



Method PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Methods: 159

Sample # 230611

Regular PT Scheme

Labs Reporting: 77

Grade 15-6-12

Statistical Summary

Issue Date : 07/31/2023

Method Code	Analyte & Method Sample # 230611	# 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 (%)	7	7	8.504	0.1749	8.504		0.1983	0.0937	2.33%		0.0680	2.90%
001.99	Ammoniacal N, Other (%)	19	19	8.458	0.1793	8.457		0.2010	0.0576	2.38%		0.1726	2.90%
002.20	Nitrate N, Jones Modified (%)	1		7.560									
002.99	Nitrate N, Other (%)	18	18	6.681	0.3622	6.719		0.2991	0.0881	4.45%		0.0747	3.00%
005.00	Urea N, Urease (as N) (%)	1		16.16									
005.99	Urea N, Other (%)	1		0.3650									
009.10	Ammoniacal Plus Nitrate N, Devarda (%)	2	2	15.30	0.0000								
009.99	Ammoniacal Plus Nitrate N, Other (%)	1		15.30									
010.11	Total N, Modified Comprehensive (15%)	1		14.81									
010.12	Total N, Salicylic (15%)	3	3	16.06	0.7889	16.06	0.6709	0.7889	0.5694	4.91%	2.74	0.3109	2.50%
010.60	Total N, Combustion (15%)	50	49	16.08	1.086	16.22	0.6732	0.2621	0.0468	1.62%	0.91	0.1205	2.48%
010.99	Total N, Other (15%)	8	8	15.10	1.186	15.34	0.6568	0.6933	0.3064	4.52%	2.46	0.1167	2.55%
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	3	3	6.347	0.3479	6.347		0.3479	0.2511	5.48%		0.1733	3.03%
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	10	10	6.570	0.3085	6.604		0.2625	0.1038	3.97%		0.1892	3.01%
020.40	Total P2O5, Automated (%)	2	2	6.668	0.3642								
020.50	Total P2O5, ICP (%)	21	20	6.322	0.4652	6.337		0.4049	0.1132	6.39%		0.1284	3.03%
020.99	Total P2O5, Other (%)	7	6	6.284	0.1756	6.263		0.1820	0.0929	2.91%		0.0650	3.03%
030.20	Citrate Insoluble P2O5, Spectrophotometric MolybdovanadoP	1		0.0350									
041.10	Direct Available P2O5, Gravimetric Quinolinium (6%)	2	2	6.360	0.1102								
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA	8	8	6.254	0.1951	6.258	0.6726	0.2107	0.0931	3.37%	0.73	0.0775	3.04%
041.20	Direct Available P2O5, Spectrophotometric (6%)	3	3	6.237	0.2019	6.237	0.6724	0.2019	0.1457	3.24%	0.70	0.1600	3.04%
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext.	7	7	6.300	0.2409	6.266	0.6727	0.1898	0.0897	3.03%	0.66	0.1089	3.03%
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (6%)	1		6.428									
041.50	Direct Available P2O5, ICP (6%)	4	4	6.461	0.2070	6.461	0.6746	0.2070	0.1294	3.20%	0.71	0.2390	3.02%
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	10	10	6.374	0.1402	6.379	0.6738	0.1487	0.0588	2.33%	0.51	0.0887	3.03%
041.99	Direct Available P2O5, Other (6%)	4	4	6.489	0.1663	6.489	0.6749	0.1663	0.1039	2.56%	0.57	0.2074	3.02%
048.10	Water Soluble P2O5, Gravimetric Quinolinium (%)	2	2	5.070	0.4667								
048.20	Water Soluble P2O5, Spectrophotometric (%)	2	2	4.988	0.1241								
048.40	Water Soluble P2O5, Automated (%)	1		4.990									

