2O (10%)	0451	11.42	0.0300	10.26	0.3007	0.1552	69	3.86	050.99	0
050	Soluble Potassium as K2O (10%)	0260	11.78	0.7000	10.26	0.3007	0.1552	69	5.07	050.99	0
050	Soluble Potassium as K2O (10%)	0515	8.249*	1.274	10.26	0.3007	0.1552	69	-6.67	050.99	1
050	Soluble Potassium as K2O (10%)	0233	10.20	1.421	10.26	0.3007	0.1552	69	-0.19	050.52	1
050	Soluble Potassium as K2O (10%)	0102	14.60	0.0000	10.26	0.3007	0.1552	69	14.45	050.00	2
060	Water (Free) (%)	0007	0.1850	0.0300	0.4676	0.2462	0.0625	6	-1.15	060.00	0
060	Water (Free) (%)	0510	0.3100	0.0400	0.4676	0.2462	0.0625	6	-0.64	060.99	0
060	Water (Free) (%)	0416	0.4274	0.0349	0.4676	0.2462	0.0625	6	-0.16	060.00	0
060	Water (Free) (%)	0456	0.4700	0.0600	0.4676	0.2462	0.0625	6	0.01	060.00	0
060	Water (Free) (%)	0096	0.6200	0.1600	0.4676	0.2462	0.0625	6	0.62	060.00	0
060	Water (Free) (%)	0513	1.095	0.0500	0.4676	0.2462	0.0625	6	2.55	060.99	0
101	Acid Soluble Calcium (%)	0025	0.6072	0.0197	0.9035	0.0661	0.0247	17	-4.48	101.32	0
101	Acid Soluble Calcium (%)	0415	0.6392	0.0002	0.9035	0.0661	0.0247	17	-4.00	101.99	0
101	Acid Soluble Calcium (%)	0035	0.7900	0.0060	0.9035	0.0661	0.0247	17	-1.72	101.30	0
101	Acid Soluble Calcium (%)	0472	0.8600	0.0000	0.9035	0.0661	0.0247	17	-0.66	101.30	0
101	Acid Soluble Calcium (%)	0307	0.8710	0.0280	0.9035	0.0661	0.0247	17	-0.49	101.30	0
101	Acid Soluble Calcium (%)	0102	0.8755	0.0030	0.9035	0.0661	0.0247	17	-0.42	101.30	0
101	Acid Soluble Calcium (%)	0131	0.8870	0.0656	0.9035	0.0661	0.0247	17	-0.25	101.30	0
101	Acid Soluble Calcium (%)	0421	0.8950	0.0100	0.9035	0.0661	0.0247	17	-0.13	101.33	0
101	Acid Soluble Calcium (%)	0482	0.9100	0.0400	0.9035	0.0661	0.0247	17	0.10	101.30	0
101	Acid Soluble Calcium (%)	0354	0.9235	0.0110	0.9035	0.0661	0.0247	17	0.30	101.30	0
101	Acid Soluble Calcium (%)	0041	0.9250	0.0900	0.9035	0.0661	0.0247	17	0.32	101.30	0
101	Acid Soluble Calcium (%)	0389	0.9500	0.0000	0.9035	0.0661	0.0247	17	0.70	101.99	0
101	Acid Soluble Calcium (%)	0105	0.9552	0.0554	0.9035	0.0661	0.0247	17	0.78	101.03	0
101	Acid Soluble Calcium (%)	0105	0.9590	0.0220	0.9035	0.0661	0.0247	17	0.84	101.00	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				
101	Acid Soluble Calcium (%)	0096	0.9650	0.0300	0.9035	0.0661	0.0247	17	0.93	101.30	0
101	Acid Soluble Calcium (%)	0423	0.9690	0.0340	0.9035	0.0661	0.0247	17	0.99	101.32	0
101	Acid Soluble Calcium (%)	0420	0.9865	0.0050	0.9035	0.0661	0.0247	17	1.25	101.30	0
121	Acid Soluble Magnesium (1%)	0025	0.1356*	0.0054	1.166	0.0640	0.0306	49	-16.10	121.02	0
121	Acid Soluble Magnesium (1%)	0415	1.017	0.0003	1.166	0.0640	0.0306	49	-2.33	121.99	0
121	Acid Soluble Magnesium (1%)	0515	1.031	0.0142	1.166	0.0640	0.0306	49	-2.11	121.33	0
121	Acid Soluble Magnesium (1%)	0486	1.035	0.0100	1.166	0.0640	0.0306	49	-2.05	121.33	0
121	Acid Soluble Magnesium (1%)	0230	1.040	0.0400	1.166	0.0640	0.0306	49	-1.98	121.30	0
121	Acid Soluble Magnesium (1%)	0394	1.065	0.0300	1.166	0.0640	0.0306	49	-1.58	121.32	0
121	Acid Soluble Magnesium (1%)	0035	1.080	0.0400	1.166	0.0640	0.0306	49	-1.35	121.30	0
121	Acid Soluble Magnesium (1%)	0157	1.095	0.0700	1.166	0.0640	0.0306	49	-1.12	121.30	0
121	Acid Soluble Magnesium (1%)	0513	1.100	0.0000	1.166	0.0640	0.0306	49	-1.04	121.00	0
121	Acid Soluble Magnesium (1%)	0131	1.100	0.1200	1.166	0.0640	0.0306	49	-1.04	121.30	0
121	Acid Soluble Magnesium (1%)	0515	1.102	0.0163	1.166	0.0640	0.0306	49	-1.00	121.99	0
121	Acid Soluble Magnesium (1%)	0397	1.105	0.0300	1.166	0.0640	0.0306	49	-0.96	121.33	0
121	Acid Soluble Magnesium (1%)	0102	1.115	0.0100	1.166	0.0640	0.0306	49	-0.80	121.30	0
121	Acid Soluble Magnesium (1%)	0029	1.132	0.0000	1.166	0.0640	0.0306	49	-0.54	121.00	0
121	Acid Soluble Magnesium (1%)	0354	1.145	0.0070	1.166	0.0640	0.0306	49	-0.34	121.30	0
121	Acid Soluble Magnesium (1%)	0481	1.145	0.0100	1.166	0.0640	0.0306	49	-0.34	121.00	0
121	Acid Soluble Magnesium (1%)	0433	1.146	0.0092	1.166	0.0640	0.0306	49	-0.32	121.30	0
121	Acid Soluble Magnesium (1%)	0512	1.149	0.0220	1.166	0.0640	0.0306	49	-0.27	121.99	0
121	Acid Soluble Magnesium (1%)	0482	1.150	0.1000	1.166	0.0640	0.0306	49	-0.26	121.30	0
121	Acid Soluble Magnesium (1%)	0423	1.158	0.0260	1.166	0.0640	0.0306	49	-0.13	121.32	0
121	Acid Soluble Magnesium (1%)	0420	1.162	0.0070	1.166	0.0640	0.0306	49	-0.08	121.30	0
121	Acid Soluble Magnesium (1%)	0090	1.165	0.0300	1.166	0.0640	0.0306	49	-0.02	121.30	0
121	Acid Soluble Magnesium (1%)	0095	1.165	0.0300	1.166	0.0640	0.0306	49	-0.02	121.30	0
121	Acid Soluble Magnesium (1%)	0368	1.170	0.0141	1.166	0.0640	0.0306	49	0.05	121.30	0
