

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 200911

Grade 3-6-4 Organic

### Statistical Summary

# Methods: 143

# Labs Reporting: 83

Issue Date : 10/31/2020

Method Code	Analyte & Method Sample # 200911	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Horwitz %RSD
001.10	Ammoniacal N, Magnesium Oxide Method (%)	2	2	0.3525	0.0672								
001.99	Ammoniacal N, Other (%)	6	6	0.9736	1.625	0.3919		0.2654	0.1354	67.72%		0.0250	4.61%
002.99	Nitrate N, Other (%)	2	2	0.2750	0.2687								
003.10	Water Insoluble N, Method I (%)	2	2	3.588	0.1096								
005.00	Urea N, Urease (as N) (%)	1		0.5250									
005.99	Urea N, Other (%)	2	2	1.987	2.790								
010.11	Total N, Modified Comprehensive (3%)	4	4	3.555	0.5156	3.555	0.4900	0.5156	0.3223	14.50%	2.45	0.2300	3.30%
010.12	Total N, Salicylic (3%)	4	4	4.428	0.1992	4.428	0.4986	0.1992	0.1245	4.50%	0.93	0.0350	3.20%
010.60	Total N, Combustion (3%)	53	53	4.480	0.3794	4.494	0.4999	0.1824	0.0313	4.06%	0.85	0.0979	3.19%
010.99	Total N, Other (3%)	10	10	4.095	0.6472	4.095	0.4919	0.7339	0.2901	17.92%	3.48	0.1328	3.24%
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	2	2	5.875	0.1061								
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	11	10	5.761	1.237	6.014		0.6577	0.2600	10.94%		0.1110	3.05%
020.40	Total P2O5, Automated (%)	3	3	6.173	0.2203	6.173		0.2203	0.1590	3.57%		0.1400	3.04%
020.50	Total P2O5, ICP (%)	21	20	5.865	0.4973	5.902		0.4753	0.1329	8.05%		0.1399	3.06%
020.99	Total P2O5, Other (%)	4	4	6.101	0.1559	6.101		0.1559	0.0974	2.55%		0.0899	3.05%
030.10	Citrate Insoluble P2O5, Gravimetric Quinolinium MolybdoP (%)	1		5.915									
030.20	Citrate Insoluble P2O5, Spectrophotometric MolybdovanadoP (%)	1		1.010									
030.40	Citrate Insoluble P2O5, Automated, test portion 963.03 A-B (%)	1		0.7450									
040.20	Indirect Available P2O5, Spectrophotometric (4%)	1		6.350									
040.40	Indirect Available P2O5, Automated (4%)	1		5.260									
040.99	Indirect Available P2O5, Other (4%)	1		5.135									
041.10	Direct Available P2O5, Gravimetric Quinolinium (6%)	7	6	5.003	0.4295	5.003	0.6700	0.4871	0.2486	9.74%	1.69	0.0652	3.14%
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (6%)	5	5	4.888	0.4796	4.888	0.6700	0.4796	0.2681	9.81%	1.67	0.1040	3.15%
041.20	Direct Available P2O5, Spectrophotometric (6%)	2	2	5.193	1.199								
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6%)	9	9	5.527	0.4587	5.527	0.6700	0.5202	0.2168	9.41%	1.81	0.0605	3.09%
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (6%)	3	3	5.220	1.574	5.220	0.6700	1.574	1.136	30.15%	5.47	0.2467	3.12%
041.50	Direct Available P2O5, ICP (6%)	6	6	5.591	0.7918	5.591	0.6700	0.8980	0.4582	16.06%	3.12	0.1325	3.09%
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	10	10	5.124	0.4037	5.134	0.6700	0.3861	0.1526	7.52%	1.34	0.2044	3.13%
041.99	Direct Available P2O5, Other (6%)	5	5	5.984	0.1337	5.984	0.6700	0.1337	0.0747	2.23%	0.46	0.0880	3.06%
048.20	Water Soluble P2O5, Spectrophotometric (%)	1		0.1620									
048.40	Water Soluble P2O5, Automated (%)	1		0.3300									
048.50	Water Soluble P2O5, ICP (%)	1		0.3400									
050.00	Soluble K2O, STPB Oxalate (4%)	7	7	3.619	1.413	3.619	0.4100	1.602	0.7568	44.26%	9.10	0.1329	3.30%

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050.30	Soluble K2O, AA (Oxalate) (4%)	4	4	2.656	0.3179	2.656	0.4100	0.3179	0.1987	11.97%	1.81	0.0705	3.45%
050.31	Soluble K2O, AA (Citrate) (4%)	2	2	2.850	0.0707								
050.50	Soluble K2O, ICP (Oxalate) (4%)	9	9	2.840	0.1494	2.850	0.4100	0.0767	0.0320	2.69%	0.44	0.0771	3.42%
050.51	Soluble K2O, ICP (Citrate) (4%)	5	5	3.192	0.5324	3.192	0.4100	0.5324	0.2976	16.68%	3.03	0.1654	3.36%
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	10	10	2.880	0.1091	2.880	0.4100	0.1238	0.0489	4.30%	0.70	0.0692	3.41%
050.60	Soluble K2O, Flame Photometric (Oxalate) (4%)	1		4.010									
050.61	Soluble K2O, Flame Photometric (Citrate) (4%)	2	2	3.113	0.3005								
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (4%)	4	4	3.149	0.5716	3.149	0.4100	0.5716	0.3573	18.15%	3.25	0.1025	3.37%
050.99	Soluble K2O, Other (4%)	30	29	3.114	0.5104	3.059	0.4100	0.4505	0.1046	14.73%	2.56	0.0870	3.38%
060.00	Water (Free), Vacuum Oven (%)	2	2	7.551	1.515								
060.10	Water (Free), Vacuum Desiccation (%)	1		8.124									
060.99	Water (Free), Other (%)	1		11.00									
101.00	Acid Soluble Ca, AA, inorganic 965.09 (8%)	5	5	8.209	0.2972	8.209	0.6105	0.2972	0.1662	3.62%	1.13	0.1454	2.91%
101.01	Acid Soluble Ca, AA, organic 965.09 (8%)	1		8.200									
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual acid (8%)	1		8.000									
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	18	18	8.471	0.5495	8.455	0.6227	0.4671	0.1376	5.52%	1.75	0.2728	2.90%
101.31	Acid Soluble Ca, ICP, test portion organic 965.09 (8%)	1		7.865									
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (8%)	4	4	8.375	0.1952	8.375	0.6187	0.1952	0.1220	2.33%	0.73	0.0977	2.90%
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	13	13	8.050	0.6858	8.131	0.6065	0.3898	0.1352	4.79%	1.50	0.1926	2.92%
101.70	Acid Soluble Ca, Titrimetric (8%)	1		7.965									
101.99	Acid Soluble Ca, Other (8%)	9	9	8.230	0.5324	8.251	0.6125	0.5564	0.2318	6.74%	2.12	0.1911	2.91%
121.00	Acid Soluble Mg, AA, inorganic 965.09 (%)	1		1.635									
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	7	7	1.499	0.1317	1.499	0.2749	0.1493	0.0705	9.96%	1.27	0.0498	3.76%
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (%)	2	2	1.493	0.0059								
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	5	5	1.438	0.2090	1.438	0.2719	0.2090	0.1169	14.54%	1.79	0.0385	3.79%
121.99	Acid Soluble Mg, Other (%)	7	7	1.444	0.0675	1.442	0.2721	0.0737	0.0348	5.11%	0.63	0.0663	3.79%
143.99	Elemental S, Other (%)	3	3	2.148	0.1281	2.148		0.1281	0.0924	5.96%		0.0118	3.56%
145.99	Sulfate S, HCl soluble, Other (%)	1		1.665									
148.00	Total S, Combustion (%)	1		2.147									
148.07	Total S, ICP, test portion as in 2017.02 (%)	7	7	2.128	0.2737	2.128	0.3064	0.3104	0.1467	14.58%	2.36	0.0330	3.57%
148.99	Total S, Other (%)	4	4	2.053	0.1206	2.053	0.3026	0.1206	0.0754	5.88%	0.93	0.0400	3.59%
149.04	S - HNO3 soluble, ICP (%)	2	2	2.184	0.0697								
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.8700									
151.30	Acid Soluble As, ICP (ppm)	5	5	2.463	0.3448	2.463		0.3448	0.1928	14.00%		0.0942	13.97%
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	1		1.100									
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	7	4	5.518	5.080	5.518		5.080	3.175	92.07%		0.3935	12.37%
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	2	2	2.203	0.7354								
151.99	Acid Soluble As, Other (ppm)	3	3	2.717	0.2566	2.717		0.2566	0.1852	9.44%		0.7000	13.76%
165.00	Acid Soluble B, Spectrophotometric (%)	1		0.0130									
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	3	2	0.0026	0.0012	0.0026	0.0034	0.0012	0.0011	47.14%	0.83	0.0000	9.83%
165.99	Acid Soluble B, Other (%)	8	7	0.0030	0.0008	0.0029	0.0034	0.0006	0.0003	19.34%	0.38	0.0002	9.64%
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.4500									
181.30	Acid Soluble Cd, ICP (ppm)	7	5	0.3611	0.0474	0.3611		0.0474	0.0265	13.12%		0.0053	18.65%
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	1		0.4500									