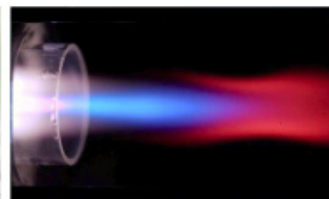
Method Code	Analyte & Method Sample # 230611	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Howitz %RSD
048.50	Water Soluble P2O5, ICP (%)	2	2	4.783	0.7319								
048.99	Water Soluble P2O5, Other (%)	3	3	5.353	0.6801	5.353		0.6801	0.4908	12.71%		0.0348	3.11%
050.00	Soluble K2O, STPB Oxalate (12%)	6	6	12.32	0.4418	12.32	0.8027	0.5010	0.2557	4.07%	1.45	0.1480	2.74%
050.30	Soluble K2O, AA (Oxalate) (12%)	4	4	12.47	0.8041	12.47	0.8087	0.8041	0.5025	6.45%	2.32	0.5703	2.74%
050.32	Soluble K2O, AA (Citrate-EDTA) (12%)	1		12.13									
050.50	Soluble K2O, ICP (Oxalate) (12%)	8	8	12.58	0.5972	12.58	0.8132	0.6772	0.2993	5.38%	1.94	0.2043	2.73%
050.51	Soluble K2O, ICP (Citrate) (12%)	4	4	12.66	0.0787	12.66	0.8163	0.0787	0.0492	0.62%	0.22	0.2182	2.73%
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	12	12	12.45	0.3083	12.45	0.8079	0.3008	0.1085	2.42%	0.87	0.2545	2.74%
050.60	Soluble K2O, Flame Photometric (Oxalate) (12%)	2	2	12.14	0.2257								
050.61	Soluble K2O, Flame Photometric (Citrate) (12%)	1		12.25									
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (12%)	3	3	12.77	0.2948	12.77	0.8206	0.2948	0.2128	2.31%	0.84	0.1100	2.73%
050.99	Soluble K2O, Other (12%)	34	33	12.43	0.4879	12.39	0.8057	0.4603	0.1002	3.71%	1.33	0.1850	2.74%
060.00	Water (Free), Vacuum Oven (%)	1		0.1750									
060.99	Water (Free), Other (%)	1		1.187									
101.00	Acid Soluble Ca, AA, inorganic 965.09 (%)	1		1.010									
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	2	2	1.123	0.0248								
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (%)	2	2	0.9570	0.1386								
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	6	6	1.049	0.1314	1.076	0.2538	0.0779	0.0397	7.24%	0.71	0.0256	3.96%
101.99	Acid Soluble Ca, Other (%)	3	3	1.124	0.0715	1.124	0.2562	0.0715	0.0516	6.36%	0.65	0.0135	3.93%
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.3%)	6	6	1.518	0.1025	1.518	0.2759	0.1163	0.0593	7.66%	0.98	0.0844	3.76%
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid	1		1.500									
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	12	12	1.634	0.1584	1.619	0.2809	0.0926	0.0334	5.72%	0.77	0.0599	3.72%
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1.3%)	5	5	1.502	0.0725	1.502	0.2751	0.0725	0.0405	4.83%	0.61	0.0225	3.76%
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	20	20	1.581	0.2393	1.609	0.2804	0.1422	0.0397	8.84%	1.18	0.0473	3.72%
121.99	Acid Soluble Mg, Other (1.3%)	12	11	1.570	0.0929	1.556	0.2778	0.0789	0.0297	5.07%	0.66	0.0333	3.74%
131.00	Water Soluble Mg, AA (%)	2	2	1.168	0.4642								
131.30	Water Soluble Mg, ICP (%)	6	6	1.501	0.0911	1.501		0.1033	0.0527	6.88%		0.0476	3.76%
131.70	Water Soluble Mg, Titrimetric (EDTA) (%)	2	2	1.580	0.4308								
131.99	Water Soluble Mg, Other (%)	4	4	1.173	0.2583	1.173		0.2583	0.1614	22.02%		0.0375	3.90%
143.00	Elemental S, Gravimetric Sulfur - carbon disulfide soluble sulfur	1		0.0900									
143.99	Elemental S, Other (%)	4	4	7.026	0.6712	7.026		0.6712	0.4195	9.55%		0.0495	2.98%
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	3	3	6.920	0.1486	6.920		0.1486	0.1072	2.15%		0.2800	2.99%
145.99	Sulfate S, HCl soluble, Other (%)	3	3	6.532	0.3325	6.532		0.3325	0.2400	5.09%		0.1750	3.02%
148.00	Total S, Combustion (6.3%)	6	6	6.922	0.1814	6.932	0.5466	0.1834	0.0936	2.65%	0.78	0.1519	2.99%
148.01	Total S, Gravimetric - sulfate and elemental (6.3%)	9	9	7.060	0.5911	7.024	0.5512	0.5863	0.2443	8.35%	2.48	0.0839	2.98%
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	20	19	6.971	0.6784	6.948	0.5474	0.6226	0.1785	8.96%	2.65	0.1091	2.99%
148.99	Total S, Other (6.3%)	12	11	7.102	0.7273	6.920	0.5460	0.4789	0.1805	6.92%	2.04	0.1751	2.99%
149.04	S - HNO3 soluble, ICP (%)	3	3	7.632	0.7677	7.632		0.7677	0.5540	10.06%		0.2392	2.95%
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid	2	2	0.6800	0.1131								
151.30	Acid Soluble As, ICP (ppm)	4	2	1.939	2.865	0.7786		0.1109	0.0981	14.25%		0.0669	16.61%