121	Acid Soluble Magnesium (1%)	0096	1.170	0.0200	1.166	0.0640	0.0306	49	0.06	121.30	0
121	Acid Soluble Magnesium (1%)	0324	1.170	0.0600	1.166	0.0640	0.0306	49	0.06	121.30	0
121	Acid Soluble Magnesium (1%)	0043	1.175	0.0050	1.166	0.0640	0.0306	49	0.13	121.00	0
121	Acid Soluble Magnesium (1%)	0055	1.175	0.0300	1.166	0.0640	0.0306	49	0.13	121.30	0
121	Acid Soluble Magnesium (1%)	0421	1.175	0.0100	1.166	0.0640	0.0306	49	0.13	121.33	0
121	Acid Soluble Magnesium (1%)	0506	1.175	0.0100	1.166	0.0640	0.0306	49	0.13	121.99	0
121	Acid Soluble Magnesium (1%)	0034	1.185	0.0000	1.166	0.0640	0.0306	49	0.29	121.33	0
121	Acid Soluble Magnesium (1%)	0177	1.192	0.0078	1.166	0.0640	0.0306	49	0.40	121.33	0
121	Acid Soluble Magnesium (1%)	0040	1.195	0.0300	1.166	0.0640	0.0306	49	0.45	121.00	0
121	Acid Soluble Magnesium (1%)	0037	1.195	0.0100	1.166	0.0640	0.0306	49	0.45	121.33	0
121	Acid Soluble Magnesium (1%)	0485	1.200	0.0200	1.166	0.0640	0.0306	49	0.52	121.00	0
121	Acid Soluble Magnesium (1%)	0360	1.205	0.0100	1.166	0.0640	0.0306	49	0.60	121.30	0
121	Acid Soluble Magnesium (1%)	0169	1.210	0.0200	1.166	0.0640	0.0306	49	0.68	121.00	0
121	Acid Soluble Magnesium (1%)	0041	1.210	0.1000	1.166	0.0640	0.0306	49	0.68	121.30	0
121	Acid Soluble Magnesium (1%)	0105	1.216	0.0042	1.166	0.0640	0.0306	49	0.78	121.03	0
121	Acid Soluble Magnesium (1%)	0389	1.222	0.0030	1.166	0.0640	0.0306	49	0.86	121.99	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				
121	Acid Soluble Magnesium (1%)	0307	1.226	0.0310	1.166	0.0640	0.0306	49	0.92	121.30	0
121	Acid Soluble Magnesium (1%)	0105	1.228	0.0740	1.166	0.0640	0.0306	49	0.96	121.00	0
121	Acid Soluble Magnesium (1%)	0516	1.230	0.0600	1.166	0.0640	0.0306	49	0.99	121.00	0
121	Acid Soluble Magnesium (1%)	0233	1.239	0.0120	1.166	0.0640	0.0306	49	1.13	121.30	0
121	Acid Soluble Magnesium (1%)	0231	1.295	0.0700	1.166	0.0640	0.0306	49	2.01	121.30	0
121	Acid Soluble Magnesium (1%)	0472	1.665	0.0900	1.166	0.0640	0.0306	49	7.79	121.30	0
121	Acid Soluble Magnesium (1%)	0498	1.850	0.1000	1.166	0.0640	0.0306	49	10.68	121.00	0
121	Acid Soluble Magnesium (1%)	0444	1.975	0.0300	1.166	0.0640	0.0306	49	12.63	121.30	0
121	Acid Soluble Magnesium (1%)	0309	2.075	0.0500	1.166	0.0640	0.0306	49	14.19	121.00	0
121	Acid Soluble Magnesium (1%)	0042	1.265	0.1500	1.166	0.0640	0.0306	49	1.54	121.99	1
131	Water Soluble Magnesium (%)	0230	0.9600	0.0600	1.124	0.1444	0.0382	8	-1.13	131.30	0
131	Water Soluble Magnesium (%)	0510	0.9600	0.0000	1.124	0.1444	0.0382	8	-1.13	131.70	0
131	Water Soluble Magnesium (%)	0394	1.040	0.0810	1.124	0.1444	0.0382	8	-0.58	131.30	0
131	Water Soluble Magnesium (%)	0029	1.132	0.0320	1.124	0.1444	0.0382	8	0.06	131.00	0
131	Water Soluble Magnesium (%)	0485	1.160	0.0200	1.124	0.1444	0.0382	8	0.25	131.00	0
131	Water Soluble Magnesium (%)	0027	1.200	0.0380	1.124	0.1444	0.0382	8	0.53	131.30	0
131	Water Soluble Magnesium (%)	0368	1.203	0.0344	1.124	0.1444	0.0382	8	0.55	131.30	0
131	Water Soluble Magnesium (%)	0444	1.560	0.0400	1.124	0.1444	0.0382	8	3.02	131.30	0
143	Elemental Sulfur (%)	0389	16.22	0.3500	17.18	0.8910	0.1567	3	-1.08	143.99	0
143	Elemental Sulfur (%)	0114	17.36	0.0400	17.18	0.8910	0.1567	3	0.20	143.00	0
143	Elemental Sulfur (%)	0055	17.97	0.0800	17.18	0.8910	0.1567	3	0.88	143.00	0
145	Sulfate Sulfur, HCl soluble (%)	0444	14.96	0.0600	16.95	0.6235	0.1800	7	-3.20	145.99	0
145	Sulfate Sulfur, HCl soluble (%)	0027	16.53	0.5300	16.95	0.6235	0.1800	7	-0.69	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0485	16.82	0.2500	16.95	0.6235	0.1800	7	-0.22	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0095	16.99	0.0500	16.95	0.6235	0.1800	7	0.05	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0233	17.13	0.1100	16.95	0.6235	0.1800	7	0.28	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0397	17.39	0.0400	16.95	0.6235	0.1800	7	0.70	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0043	17.75	0.2200	16.95	0.6235	0.1800	7	1.28	145.00	0
148	Total Sulfur (15%)	0515	14.00*	0.7586	16.62	0.4377	0.2028	27	-5.99	148.07	0
148	Total Sulfur (15%)	0486	14.46*	0.1300	16.62	0.4377	0.2028	27	-4.95	148.07	0
148	Total Sulfur (15%)	0444	14.84*	0.2600	16.62	0.4377	0.2028	27	-4.07	148.07	0
148	Total Sulfur (15%)	0506	15.10*	0.4000	16.62	0.4377	0.2028	27	-3.48	148.99	0
148	Total Sulfur (15%)	0421	15.29*	0.1500	16.62	0.4377	0.2028	27	-3.06	148.07	0
148	Total Sulfur (15%)	0230	16.15	0.5000	16.62	0.4377	0.2028	27	-1.08	148.01	0
148	Total Sulfur (15%)	0451	16.30	0.0000	16.62	0.4377	0.2028	27	-0.74	148.00	0
148	Total Sulfur (15%)	0307	16.34	0.0810	16.62	0.4377	0.2028	27	-0.65	148.99	0
148	Total Sulfur (15%)	0157	16.50	0.6000	16.62	0.4377	0.2028	27	-0.28	148.00	0