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181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	7	4	0.4479	0.0275	0.4479		0.0275	0.0172	6.14%		0.0323	18.05%
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	2	1	0.4095									
181.99	Acid Soluble Cd, Other (ppm)	3	3	0.4200	0.0278	0.4200		0.0278	0.0201	6.63%		0.0467	18.23%
190.00	Water Soluble Cl, Titrimetric (%)	1		0.4950									
191.30	Acid Soluble Cr, ICP (ppm)	8	7	43.99	11.91	43.99		13.51	6.383	30.71%		0.6250	9.05%
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	1		42.50									
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	6	6	48.61	15.55	48.61		17.63	8.996	36.26%		3.150	8.92%
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	2	2	40.58	16.65								
191.99	Acid Soluble Cr, Other (ppm)	3	3	50.57	12.12	50.57		12.12	8.744	23.96%		3.467	8.86%
202.30	Acid Soluble Co, ICP (ppm)	5	5	18.26	7.663	18.26	6.4772	7.663	4.284	41.97%	2.76	0.5586	10.33%
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	2	2	18.87	4.769								
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	8	8	19.92	7.871	19.93	6.9791	8.905	3.936	44.68%	2.97	0.8943	10.20%
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	2	1	7.944									
202.99	Acid Soluble Co, Other (ppm)	4	4	20.22	5.979	20.22	7.0657	5.979	3.737	29.57%	1.97	1.755	10.17%
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	1		0.0058									
221.03	Acid Soluble Cu, AA, 965.09, test portion 2006.03A-C w/dual acid (%)	1		0.0025									
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	6	5	0.0343	0.0494	0.0343	0.0084	0.0494	0.0276	143.98%	13.66	0.0055	6.64%
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	3	3	13.74	23.78	13.74	1.0000	23.78	17.17	173.16%	55.42	0.2001	2.70%
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	10	10	0.0034	0.0005	0.0035	0.0053	0.0004	0.0002	11.20%	0.17	0.0002	9.39%
221.99	Acid Soluble Cu, Other (%)	9	8	0.0034	0.0003	0.0034	0.0053	0.0003	0.0001	9.55%	0.14	0.0001	9.42%
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	2	2	0.3228	0.0880								
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	7	7	0.3926	0.0782	0.3926	0.0443	0.0887	0.0419	22.59%	4.67	0.0307	4.60%
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	1		0.4350									
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	6	5	0.4588	0.0480	0.4588	0.0509	0.0480	0.0268	10.45%	2.20	0.0078	4.50%
241.99	Acid Soluble Fe, Other (%)	6	6	0.3998	0.0708	0.3980	0.0448	0.0762	0.0389	19.14%	3.96	0.0109	4.59%
251.30	Acid Soluble Pb, ICP (ppm)	7	6	1.527	0.4580	1.527		0.5194	0.2651	34.00%		0.0932	15.01%
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	1		1.800									
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	7	5	2.948	1.242	2.948		1.242	0.6943	42.13%		0.2972	13.59%
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	2	1	4.886									
251.99	Acid Soluble Pb, Other (ppm)	3	3	1.800	0.7211	1.800		0.7211	0.5204	40.06%		0.2000	14.64%
261.12	Acid Soluble Mn, AA, inorganic 965.09 (%)	1		0.0495									
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	5	5	1.062	2.265	1.062	0.1112	2.265	1.266	213.26%	47.45	0.0191	3.96%
261.31	Acid Soluble Mn, ICP, test portion 972.02b (%)	1		0.0491									
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	1		0.0750									
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	1		0.0535									
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	6	5	0.0511	0.0016	0.0511	0.0101	0.0016	0.0009	3.17%	0.37	0.0009	6.26%
261.99	Acid Soluble Mn, Other (%)	6	6	0.0517	0.0052	0.0513	0.0101	0.0050	0.0025	9.69%	1.14	0.0021	6.25%
281.30	Acid Soluble Hg, ICP (ppm)	5	2	0.0900	0.0484	0.0900		0.0484	0.0428	53.85%		0.0018	22.99%
281.99	Acid Soluble Hg, Other (ppm)	4	2	0.0243	0.0061	0.0243		0.0061	0.0054	25.03%		0.0003	27.99%
289.30	Acid Soluble Mo, ICP (ppm)	5	5	5.621	3.412	5.621	2.6862	3.412	1.908	60.71%	2.96	0.1363	12.34%
289.32	Acid Soluble Mo, ICP, 2006.03 (ppm)	1		4.550									
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	7	7	3.771	1.087	3.694	2.1083	1.051	0.4964	28.44%	1.16	0.3356	13.14%
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	2	1	4.411									
289.99	Acid Soluble Mo, Other (ppm)	3	3	4.425	0.1521	4.425	2.3275	0.1521	0.1097	3.44%	0.15	0.3167	12.79%

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291.30	Acid Soluble Ni, ICP (ppm)	8	7	20.04	5.049	20.04		5.725	2.705	28.57%		0.5222	10.19%
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	1		23.45									
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	8	8	22.00	5.335	22.00		6.050	2.674	27.51%		1.414	10.05%
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	2	2	19.77	4.940								
291.99	Acid Soluble Ni, Other (ppm)	4	4	21.97	2.679	21.97		2.679	1.674	12.19%		1.419	10.05%
301.30	Acid Soluble Se, ICP (ppm)	2	2	1.918	1.630								
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	1		0.7000									
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	4	1	1.792		1.918		1.630	2.037	85.00%		0.0870	14.50%
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	2	1	3.330									
301.99	Acid Soluble Se, Other (ppm)	4	4	2.533	1.686	2.533		1.686	1.054	66.57%		0.6903	13.91%
311.00	Sodium, AA (%)	1		0.4810									
311.32	Sodium, ICP, 2006.03 test portion (%)	1		0.5095									
311.33	Sodium, ICP, test portion as in 2017.02 (%)	6	6	0.4945	0.0395	0.4945	0.0544	0.0448	0.0229	9.06%	1.92	0.0244	4.45%
311.99	Sodium, Other (%)	3	3	0.4986	0.0199	0.4986	0.0549	0.0199	0.0144	3.99%	0.84	0.0073	4.44%
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	2	2	0.0528	0.0456								
321.03	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C w/dual acid (%)	1		0.0190									
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	9	7	0.0202	0.0024	0.0199	0.0070	0.0021	0.0010	10.69%	0.71	0.0012	7.21%
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	2	2	0.0197	0.0019								
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	10	10	0.0185	0.0021	0.0189	0.0069	0.0013	0.0005	6.63%	0.42	0.0006	7.27%
321.99	Acid Soluble Zn, Other (%)	9	8	0.0193	0.0042	0.0182	0.0068	0.0016	0.0007	8.60%	0.53	0.0008	7.31%
441.00	Humic Acids, Gravimetry, Ash-free, alkali dissolved, acid precipit... (1%)	8	8	7.433	6.632	7.433		7.521	3.324	101.18%		0.2413	2.96%
441.10	Humic Acids, Gravimetry, alkali dissolved, acid precipitated (1%)	5	5	9.621	4.833	9.621		4.833	2.701	50.23%		0.1026	2.84%

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

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 200911

### Method Precision Report

Grade 3-6-4 Organic

Issue Date : 10/31/2020

Method Code	Analyte & Method	# Tests Submitted	# Tests Used in Precision Calcs	Mean	SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
010.60	Total N, Combustion (3%)	53	50	4.485	0.2211	0.2123	0.0875	0.2296	4.73%	1.95%	5.12%	2.626
010.99	Total N, Other (3%)	10	9	3.991	0.5913	0.5882	0.0854	0.5944	14.74%	2.14%	14.89%	6.957
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	11	8	6.137	0.5264	0.5243	0.0657	0.5284	8.54%	1.07%	8.61%	8.041
020.50	Total P2O5, ICP (%)	21	19	5.928	0.4188	0.4082	0.1329	0.4293	6.88%	2.24%	7.24%	3.229
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6%)	9	9	5.527	0.4587	0.4573	0.0506	0.4601	8.27%	0.92%	8.32%	9.090
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	10	10	5.124	0.4037	0.3804	0.1910	0.4257	7.43%	3.73%	8.31%	2.229
050.50	Soluble K2O, ICP (Oxalate) (4%)	9	8	2.880	0.0950	0.0846	0.0611	0.1043	2.94%	2.12%	3.62%	1.709
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	10	10	2.880	0.1091	0.0990	0.0651	0.1184	3.44%	2.26%	4.11%	1.820
050.99	Soluble K2O, Other (4%)	30	28	3.115	0.5197	0.5176	0.0663	0.5218	16.62%	2.13%	16.75%	7.868
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	18	17	8.393	0.4521	0.4113	0.2654	0.4895	4.90%	3.16%	5.83%	1.844
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	13	11	8.239	0.3839	0.3717	0.1356	0.3956	4.51%	1.65%	4.80%	2.918
101.99	Acid Soluble Ca, Other (8%)	9	8	8.264	0.5583	0.5526	0.1131	0.5640	6.69%	1.37%	6.82%	4.988
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	8	8	19.92	7.871	7.855	0.7051	7.886	39.43%	3.54%	39.59%	11.19
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	10	9	0.0035	0.0003	0.0003	0.0001	0.0003	7.80%	3.79%	8.67%	2.291
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	8	8	22.00	5.335	5.248	1.358	5.421	23.86%	6.18%	24.65%	3.991
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	10	8	0.0190	0.0009	0.0009	0.0004	0.0010	4.72%	2.13%	5.18%	2.432
441.00	Humic Acids, Gravimetry, Ash-free, alkali dissolved, acid precipitated (1%)	8	8	7.433	6.632	6.631	0.2128	6.634	89.21%	2.86%	89.25%	31.18

Notes: Precision data calculated when 8 or more Tests included.