Method Code	Analyte & Method Sample # 230611	# 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)	Howitz %RSD
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	2	1	1.775	1.732								
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	6	3	0.4808	0.4095	0.5662		0.3385	0.2443	59.78%		0.0082	17.43%
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	2	1	3.168	3.773								
151.99	Acid Soluble As, Other (ppm)	3	3	0.6661	0.1098	0.6661		0.1098	0.0792	16.49%		0.0573	17.01%
165.00	Acid Soluble B, Spectrophotometric (%)	1		0.0025									
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	1		0.0100									
165.99	Acid Soluble B, Other (%)	9	5	0.0030	0.0043	0.0013	0.0032	0.0005	0.0003	34.72%	0.33	0.0009	10.87%
171.99	Water Soluble B, Other (%)	1		0.0109									
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acic	2	1	0.6750	0.2475								
181.30	Acid Soluble Cd, ICP (ppm)	7	5	1.145	1.036	1.033		1.210	0.6763	117.10%		1.132	15.92%
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	2	1	0.7750	0.3182								
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	6	3	0.4404	0.3806	0.5031		0.2356	0.1700	46.82%		0.0209	17.74%
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	2	0	0.1450	0.0636								
181.99	Acid Soluble Cd, Other (ppm)	2	2	0.4288	0.1007								
190.00	Water Soluble Cl, Titrimetric (%)	1		0.3125									
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid	1		16.75									
191.30	Acid Soluble Cr, ICP (ppm)	9	9	14.65	5.693	14.49		6.106	2.544	42.13%		1.382	10.70%
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	2	2	12.18	3.995								
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	7	7	15.02	4.472	15.02		5.071	2.396	33.77%		0.4954	10.64%
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	2	2	19.39	20.56								
191.99	Acid Soluble Cr, Other (ppm)	3	3	12.08	6.384	12.08		6.384	4.607	52.87%		0.5374	11.00%
202.30	Acid Soluble Co, ICP (ppm)	6	5	2.196	1.474	1.635	1.4905	0.5982	0.3344	36.59%	0.94	0.3402	14.86%
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	2	1	0.8500	0.2121								
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	5	3	1.150	0.8596	1.038	1.3113	0.1917	0.1383	18.47%	0.34	0.0800	15.91%
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	2	1	0.6300	0.5233								
202.99	Acid Soluble Co, Other (ppm)	4	3	8.238	12.10	9.318	3.7954	14.59	10.53	156.54%	8.95	3.160	11.43%
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.08%)	5	5	0.0761	0.0027	0.0761	0.0126	0.0027	0.0015	3.54%	0.50	0.0031	5.89%
221.03	Acid Soluble Cu, AA, 965.09, test portion 2006.03A-C w/dual ε	1		0.0790									
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	17	16	0.1220	0.1838	0.0779	0.0128	0.0051	0.0016	6.52%	0.93	0.0030	5.87%
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.08%)	5	5	0.0775	0.0066	0.0775	0.0128	0.0066	0.0037	8.54%	1.21	0.0010	5.88%
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	18	18	0.0801	0.0040	0.0800	0.0130	0.0044	0.0013	5.52%	0.79	0.0026	5.85%
221.99	Acid Soluble Cu, Other (0.08%)	14	13	0.0784	0.0072	0.0788	0.0129	0.0067	0.0023	8.49%	1.21	0.0018	5.86%
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.32%)	5	5	0.3238	0.0314	0.3238	0.0374	0.0314	0.0176	9.71%	1.96	0.0044	4.74%
241.03	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C w/dual a	1		0.2300									
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	17	16	0.3523	0.0551	0.3593	0.0409	0.0378	0.0118	10.52%	2.15	0.0164	4.67%
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (0.32%)	5	5	0.3530	0.0225	0.3530	0.0403	0.0225	0.0126	6.37%	1.30	0.0052	4.68%
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	19	19	0.3550	0.0261	0.3556	0.0406	0.0275	0.0079	7.72%	1.58	0.0109	4.67%
241.99	Acid Soluble Fe, Other (0.32%)	15	15	0.3500	0.0466	0.3436	0.0394	0.0334	0.0108	9.72%	1.98	0.0154	4.70%
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid	2	0	1.250	1.061								
251.30	Acid Soluble Pb, ICP (ppm)	6	3	2.124	2.294	0.9150		0.6581	0.4749	71.92%		0.1599	16.21%