148	Total Sulfur (15%)	0037	16.53	0.0900	16.62	0.4377	0.2028	27	-0.22	148.07	0
148	Total Sulfur (15%)	0177	16.54	0.3350	16.62	0.4377	0.2028	27	-0.19	148.07	0
148	Total Sulfur (15%)	0025	16.56	0.1200	16.62	0.4377	0.2028	27	-0.14	148.00	0
148	Total Sulfur (15%)	0354	16.64	0.1660	16.62	0.4377	0.2028	27	0.04	148.99	0
148	Total Sulfur (15%)	0231	16.67	0.0100	16.62	0.4377	0.2028	27	0.10	148.01	0
148	Total Sulfur (15%)	0096	16.70	0.2900	16.62	0.4377	0.2028	27	0.16	148.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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148	Total Sulfur (15%)	0029	16.73	0.1900	16.62	0.4377	0.2028	27	0.23	148.00	0
148	Total Sulfur (15%)	0102	16.79	0.0300	16.62	0.4377	0.2028	27	0.38	148.01	0
148	Total Sulfur (15%)	0394	16.80	0.0000	16.62	0.4377	0.2028	27	0.40	148.04	0
148	Total Sulfur (15%)	0481	16.81	0.1100	16.62	0.4377	0.2028	27	0.41	148.01	0
148	Total Sulfur (15%)	0485	16.82	0.2500	16.62	0.4377	0.2028	27	0.44	148.01	0
148	Total Sulfur (15%)	0029	16.89	0.1200	16.62	0.4377	0.2028	27	0.61	148.01	0
148	Total Sulfur (15%)	0292	16.94	0.0700	16.62	0.4377	0.2028	27	0.71	148.07	0
148	Total Sulfur (15%)	0040	16.95	0.1000	16.62	0.4377	0.2028	27	0.75	148.01	0
148	Total Sulfur (15%)	0324	17.10	0.6000	16.62	0.4377	0.2028	27	1.09	148.01	0
148	Total Sulfur (15%)	0157	17.25	0.1000	16.62	0.4377	0.2028	27	1.43	148.01	0
148	Total Sulfur (15%)	0102	17.44	0.0040	16.62	0.4377	0.2028	27	1.87	148.07	0
148	Total Sulfur (15%)	0291	18.08	0.0100	16.62	0.4377	0.2028	27	3.32	148.99	0
148	Total Sulfur (15%)	0482	17.65	1.700	16.62	0.4377	0.2028	27	2.35	148.99	1
149	Sulfur - HNO3 soluble (%)	0423	15.85	0.1000	16.18	0.4603	0.1790	2	-0.71	149.04	0
149	Sulfur - HNO3 soluble (%)	0368	16.50	0.2580	16.18	0.4603	0.1790	2	0.71	149.04	0
151	Acid Soluble Arsenic (ppm)	0515	2.874	0.2660	3.746	0.6379	0.3208	9	-1.37	151.34	0
151	Acid Soluble Arsenic (ppm)	0515	3.194	0.8420	3.746	0.6379	0.3208	9	-0.87	151.33	0
151	Acid Soluble Arsenic (ppm)	0102	3.325	0.6390	3.746	0.6379	0.3208	9	-0.66	151.30	0
151	Acid Soluble Arsenic (ppm)	0481	3.440	0.3800	3.746	0.6379	0.3208	9	-0.48	151.99	0
151	Acid Soluble Arsenic (ppm)	0498	3.800	0.2000	3.746	0.6379	0.3208	9	0.08	151.99	0
151	Acid Soluble Arsenic (ppm)	0096	4.100	0.2000	3.746	0.6379	0.3208	9	0.56	151.30	0
151	Acid Soluble Arsenic (ppm)	0394	4.175	0.1100	3.746	0.6379	0.3208	9	0.67	151.30	0
151	Acid Soluble Arsenic (ppm)	0136	4.300	0.2000	3.746	0.6379	0.3208	9	0.87	151.00	0
151	Acid Soluble Arsenic (ppm)	0230	4.505	0.0500	3.746	0.6379	0.3208	9	1.19	151.30	0
151	Acid Soluble Arsenic (ppm)	0368	0.0000	0.0000	3.746	0.6379	0.3208	9	-5.87	151.30	4
165	Acid Soluble Boron (0.1%)	0055	0.1030*	0.0000	0.1501	0.0122	0.0039	28	-3.87	165.00	0
165	Acid Soluble Boron (0.1%)	0230	0.1270	0.0020	0.1501	0.0122	0.0039	28	-1.90	165.99	0
165	Acid Soluble Boron (0.1%)	0515	0.1339	0.0130	0.1501	0.0122	0.0039	28	-1.33	165.99	0
165	Acid Soluble Boron (0.1%)	0397	0.1390	0.0020	0.1501	0.0122	0.0039	28	-0.91	165.30	0
165	Acid Soluble Boron (0.1%)	0291	0.1400	0.0000	0.1501	0.0122	0.0039	28	-0.83	165.30	0
165	Acid Soluble Boron (0.1%)	0486	0.1400	0.0000	0.1501	0.0122	0.0039	28	-0.83	165.99	0
165	Acid Soluble Boron (0.1%)	0043	0.1410	0.0040	0.1501	0.0122	0.0039	28	-0.75	165.99	0
165	Acid Soluble Boron (0.1%)	0037	0.1430	0.0040	0.1501	0.0122	0.0039	28	-0.58	165.00	0
165	Acid Soluble Boron (0.1%)	0423	0.1440	0.0020	0.1501	0.0122	0.0039	28	-0.50	165.99	0
165	Acid Soluble Boron (0.1%)	0481	0.1450	0.0100	0.1501	0.0122	0.0039	28	-0.42	165.00	0
165	Acid Soluble Boron (0.1%)	0482	0.1450	0.0100	0.1501	0.0122	0.0039	28	-0.42	165.99	0
165	Acid Soluble Boron (0.1%)	0421	0.1465	0.0010	0.1501	0.0122	0.0039	28	-0.30	165.99	0
165	Acid Soluble Boron (0.1%)	0090	0.1475	0.0050	0.1501	0.0122	0.0039	28	-0.21	165.30	0
165	Acid Soluble Boron (0.1%)	0095	0.1500	0.0000	0.1501	0.0122	0.0039	28	-0.01	165.99	0
165	Acid Soluble Boron (0.1%)	0472	0.1500	0.0000	0.1501	0.0122	0.0039	28	-0.01	165.99	0
165	Acid Soluble Boron (0.1%)	0368	0.1512	0.0026	0.1501	0.0122	0.0039	28	0.09	165.99	0
165	Acid Soluble Boron (0.1%)	0397	0.1520	0.0040	0.1501	0.0122	0.0039	28	0.16	165.00	0
165	Acid Soluble Boron (0.1%)	0029	0.1530	0.0040	0.1501	0.0122	0.0039	28	0.24	165.00	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
165	Acid Soluble Boron (0.1%)	0433	0.1537	0.0010	0.1501	0.0122	0.0039	28	0.30	165.30	0
165	Acid Soluble Boron (0.1%)	0506	0.1550	0.0100	0.1501	0.0122	0.0039	28	0.40	165.00	0
165	Acid Soluble Boron (0.1%)	0394	0.1559	0.0019	0.1501	0.0122	0.0039	28	0.47	165.30	0