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 200911

Grade 3-6-4 Organic

Lab Values

# Methods: 143

# Labs Reporting: 83

Issue Date : 10/31/2020

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0309	0.3050	0.0100				2			0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0444	0.4000	0.0400				2			0
001.99	Ammoniacal N, Other (%)	0423	0.1650	0.0100	0.3919	0.2654	0.0250	6	-0.76	NA	0
001.99	Ammoniacal N, Other (%)	0524	0.1784	0.0097	0.3919	0.2654	0.0250	6	-0.72	NA	0
001.99	Ammoniacal N, Other (%)	0553	0.3100	0.0200	0.3919	0.2654	0.0250	6	-0.27	NA	0
001.99	Ammoniacal N, Other (%)	0096	0.4100	0.0600	0.3919	0.2654	0.0250	6	0.06	NA	0
001.99	Ammoniacal N, Other (%)	0255	0.4980	0.0100	0.3919	0.2654	0.0250	6	0.36	NA	0
001.99	Ammoniacal N, Other (%)	0513	4.280	0.0400	0.3919	0.2654	0.0250	6	13.05	NA	0
002.99	Nitrate N, Other (%)	0423	0.0850	0.0100				2			0
002.99	Nitrate N, Other (%)	0553	0.4650	0.0700				2			0
003.10	Water Insoluble N, Method I (%)	0451	3.510	0.0000				2			0
003.10	Water Insoluble N, Method I (%)	0220	3.665	0.1700				2			0
005.00	Urea N, Urease (as N) (%)	0027	0.5250	0.1300				1			0
005.99	Urea N, Other (%)	0524	0.0145	0.0001				2			0
005.99	Urea N, Other (%)	0027	3.960	0.0800				2			0
010.11	Total N, Modified Comprehensive (3%)	0309	3.005	0.2100	3.555	0.5156	0.2300	4	-1.07		0
010.11	Total N, Modified Comprehensive (3%)	0456	3.455	0.1100	3.555	0.5156	0.2300	4	-0.19		0
010.11	Total N, Modified Comprehensive (3%)	0540	3.510	0.5600	3.555	0.5156	0.2300	4	-0.09		0
010.11	Total N, Modified Comprehensive (3%)	0105	4.250	0.0400	3.555	0.5156	0.2300	4	1.35		0
010.12	Total N, Salicylic (3%)	0568	4.260	0.0600	4.428	0.1992	0.0350	4	-0.84		0
010.12	Total N, Salicylic (3%)	0117	4.300	0.0600	4.428	0.1992	0.0350	4	-0.64		0
010.12	Total N, Salicylic (3%)	0563	4.450	0.0200	4.428	0.1992	0.0350	4	0.11		0
010.12	Total N, Salicylic (3%)	0498	4.700	0.0000	4.428	0.1992	0.0350	4	1.37		0
010.60	Total N, Combustion (3%)	0444	2.740	0.0000	4.494	0.1824	0.0979	53	-9.62	Low	0
010.60	Total N, Combustion (3%)	0516	3.550	0.1200	4.494	0.1824	0.0979	53	-5.17	Low	0
010.60	Total N, Combustion (3%)	0034	4.135	0.1500	4.494	0.1824	0.0979	53	-1.97	OK	0
010.60	Total N, Combustion (3%)	0177	4.180	0.0410	4.494	0.1824	0.0979	53	-1.72	OK	0
010.60	Total N, Combustion (3%)	0356	4.189	0.0220	4.494	0.1824	0.0979	53	-1.67	OK	0
010.60	Total N, Combustion (3%)	0421	4.244	0.0650	4.494	0.1824	0.0979	53	-1.37	OK	0
010.60	Total N, Combustion (3%)	0234	4.255	0.0700	4.494	0.1824	0.0979	53	-1.31	OK	0
010.60	Total N, Combustion (3%)	0451	4.340	0.0240	4.494	0.1824	0.0979	53	-0.84	OK	0
010.60	Total N, Combustion (3%)	0452	4.345	0.0900	4.494	0.1824	0.0979	53	-0.82	OK	0
010.60	Total N, Combustion (3%)	0472	4.349	0.0220	4.494	0.1824	0.0979	53	-0.79	OK	0
010.60	Total N, Combustion (3%)	0095	4.350	0.1600	4.494	0.1824	0.0979	53	-0.79	OK	0
010.60	Total N, Combustion (3%)	0325	4.365	0.1100	4.494	0.1824	0.0979	53	-0.71	OK	0
010.60	Total N, Combustion (3%)	0423	4.370	0.0400	4.494	0.1824	0.0979	53	-0.68	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010.60	Total N, Combustion (3%)	0486	4.370	0.0400	4.494	0.1824	0.0979	53	-0.68	OK	0
010.60	Total N, Combustion (3%)	0527	4.388	0.1210	4.494	0.1824	0.0979	53	-0.58	OK	0
010.60	Total N, Combustion (3%)	0043	4.390	0.1600	4.494	0.1824	0.0979	53	-0.57	OK	0
010.60	Total N, Combustion (3%)	0523	4.400	0.0000	4.494	0.1824	0.0979	53	-0.51	OK	0
010.60	Total N, Combustion (3%)	0390	4.405	0.2300	4.494	0.1824	0.0979	53	-0.49	OK	0
010.60	Total N, Combustion (3%)	0521	4.444	0.0000	4.494	0.1824	0.0979	53	-0.27	OK	0
010.60	Total N, Combustion (3%)	0360	4.450	0.1800	4.494	0.1824	0.0979	53	-0.24	OK	0
010.60	Total N, Combustion (3%)	0136	4.455	0.1100	4.494	0.1824	0.0979	53	-0.21	OK	0
010.60	Total N, Combustion (3%)	0029	4.461	0.0440	4.494	0.1824	0.0979	53	-0.18	OK	0
010.60	Total N, Combustion (3%)	0073	4.475	0.0500	4.494	0.1824	0.0979	53	-0.10	OK	0
010.60	Total N, Combustion (3%)	0389	4.475	0.0300	4.494	0.1824	0.0979	53	-0.10	OK	0
010.60	Total N, Combustion (3%)	0422	4.485	0.0300	4.494	0.1824	0.0979	53	-0.05	OK	0
010.60	Total N, Combustion (3%)	0231	4.495	0.0700	4.494	0.1824	0.0979	53	0.01	OK	0
010.60	Total N, Combustion (3%)	0377	4.495	0.0900	4.494	0.1824	0.0979	53	0.01	OK	0
010.60	Total N, Combustion (3%)	0035	4.500	0.0000	4.494	0.1824	0.0979	53	0.03	OK	0
010.60	Total N, Combustion (3%)	0354	4.510	0.0600	4.494	0.1824	0.0979	53	0.09	OK	0
010.60	Total N, Combustion (3%)	0292	4.525	0.0300	4.494	0.1824	0.0979	53	0.17	OK	0
010.60	Total N, Combustion (3%)	0027	4.532	0.4040	4.494	0.1824	0.0979	53	0.21	OK	0
010.60	Total N, Combustion (3%)	0114	4.535	0.2100	4.494	0.1824	0.0979	53	0.23	OK	0
010.60	Total N, Combustion (3%)	0230	4.545	0.1500	4.494	0.1824	0.0979	53	0.28	OK	0
010.60	Total N, Combustion (3%)	0291	4.545	0.0100	4.494	0.1824	0.0979	53	0.28	OK	0
010.60	Total N, Combustion (3%)	0040	4.550	0.3000	4.494	0.1824	0.0979	53	0.31	OK	0
010.60	Total N, Combustion (3%)	0405	4.550	0.1200	4.494	0.1824	0.0979	53	0.31	OK	0
010.60	Total N, Combustion (3%)	0086	4.568	0.1732	4.494	0.1824	0.0979	53	0.41	OK	0
010.60	Total N, Combustion (3%)	0037	4.579	0.2520	4.494	0.1824	0.0979	53	0.47	OK	0
010.60	Total N, Combustion (3%)	0494	4.580	0.0200	4.494	0.1824	0.0979	53	0.47	OK	0
010.60	Total N, Combustion (3%)	0049	4.585	0.0900	4.494	0.1824	0.0979	53	0.50	OK	0
010.60	Total N, Combustion (3%)	0443	4.595	0.1100	4.494	0.1824	0.0979	53	0.56	OK	0
010.60	Total N, Combustion (3%)	0055	4.615	0.2100	4.494	0.1824	0.0979	53	0.67	OK	0
010.60	Total N, Combustion (3%)	0547	4.625	0.0300	4.494	0.1824	0.0979	53	0.72	OK	0
010.60	Total N, Combustion (3%)	0419	4.628	0.0070	4.494	0.1824	0.0979	53	0.73	OK	0
010.60	Total N, Combustion (3%)	0220	4.695	0.1100	4.494	0.1824	0.0979	53	1.10	OK	0
010.60	Total N, Combustion (3%)	0324	4.700	0.1800	4.494	0.1824	0.0979	53	1.13	OK	0
010.60	Total N, Combustion (3%)	0368	4.711	0.0360	4.494	0.1824	0.0979	53	1.19	OK	0
010.60	Total N, Combustion (3%)	0007	4.750	0.1000	4.494	0.1824	0.0979	53	1.41	OK	0
010.60	Total N, Combustion (3%)	0255	4.788	0.3270	4.494	0.1824	0.0979	53	1.61	OK	0
010.60	Total N, Combustion (3%)	0561	4.835	0.0700	4.494	0.1824	0.0979	53	1.87	OK	0
010.60	Total N, Combustion (3%)	0096	4.855	0.0300	4.494	0.1824	0.0979	53	1.98	OK	0
010.60	Total N, Combustion (3%)	0371	5.000	0.0800	4.494	0.1824	0.0979	53	2.78	High	0
010.60	Total N, Combustion (3%)	0041	5.915	0.0100	4.494	0.1824	0.0979	53	7.79	High	0
010.99	Total N, Other (3%)	0538	3.030	0.1000	4.095	0.7339	0.1328	10	-1.35	Low	0
010.99	Total N, Other (3%)	0532	3.205	0.0900	4.095	0.7339	0.1328	10	-1.13	Low	0
010.99	Total N, Other (3%)	0556	3.500	0.1000	4.095	0.7339	0.1328	10	-0.75	Low	0
010.99	Total N, Other (3%)	0493	4.000	0.2000	4.095	0.7339	0.1328	10	-0.12	OK	0
010.99	Total N, Other (3%)	0545	4.350	0.1000	4.095	0.7339	0.1328	10	0.32	OK	0
010.99	Total N, Other (3%)	0444	4.400	0.2000	4.095	0.7339	0.1328	10	0.39	OK	0
010.99	Total N, Other (3%)	0563	4.430	0.0200	4.095	0.7339	0.1328	10	0.42	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010.99	Total N, Other (3%)	0537	4.446	0.1135	4.095	0.7339	0.1328	10	0.45	OK	0
010.99	Total N, Other (3%)	0524	4.556	0.0040	4.095	0.7339	0.1328	10	0.58	OK	0
010.99	Total N, Other (3%)	0529	5.030	0.4000	4.095	0.7339	0.1328	10	1.19	High	0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0493	5.800	0.2000				2			0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0114	5.950	0.0800				2			0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0450	2.500	0.1600	6.014	0.6577	0.1110	10	-4.97	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0419	5.180	0.1200	6.014	0.6577	0.1110	10	-1.18	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0027	6.020	0.3400	6.014	0.6577	0.1110	10	0.01	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0292	6.020	0.0200	6.014	0.6577	0.1110	10	0.01	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0231	6.030	0.0400	6.014	0.6577	0.1110	10	0.02	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0561	6.030	0.0000	6.014	0.6577	0.1110	10	0.02	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0324	6.065	0.1500	6.014	0.6577	0.1110	10	0.07	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0405	6.145	0.0900	6.014	0.6577	0.1110	10	0.18	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0356	6.624	0.0500	6.014	0.6577	0.1110	10	0.86	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0371	7.000	0.1400	6.014	0.6577	0.1110	10	1.39	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0309	316.5	620.9	6.014	0.6577	0.1110	10	439.06	NA	2
020.40	Total P2O5, Automated (%)	0456	5.960	0.1200	6.173	0.2203	0.1400	3	-0.97		0
020.40	Total P2O5, Automated (%)	0096	6.160	0.3000	6.173	0.2203	0.1400	3	-0.06		0
020.40	Total P2O5, Automated (%)	0035	6.400	0.0000	6.173	0.2203	0.1400	3	1.03		0
020.50	Total P2O5, ICP (%)	0291	4.655	0.0300	5.902	0.4753	0.1399	20	-2.62	NA	0
020.50	Total P2O5, ICP (%)	0422	4.980	0.3800	5.902	0.4753	0.1399	20	-1.94	NA	0
020.50	Total P2O5, ICP (%)	0523	5.250	0.1000	5.902	0.4753	0.1399	20	-1.37	NA	0
020.50	Total P2O5, ICP (%)	0552	5.350	0.3000	5.902	0.4753	0.1399	20	-1.16	NA	0
020.50	Total P2O5, ICP (%)	0389	5.580	0.1000	5.902	0.4753	0.1399	20	-0.68	NA	0
020.50	Total P2O5, ICP (%)	0524	5.617	0.1884	5.902	0.4753	0.1399	20	-0.60	NA	0
020.50	Total P2O5, ICP (%)	0472	5.765	0.0100	5.902	0.4753	0.1399	20	-0.29	NA	0
020.50	Total P2O5, ICP (%)	0423	5.808	0.1160	5.902	0.4753	0.1399	20	-0.20	NA	0
020.50	Total P2O5, ICP (%)	0516	5.840	0.0400	5.902	0.4753	0.1399	20	-0.13	NA	0
020.50	Total P2O5, ICP (%)	0444	5.930	0.0400	5.902	0.4753	0.1399	20	0.06	NA	0
020.50	Total P2O5, ICP (%)	0234	6.055	0.0300	5.902	0.4753	0.1399	20	0.32	NA	0
020.50	Total P2O5, ICP (%)	0368	6.113	0.0762	5.902	0.4753	0.1399	20	0.45	NA	0
020.50	Total P2O5, ICP (%)	0255	6.145	0.0620	5.902	0.4753	0.1399	20	0.51	NA	0
020.50	Total P2O5, ICP (%)	0547	6.215	0.2100	5.902	0.4753	0.1399	20	0.66	NA	0
020.50	Total P2O5, ICP (%)	0521	6.229	0.0000	5.902	0.4753	0.1399	20	0.69	NA	0
020.50	Total P2O5, ICP (%)	0451	6.240	0.3600	5.902	0.4753	0.1399	20	0.71	NA	0
020.50	Total P2O5, ICP (%)	0307	6.301	0.1420	5.902	0.4753	0.1399	20	0.84	NA	0
020.50	Total P2O5, ICP (%)	0433	6.360	0.2600	5.902	0.4753	0.1399	20	0.96	NA	0
020.50	Total P2O5, ICP (%)	0527	6.410	0.0541	5.902	0.4753	0.1399	20	1.07	NA	0
020.50	Total P2O5, ICP (%)	0042	6.450	0.3000	5.902	0.4753	0.1399	20	1.15	NA	0
020.50	Total P2O5, ICP (%)	0390	5.290	0.7000	5.902	0.4753	0.1399	20	-1.29	NA	1
020.99	Total P2O5, Other (%)	0529	5.940	0.0400	6.101	0.1559	0.0899	4	-1.03		0
020.99	Total P2O5, Other (%)	0513	5.995	0.0300	6.101	0.1559	0.0899	4	-0.68		0
020.99	Total P2O5, Other (%)	0515	6.234	0.0194	6.101	0.1559	0.0899	4	0.85		0
020.99	Total P2O5, Other (%)	0443	6.235	0.2700	6.101	0.1559	0.0899	4	0.86		0
030.10	Citrate Insoluble P2O5, Gravimetric Quinolinium MolybdoP (%)	0444	5.915	0.0100				1			0
030.20	Citrate Insoluble P2O5, Spectrophotometric MolybdovanadoP (%)	0405	1.010	0.0200				1			0
030.40	Citrate Insoluble P2O5, Automated, test portion 963.03 A-B (%)	0096	0.7450	0.0300				1			0



Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
040.20	Indirect Available P2O5, Spectrophotometric (4%)	0498	6.350	0.1000				1			0
040.40	Indirect Available P2O5, Automated (4%)	0096	5.260	0.0200				1			0
040.99	Indirect Available P2O5, Other (4%)	0405	5.135	0.0700				1			0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6%)	0086	4.482	0.0038	5.003	0.4871	0.0652	6	-0.95	OK	0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6%)	0177	4.640	0.1772	5.003	0.4871	0.0652	6	-0.66	OK	0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6%)	0009	4.850	0.1000	5.003	0.4871	0.0652	6	-0.28	OK	0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6%)	0049	5.045	0.0300	5.003	0.4871	0.0652	6	0.08	OK	0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6%)	0102	5.500	0.0000	5.003	0.4871	0.0652	6	0.91	OK	0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6%)	0556	5.500	0.0800	5.003	0.4871	0.0652	6	0.91	OK	0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6%)	0494	4.065	0.5100	5.003	0.4871	0.0652	6	-1.71	Low	1
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (6%)	0055	4.045	0.1300	4.888	0.4796	0.1040	5	-1.76		0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (6%)	0513	4.980	0.0800	4.888	0.4796	0.1040	5	0.19		0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (6%)	0220	5.045	0.1100	4.888	0.4796	0.1040	5	0.33		0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (6%)	0405	5.180	0.1600	4.888	0.4796	0.1040	5	0.61		0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (6%)	0073	5.190	0.0400	4.888	0.4796	0.1040	5	0.63		0
041.20	Direct Available P2O5, Spectrophotometric (6%)	0419	4.345	0.0300				2			0
041.20	Direct Available P2O5, Spectrophotometric (6%)	0553	6.040	0.0800				2			0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6%)	0177	5.014	0.0260	5.527	0.5202	0.0605	9	-0.91	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6%)	0055	5.015	0.0500	5.527	0.5202	0.0605	9	-0.91	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6%)	0472	5.155	0.0700	5.527	0.5202	0.0605	9	-0.66	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6%)	0231	5.235	0.0300	5.527	0.5202	0.0605	9	-0.52	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6%)	0568	5.565	0.0700	5.527	0.5202	0.0605	9	0.07	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6%)	0230	5.585	0.0300	5.527	0.5202	0.0605	9	0.10	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6%)	0354	5.830	0.0200	5.527	0.5202	0.0605	9	0.54	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6%)	0405	6.125	0.1300	5.527	0.5202	0.0605	9	1.06	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6%)	0563	6.220	0.1185	5.527	0.5202	0.0605	9	1.23	High	0
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (6%)	0095	3.420	0.1000	5.220	1.574	0.2467	3	-1.14		0
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (6%)	0029	5.905	0.1700	5.220	1.574	0.2467	3	0.44		0
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (6%)	0034	6.335	0.4700	5.220	1.574	0.2467	3	0.71		0
041.50	Direct Available P2O5, ICP (6%)	0452	4.470	0.0000	5.591	0.8980	0.1325	6	-1.11	Low	0
041.50	Direct Available P2O5, ICP (6%)	0231	5.105	0.1500	5.591	0.8980	0.1325	6	-0.48	OK	0
041.50	Direct Available P2O5, ICP (6%)	0007	5.250	0.1000	5.591	0.8980	0.1325	6	-0.34	OK	0
041.50	Direct Available P2O5, ICP (6%)	0368	5.898	0.0170	5.591	0.8980	0.1325	6	0.31	OK	0
041.50	Direct Available P2O5, ICP (6%)	0421	6.201	0.1079	5.591	0.8980	0.1325	6	0.61	OK	0
041.50	Direct Available P2O5, ICP (6%)	0325	6.620	0.4200	5.591	0.8980	0.1325	6	1.02	High	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0025	4.345	0.2300	5.134	0.3861	0.2044	10	-1.90	Low	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0423	4.780	0.0920	5.134	0.3861	0.2044	10	-0.85	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0360	4.820	0.5600	5.134	0.3861	0.2044	10	-0.76	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0136	5.100	0.4000	5.134	0.3861	0.2044	10	-0.08	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0043	5.125	0.0300	5.134	0.3861	0.2044	10	-0.02	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0040	5.200	0.2000	5.134	0.3861	0.2044	10	0.16	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0117	5.290	0.1223	5.134	0.3861	0.2044	10	0.38	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0377	5.345	0.3700	5.134	0.3861	0.2044	10	0.51	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0494	5.410	0.0400	5.134	0.3861	0.2044	10	0.67	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0486	5.820	0.0000	5.134	0.3861	0.2044	10	1.65	High	0
041.99	Direct Available P2O5, Other (6%)	0535	5.750	0.1000	5.984	0.1337	0.0880	5	-1.75		0
041.99	Direct Available P2O5, Other (6%)	0538	6.000	0.0600	5.984	0.1337	0.0880	5	0.12		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
041.99	Direct Available P2O5, Other (6%)	0532	6.040	0.1000	5.984	0.1337	0.0880	5	0.42		0
041.99	Direct Available P2O5, Other (6%)	0540	6.055	0.1300	5.984	0.1337	0.0880	5	0.53		0
041.99	Direct Available P2O5, Other (6%)	0545	6.075	0.0500	5.984	0.1337	0.0880	5	0.68		0
048.20	Water Soluble P2O5, Spectrophotometric (%)	0472	0.1620	0.0180				1			0
048.40	Water Soluble P2O5, Automated (%)	0096	0.3300	0.1000				1			0
048.50	Water Soluble P2O5, ICP (%)	0444	0.3400	0.0000				1			0
050.00	Soluble K2O, STPB Oxalate (4%)	0055	1.720	0.0800	3.619	1.602	0.1329	7	-1.07	Low	0
050.00	Soluble K2O, STPB Oxalate (4%)	0494	2.780	0.1200	3.619	1.602	0.1329	7	-0.47	Low	0
050.00	Soluble K2O, STPB Oxalate (4%)	0114	2.860	0.3800	3.619	1.602	0.1329	7	-0.43	Low	0
050.00	Soluble K2O, STPB Oxalate (4%)	0102	2.930	0.1000	3.619	1.602	0.1329	7	-0.39	Low	0
050.00	Soluble K2O, STPB Oxalate (4%)	0405	4.345	0.0100	3.619	1.602	0.1329	7	0.41	High	0
050.00	Soluble K2O, STPB Oxalate (4%)	0220	5.135	0.0500	3.619	1.602	0.1329	7	0.86	High	0
050.00	Soluble K2O, STPB Oxalate (4%)	0049	5.565	0.1900	3.619	1.602	0.1329	7	1.10	High	0
050.30	Soluble K2O, AA (Oxalate) (4%)	0309	2.200	0.0800	2.656	0.3179	0.0705	4	-1.43		0
050.30	Soluble K2O, AA (Oxalate) (4%)	0073	2.680	0.0000	2.656	0.3179	0.0705	4	0.07		0
050.30	Soluble K2O, AA (Oxalate) (4%)	0040	2.850	0.1000	2.656	0.3179	0.0705	4	0.61		0
050.30	Soluble K2O, AA (Oxalate) (4%)	0356	2.895	0.1020	2.656	0.3179	0.0705	4	0.75		0
050.31	Soluble K2O, AA (Citrate) (4%)	0472	2.800	0.0000				2			0
050.31	Soluble K2O, AA (Citrate) (4%)	0498	2.900	0.0000				2			0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0422	2.520	0.1000	2.850	0.0767	0.0771	9	-3.97	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0419	2.808	0.1037	2.850	0.0767	0.0771	9	-0.50	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0055	2.810	0.0200	2.850	0.0767	0.0771	9	-0.48	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0231	2.835	0.0700	2.850	0.0767	0.0771	9	-0.18	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0292	2.840	0.0000	2.850	0.0767	0.0771	9	-0.12	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0230	2.845	0.0700	2.850	0.0767	0.0771	9	-0.06	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0390	2.885	0.0900	2.850	0.0767	0.0771	9	0.42	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0324	2.925	0.0900	2.850	0.0767	0.0771	9	0.91	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0444	3.095	0.1500	2.850	0.0767	0.0771	9	2.95	OK	0
050.51	Soluble K2O, ICP (Citrate) (4%)	0368	2.782	0.0269	3.192	0.5324	0.1654	5	-0.77		0
050.51	Soluble K2O, ICP (Citrate) (4%)	0007	2.850	0.1000	3.192	0.5324	0.1654	5	-0.64		0
050.51	Soluble K2O, ICP (Citrate) (4%)	0452	3.035	0.0300	3.192	0.5324	0.1654	5	-0.30		0
050.51	Soluble K2O, ICP (Citrate) (4%)	0291	3.195	0.0500	3.192	0.5324	0.1654	5	0.00		0
050.51	Soluble K2O, ICP (Citrate) (4%)	0568	4.100	0.6200	3.192	0.5324	0.1654	5	1.70		0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0136	2.700	0.2000	2.880	0.1238	0.0692	10	-1.35	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0354	2.730	0.0800	2.880	0.1238	0.0692	10	-1.13	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0043	2.815	0.1500	2.880	0.1238	0.0692	10	-0.49	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0117	2.818	0.0905	2.880	0.1238	0.0692	10	-0.47	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0025	2.915	0.0500	2.880	0.1238	0.0692	10	0.26	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0377	2.915	0.0300	2.880	0.1238	0.0692	10	0.26	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0486	2.940	0.0200	2.880	0.1238	0.0692	10	0.45	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0360	2.950	0.0000	2.880	0.1238	0.0692	10	0.53	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0423	2.991	0.0610	2.880	0.1238	0.0692	10	0.83	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0494	3.025	0.0100	2.880	0.1238	0.0692	10	1.09	OK	0
050.60	Soluble K2O, Flame Photometric (Oxalate) (4%)	0443	4.010	0.1200				1			0
050.61	Soluble K2O, Flame Photometric (Citrate) (4%)	0035	2.900	0.0000				2			0
050.61	Soluble K2O, Flame Photometric (Citrate) (4%)	0456	3.325	0.0700				2			0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (4%)	0029	2.600	0.0600	3.149	0.5716	0.1025	4	-0.96		0