Method Code	Analyte & Method Sample # 230611	# 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)	Howitz %RSD
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	2	1	2.275	2.440								
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	6	3	7.892	17.05	14.71		24.17	17.45	164.32%		0.2191	10.67%
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	2	0	0.5850	0.4455								
251.99	Acid Soluble Pb, Other (ppm)	3	2	1.993	2.609	0.4890		0.2277	0.2013	46.57%		0.0529	17.82%
261.00	Acid Soluble Mn, AA, Mn2+ only (0.13%)	1		0.1465									
261.11	Acid Soluble Mn, AA, total Mn (0.13%)	1		0.1010									
261.12	Acid Soluble Mn, AA, inorganic 965.09 (0.13%)	3	3	0.1460	0.0063	0.1460	0.0196	0.0063	0.0045	4.31%	0.75	0.0058	5.34%
261.14	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C (0.13%)	1		0.1500									
261.15	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C w/dual	1		0.0930									
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.13%)	6	5	0.3579	0.5304	0.1415	0.0191	0.0182	0.0102	12.84%	2.21	0.0103	5.37%
261.31	Acid Soluble Mn, ICP, test portion 972.02b (0.13%)	2	2	0.1428	0.0032								
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.13%)	7	7	0.1450	0.0088	0.1450	0.0195	0.0100	0.0047	6.90%	1.20	0.0066	5.35%
261.33	Acid Soluble Mn, ICP, test portion organic 965.09 (0.13%)	1		0.1359									
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (0.13%)	2	2	0.1380	0.0028								
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	20	19	0.1417	0.0132	0.1424	0.0192	0.0126	0.0036	8.86%	1.53	0.0062	5.36%
261.99	Acid Soluble Mn, Other (0.13%)	14	13	0.1409	0.0112	0.1396	0.0190	0.0114	0.0040	8.17%	1.40	0.0057	5.38%
271.00	Water Soluble Mn, AA (%)	3	3	0.1086	0.0272	0.1086		0.0272	0.0197	25.08%		0.0044	5.59%
271.30	Water Soluble Mn, ICP, Ext. 972.03 (%)	2	2	0.1152	0.0394								
271.99	Water Soluble Mn, Other (%)	1		0.1430									
281.00	Acid Soluble Hg, AA (ppm)	2	0	0.2750	0.3182								
281.30	Acid Soluble Hg, ICP (ppm)	6	1	0.5524	0.8642	0.1152		0.0394	0.0492	34.20%		0.0014	22.00%
281.99	Acid Soluble Hg, Other (ppm)	4	3	0.0235	0.0277	0.0283		0.0318	0.0229	112.07%		0.0056	22.00%
289.30	Acid Soluble Mo, ICP (110ppm)	15	15	125.7	11.19	125.5	38.6526	8.832	2.851	7.04%	0.53	9.076	7.73%
289.32	Acid Soluble Mo, ICP, 2006.03 (110ppm)	2	2	146.3	1.768								
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	12	12	128.6	23.07	127.6	39.2888	14.51	5.235	11.37%	0.86	5.281	7.71%
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (110ppm)	2	2	103.6	16.86								
289.99	Acid Soluble Mo, Other (110ppm)	4	4	130.9	25.77	130.9	40.2815	25.77	16.10	19.68%	1.49	9.592	7.68%
291.30	Acid Soluble Ni, ICP (ppm)	9	8	4.945	2.376	5.283		2.138	0.9450	40.48%		0.1718	12.45%
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	2	2	4.150	1.202								
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	7	6	5.083	3.216	5.900		2.957	1.509	50.12%		0.2627	12.25%
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	2	1	1.955	2.397								
291.99	Acid Soluble Ni, Other (ppm)	4	4	13.14	17.77	13.14		17.77	11.10	135.16%		3.367	10.86%
301.30	Acid Soluble Se, ICP (ppm)	3	2	0.8630	0.6816	0.4695		0.0121	0.0107	2.57%		0.0333	17.92%
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	2	1	5.400	6.505								
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	4	2	0.2868	0.2790	0.4556		0.3102	0.2742	68.09%		0.0273	18.01%
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	3	1	3.611	4.469	0.4556		0.3102	0.3878	68.09%		0.0100	18.01%
301.99	Acid Soluble Se, Other (ppm)	3	2	0.6568	0.5981	0.9851		0.2618	0.2314	26.58%		0.0851	16.03%
311.00	Sodium, AA (%)	1		0.2930									
311.33	Sodium, ICP, test portion as in 2017.02 (%)	5	5	0.2957	0.0168	0.2957	0.0346	0.0168	0.0094	5.67%	1.13	0.0081	4.80%
311.99	Sodium, Other (%)	3	3	0.2987	0.0151	0.2987	0.0349	0.0150	0.0109	5.04%	1.01	0.0066	4.80%

Method Code	Analyte & Method Sample # 230611	# 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
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.076%)	5	5	0.0798	0.0029	0.0798	0.0130	0.0029	0.0016	3.57%	0.51	0.0025	5.85%
321.03	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C w/dual a	1		0.0775									
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	17	16	0.0849	0.0165	0.0816	0.0132	0.0097	0.0030	11.95%	1.73	0.0048	5.83%
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (0.076%)	4	4	0.0780	0.0121	0.0780	0.0128	0.0121	0.0076	15.55%	2.21	0.0020	5.87%
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	19	19	0.0843	0.0081	0.0843	0.0134	0.0085	0.0024	10.03%	1.47	0.0035	5.80%
321.99	Acid Soluble Zn, Other (0.076%)	13	12	0.1442	0.2093	0.0849	0.0135	0.0096	0.0035	11.30%	1.66	0.0061	5.80%
325.00	Water Soluble Zn, AA (%)	2	2	0.0661	0.0185								
325.30	Water Soluble Zn, ICP (%)	3	3	0.0566	0.0080	0.0566		0.0080	0.0058	14.11%		0.0013	6.16%
325.99	Water Soluble Zn, Other (%)	2	2	0.0642	0.0059								
431.99	Soluble Si in nonliquids, Other (%)	1		0.0066									

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. The Horwitz %RSD is calculated using the Thompson Modification, Analyst, 2000, 125, 385-386.