165	Acid Soluble Boron (0.1%)	0354	0.1600	0.0040	0.1501	0.0122	0.0039	28	0.81	165.30	0
165	Acid Soluble Boron (0.1%)	0360	0.1600	0.0040	0.1501	0.0122	0.0039	28	0.81	165.99	0
165	Acid Soluble Boron (0.1%)	0025	0.1644	0.0034	0.1501	0.0122	0.0039	28	1.17	165.30	0
165	Acid Soluble Boron (0.1%)	0444	0.1650	0.0100	0.1501	0.0122	0.0039	28	1.22	165.30	0
165	Acid Soluble Boron (0.1%)	0231	0.1700	0.0000	0.1501	0.0122	0.0039	28	1.63	165.99	0
165	Acid Soluble Boron (0.1%)	0402	0.2100	0.0000	0.1501	0.0122	0.0039	28	4.92	165.30	0
165	Acid Soluble Boron (0.1%)	0042	0.2450	0.0100	0.1501	0.0122	0.0039	28	7.79	165.99	0
165	Acid Soluble Boron (0.1%)	0324	0.1930	0.0960	0.1501	0.0122	0.0039	28	3.52	165.30	1
171	Water Soluble Boron (%)	0444	0.1400	0.0000	0.1453	0.0074	0.0025	2	-0.71	171.99	0
171	Water Soluble Boron (%)	0027	0.1505	0.0050	0.1453	0.0074	0.0025	2	0.71	171.99	0
181	Acid Soluble Cadmium (ppm)	0515	2.920	0.4435	4.621	0.4850	0.2562	13	-3.51	181.33	0
181	Acid Soluble Cadmium (ppm)	0444	3.645	0.2100	4.621	0.4850	0.2562	13	-2.01	181.30	0
181	Acid Soluble Cadmium (ppm)	0035	4.165	0.1300	4.621	0.4850	0.2562	13	-0.94	181.30	0
181	Acid Soluble Cadmium (ppm)	0230	4.370	0.0600	4.621	0.4850	0.2562	13	-0.52	181.30	0
181	Acid Soluble Cadmium (ppm)	0394	4.380	0.1600	4.621	0.4850	0.2562	13	-0.50	181.30	0
181	Acid Soluble Cadmium (ppm)	0096	4.500	0.2000	4.621	0.4850	0.2562	13	-0.25	181.30	0
181	Acid Soluble Cadmium (ppm)	0136	4.650	0.1000	4.621	0.4850	0.2562	13	0.06	181.00	0
181	Acid Soluble Cadmium (ppm)	0368	4.850	0.1000	4.621	0.4850	0.2562	13	0.47	181.30	0
181	Acid Soluble Cadmium (ppm)	0482	4.850	0.1000	4.621	0.4850	0.2562	13	0.47	181.30	0
181	Acid Soluble Cadmium (ppm)	0102	4.949	0.3870	4.621	0.4850	0.2562	13	0.68	181.30	0
181	Acid Soluble Cadmium (ppm)	0037	4.970	0.1400	4.621	0.4850	0.2562	13	0.72	181.33	0
181	Acid Soluble Cadmium (ppm)	0481	5.100	0.2000	4.621	0.4850	0.2562	13	0.99	181.99	0
181	Acid Soluble Cadmium (ppm)	0498	9.650	1.100	4.621	0.4850	0.2562	13	10.37	181.99	0
181	Acid Soluble Cadmium (ppm)	0515	3.424	2.722	4.621	0.4850	0.2562	13	-2.47	181.34	1
190	Water Soluble Chlorine (8%)	0368	4.290*	0.0600	6.260	0.2043	0.0793	14	-9.64	190.99	0
190	Water Soluble Chlorine (8%)	0029	5.950	0.1000	6.260	0.2043	0.0793	14	-1.52	190.99	0
190	Water Soluble Chlorine (8%)	0027	6.000	0.0000	6.260	0.2043	0.0793	14	-1.27	190.00	0
190	Water Soluble Chlorine (8%)	0481	6.010	0.1200	6.260	0.2043	0.0793	14	-1.22	190.00	0
190	Water Soluble Chlorine (8%)	0394	6.100	0.0000	6.260	0.2043	0.0793	14	-0.78	190.00	0
190	Water Soluble Chlorine (8%)	0102	6.198	0.0470	6.260	0.2043	0.0793	14	-0.31	190.00	0
190	Water Soluble Chlorine (8%)	0444	6.280	0.0400	6.260	0.2043	0.0793	14	0.10	190.00	0
190	Water Soluble Chlorine (8%)	0230	6.340	0.1600	6.260	0.2043	0.0793	14	0.39	190.00	0
190	Water Soluble Chlorine (8%)	0043	6.380	0.0200	6.260	0.2043	0.0793	14	0.59	190.00	0
190	Water Soluble Chlorine (8%)	0397	6.384	0.0027	6.260	0.2043	0.0793	14	0.61	190.00	0
190	Water Soluble Chlorine (8%)	0055	6.390	0.1800	6.260	0.2043	0.0793	14	0.64	190.00	0
190	Water Soluble Chlorine (8%)	0105	6.400	0.1000	6.260	0.2043	0.0793	14	0.69	190.00	0
190	Water Soluble Chlorine (8%)	0029	6.440	0.0800	6.260	0.2043	0.0793	14	0.88	190.00	0
190	Water Soluble Chlorine (8%)	0506	7.600	0.2000	6.260	0.2043	0.0793	14	6.56	190.00	0
191	Acid Soluble Chromium (ppm)	0512	43.00	8.484	85.32	13.75	3.029	13	-3.08	191.99	0
191	Acid Soluble Chromium (ppm)	0394	70.25	1.300	85.32	13.75	3.029	13	-1.10	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)	0482	71.95	3.300	85.32	13.75	3.029	13	-0.97	191.30	0
191	Acid Soluble Chromium (ppm)	0444	72.46	3.190	85.32	13.75	3.029	13	-0.93	191.30	0
191	Acid Soluble Chromium (ppm)	0102	78.64	2.819	85.32	13.75	3.029	13	-0.49	191.30	0
191	Acid Soluble Chromium (ppm)	0368	85.60	4.400	85.32	13.75	3.029	13	0.02	191.30	0
191	Acid Soluble Chromium (ppm)	0230	86.95	3.100	85.32	13.75	3.029	13	0.12	191.30	0
191	Acid Soluble Chromium (ppm)	0515	89.18	2.643	85.32	13.75	3.029	13	0.28	191.34	0
191	Acid Soluble Chromium (ppm)	0035	90.65	3.100	85.32	13.75	3.029	13	0.39	191.30	0
191	Acid Soluble Chromium (ppm)	0096	93.35	1.300	85.32	13.75	3.029	13	0.58	191.30	0
191	Acid Soluble Chromium (ppm)	0037	94.68	1.740	85.32	13.75	3.029	13	0.68	191.33	0
191	Acid Soluble Chromium (ppm)	0481	101.5	3.000	85.32	13.75	3.029	13	1.18	191.99	0
191	Acid Soluble Chromium (ppm)	0506	106.5	1.000	85.32	13.75	3.029	13	1.54	191.99	0
191	Acid Soluble Chromium (ppm)	0515	98.21	23.21	85.32	13.75	3.029	13	0.94	191.33	1
202	Acid Soluble Cobalt (ppm)	0102	4.299	0.5200	8.045	2.695	0.3530	12	-1.39	202.30	0