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			Value	Range	Rob Mean	Rob SD	R-bar				
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (4%)	0034	2.865	0.1500	3.149	0.5716	0.1025	4	-0.50		0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (4%)	0095	3.210	0.1600	3.149	0.5716	0.1025	4	0.11		0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (4%)	0513	3.920	0.0400	3.149	0.5716	0.1025	4	1.35		0
050.99	Soluble K2O, Other (4%)	0450	2.315	0.0500	3.059	0.4505	0.0870	29	-1.65	Low	0
050.99	Soluble K2O, Other (4%)	0552	2.580	0.1000	3.059	0.4505	0.0870	29	-1.06	Low	0
050.99	Soluble K2O, Other (4%)	0325	2.625	0.0500	3.059	0.4505	0.0870	29	-0.96	Low	0
050.99	Soluble K2O, Other (4%)	0547	2.645	0.0500	3.059	0.4505	0.0870	29	-0.92	Low	0
050.99	Soluble K2O, Other (4%)	0096	2.740	0.0500	3.059	0.4505	0.0870	29	-0.71	OK	0
050.99	Soluble K2O, Other (4%)	0545	2.775	0.0500	3.059	0.4505	0.0870	29	-0.63	OK	0
050.99	Soluble K2O, Other (4%)	0421	2.796	0.0277	3.059	0.4505	0.0870	29	-0.58	OK	0
050.99	Soluble K2O, Other (4%)	0234	2.805	0.0300	3.059	0.4505	0.0870	29	-0.56	OK	0
050.99	Soluble K2O, Other (4%)	0371	2.810	0.0200	3.059	0.4505	0.0870	29	-0.55	OK	0
050.99	Soluble K2O, Other (4%)	0524	2.833	0.0824	3.059	0.4505	0.0870	29	-0.50	OK	0
050.99	Soluble K2O, Other (4%)	0433	2.845	0.0700	3.059	0.4505	0.0870	29	-0.47	OK	0
050.99	Soluble K2O, Other (4%)	0177	2.864	0.0339	3.059	0.4505	0.0870	29	-0.43	OK	0
050.99	Soluble K2O, Other (4%)	0561	2.885	0.0300	3.059	0.4505	0.0870	29	-0.39	OK	0
050.99	Soluble K2O, Other (4%)	0389	2.890	0.0400	3.059	0.4505	0.0870	29	-0.37	OK	0
050.99	Soluble K2O, Other (4%)	0523	2.900	0.2000	3.059	0.4505	0.0870	29	-0.35	OK	0
050.99	Soluble K2O, Other (4%)	0527	2.979	0.0702	3.059	0.4505	0.0870	29	-0.18	OK	0
050.99	Soluble K2O, Other (4%)	0553	3.030	0.0400	3.059	0.4505	0.0870	29	-0.06	OK	0
050.99	Soluble K2O, Other (4%)	0451	3.090	0.4200	3.059	0.4505	0.0870	29	0.07	OK	0
050.99	Soluble K2O, Other (4%)	0042	3.100	0.2000	3.059	0.4505	0.0870	29	0.09	OK	0
050.99	Soluble K2O, Other (4%)	0563	3.101	0.1099	3.059	0.4505	0.0870	29	0.09	OK	0
050.99	Soluble K2O, Other (4%)	0516	3.135	0.0300	3.059	0.4505	0.0870	29	0.17	OK	0
050.99	Soluble K2O, Other (4%)	0255	3.238	0.1750	3.059	0.4505	0.0870	29	0.40	OK	0
050.99	Soluble K2O, Other (4%)	0556	3.300	0.2000	3.059	0.4505	0.0870	29	0.54	OK	0
050.99	Soluble K2O, Other (4%)	0521	3.682	0.0000	3.059	0.4505	0.0870	29	1.38	High	0
050.99	Soluble K2O, Other (4%)	0537	3.962	0.0784	3.059	0.4505	0.0870	29	2.00	High	0
050.99	Soluble K2O, Other (4%)	0540	4.010	0.0400	3.059	0.4505	0.0870	29	2.11	High	0
050.99	Soluble K2O, Other (4%)	0538	4.035	0.1100	3.059	0.4505	0.0870	29	2.17	High	0
050.99	Soluble K2O, Other (4%)	0532	4.150	0.1200	3.059	0.4505	0.0870	29	2.42	High	0
050.99	Soluble K2O, Other (4%)	0515	4.193	0.0453	3.059	0.4505	0.0870	29	2.52	High	0
050.99	Soluble K2O, Other (4%)	0307	3.520	0.8730	3.059	0.4505	0.0870	29	1.02	High	1
060.00	Water (Free), Vacuum Oven (%)	0456	6.480	0.0400				2			0
060.00	Water (Free), Vacuum Oven (%)	0096	8.623	0.1550				2			0
060.10	Water (Free), Vacuum Desiccation (%)	0419	8.124	0.0180				1			0
060.99	Water (Free), Other (%)	0009	11.00	0.0000				1			0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (8%)	0157	7.905	0.3300	8.209	0.2972	0.1454	5	-1.02		0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (8%)	0535	7.950	0.1000	8.209	0.2972	0.1454	5	-0.87		0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (8%)	0513	8.160	0.0200	8.209	0.2972	0.1454	5	-0.17		0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (8%)	0553	8.475	0.1500	8.209	0.2972	0.1454	5	0.89		0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (8%)	0029	8.557	0.1270	8.209	0.2972	0.1454	5	1.17		0
101.01	Acid Soluble Ca, AA, organic 965.09 (8%)	0556	8.200	0.2000				1			0
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual acid (8%)	0498	8.000	0.2000				1			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0035	7.315	0.8700	8.455	0.4671	0.2728	18	-2.44	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0354	8.000	0.0800	8.455	0.4671	0.2728	18	-0.97	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0419	8.009	0.0639	8.455	0.4671	0.2728	18	-0.96	OK	0

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101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0234	8.015	0.0100	8.455	0.4671	0.2728	18	-0.94	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0360	8.195	0.0900	8.455	0.4671	0.2728	18	-0.56	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0324	8.240	0.7200	8.455	0.4671	0.2728	18	-0.46	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0450	8.265	0.0700	8.455	0.4671	0.2728	18	-0.41	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0102	8.300	0.4000	8.455	0.4671	0.2728	18	-0.33	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0444	8.405	0.2100	8.455	0.4671	0.2728	18	-0.11	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0096	8.439	0.5324	8.455	0.4671	0.2728	18	-0.03	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0255	8.461	0.3850	8.455	0.4671	0.2728	18	0.01	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0371	8.535	0.0500	8.455	0.4671	0.2728	18	0.17	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0472	8.600	0.0600	8.455	0.4671	0.2728	18	0.31	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0451	8.725	0.6700	8.455	0.4671	0.2728	18	0.58	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0377	8.900	0.0600	8.455	0.4671	0.2728	18	0.95	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0433	9.035	0.0320	8.455	0.4671	0.2728	18	1.24	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0291	9.245	0.0300	8.455	0.4671	0.2728	18	1.69	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (8%)	0494	9.798	0.5768	8.455	0.4671	0.2728	18	2.88	High	0
101.31	Acid Soluble Ca, ICP, test portion organic 965.09 (8%)	0231	7.865	0.1300				1			0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (8%)	0515	8.108	0.0417	8.375	0.1952	0.0977	4	-1.37		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (8%)	0220	8.350	0.3000	8.375	0.1952	0.0977	4	-0.13		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (8%)	0423	8.515	0.0490	8.375	0.1952	0.0977	4	0.72		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (8%)	0521	8.526	0.0000	8.375	0.1952	0.0977	4	0.78		0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0421	6.112	0.2021	8.131	0.3898	0.1926	13	-5.18	Low	0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0292	7.820	0.0000	8.131	0.3898	0.1926	13	-0.80	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0009	7.900	0.6000	8.131	0.3898	0.1926	13	-0.59	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0040	7.955	0.2700	8.131	0.3898	0.1926	13	-0.45	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0177	7.962	0.1109	8.131	0.3898	0.1926	13	-0.43	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0117	7.970	0.1220	8.131	0.3898	0.1926	13	-0.41	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0136	8.065	0.3300	8.131	0.3898	0.1926	13	-0.17	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0055	8.115	0.1300	8.131	0.3898	0.1926	13	-0.04	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0563	8.152	0.0368	8.131	0.3898	0.1926	13	0.06	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0043	8.300	0.1800	8.131	0.3898	0.1926	13	0.43	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0037	8.483	0.3530	8.131	0.3898	0.1926	13	0.90	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0527	8.725	0.1385	8.131	0.3898	0.1926	13	1.52	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (8%)	0486	9.085	0.0300	8.131	0.3898	0.1926	13	2.45	High	0
101.70	Acid Soluble Ca, Titrimetric (8%)	0538	7.965	0.1300				1			0
101.99	Acid Soluble Ca, Other (8%)	0552	7.230	0.0600	8.251	0.5564	0.1911	9	-1.69	Low	0
101.99	Acid Soluble Ca, Other (8%)	0405	7.955	0.6700	8.251	0.5564	0.1911	9	-0.49	OK	0
101.99	Acid Soluble Ca, Other (8%)	0561	8.010	0.0800	8.251	0.5564	0.1911	9	-0.40	OK	0
101.99	Acid Soluble Ca, Other (8%)	0390	8.042	0.0840	8.251	0.5564	0.1911	9	-0.35	OK	0
101.99	Acid Soluble Ca, Other (8%)	0529	8.205	0.3500	8.251	0.5564	0.1911	9	-0.08	OK	0
101.99	Acid Soluble Ca, Other (8%)	0368	8.207	0.1566	8.251	0.5564	0.1911	9	-0.07	OK	0
101.99	Acid Soluble Ca, Other (8%)	0389	8.540	0.0400	8.251	0.5564	0.1911	9	0.48	OK	0
101.99	Acid Soluble Ca, Other (8%)	0027	8.911	0.1390	8.251	0.5564	0.1911	9	1.09	High	0
101.99	Acid Soluble Ca, Other (8%)	0042	8.970	0.1400	8.251	0.5564	0.1911	9	1.19	High	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (%)	0553	1.635	0.1100				1			0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0035	1.295	0.1300	1.499	0.1493	0.0498	7	-1.24	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0444	1.390	0.0000	1.499	0.1493	0.0498	7	-0.66	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0354	1.495	0.0700	1.499	0.1493	0.0498	7	-0.02	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0324	1.515	0.0900	1.499	0.1493	0.0498	7	0.10	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0494	1.539	0.0005	1.499	0.1493	0.0498	7	0.24	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0096	1.544	0.0480	1.499	0.1493	0.0498	7	0.27	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0472	1.715	0.0100	1.499	0.1493	0.0498	7	1.31	OK	0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (%)	0423	1.489	0.0220				2			0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (%)	0521	1.497	0.0000				2			0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0421	1.129	0.0007	1.438	0.2090	0.0385	5	-1.47		0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0515	1.353	0.0143	1.438	0.2090	0.0385	5	-0.41		0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0009	1.450	0.1000	1.438	0.2090	0.0385	5	0.06		0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0563	1.626	0.0356	1.438	0.2090	0.0385	5	0.90		0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0527	1.630	0.0417	1.438	0.2090	0.0385	5	0.92		0
121.99	Acid Soluble Mg, Other (%)	0515	1.366	0.1355	1.442	0.0737	0.0663	7	-0.94	OK	0
121.99	Acid Soluble Mg, Other (%)	0552	1.375	0.0300	1.442	0.0737	0.0663	7	-0.83	OK	0
121.99	Acid Soluble Mg, Other (%)	0516	1.410	0.0200	1.442	0.0737	0.0663	7	-0.40	OK	0
121.99	Acid Soluble Mg, Other (%)	0523	1.450	0.1000	1.442	0.0737	0.0663	7	0.10	OK	0
121.99	Acid Soluble Mg, Other (%)	0368	1.467	0.0145	1.442	0.0737	0.0663	7	0.30	OK	0
121.99	Acid Soluble Mg, Other (%)	0389	1.475	0.0300	1.442	0.0737	0.0663	7	0.40	OK	0
121.99	Acid Soluble Mg, Other (%)	0524	1.562	0.1343	1.442	0.0737	0.0663	7	1.46	OK	0
143.99	Elemental S, Other (%)	0472	2.060	0.0000	2.148	0.1281	0.0118	3	-0.69		0
143.99	Elemental S, Other (%)	0368	2.089	0.0054	2.148	0.1281	0.0118	3	-0.46		0
143.99	Elemental S, Other (%)	0389	2.295	0.0300	2.148	0.1281	0.0118	3	1.15		0
145.99	Sulfate S, HCl soluble, Other (%)	0553	1.665	0.0500				1			0
148.00	Total S, Combustion (%)	0419	2.147	0.0780				1			0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0444	1.750	0.0600	2.128	0.3104	0.0330	7	-1.10	Low	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0515	1.815	0.0217	2.128	0.3104	0.0330	7	-0.91	Low	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0527	2.136	0.0635	2.128	0.3104	0.0330	7	0.02	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0421	2.145	0.0056	2.128	0.3104	0.0330	7	0.05	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0494	2.246	0.0200	2.128	0.3104	0.0330	7	0.34	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0521	2.256	0.0000	2.128	0.3104	0.0330	7	0.37	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0563	2.550	0.0601	2.128	0.3104	0.0330	7	1.23	High	0
148.99	Total S, Other (%)	0523	1.960	0.1000	2.053	0.1206	0.0400	4	-0.77		0
148.99	Total S, Other (%)	0354	1.980	0.0200	2.053	0.1206	0.0400	4	-0.60		0
148.99	Total S, Other (%)	0096	2.045	0.0100	2.053	0.1206	0.0400	4	-0.06		0
148.99	Total S, Other (%)	0516	2.225	0.0300	2.053	0.1206	0.0400	4	1.43		0
149.04	S - HNO3 soluble, ICP (%)	0423	2.135	0.0100				2			0
149.04	S - HNO3 soluble, ICP (%)	0524	2.234	0.0366				2			0
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	0.8700	0.0200				1			0
151.30	Acid Soluble As, ICP (ppm)	0096	1.950	0.1000	2.463	0.3448	0.0942	5	-1.49		0
151.30	Acid Soluble As, ICP (ppm)	0255	2.350	0.0750	2.463	0.3448	0.0942	5	-0.33		0
151.30	Acid Soluble As, ICP (ppm)	0450	2.550	0.1000	2.463	0.3448	0.0942	5	0.25		0
151.30	Acid Soluble As, ICP (ppm)	0524	2.581	0.1960	2.463	0.3448	0.0942	5	0.34		0
151.30	Acid Soluble As, ICP (ppm)	0523	2.885	0.0000	2.463	0.3448	0.0942	5	1.22		0
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	0220	1.100	0.2000				1			0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0527	2.546	0.1488	5.518	5.080	0.3935	4	-0.50		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0136	2.720	0.3200	5.518	5.080	0.3935	4	-0.47		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0563	3.706	0.3053	5.518	5.080	0.3935	4	-0.30		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0494	13.10	0.8000	5.518	5.080	0.3935	4	1.27		0