Method PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Sample # 230611

Regular PT Scheme

Grade 15-6-12

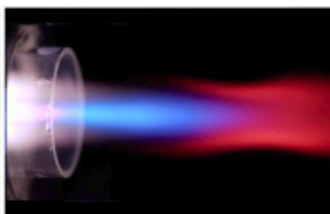
Method Precision Report

Issue Date : 07/31/2023

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
001.10	Ammoniacal N, Magnesium Oxide Method (%)	7	7	8.504	0.1749	0.1711	0.0511	0.1786	2.01%	0.60%	2.10%	3.493
001.99	Ammoniacal N, Other (%)	19	18	8.440	0.1662	0.1271	0.1514	0.1977	1.51%	1.79%	2.34%	1.306
002.99	Nitrate N, Other (%)	18	16	6.746	0.2543	0.2506	0.0605	0.2578	3.72%	0.90%	3.82%	4.261
010.60	Total N, Combustion (15%)	50	47	16.22	0.3114	0.3015	0.1105	0.3211	1.86%	0.68%	1.98%	2.906
010.99	Total N, Other (15%)	8	6	15.63	0.3012	0.2963	0.0765	0.3060	1.90%	0.49%	1.96%	3.999
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	10	8	6.617	0.1856	0.1535	0.1477	0.2130	2.32%	2.23%	3.22%	1.442
020.50	Total P2O5, ICP (%)	21	19	6.296	0.3541	0.3412	0.1340	0.3666	5.42%	2.13%	5.82%	2.735
020.99	Total P2O5, Other (%)	7	5	6.318	0.0992	0.0902	0.0585	0.1075	1.43%	0.93%	1.70%	1.837
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA E	8	8	6.254	0.1951	0.1899	0.0637	0.2003	3.04%	1.02%	3.20%	3.142
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (I	7	5	6.198	0.1224	0.1079	0.0818	0.1354	1.74%	1.32%	2.18%	1.656
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	10	9	6.380	0.1474	0.1414	0.0586	0.1531	2.22%	0.92%	2.40%	2.611
050.00	Soluble K2O, STPB Oxalate (12%)	6	6	12.32	0.4418	0.4340	0.1170	0.4495	3.52%	0.95%	3.65%	3.840
050.50	Soluble K2O, ICP (Oxalate) (12%)	8	8	12.58	0.5972	0.5873	0.1535	0.6070	4.67%	1.22%	4.82%	3.954
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	12	11	12.46	0.3169	0.2840	0.1988	0.3467	2.28%	1.60%	2.78%	1.744
050.99	Soluble K2O, Other (12%)	34	31	12.37	0.4450	0.4292	0.1658	0.4601	3.47%	1.34%	3.72%	2.775
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	6	5	1.100	0.0424	0.0382	0.0263	0.0463	3.47%	2.39%	4.21%	1.764
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.3%)	6	6	1.518	0.1025	0.0896	0.0705	0.1140	5.90%	4.64%	7.51%	1.617
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	12	11	1.597	0.0936	0.0862	0.0515	0.1004	5.40%	3.22%	6.29%	1.951
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	20	18	1.626	0.1344	0.1315	0.0398	0.1374	8.09%	2.45%	8.45%	3.451
121.99	Acid Soluble Mg, Other (1.3%)	12	11	1.553	0.0759	0.0721	0.0335	0.0795	4.64%	2.16%	5.12%	2.375
131.30	Water Soluble Mg, ICP (%)	6	6	1.501	0.0911	0.0867	0.0397	0.0954	5.77%	2.65%	6.35%	2.399
148.00	Total S, Combustion (6.3%)	6	6	6.922	0.1814	0.1597	0.1217	0.2008	2.31%	1.76%	2.90%	1.650
148.01	Total S, Gravimetric - sulfate and elemental (6.3%)	9	8	7.124	0.5980	0.5964	0.0614	0.5996	8.37%	0.86%	8.42%	9.766
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	20	17	6.918	0.5595	0.5552	0.0986	0.5639	8.02%	1.42%	8.15%	5.720
148.99	Total S, Other (6.3%)	12	10	6.919	0.4679	0.4612	0.1117	0.4745	6.67%	1.61%	6.86%	4.247
165.99	Acid Soluble B, Other (%)	9	5	0.0013	0.0005		0.0008			58.28%		