202	Acid Soluble Cobalt (ppm)	0368	5.000	1.200	8.045	2.695	0.3530	12	-1.13	202.30	0
202	Acid Soluble Cobalt (ppm)	0035	5.620	0.0400	8.045	2.695	0.3530	12	-0.90	202.30	0
202	Acid Soluble Cobalt (ppm)	0230	7.550	0.0800	8.045	2.695	0.3530	12	-0.18	202.30	0
202	Acid Soluble Cobalt (ppm)	0482	7.550	0.1000	8.045	2.695	0.3530	12	-0.18	202.30	0
202	Acid Soluble Cobalt (ppm)	0423	7.640	0.1000	8.045	2.695	0.3530	12	-0.15	202.32	0
202	Acid Soluble Cobalt (ppm)	0096	7.680	0.3600	8.045	2.695	0.3530	12	-0.14	202.30	0
202	Acid Soluble Cobalt (ppm)	0515	8.142	0.4623	8.045	2.695	0.3530	12	0.04	202.33	0
202	Acid Soluble Cobalt (ppm)	0037	10.13	0.1900	8.045	2.695	0.3530	12	0.77	202.33	0
202	Acid Soluble Cobalt (ppm)	0512	10.14	1.094	8.045	2.695	0.3530	12	0.78	202.99	0
202	Acid Soluble Cobalt (ppm)	0233	10.71	0.0900	8.045	2.695	0.3530	12	0.99	202.30	0
202	Acid Soluble Cobalt (ppm)	0481	19.90	0.0000	8.045	2.695	0.3530	12	4.40	202.99	0
202	Acid Soluble Cobalt (ppm)	0515	6.497	4.245	8.045	2.695	0.3530	12	-0.57	202.34	1
221	Acid Soluble Copper (%)	0512	0.0021	0.0002	0.0032	0.0003	0.0128	20	-3.48	221.99	0
221	Acid Soluble Copper (%)	0389	0.0025	0.0000	0.0032	0.0003	0.0128	20	-2.22	221.99	0
221	Acid Soluble Copper (%)	0394	0.0026	0.0002	0.0032	0.0003	0.0128	20	-1.91	221.32	0
221	Acid Soluble Copper (%)	0041	0.0030	0.0000	0.0032	0.0003	0.0128	20	-0.64	221.30	0
221	Acid Soluble Copper (%)	0102	0.0030	0.0000	0.0032	0.0003	0.0128	20	-0.64	221.30	0
221	Acid Soluble Copper (%)	0230	0.0030	0.0002	0.0032	0.0003	0.0128	20	-0.64	221.30	0
221	Acid Soluble Copper (%)	0481	0.0031	0.0001	0.0032	0.0003	0.0128	20	-0.49	221.00	0
221	Acid Soluble Copper (%)	0035	0.0031	0.0001	0.0032	0.0003	0.0128	20	-0.49	221.30	0
221	Acid Soluble Copper (%)	0105	0.0031	0.0006	0.0032	0.0003	0.0128	20	-0.33	221.00	0
221	Acid Soluble Copper (%)	0515	0.0031	0.0002	0.0032	0.0003	0.0128	20	-0.33	221.99	0
221	Acid Soluble Copper (%)	0515	0.0033	0.0003	0.0032	0.0003	0.0128	20	0.15	221.33	0
221	Acid Soluble Copper (%)	0105	0.0033	0.0001	0.0032	0.0003	0.0128	20	0.15	221.03	0
221	Acid Soluble Copper (%)	0096	0.0033	0.0001	0.0032	0.0003	0.0128	20	0.15	221.30	0
221	Acid Soluble Copper (%)	0043	0.0034	0.0001	0.0032	0.0003	0.0128	20	0.46	221.00	0
221	Acid Soluble Copper (%)	0433	0.0035	0.0000	0.0032	0.0003	0.0128	20	0.93	221.30	0
221	Acid Soluble Copper (%)	0233	0.0037	0.0003	0.0032	0.0003	0.0128	20	1.41	221.30	0
221	Acid Soluble Copper (%)	0402	0.0040	0.0000	0.0032	0.0003	0.0128	20	2.51	221.30	0
221	Acid Soluble Copper (%)	0444	0.0055	0.0010	0.0032	0.0003	0.0128	20	7.25	221.30	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				
221	Acid Soluble Copper (%)	0354	0.0060	0.0020	0.0032	0.0003	0.0128	20	8.83	221.30	0
221	Acid Soluble Copper (%)	0423	30.48	0.2500	0.0032	0.0003	0.0128	20	96177.52	221.32	0
221	Acid Soluble Copper (%)	0368	32.65	0.9000	0.0032	0.0003	0.0128	20	103042.43	221.30	1
221	Acid Soluble Copper (%)	0421	0.0000	0.0000	0.0032	0.0003	0.0128	20	-10.11	221.33	4
241	Acid Soluble Iron (1%)	0512	0.2053*	0.1240	1.416	0.1562	0.0571	48	-7.75	241.99	0
241	Acid Soluble Iron (1%)	0420	0.3275*	0.0250	1.416	0.1562	0.0571	48	-6.97	241.30	0
241	Acid Soluble Iron (1%)	0516	0.8300*	0.1000	1.416	0.1562	0.0571	48	-3.75	241.00	0
241	Acid Soluble Iron (1%)	0389	0.8880*	0.0340	1.416	0.1562	0.0571	48	-3.38	241.99	0
241	Acid Soluble Iron (1%)	0472	0.9750*	0.0100	1.416	0.1562	0.0571	48	-2.82	241.30	0
241	Acid Soluble Iron (1%)	0513	1.030*	0.0600	1.416	0.1562	0.0571	48	-2.47	241.00	0
241	Acid Soluble Iron (1%)	0131	1.150*	0.1400	1.416	0.1562	0.0571	48	-1.70	241.30	0
241	Acid Soluble Iron (1%)	0102	1.151*	0.2180	1.416	0.1562	0.0571	48	-1.70	241.30	0
241	Acid Soluble Iron (1%)	0486	1.185*	0.0100	1.416	0.1562	0.0571	48	-1.48	241.33	0
241	Acid Soluble Iron (1%)	0090	1.215*	0.0700	1.416	0.1562	0.0571	48	-1.29	241.30	0
241	Acid Soluble Iron (1%)	0042	1.230*	0.1600	1.416	0.1562	0.0571	48	-1.19	241.99	0
241	Acid Soluble Iron (1%)	0291	1.235*	0.0100	1.416	0.1562	0.0571	48	-1.16	241.30	0
241	Acid Soluble Iron (1%)	0073	1.265*	0.0300	1.416	0.1562	0.0571	48	-0.97	241.30	0
241	Acid Soluble Iron (1%)	0035	1.280	0.0600	1.416	0.1562	0.0571	48	-0.87	241.30	0
241	Acid Soluble Iron (1%)	0230	1.280	0.0600	1.416	0.1562	0.0571	48	-0.87	241.30	0
241	Acid Soluble Iron (1%)	0423	1.335	0.0300	1.416	0.1562	0.0571	48	-0.52	241.32	0
241	Acid Soluble Iron (1%)	0354	1.347	0.0390	1.416	0.1562	0.0571	48	-0.45	241.30	0
241	Acid Soluble Iron (1%)	0506	1.365	0.0300	1.416	0.1562	0.0571	48	-0.33	241.99	0
241	Acid Soluble Iron (1%)	0397	1.386	0.0650	1.416	0.1562	0.0571	48	-0.20	241.33	0
241	Acid Soluble Iron (1%)	0482	1.390	0.0400	1.416	0.1562	0.0571	48	-0.17	241.30	0