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			Value	Range	Rob Mean	Rob SD	R-bar				
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0515	0.0000	0.0000	5.518	5.080	0.3935	4			4
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0009	< 5		5.518	5.080	0.3935	4			5
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0117	< 10		5.518	5.080	0.3935	4			5
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0515	1.683	1.085				2			0
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0368	2.723	2.795				2			0
151.99	Acid Soluble As, Other (ppm)	0405	2.500	1.000	2.717	0.2566	0.7000	3	-0.84		0
151.99	Acid Soluble As, Other (ppm)	0220	2.650	0.7000	2.717	0.2566	0.7000	3	-0.26		0
151.99	Acid Soluble As, Other (ppm)	0009	3.000	0.4000	2.717	0.2566	0.7000	3	1.10		0
165.00	Acid Soluble B, Spectrophotometric (%)	0553	0.0130	0.0020				1			0
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0389	0.0017	0.0000				2			0
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0521	0.0034	0.0000				2			0
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0354	< 0.01					2			5
165.99	Acid Soluble B, Other (%)	0515	0.0021	0.0004	0.0029	0.0006	0.0002	7	-1.29	OK	0
165.99	Acid Soluble B, Other (%)	0009	0.0027	0.0000	0.0029	0.0006	0.0002	7	-0.32	OK	0
165.99	Acid Soluble B, Other (%)	0524	0.0027	0.0002	0.0029	0.0006	0.0002	7	-0.32	OK	0
165.99	Acid Soluble B, Other (%)	0423	0.0030	0.0002	0.0029	0.0006	0.0002	7	0.16	OK	0
165.99	Acid Soluble B, Other (%)	0516	0.0030	0.0000	0.0029	0.0006	0.0002	7	0.16	OK	0
165.99	Acid Soluble B, Other (%)	0527	0.0031	0.0001	0.0029	0.0006	0.0002	7	0.24	OK	0
165.99	Acid Soluble B, Other (%)	0563	0.0046	0.0008	0.0029	0.0006	0.0002	7	2.74	OK	0
165.99	Acid Soluble B, Other (%)	0552	0.0850	0.0500	0.0029	0.0006	0.0002	7	132.42	High	2
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	0.4500	0.0200				1			0
181.30	Acid Soluble Cd, ICP (ppm)	0389	0.3050	0.0100	0.3611	0.0474	0.0053	5	-1.03		0
181.30	Acid Soluble Cd, ICP (ppm)	0255	0.3235	0.0130	0.3611	0.0474	0.0053	5	-0.69		0
181.30	Acid Soluble Cd, ICP (ppm)	0524	0.3621	0.0035	0.3611	0.0474	0.0053	5	0.02		0
181.30	Acid Soluble Cd, ICP (ppm)	0450	0.4000	0.0000	0.3611	0.0474	0.0053	5	0.72		0
181.30	Acid Soluble Cd, ICP (ppm)	0523	0.4150	0.0000	0.3611	0.0474	0.0053	5	0.99		0
181.30	Acid Soluble Cd, ICP (ppm)	0444	0.3950	0.0500	0.3611	0.0474	0.0053	5	0.62		1
181.30	Acid Soluble Cd, ICP (ppm)	0419	< 0.001		0.3611	0.0474	0.0053	5			5
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	0220	0.4500	0.1000				1			0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0527	0.4183	0.0125	0.4479	0.0275	0.0323	4	-0.91		0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0563	0.4436	0.0284	0.4479	0.0275	0.0323	4	-0.13		0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0136	0.4450	0.0500	0.4479	0.0275	0.0323	4	-0.09		0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0494	0.4849	0.0383	0.4479	0.0275	0.0323	4	1.14		0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0515	0.0000	0.0000	0.4479	0.0275	0.0323	4			4
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0009	< 2		0.4479	0.0275	0.0323	4			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0117	< 5		0.4479	0.0275	0.0323	4			5
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0368	0.4095	0.0250				1			0
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				1			4
181.99	Acid Soluble Cd, Other (ppm)	0009	0.3950	0.0300	0.4200	0.0278	0.0467	3	-0.90		0
181.99	Acid Soluble Cd, Other (ppm)	0405	0.4150	0.0100	0.4200	0.0278	0.0467	3	-0.18		0
181.99	Acid Soluble Cd, Other (ppm)	0220	0.4500	0.1000	0.4200	0.0278	0.0467	3	1.08		0
190.00	Water Soluble Cl, Titrimetric (%)	0553	0.4950	0.0300				1			0
191.30	Acid Soluble Cr, ICP (ppm)	0389	24.18	0.3600	43.99	13.51	0.6250	7	-1.33	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0444	37.21	0.5200	43.99	13.51	0.6250	7	-0.45	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0524	39.06	1.305	43.99	13.51	0.6250	7	-0.33	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0419	42.05	0.3900	43.99	13.51	0.6250	7	-0.13	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0096	53.10	0.8000	43.99	13.51	0.6250	7	0.61	NA	0