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
191.30	Acid Soluble Cr, ICP (ppm)	9	9	14.65	5.693	5.612	1.355	5.773	38.31%	9.25%	39.41%	4.260
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	7	7	15.02	4.472	4.463	0.4006	4.481	29.72%	2.67%	29.84%	11.19
202.30	Acid Soluble Co, ICP (ppm)	6	5	1.635	0.5982	0.5554	0.3141	0.6380	33.97%	19.21%	39.03%	2.032
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.08%)	5	5	0.0761	0.0027	0.0018	0.0028	0.0033	2.41%	3.66%	4.38%	1.197
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	17	15	0.0776	0.0056	0.0054	0.0023	0.0058	6.92%	2.90%	7.51%	2.587
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.08%)	5	5	0.0775	0.0066	0.0066	0.0007	0.0066	8.51%	0.86%	8.56%	9.988
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	18	18	0.0801	0.0040	0.0037	0.0022	0.0043	4.65%	2.75%	5.41%	1.964
221.99	Acid Soluble Cu, Other (0.08%)	14	10	0.0785	0.0051	0.0051	0.0012	0.0052	6.47%	1.50%	6.64%	4.429
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.32%)	5	5	0.3238	0.0314	0.0313	0.0036	0.0315	9.68%	1.11%	9.74%	8.775
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	17	15	0.3562	0.0346	0.0333	0.0130	0.0358	9.36%	3.64%	10.04%	2.756
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (0.32%)	5	5	0.3530	0.0225	0.0223	0.0037	0.0226	6.32%	1.05%	6.41%	6.075
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	19	19	0.3550	0.0261	0.0251	0.0099	0.0270	7.07%	2.80%	7.60%	2.718
241.99	Acid Soluble Fe, Other (0.32%)	15	14	0.3400	0.0270	0.0248	0.0150	0.0290	7.30%	4.40%	8.52%	1.938
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.13%)	6	5	0.1415	0.0182	0.0175	0.0071	0.0188	12.34%	5.00%	13.32%	2.662
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.13%)	7	7	0.1450	0.0088	0.0083	0.0042	0.0093	5.73%	2.90%	6.42%	2.217
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	20	18	0.1435	0.0105	0.0100	0.0046	0.0110	6.99%	3.19%	7.68%	2.410
261.99	Acid Soluble Mn, Other (0.13%)	14	13	0.1402	0.0114	0.0109	0.0049	0.0119	7.75%	3.51%	8.51%	2.421
289.30	Acid Soluble Mo, ICP (110ppm)	15	14	123.8	8.820	6.283	8.755	10.78	5.07%	7.07%	8.70%	1.231
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	12	11	123.6	16.20	15.58	6.237	16.79	12.61%	5.05%	13.58%	2.691
291.30	Acid Soluble Ni, ICP (ppm)	9	7	5.098	2.092	2.090	0.1157	2.093	41.00%	2.27%	41.06%	18.09
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	7	6	5.900	2.608	2.603	0.2278	2.613	44.11%	3.86%	44.28%	11.47
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.076%)	5	5	0.0798	0.0029	0.0026	0.0018	0.0031	3.20%	2.23%	3.91%	1.749
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	17	15	0.0802	0.0088	0.0085	0.0033	0.0091	10.65%	4.11%	11.41%	2.778
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	19	18	0.0844	0.0084	0.0081	0.0026	0.0086	9.65%	3.06%	10.13%	3.306
321.99	Acid Soluble Zn, Other (0.076%)	13	11	0.0841	0.0088	0.0081	0.0049	0.0094	9.57%	5.84%	11.21%	1.920

Notes: Precision data calculated when 5 or more Tests included.