241	Acid Soluble Iron (1%)	0481	1.430	0.0200	1.416	0.1562	0.0571	48	0.09	241.00	0
241	Acid Soluble Iron (1%)	0394	1.440	0.1140	1.416	0.1562	0.0571	48	0.15	241.32	0
241	Acid Soluble Iron (1%)	0515	1.443	0.1665	1.416	0.1562	0.0571	48	0.17	241.99	0
241	Acid Soluble Iron (1%)	0402	1.445	0.0300	1.416	0.1562	0.0571	48	0.19	241.30	0
241	Acid Soluble Iron (1%)	0433	1.457	0.0156	1.416	0.1562	0.0571	48	0.26	241.30	0
241	Acid Soluble Iron (1%)	0157	1.460	0.0200	1.416	0.1562	0.0571	48	0.28	241.30	0
241	Acid Soluble Iron (1%)	0515	1.460	0.0740	1.416	0.1562	0.0571	48	0.28	241.33	0
241	Acid Soluble Iron (1%)	0444	1.480	0.2000	1.416	0.1562	0.0571	48	0.41	241.30	0
241	Acid Soluble Iron (1%)	0037	1.484	0.0170	1.416	0.1562	0.0571	48	0.43	241.33	0
241	Acid Soluble Iron (1%)	0368	1.484	0.0241	1.416	0.1562	0.0571	48	0.43	241.30	0
241	Acid Soluble Iron (1%)	0105	1.487	0.1940	1.416	0.1562	0.0571	48	0.45	241.00	0
241	Acid Soluble Iron (1%)	0177	1.497	0.0313	1.416	0.1562	0.0571	48	0.52	241.33	0
241	Acid Soluble Iron (1%)	0231	1.505	0.0300	1.416	0.1562	0.0571	48	0.57	241.30	0
241	Acid Soluble Iron (1%)	0105	1.511	0.0190	1.416	0.1562	0.0571	48	0.60	241.03	0
241	Acid Soluble Iron (1%)	0095	1.515	0.0100	1.416	0.1562	0.0571	48	0.63	241.30	0
241	Acid Soluble Iron (1%)	0029	1.524	0.0760	1.416	0.1562	0.0571	48	0.69	241.00	0
241	Acid Soluble Iron (1%)	0485	1.535	0.0100	1.416	0.1562	0.0571	48	0.76	241.00	0
241	Acid Soluble Iron (1%)	0041	1.540	0.0600	1.416	0.1562	0.0571	48	0.79	241.30	0
241	Acid Soluble Iron (1%)	0034	1.541	0.0360	1.416	0.1562	0.0571	48	0.80	241.33	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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241	Acid Soluble Iron (1%)	0233	1.542	0.0270	1.416	0.1562	0.0571	48	0.80	241.30	0
241	Acid Soluble Iron (1%)	0096	1.545	0.0300	1.416	0.1562	0.0571	48	0.83	241.30	0
241	Acid Soluble Iron (1%)	0043	1.560	0.0040	1.416	0.1562	0.0571	48	0.92	241.00	0
241	Acid Soluble Iron (1%)	0360	1.580	0.0600	1.416	0.1562	0.0571	48	1.05	241.30	0
241	Acid Soluble Iron (1%)	0421	1.600	0.0200	1.416	0.1562	0.0571	48	1.18	241.33	0
241	Acid Soluble Iron (1%)	0324	1.605	0.0500	1.416	0.1562	0.0571	48	1.21	241.30	0
241	Acid Soluble Iron (1%)	0234	1.610	0.0200	1.416	0.1562	0.0571	48	1.24	241.30	0
241	Acid Soluble Iron (1%)	0027	1.630	0.0270	1.416	0.1562	0.0571	48	1.37	241.30	0
241	Acid Soluble Iron (1%)	0055	1.728	0.0420	1.416	0.1562	0.0571	48	2.00	241.30	0
251	Acid Soluble Lead (ppm)	0498	1.625	0.1500	7.250	1.825	0.9496	14	-3.08	251.99	0
251	Acid Soluble Lead (ppm)	0481	4.510	0.1600	7.250	1.825	0.9496	14	-1.50	251.99	0
251	Acid Soluble Lead (ppm)	0035	5.825	1.050	7.250	1.825	0.9496	14	-0.78	251.30	0
251	Acid Soluble Lead (ppm)	0515	6.253	0.5110	7.250	1.825	0.9496	14	-0.55	251.33	0
251	Acid Soluble Lead (ppm)	0136	6.500	1.000	7.250	1.825	0.9496	14	-0.41	251.00	0
251	Acid Soluble Lead (ppm)	0394	6.600	0.4000	7.250	1.825	0.9496	14	-0.36	251.30	0
251	Acid Soluble Lead (ppm)	0515	7.307	0.9570	7.250	1.825	0.9496	14	0.03	251.34	0
251	Acid Soluble Lead (ppm)	0444	7.450	0.6600	7.250	1.825	0.9496	14	0.11	251.30	0
251	Acid Soluble Lead (ppm)	0230	7.495	0.1700	7.250	1.825	0.9496	14	0.13	251.30	0
251	Acid Soluble Lead (ppm)	0096	7.950	0.7000	7.250	1.825	0.9496	14	0.38	251.30	0
251	Acid Soluble Lead (ppm)	0037	8.665	0.6700	7.250	1.825	0.9496	14	0.78	251.33	0
251	Acid Soluble Lead (ppm)	0482	8.790	0.8200	7.250	1.825	0.9496	14	0.84	251.30	0
251	Acid Soluble Lead (ppm)	0102	9.286	2.647	7.250	1.825	0.9496	14	1.12	251.30	0
251	Acid Soluble Lead (ppm)	0368	10.40	3.400	7.250	1.825	0.9496	14	1.73	251.30	0
251	Acid Soluble Lead (ppm)	0512	77.21	1.350	7.250	1.825	0.9496	14	38.33	251.99	2
261	Acid Soluble Manganese (%)	0131	0.0041	0.0018	0.0138	0.0025	0.0016	14	-3.88	261.30	0
261	Acid Soluble Manganese (%)	0420	0.0057	0.0002	0.0138	0.0025	0.0016	14	-3.24	261.30	0
261	Acid Soluble Manganese (%)	0389	0.0098	0.0005	0.0138	0.0025	0.0016	14	-1.62	261.99	0
261	Acid Soluble Manganese (%)	0472	0.0100	0.0000	0.0138	0.0025	0.0016	14	-1.53	261.30	0
261	Acid Soluble Manganese (%)	0102	0.0125	0.0030	0.0138	0.0025	0.0016	14	-0.53	261.30	0
261	Acid Soluble Manganese (%)	0354	0.0140	0.0000	0.0138	0.0025	0.0016	14	0.07	261.30	0
261	Acid Soluble Manganese (%)	0035	0.0143	0.0002	0.0138	0.0025	0.0016	14	0.19	261.30	0
261	Acid Soluble Manganese (%)	0421	0.0145	0.0010	0.0138	0.0025	0.0016	14	0.27	261.35	0
261	Acid Soluble Manganese (%)	0482	0.0150	0.0100	0.0138	0.0025	0.0016	14	0.47	261.31	0
261	Acid Soluble Manganese (%)	0105	0.0156	0.0007	0.0138	0.0025	0.0016	14	0.69	261.15	0