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191.30	Acid Soluble Cr, ICP (ppm)	0450	54.50	1.000	43.99	13.51	0.6250	7	0.70	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0523	57.84	0.0000	43.99	13.51	0.6250	7	0.93	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0035	35.00	13.80	43.99	13.51	0.6250	7	-0.60	NA	1
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	0220	42.50	1.400				1			0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0136	25.49	6.820	48.61	17.63	3.150	6	-1.17	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0527	32.01	0.5025	48.61	17.63	3.150	6	-0.84	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0563	57.50	1.717	48.61	17.63	3.150	6	0.45	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0515	57.89	3.458	48.61	17.63	3.150	6	0.47	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0494	59.30	3.400	48.61	17.63	3.150	6	0.54	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0009	59.50	3.000	48.61	17.63	3.150	6	0.55	NA	0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0368	28.80	3.534				2			0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0515	52.35	2.300				2			0
191.99	Acid Soluble Cr, Other (ppm)	0405	42.50	1.000	50.57	12.12	3.467	3	-0.67		0
191.99	Acid Soluble Cr, Other (ppm)	0220	44.70	0.4000	50.57	12.12	3.467	3	-0.48		0
191.99	Acid Soluble Cr, Other (ppm)	0009	64.50	9.000	50.57	12.12	3.467	3	1.15		0
202.30	Acid Soluble Co, ICP (ppm)	0389	10.07	0.0200	18.26	7.663	0.5586	5	-1.07		0
202.30	Acid Soluble Co, ICP (ppm)	0035	10.97	2.670	18.26	7.663	0.5586	5	-0.95		0
202.30	Acid Soluble Co, ICP (ppm)	0524	18.60	0.0131	18.26	7.663	0.5586	5	0.04		0
202.30	Acid Soluble Co, ICP (ppm)	0523	25.70	0.0000	18.26	7.663	0.5586	5	0.97		0
202.30	Acid Soluble Co, ICP (ppm)	0096	25.96	0.0900	18.26	7.663	0.5586	5	1.00		0
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	0220	15.50	1.000				2			0
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	0423	22.25	0.5100				2			0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0136	6.500	0.8000	19.93	8.905	0.8943	8	-1.38	Low	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0419	10.67	0.5100	19.93	8.905	0.8943	8	-0.95	Low	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0527	15.86	0.3084	19.93	8.905	0.8943	8	-0.42	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0563	23.27	1.125	19.93	8.905	0.8943	8	0.34	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0515	24.20	1.860	19.93	8.905	0.8943	8	0.44	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0494	26.05	0.9000	19.93	8.905	0.8943	8	0.63	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0037	26.32	0.6510	19.93	8.905	0.8943	8	0.66	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0009	26.50	1.000	19.93	8.905	0.8943	8	0.67	OK	0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0368	7.944	1.180				1			0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0515	10.87	21.74				1			4
202.99	Acid Soluble Co, Other (ppm)	0220	14.35	0.5000	20.22	5.979	1.755	4	-0.98		0
202.99	Acid Soluble Co, Other (ppm)	0405	18.20	0.4000	20.22	5.979	1.755	4	-0.34		0
202.99	Acid Soluble Co, Other (ppm)	0255	19.83	1.118	20.22	5.979	1.755	4	-0.07		0
202.99	Acid Soluble Co, Other (ppm)	0009	28.50	5.000	20.22	5.979	1.755	4	1.38		0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0535	0.0058	0.0004				1			0
221.03	Acid Soluble Cu, AA, 965.09, test portion 2006.03A-C w/dual acid (%)	0498	0.0025	0.0010				1			0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0255	0.0030	0.0000	0.0343	0.0494	0.0055	5	-0.55		0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0035	0.0035	0.0001	0.0343	0.0494	0.0055	5	-0.55		0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0095	0.0036	0.0001	0.0343	0.0494	0.0055	5	-0.54		0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0552	0.0450	0.0100	0.0343	0.0494	0.0055	5	0.19		0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0096	0.1167	0.0173	0.0343	0.0494	0.0055	5	1.45		0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0354	< 0.01		0.0343	0.0494	0.0055	5			5
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0521	0.0032	0.0000	13.74	23.78	0.2001	3	-0.58		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0220	0.0035	0.0002	13.74	23.78	0.2001	3	-0.58		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0423	41.20	0.6000	13.74	23.78	0.2001	3	1.15		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0421	0.0021	0.0004	0.0035	0.0004	0.0002	10	-3.26	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0136	0.0030	0.0000	0.0035	0.0004	0.0002	10	-1.10	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0494	0.0033	0.0002	0.0035	0.0004	0.0002	10	-0.38	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0527	0.0034	0.0000	0.0035	0.0004	0.0002	10	-0.14	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0009	0.0035	0.0003	0.0035	0.0004	0.0002	10	-0.02	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0419	0.0035	0.0000	0.0035	0.0004	0.0002	10	0.10	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0515	0.0036	0.0003	0.0035	0.0004	0.0002	10	0.22	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0037	0.0038	0.0003	0.0035	0.0004	0.0002	10	0.70	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0563	0.0038	0.0001	0.0035	0.0004	0.0002	10	0.70	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0043	0.0040	0.0000	0.0035	0.0004	0.0002	10	1.30	OK	0
221.99	Acid Soluble Cu, Other (%)	0405	0.0030	0.0000	0.0034	0.0003	0.0001	8	-1.06	OK	0
221.99	Acid Soluble Cu, Other (%)	0523	0.0030	0.0000	0.0034	0.0003	0.0001	8	-1.06	OK	0
221.99	Acid Soluble Cu, Other (%)	0389	0.0032	0.0001	0.0034	0.0003	0.0001	8	-0.64	OK	0
221.99	Acid Soluble Cu, Other (%)	0515	0.0035	0.0001	0.0034	0.0003	0.0001	8	0.21	OK	0
221.99	Acid Soluble Cu, Other (%)	0009	0.0035	0.0004	0.0034	0.0003	0.0001	8	0.35	OK	0
221.99	Acid Soluble Cu, Other (%)	0368	0.0036	0.0001	0.0034	0.0003	0.0001	8	0.50	OK	0
221.99	Acid Soluble Cu, Other (%)	0524	0.0037	0.0001	0.0034	0.0003	0.0001	8	0.78	OK	0
221.99	Acid Soluble Cu, Other (%)	0220	0.0037	0.0000	0.0034	0.0003	0.0001	8	0.92	OK	0
221.99	Acid Soluble Cu, Other (%)	0516	0.0225	0.0030	0.0034	0.0003	0.0001	8	54.30	High	2
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0553	0.2605	0.0030				2			0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0535	0.3850	0.0300				2			0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0035	0.2860	0.0120	0.3926	0.0887	0.0307	7	-1.09	Low	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0472	0.2900	0.0000	0.3926	0.0887	0.0307	7	-1.05	Low	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0324	0.3745	0.0870	0.3926	0.0887	0.0307	7	-0.18	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0444	0.4300	0.0000	0.3926	0.0887	0.0307	7	0.38	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0552	0.4350	0.0300	0.3926	0.0887	0.0307	7	0.43	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0096	0.4530	0.0460	0.3926	0.0887	0.0307	7	0.62	High	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0354	0.4800	0.0400	0.3926	0.0887	0.0307	7	0.89	High	0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	0423	0.4350	0.0080				1			0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0521	0.3806	0.0000	0.4588	0.0480	0.0078	5	-1.42		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0009	0.4450	0.0100	0.4588	0.0480	0.0078	5	-0.25		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0563	0.4830	0.0093	0.4588	0.0480	0.0078	5	0.44		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0527	0.4928	0.0091	0.4588	0.0480	0.0078	5	0.62		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0494	0.4929	0.0108	0.4588	0.0480	0.0078	5	0.62		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0515	0.4839	0.1400	0.4588	0.0480	0.0078	5	0.46		1
241.99	Acid Soluble Fe, Other (%)	0515	0.3335	0.0145	0.3980	0.0762	0.0109	6	-0.76	Low	0
241.99	Acid Soluble Fe, Other (%)	0389	0.3500	0.0200	0.3980	0.0762	0.0109	6	-0.56	Low	0
241.99	Acid Soluble Fe, Other (%)	0523	0.3540	0.0040	0.3980	0.0762	0.0109	6	-0.51	OK	0
241.99	Acid Soluble Fe, Other (%)	0516	0.4095	0.0110	0.3980	0.0762	0.0109	6	0.13	OK	0
241.99	Acid Soluble Fe, Other (%)	0368	0.4290	0.0057	0.3980	0.0762	0.0109	6	0.36	OK	0
241.99	Acid Soluble Fe, Other (%)	0524	0.5228	0.0101	0.3980	0.0762	0.0109	6	1.46	High	0
251.30	Acid Soluble Pb, ICP (ppm)	0389	0.9100	0.0400	1.527	0.5194	0.0932	6	-1.06	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0096	1.200	0.4000	1.527	0.5194	0.0932	6	-0.56	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0524	1.426	0.0013	1.527	0.5194	0.0932	6	-0.17	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0450	1.650	0.1000	1.527	0.5194	0.0932	6	0.21	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0255	1.757	0.0180	1.527	0.5194	0.0932	6	0.39	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0523	2.222	0.0000	1.527	0.5194	0.0932	6	1.19	NA	0



Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
251.30	Acid Soluble Pb, ICP (ppm)	0035	3.040	1.760	1.527	0.5194	0.0932	6	2.59	NA	1
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	0220	1.800	0.4000				1			0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0136	1.830	0.0200	2.948	1.242	0.2972	5	-0.79		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0563	1.933	0.0927	2.948	1.242	0.2972	5	-0.71		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0527	2.788	0.1403	2.948	1.242	0.2972	5	-0.11		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0515	3.309	1.113	2.948	1.242	0.2972	5	0.25		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0494	4.880	0.1200	2.948	1.242	0.2972	5	1.36		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0117	< 5		2.948	1.242	0.2972	5			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0009	< 6		2.948	1.242	0.2972	5			5
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0515	4.886	0.0870				1			0
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0368	< 0.9					1			5
251.99	Acid Soluble Pb, Other (ppm)	0220	1.200	0.2000	1.800	0.7211	0.2000	3	-0.83		0
251.99	Acid Soluble Pb, Other (ppm)	0009	1.600	0.2000	1.800	0.7211	0.2000	3	-0.28		0
251.99	Acid Soluble Pb, Other (ppm)	0405	2.600	0.2000	1.800	0.7211	0.2000	3	1.11		0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (%)	0553	0.0495	0.0010				1			0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0035	0.0442	0.0017	1.062	2.265	0.0191	5	-0.45		0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0354	0.0500	0.0000	1.062	2.265	0.0191	5	-0.45		0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0472	0.0500	0.0000	1.062	2.265	0.0191	5	-0.45		0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0444	0.0525	0.0010	1.062	2.265	0.0191	5	-0.45		0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0096	5.114	0.0930	1.062	2.265	0.0191	5	1.79		0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (%)	0324	0.0491	0.0026				1			0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	0552	0.0750	0.0100				1			0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	0423	0.0535	0.0010				1			0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0527	0.0499	0.0001	0.0511	0.0016	0.0009	5	-0.69		0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0563	0.0499	0.0006	0.0511	0.0016	0.0009	5	-0.66		0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0009	0.0505	0.0010	0.0511	0.0016	0.0009	5	-0.34		0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0521	0.0517	0.0000	0.0511	0.0016	0.0009	5	0.31		0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0494	0.0537	0.0028	0.0511	0.0016	0.0009	5	1.39		0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0515	0.0000	0.0000	0.0511	0.0016	0.0009	5			4
261.99	Acid Soluble Mn, Other (%)	0389	0.0461	0.0012	0.0513	0.0050	0.0021	6	-0.93	OK	0
261.99	Acid Soluble Mn, Other (%)	0515	0.0483	0.0020	0.0513	0.0050	0.0021	6	-0.54	OK	0
261.99	Acid Soluble Mn, Other (%)	0368	0.0502	0.0011	0.0513	0.0050	0.0021	6	-0.21	OK	0
261.99	Acid Soluble Mn, Other (%)	0524	0.0516	0.0003	0.0513	0.0050	0.0021	6	0.04	OK	0
261.99	Acid Soluble Mn, Other (%)	0523	0.0530	0.0020	0.0513	0.0050	0.0021	6	0.30	OK	0
261.99	Acid Soluble Mn, Other (%)	0516	0.0610	0.0060	0.0513	0.0050	0.0021	6	1.74	OK	0
281.30	Acid Soluble Hg, ICP (ppm)	0563	0.0557	0.0028				2			0
281.30	Acid Soluble Hg, ICP (ppm)	0524	0.1242	0.0008				2			0
281.30	Acid Soluble Hg, ICP (ppm)	0515	0.0000	0.0000				2			4
281.30	Acid Soluble Hg, ICP (ppm)	0527	< 0.001					2			5
281.30	Acid Soluble Hg, ICP (ppm)	0450	< 0.05					2			5
281.99	Acid Soluble Hg, Other (ppm)	0220	0.0200	0.0000				2			0
281.99	Acid Soluble Hg, Other (ppm)	0368	0.0286	0.0006				2			0
281.99	Acid Soluble Hg, Other (ppm)	0405	< 0.01					2			5
281.99	Acid Soluble Hg, Other (ppm)	0009	< 0.044					2			5
289.30	Acid Soluble Mo, ICP (ppm)	0524	2.387	0.0164	5.621	3.412	0.1363	5	-0.95		0
289.30	Acid Soluble Mo, ICP (ppm)	0035	3.160	0.5000	5.621	3.412	0.1363	5	-0.72		0
289.30	Acid Soluble Mo, ICP (ppm)	0419	5.043	0.0580	5.621	3.412	0.1363	5	-0.17		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
289.30	Acid Soluble Mo, ICP (ppm)	0255	6.514	0.1070	5.621	3.412	0.1363	5	0.26		0
289.30	Acid Soluble Mo, ICP (ppm)	0516	11.00	0.0000	5.621	3.412	0.1363	5	1.58		0
289.32	Acid Soluble Mo, ICP, 2006.03 (ppm)	0220	4.550	0.3000				1			0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0527	2.738	0.0579	3.694	1.051	0.3356	7	-0.82	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0515	2.864	1.043	3.694	1.051	0.3356	7	-0.71	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0136	2.930	0.4600	3.694	1.051	0.3356	7	-0.66	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0423	3.705	0.2100	3.694	1.051	0.3356	7	0.01	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0009	4.100	0.2000	3.694	1.051	0.3356	7	0.35	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0563	4.254	0.0710	3.694	1.051	0.3356	7	0.48	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0494	5.806	0.3075	3.694	1.051	0.3356	7	1.82	High	0
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0515	4.411	0.7850				1			0
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0368	< 0.1					1			5
289.99	Acid Soluble Mo, Other (ppm)	0405	4.325	0.2500	4.425	0.1521	0.3167	3	-0.66		0
289.99	Acid Soluble Mo, Other (ppm)	0220	4.350	0.3000	4.425	0.1521	0.3167	3	-0.49		0
289.99	Acid Soluble Mo, Other (ppm)	0009	4.600	0.4000	4.425	0.1521	0.3167	3	1.15		0
291.30	Acid Soluble Ni, ICP (ppm)	0389	13.34	0.0300	20.04	5.725	0.5222	7	-1.06	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0524	15.80	0.3654	20.04	5.725	0.5222	7	-0.67	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0444	16.25	1.710	20.04	5.725	0.5222	7	-0.60	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0450	21.50	1.000	20.04	5.725	0.5222	7	0.23	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0419	21.73	0.2500	20.04	5.725	0.5222	7	0.27	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0523	24.53	0.0000	20.04	5.725	0.5222	7	0.71	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0096	27.15	0.3000	20.04	5.725	0.5222	7	1.12	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0035	15.50	7.000	20.04	5.725	0.5222	7	-0.72	NA	1
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	0220	23.45	1.500				1			0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0136	13.01	4.310	22.00	6.050	1.414	8	-1.36	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0527	14.30	0.1660	22.00	6.050	1.414	8	-1.16	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0515	22.35	1.361	22.00	6.050	1.414	8	0.05	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0563	23.55	0.2125	22.00	6.050	1.414	8	0.23	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0009	24.50	1.000	22.00	6.050	1.414	8	0.38	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0117	25.79	0.2940	22.00	6.050	1.414	8	0.57	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0494	26.03	1.800	22.00	6.050	1.414	8	0.61	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0037	26.43	2.166	22.00	6.050	1.414	8	0.67	NA	0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0368	16.28	2.935				2			0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0515	23.27	0.7490				2			0
291.99	Acid Soluble Ni, Other (ppm)	0255	19.40	1.677	21.97	2.679	1.419	4	-0.96		0
291.99	Acid Soluble Ni, Other (ppm)	0405	20.50	1.000	21.97	2.679	1.419	4	-0.55		0
291.99	Acid Soluble Ni, Other (ppm)	0220	22.50	0.0000	21.97	2.679	1.419	4	0.20		0
291.99	Acid Soluble Ni, Other (ppm)	0009	25.50	3.000	21.97	2.679	1.419	4	1.32		0
301.30	Acid Soluble Se, ICP (ppm)	0524	0.7650	0.0500				2			0
301.30	Acid Soluble Se, ICP (ppm)	0523	3.070	0.0000				2			0
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	0220	0.7000	0.0000				1			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0563	1.792	0.0870				1			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0515	0.0000	0.0000				1			4
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0527	< 0.01					1			5
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0009	< 22					1			5
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0515	3.330	0.2670				1			0
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0368	< 1.6					1			5