Method PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Methods: 159

Sample # 230611

Regular PT Scheme

Labs Reporting: 77

Grade 15-6-12

Lab Values

Issue Date : 07/31/2023

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0389	8.295	0.0100	8.504	0.1983	0.0680	7	-0.95	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0451	8.350	0.0600	8.504	0.1983	0.0680	7	-0.70	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0444	8.450	0.1000	8.504	0.1983	0.0680	7	-0.25	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0619	8.470	0.0000	8.504	0.1983	0.0680	7	-0.16	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0609	8.490	0.0200	8.504	0.1983	0.0680	7	-0.07	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0498	8.700	0.0000	8.504	0.1983	0.0680	7	0.89	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0580	8.775	0.1500	8.504	0.1983	0.0680	7	1.23	NA	0
001.99	Ammoniacal N, Other (%)	0559	8.165	0.0100	8.457	0.2010	0.1726	19	-1.45	NA	0
001.99	Ammoniacal N, Other (%)	0605	8.205	0.1100	8.457	0.2010	0.1726	19	-1.25	NA	0
001.99	Ammoniacal N, Other (%)	0584	8.230	0.1200	8.457	0.2010	0.1726	19	-1.13	NA	0
001.99	Ammoniacal N, Other (%)	0510	8.274	0.0147	8.457	0.2010	0.1726	19	-0.91	NA	0
001.99	Ammoniacal N, Other (%)	0553	8.315	0.1700	8.457	0.2010	0.1726	19	-0.71	NA	0
001.99	Ammoniacal N, Other (%)	0220	8.340	0.2000	8.457	0.2010	0.1726	19	-0.58	NA	0
001.99	Ammoniacal N, Other (%)	0562	8.375	0.0500	8.457	0.2010	0.1726	19	-0.41	NA	0
001.99	Ammoniacal N, Other (%)	0027	8.410	0.0400	8.457	0.2010	0.1726	19	-0.23	NA	0
001.99	Ammoniacal N, Other (%)	0394	8.456	0.0530	8.457	0.2010	0.1726	19	-0.01	NA	0
001.99	Ammoniacal N, Other (%)	0619	8.470	0.0000	8.457	0.2010	0.1726	19	0.06	NA	0
001.99	Ammoniacal N, Other (%)	0572	8.475	0.3964	8.457	0.2010	0.1726	19	0.09	NA	0
001.99	Ammoniacal N, Other (%)	0587	8.515	0.0300	8.457	0.2010	0.1726	19	0.29	NA	0
001.99	Ammoniacal N, Other (%)	0524	8.520	0.2000	8.457	0.2010	0.1726	19	0.31	NA	0
001.99	Ammoniacal N, Other (%)	0368	8.535	0.4780	8.457	0.2010	0.1726	19	0.39	NA	0
001.99	Ammoniacal N, Other (%)	0405	8.565	0.1100	8.457	0.2010	0.1726	19	0.54	NA	0
001.99	Ammoniacal N, Other (%)	0626	8.625	0.2500	8.457	0.2010	0.1726	19	0.84	NA	0
001.99	Ammoniacal N, Other (%)	0513	8.705	0.0300	8.457	0.2010	0.1726	19	1.23	NA	0
001.99	Ammoniacal N, Other (%)	0423	8.745	0.4700	8.457	0.2010	0.1726	19	1.43	NA	0
001.99	Ammoniacal N, Other (%)	0255	8.780	0.7000	8.457	0.2010	0.1726	19	1.61	NA	0
002.20	Nitrate N, Jones Modified (%)	0029	7.560	0.2300				1			0
002.99	Nitrate N, Other (%)	0220	5.590	0.2200	6.719	0.2991	0.0747	18	-3.77	NA	0
002.99	Nitrate N, Other (%)	0498	6.300	0.0000	6.719	0.2991	0.0747	18	-1.40	NA	0
002.99	Nitrate N, Other (%)	0605	6.390	0.2600	6.719	0.2991	0.0747	18	-1.10	NA	0
002.99	Nitrate N, Other (%)	0553	6.410	0.0600	6.719	0.2991	0.0747	18	-1.03	NA	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
002.99	Nitrate N, Other (%)	0368	6.432	0.0060	6.719	0.2991	0.0747	18	-0.96	NA	0
002.99	Nitrate N, Other (%)	0609	6.595	0.0300	6.719	0.2991	0.0747	18	-0.41	NA	0
002.99	Nitrate N, Other (%)	0029	6.670	0.0600	6.719	0.2991	0.0747	18	-0.16	NA	0
002.99	Nitrate N, Other (%)	0626	6.710	0.0200	6.719	0.2991	0.0747	18	-0.03	NA	0
002.99	Nitrate N, Other (%)	0584	6.735	0.2900	6.719	0.2991	0.0747	18	0.05	NA	0
002.99	Nitrate N, Other (%)	0513	6.795	0.0500	6.719	0.2991	0.0747	18	0.25	NA	0
002.99	Nitrate N, Other (%)	0444	6.850	0.1000	6.719	0.2991	0.0747	18	0.44	NA	0
002.99	Nitrate N, Other (%)	0518	6.850	0.1000	6.719	0.2991	0.0747	18	0.44	NA	0
002.99	Nitrate N, Other (%)	0423	6.910	0.0800	6.719	0.2991	0.0747	18	0.64	NA	0
002.99	Nitrate N, Other (%)	0394	6.919	0.1050	6.719	0.2991	0.0747	18	0.67	NA	0
002.99	Nitrate N, Other (%)	0027	6.975	0.0300	6.719	0.2991	0.0747	18	0.86	NA	0
002.99	Nitrate N, Other (%)	0580	6.990	0.0000	6.719	0.2991	0.0747	18	0.91	NA	0
002.99	Nitrate N, Other (%)	0562	7.065	0.0100	6.719	0.2991	0.0747	18	1.16	NA	0
002.99	Nitrate N, Other (%)	0559	7.075	0.0100	6.719	0.2991	0.0747	18	1.19	NA	0
005.00	Urea N, Urease (as N) (%)	0389	16.16	0.2400				1			0