261	Acid Soluble Manganese (%)	0105	0.0157	0.0021	0.0138	0.0025	0.0016	14	0.73	261.12	0
261	Acid Soluble Manganese (%)	0096	0.0157	0.0002	0.0138	0.0025	0.0016	14	0.75	261.30	0
261	Acid Soluble Manganese (%)	0043	0.0165	0.0010	0.0138	0.0025	0.0016	14	1.07	261.00	0
261	Acid Soluble Manganese (%)	0041	0.0165	0.0010	0.0138	0.0025	0.0016	14	1.07	261.30	0
261	Acid Soluble Manganese (%)	0423	153.5	8.000	0.0138	0.0025	0.0016	14	61191.20	261.34	2
281	Acid Soluble Mercury (ppm)	0394	0.0100	0.0000	0.0123	0.0032	0.0002	2	-0.71	281.30	0
281	Acid Soluble Mercury (ppm)	0230	0.0145	0.0004	0.0123	0.0032	0.0002	2	0.71	281.00	0
281	Acid Soluble Mercury (ppm)	0515	0.0217	0.0434	0.0123	0.0032	0.0002	2	2.97	281.30	4
289	Acid Soluble Molybdenum (ppm)	0423	6.180	0.0200	7.184	0.9012	0.3624	10	-1.11	289.33	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				
289	Acid Soluble Molybdenum (ppm)	0515	6.283	0.0325	7.184	0.9012	0.3624	10	-1.00	289.33	0
289	Acid Soluble Molybdenum (ppm)	0394	6.500	1.000	7.184	0.9012	0.3624	10	-0.76	289.30	0
289	Acid Soluble Molybdenum (ppm)	0035	6.775	0.1500	7.184	0.9012	0.3624	10	-0.45	289.30	0
289	Acid Soluble Molybdenum (ppm)	0433	6.992	0.0999	7.184	0.9012	0.3624	10	-0.21	289.30	0
289	Acid Soluble Molybdenum (ppm)	0102	7.131	0.1620	7.184	0.9012	0.3624	10	-0.06	289.30	0
289	Acid Soluble Molybdenum (ppm)	0096	7.550	0.3000	7.184	0.9012	0.3624	10	0.41	289.30	0
289	Acid Soluble Molybdenum (ppm)	0230	7.705	0.2700	7.184	0.9012	0.3624	10	0.58	289.30	0
289	Acid Soluble Molybdenum (ppm)	0037	8.325	0.0900	7.184	0.9012	0.3624	10	1.27	289.33	0
289	Acid Soluble Molybdenum (ppm)	0506	14.25	1.500	7.184	0.9012	0.3624	10	7.84	289.99	0
289	Acid Soluble Molybdenum (ppm)	0515	5.833	2.425	7.184	0.9012	0.3624	10	-1.50	289.34	1
289	Acid Soluble Molybdenum (ppm)	0368	0.0000	0.0000	7.184	0.9012	0.3624	10	-7.97	289.30	4
291	Acid Soluble Nickel (ppm)	0482	27.55	1.700	35.96	4.250	1.069	16	-1.98	291.30	0
291	Acid Soluble Nickel (ppm)	0035	29.10	0.4000	35.96	4.250	1.069	16	-1.61	291.30	0
291	Acid Soluble Nickel (ppm)	0394	29.70	1.200	35.96	4.250	1.069	16	-1.47	291.30	0
291	Acid Soluble Nickel (ppm)	0506	32.75	3.500	35.96	4.250	1.069	16	-0.76	291.99	0
291	Acid Soluble Nickel (ppm)	0368	34.35	2.500	35.96	4.250	1.069	16	-0.38	291.30	0
291	Acid Soluble Nickel (ppm)	0233	34.44	0.4300	35.96	4.250	1.069	16	-0.36	291.30	0
291	Acid Soluble Nickel (ppm)	0102	35.39	1.227	35.96	4.250	1.069	16	-0.13	291.30	0
291	Acid Soluble Nickel (ppm)	0230	36.05	0.9000	35.96	4.250	1.069	16	0.02	291.30	0
291	Acid Soluble Nickel (ppm)	0515	36.18	0.0060	35.96	4.250	1.069	16	0.05	291.33	0
291	Acid Soluble Nickel (ppm)	0444	37.98	1.210	35.96	4.250	1.069	16	0.47	291.30	0
291	Acid Soluble Nickel (ppm)	0095	38.00	0.0000	35.96	4.250	1.069	16	0.48	291.30	0
291	Acid Soluble Nickel (ppm)	0515	38.08	3.441	35.96	4.250	1.069	16	0.50	291.34	0
291	Acid Soluble Nickel (ppm)	0037	39.55	0.1900	35.96	4.250	1.069	16	0.84	291.33	0
291	Acid Soluble Nickel (ppm)	0136	40.00	0.0000	35.96	4.250	1.069	16	0.95	291.00	0
291	Acid Soluble Nickel (ppm)	0096	40.00	0.4000	35.96	4.250	1.069	16	0.95	291.30	0
291	Acid Soluble Nickel (ppm)	0481	45.80	0.0000	35.96	4.250	1.069	16	2.32	291.99	0
291	Acid Soluble Nickel (ppm)	0512	13.79	8.430	35.96	4.250	1.069	16	-5.22	291.99	1
301	Acid Soluble Selenium (ppm)	0394	0.2050	0.0100	0.3683	0.2309	0.2145	2	-0.71	301.30	0
301	Acid Soluble Selenium (ppm)	0230	0.5315	0.4190	0.3683	0.2309	0.2145	2	0.71	301.30	0
301	Acid Soluble Selenium (ppm)	0368	0.0000	0.0000	0.3683	0.2309	0.2145	2	-1.60	301.30	4
301	Acid Soluble Selenium (ppm)	0515	0.0000	0.0000	0.3683	0.2309	0.2145	2	-1.60	301.33	4
301	Acid Soluble Selenium (ppm)	0515	0.3620	0.7239	0.3683	0.2309	0.2145	2	-0.03	301.34	4
311	Sodium (%)	0035	0.1995	0.0070	0.2130	0.0135	0.0101	8	-1.00	311.33	0
311	Sodium (%)	0025	0.2030	0.0071	0.2130	0.0135	0.0101	8	-0.75	311.32	0
311	Sodium (%)	0423	0.2040	0.0020	0.2130	0.0135	0.0101	8	-0.67	311.33	0
311	Sodium (%)	0102	0.2050	0.0040	0.2130	0.0135	0.0101	8	-0.60	311.33	0
311	Sodium (%)	0482	0.2150	0.0300	0.2130	0.0135	0.0101	8	0.14	311.99	0
311	Sodium (%)	0096	0.2200	0.0000	0.2130	0.0135	0.0101	8	0.52	311.99	0
311	Sodium (%)	0510	0.2300	0.0200	0.2130	0.0135	0.0101	8	1.26	311.30	0
311	Sodium (%)	0354	0.2445	0.0110	0.2130	0.0135	0.0101	8	2.33	311.99	0
321	Acid Soluble Zinc (0.1%)	0513	0.1150*	0.0100	0.1507	0.0102	0.0044	47	-3.49	321.00	0
321	Acid Soluble Zinc (0.1%)	0486	0.1300*	0.0000	0.1507	0.0102	0.0044	47	-2.03	321.33	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				
321	Acid Soluble Zinc (0.1%)	0230	0.1335	0.0010	0.1507	0.0102	0.0044	47	-1.68	321.30	0