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
301.99	Acid Soluble Se, Other (ppm)	0220	0.8000	0.0000	2.533	1.686	0.6903	4	-1.03		0
301.99	Acid Soluble Se, Other (ppm)	0009	1.450	0.1000	2.533	1.686	0.6903	4	-0.64		0
301.99	Acid Soluble Se, Other (ppm)	0405	3.500	1.000	2.533	1.686	0.6903	4	0.57		0
301.99	Acid Soluble Se, Other (ppm)	0255	4.383	1.661	2.533	1.686	0.6903	4	1.10		0
311.00	Sodium, AA (%)	0553	0.4810	0.0340				1			0
311.32	Sodium, ICP, 2006.03 test portion (%)	0324	0.5095	0.0390				1			0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0035	0.4305	0.0550	0.4945	0.0448	0.0244	6	-1.27	Low	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0009	0.4800	0.0400	0.4945	0.0448	0.0244	6	-0.29	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0521	0.4922	0.0000	0.4945	0.0448	0.0244	6	-0.04	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0423	0.4985	0.0150	0.4945	0.0448	0.0244	6	0.08	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0527	0.5162	0.0118	0.4945	0.0448	0.0244	6	0.43	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0563	0.5494	0.0245	0.4945	0.0448	0.0244	6	1.09	High	0
311.99	Sodium, Other (%)	0368	0.4807	0.0120	0.4986	0.0199	0.0073	3	-0.90		0
311.99	Sodium, Other (%)	0096	0.4950	0.0100	0.4986	0.0199	0.0073	3	-0.18		0
311.99	Sodium, Other (%)	0354	0.5200	0.0000	0.4986	0.0199	0.0073	3	1.08		0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0535	0.0205	0.0010				2			0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0553	0.0850	0.0020				2			0
321.03	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C w/dual acid (%)	0498	0.0190	0.0020				1			0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0035	0.0171	0.0026	0.0199	0.0021	0.0012	7	-1.19	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0255	0.0190	0.0000	0.0199	0.0021	0.0012	7	-0.38	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0324	0.0194	0.0007	0.0199	0.0021	0.0012	7	-0.23	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0444	0.0195	0.0010	0.0199	0.0021	0.0012	7	-0.17	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0472	0.0200	0.0000	0.0199	0.0021	0.0012	7	0.04	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0095	0.0213	0.0007	0.0199	0.0021	0.0012	7	0.57	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0096	0.0249	0.0036	0.0199	0.0021	0.0012	7	2.13	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0354	0.0450	0.0100	0.0199	0.0021	0.0012	7	10.67	High	1
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0552	0.0000	0.0000	0.0199	0.0021	0.0012	7			4
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	0220	0.0183	0.0006				2			0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	0423	0.0210	0.0000				2			0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0421	0.0133	0.0005	0.0189	0.0013	0.0006	10	-4.20	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0136	0.0180	0.0000	0.0189	0.0013	0.0006	10	-0.68	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0494	0.0180	0.0004	0.0189	0.0013	0.0006	10	-0.68	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0009	0.0185	0.0010	0.0189	0.0013	0.0006	10	-0.31	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0043	0.0185	0.0010	0.0189	0.0013	0.0006	10	-0.31	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0515	0.0191	0.0001	0.0189	0.0013	0.0006	10	0.10	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0527	0.0194	0.0000	0.0189	0.0013	0.0006	10	0.36	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0419	0.0200	0.0020	0.0189	0.0013	0.0006	10	0.81	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0037	0.0202	0.0006	0.0189	0.0013	0.0006	10	0.95	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0563	0.0205	0.0003	0.0189	0.0013	0.0006	10	1.14	OK	0
321.99	Acid Soluble Zn, Other (%)	0389	0.0165	0.0010	0.0182	0.0016	0.0008	8	-0.99	OK	0
321.99	Acid Soluble Zn, Other (%)	0523	0.0170	0.0000	0.0182	0.0016	0.0008	8	-0.69	OK	0
321.99	Acid Soluble Zn, Other (%)	0368	0.0175	0.0001	0.0182	0.0016	0.0008	8	-0.43	OK	0
321.99	Acid Soluble Zn, Other (%)	0405	0.0178	0.0006	0.0182	0.0016	0.0008	8	-0.23	OK	0
321.99	Acid Soluble Zn, Other (%)	0515	0.0180	0.0011	0.0182	0.0016	0.0008	8	-0.14	OK	0
321.99	Acid Soluble Zn, Other (%)	0220	0.0184	0.0004	0.0182	0.0016	0.0008	8	0.13	OK	0
321.99	Acid Soluble Zn, Other (%)	0524	0.0199	0.0003	0.0182	0.0016	0.0008	8	0.97	OK	0
321.99	Acid Soluble Zn, Other (%)	0516	0.0295	0.0030	0.0182	0.0016	0.0008	8	6.62	High	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321.99	Acid Soluble Zn, Other (%)	0027	173.1	0.9980	0.0182	0.0016	0.0008	8	<b>101243.24</b>	<b>High</b>	2
441.00	Humic Acids, Gravimetry,Ash-free, alkali dissolved, acid precipit... (1%)	0540	0.9950	0.0100	7.433	7.521	0.2413	8	<b>-0.78</b>	NA	0
441.00	Humic Acids, Gravimetry,Ash-free, alkali dissolved, acid precipit... (1%)	0538	1.000	0.0400	7.433	7.521	0.2413	8	<b>-0.78</b>	NA	0
441.00	Humic Acids, Gravimetry,Ash-free, alkali dissolved, acid precipit... (1%)	0537	1.565	0.2900	7.433	7.521	0.2413	8	<b>-0.71</b>	NA	0
441.00	Humic Acids, Gravimetry,Ash-free, alkali dissolved, acid precipit... (1%)	0535	2.300	0.2000	7.433	7.521	0.2413	8	<b>-0.62</b>	NA	0
441.00	Humic Acids, Gravimetry,Ash-free, alkali dissolved, acid precipit... (1%)	0518	9.600	0.4000	7.433	7.521	0.2413	8	<b>0.26</b>	NA	0
441.00	Humic Acids, Gravimetry,Ash-free, alkali dissolved, acid precipit... (1%)	0136	13.80	0.6000	7.433	7.521	0.2413	8	<b>0.77</b>	NA	0
441.00	Humic Acids, Gravimetry,Ash-free, alkali dissolved, acid precipit... (1%)	0037	14.26	0.2300	7.433	7.521	0.2413	8	<b>0.83</b>	NA	0
441.00	Humic Acids, Gravimetry,Ash-free, alkali dissolved, acid precipit... (1%)	0220	15.95	0.1600	7.433	7.521	0.2413	8	<b>1.04</b>	NA	0
441.10	Humic Acids, Gravimetry, alkali dissolved, acid precipitated (1%)	0532	1.155	0.0700	9.621	4.833	0.1026	5	-1.75		0
441.10	Humic Acids, Gravimetry, alkali dissolved, acid precipitated (1%)	0486	10.64	0.0400	9.621	4.833	0.1026	5	0.21		0
441.10	Humic Acids, Gravimetry, alkali dissolved, acid precipitated (1%)	0547	11.06	0.1100	9.621	4.833	0.1026	5	0.30		0
441.10	Humic Acids, Gravimetry, alkali dissolved, acid precipitated (1%)	0556	12.10	0.2000	9.621	4.833	0.1026	5	0.51		0
441.10	Humic Acids, Gravimetry, alkali dissolved, acid precipitated (1%)	0368	13.16	0.0930	9.621	4.833	0.1026	5	0.73		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. IA Status describes where your result is relative to the Assigned Value ± IA. Red indicates Higher or Lower, Green indicates within the IA range. Method 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.