321	Acid Soluble Zinc (0.1%)	0169	0.1380	0.0020	0.1507	0.0102	0.0044	47	-1.24	321.00	0
321	Acid Soluble Zinc (0.1%)	0516	0.1385	0.0010	0.1507	0.0102	0.0044	47	-1.20	321.00	0
321	Acid Soluble Zinc (0.1%)	0157	0.1385	0.0010	0.1507	0.0102	0.0044	47	-1.20	321.30	0
321	Acid Soluble Zinc (0.1%)	0035	0.1389	0.0013	0.1507	0.0102	0.0044	47	-1.16	321.30	0
321	Acid Soluble Zinc (0.1%)	0481	0.1400	0.0000	0.1507	0.0102	0.0044	47	-1.05	321.00	0
321	Acid Soluble Zinc (0.1%)	0291	0.1400	0.0000	0.1507	0.0102	0.0044	47	-1.05	321.30	0
321	Acid Soluble Zinc (0.1%)	0131	0.1425	0.0030	0.1507	0.0102	0.0044	47	-0.80	321.30	0
321	Acid Soluble Zinc (0.1%)	0034	0.1425	0.0010	0.1507	0.0102	0.0044	47	-0.80	321.33	0
321	Acid Soluble Zinc (0.1%)	0055	0.1430	0.0060	0.1507	0.0102	0.0044	47	-0.76	321.30	0
321	Acid Soluble Zinc (0.1%)	0397	0.1445	0.0030	0.1507	0.0102	0.0044	47	-0.61	321.33	0
321	Acid Soluble Zinc (0.1%)	0482	0.1450	0.0100	0.1507	0.0102	0.0044	47	-0.56	321.30	0
321	Acid Soluble Zinc (0.1%)	0389	0.1465	0.0010	0.1507	0.0102	0.0044	47	-0.41	321.99	0
321	Acid Soluble Zinc (0.1%)	0394	0.1475	0.0070	0.1507	0.0102	0.0044	47	-0.32	321.32	0
321	Acid Soluble Zinc (0.1%)	0515	0.1475	0.0238	0.1507	0.0102	0.0044	47	-0.32	321.33	0
321	Acid Soluble Zinc (0.1%)	0105	0.1480	0.0011	0.1507	0.0102	0.0044	47	-0.27	321.00	0
321	Acid Soluble Zinc (0.1%)	0292	0.1500	0.0000	0.1507	0.0102	0.0044	47	-0.07	321.30	0
321	Acid Soluble Zinc (0.1%)	0402	0.1500	0.0040	0.1507	0.0102	0.0044	47	-0.07	321.30	0
321	Acid Soluble Zinc (0.1%)	0444	0.1500	0.0000	0.1507	0.0102	0.0044	47	-0.07	321.30	0
321	Acid Soluble Zinc (0.1%)	0472	0.1500	0.0000	0.1507	0.0102	0.0044	47	-0.07	321.30	0
321	Acid Soluble Zinc (0.1%)	0042	0.1500	0.0000	0.1507	0.0102	0.0044	47	-0.07	321.99	0
321	Acid Soluble Zinc (0.1%)	0506	0.1500	0.0000	0.1507	0.0102	0.0044	47	-0.07	321.99	0
321	Acid Soluble Zinc (0.1%)	0512	0.1507	0.0086	0.1507	0.0102	0.0044	47	0.00	321.99	0
321	Acid Soluble Zinc (0.1%)	0485	0.1510	0.0040	0.1507	0.0102	0.0044	47	0.03	321.00	0
321	Acid Soluble Zinc (0.1%)	0090	0.1525	0.0070	0.1507	0.0102	0.0044	47	0.17	321.30	0
321	Acid Soluble Zinc (0.1%)	0354	0.1525	0.0050	0.1507	0.0102	0.0044	47	0.17	321.30	0
321	Acid Soluble Zinc (0.1%)	0420	0.1525	0.0010	0.1507	0.0102	0.0044	47	0.17	321.30	0
321	Acid Soluble Zinc (0.1%)	0029	0.1528	0.0148	0.1507	0.0102	0.0044	47	0.20	321.00	0
321	Acid Soluble Zinc (0.1%)	0037	0.1530	0.0060	0.1507	0.0102	0.0044	47	0.22	321.33	0
321	Acid Soluble Zinc (0.1%)	0027	0.1535	0.0070	0.1507	0.0102	0.0044	47	0.27	321.30	0
321	Acid Soluble Zinc (0.1%)	0498	0.1550	0.0100	0.1507	0.0102	0.0044	47	0.42	321.00	0
321	Acid Soluble Zinc (0.1%)	0095	0.1550	0.0100	0.1507	0.0102	0.0044	47	0.42	321.30	0
321	Acid Soluble Zinc (0.1%)	0233	0.1557	0.0019	0.1507	0.0102	0.0044	47	0.48	321.30	0
321	Acid Soluble Zinc (0.1%)	0433	0.1595	0.0042	0.1507	0.0102	0.0044	47	0.86	321.30	0
321	Acid Soluble Zinc (0.1%)	0421	0.1595	0.0050	0.1507	0.0102	0.0044	47	0.86	321.33	0
321	Acid Soluble Zinc (0.1%)	0105	0.1610	0.0133	0.1507	0.0102	0.0044	47	1.00	321.03	0
321	Acid Soluble Zinc (0.1%)	0360	0.1610	0.0020	0.1507	0.0102	0.0044	47	1.00	321.30	0
321	Acid Soluble Zinc (0.1%)	0368	0.1618	0.0051	0.1507	0.0102	0.0044	47	1.08	321.30	0
321	Acid Soluble Zinc (0.1%)	0423	0.1620	0.0020	0.1507	0.0102	0.0044	47	1.10	321.32	0
321	Acid Soluble Zinc (0.1%)	0040	0.1625	0.0010	0.1507	0.0102	0.0044	47	1.15	321.00	0
321	Acid Soluble Zinc (0.1%)	0102	0.1645	0.0050	0.1507	0.0102	0.0044	47	1.35	321.30	0
321	Acid Soluble Zinc (0.1%)	0231	0.1650	0.0100	0.1507	0.0102	0.0044	47	1.39	321.30	0
321	Acid Soluble Zinc (0.1%)	0324	0.1655	0.0010	0.1507	0.0102	0.0044	47	1.44	321.30	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				
321	Acid Soluble Zinc (0.1%)	0043	0.1685	0.0060	0.1507	0.0102	0.0044	47	1.74	321.00	0
321	Acid Soluble Zinc (0.1%)	0041	0.1800	0.0000	0.1507	0.0102	0.0044	47	2.86	321.30	0
321	Acid Soluble Zinc (0.1%)	0515	0.1520	0.0326	0.1507	0.0102	0.0044	47	0.12	321.99	1
321	Acid Soluble Zinc (0.1%)	0177	1.510	0.0290	0.1507	0.0102	0.0044	47	132.78	321.33	1
321	Acid Soluble Zinc (0.1%)	0096	3.273	0.0010	0.1507	0.0102	0.0044	47	305.07	321.30	2
325	Water Soluble Zinc (%)	0444	0.0850	0.0100			0.0100	1			0

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier and a 4 flag indicates rejected due to 0 value submitted. Robust statistics not used if < 6 labs used in calculations, in this case the Z Scores are included for information only (Grey). An offset lab value with an astrix indicates that the value is lower than the Analyte value less the IA. Method or 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.