005.99	Urea N, Other (%)	0524	0.3650	0.0500				1			0
009.10	Ammoniacal Plus Nitrate N, Devarda (%)	0444	15.30	0.2000				2			0
009.10	Ammoniacal Plus Nitrate N, Devarda (%)	0619	15.30	0.0000				2			0
009.99	Ammoniacal Plus Nitrate N, Other (%)	0619	15.30	0.0000				1			0
010.11	Total N, Modified Comprehensive (15%)	0510	14.81	0.6066				1			0
010.12	Total N, Salicylic (15%)	0498	15.15	0.3000	16.06	0.7889	0.3109	3	-1.15		0
010.12	Total N, Salicylic (15%)	0580	16.47	0.1100	16.06	0.7889	0.3109	3	0.51		0
010.12	Total N, Salicylic (15%)	0572	16.56	0.5228	16.06	0.7889	0.3109	3	0.64		0
010.60	Total N, Combustion (15%)	0626	15.42	0.1800	16.22	0.2621	0.1205	49	-3.03	Low	0
010.60	Total N, Combustion (15%)	0423	15.69	0.1900	16.22	0.2621	0.1205	49	-2.02	OK	0
010.60	Total N, Combustion (15%)	0234	15.72	0.0200	16.22	0.2621	0.1205	49	-1.89	OK	0
010.60	Total N, Combustion (15%)	0527	15.80	0.2390	16.22	0.2621	0.1205	49	-1.58	OK	0
010.60	Total N, Combustion (15%)	0612	15.84	0.0600	16.22	0.2621	0.1205	49	-1.43	OK	0
010.60	Total N, Combustion (15%)	0055	15.85	0.1600	16.22	0.2621	0.1205	49	-1.39	OK	0
010.60	Total N, Combustion (15%)	0543	15.86	0.4700	16.22	0.2621	0.1205	49	-1.37	OK	0
010.60	Total N, Combustion (15%)	0452	15.88	0.1200	16.22	0.2621	0.1205	49	-1.28	OK	0
010.60	Total N, Combustion (15%)	0472	15.98	0.0500	16.22	0.2621	0.1205	49	-0.92	OK	0
010.60	Total N, Combustion (15%)	0037	15.98	0.5330	16.22	0.2621	0.1205	49	-0.89	OK	0
010.60	Total N, Combustion (15%)	0624	16.02	0.1280	16.22	0.2621	0.1205	49	-0.73	OK	0
010.60	Total N, Combustion (15%)	0027	16.04	0.2500	16.22	0.2621	0.1205	49	-0.69	OK	0
010.60	Total N, Combustion (15%)	0035	16.05	0.1000	16.22	0.2621	0.1205	49	-0.63	OK	0
010.60	Total N, Combustion (15%)	0356	16.07	0.1310	16.22	0.2621	0.1205	49	-0.56	OK	0
010.60	Total N, Combustion (15%)	0106	16.09	0.0000	16.22	0.2621	0.1205	49	-0.48	OK	0
010.60	Total N, Combustion (15%)	0255	16.09	0.3980	16.22	0.2621	0.1205	49	-0.47	OK	0
010.60	Total N, Combustion (15%)	0136	16.15	0.1000	16.22	0.2621	0.1205	49	-0.25	OK	0
010.60	Total N, Combustion (15%)	0034	16.17	0.0200	16.22	0.2621	0.1205	49	-0.17	OK	0
010.60	Total N, Combustion (15%)	0086	16.19	0.0880	16.22	0.2621	0.1205	49	-0.09	OK	0
010.60	Total N, Combustion (15%)	0073	16.20	0.2200	16.22	0.2621	0.1205	49	-0.06	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010.60	Total N, Combustion (15%)	0324	16.20	0.0000	16.22	0.2621	0.1205	49	-0.06	OK	0
010.60	Total N, Combustion (15%)	0042	16.20	0.2000	16.22	0.2621	0.1205	49	-0.06	OK	0
010.60	Total N, Combustion (15%)	0451	16.22	0.0700	16.22	0.2621	0.1205	49	0.00	OK	0
010.60	Total N, Combustion (15%)	0421	16.23	0.3700	16.22	0.2621	0.1205	49	0.04	OK	0
010.60	Total N, Combustion (15%)	0292	16.25	0.0200	16.22	0.2621	0.1205	49	0.13	OK	0
010.60	Total N, Combustion (15%)	0351	16.25	0.1000	16.22	0.2621	0.1205	49	0.13	OK	0
010.60	Total N, Combustion (15%)	0405	16.26	0.1000	16.22	0.2621	0.1205	49	0.17	OK	0
010.60	Total N, Combustion (15%)	0043	16.28	0.0800	16.22	0.2621	0.1205	49	0.25	OK	0
010.60	Total N, Combustion (15%)	0360	16.28	0.0400	16.22	0.2621	0.1205	49	0.25	OK	0
010.60	Total N, Combustion (15%)	0523	16.30	0.1440	16.22	0.2621	0.1205	49	0.31	OK	0
010.60	Total N, Combustion (15%)	0095	16.31	0.0500	16.22	0.2621	0.1205	49	0.34	OK	0
010.60	Total N, Combustion (15%)	0233	16.31	0.0200	16.22	0.2621	0.1205	49	0.36	OK	0
010.60	Total N, Combustion (15%)	0177	16.32	0.0050	16.22	0.2621	0.1205	49	0.40	OK	0
010.60	Total N, Combustion (15%)	0291	16.33	0.0100	16.22	0.2621	0.1205	49	0.42	OK	0
010.60	Total N, Combustion (15%)	0231	16.34	0.0800	16.22	0.2621	0.1205	49	0.48	OK	0
010.60	Total N, Combustion (15%)	0587	16.35	0.0800	16.22	0.2621	0.1205	49	0.51	OK	0
010.60	Total N, Combustion (15%)	0040	16.40	0.2000	16.22	0.2621	0.1205	49	0.71	OK	0
010.60	Total N, Combustion (15%)	0354	16.40	0.0000	16.22	0.2621	0.1205	49	0.71	OK	0
010.60	Total N, Combustion (15%)	0025	16.41	0.1300	16.22	0.2621	0.1205	49	0.72	OK	0
010.60	Total N, Combustion (15%)	0542	16.44	0.1350	16.22	0.2621	0.1205	49	0.84	OK	0
010.60	Total N, Combustion (15%)	0368	16.45	0.0070	16.22	0.2621	0.1205	49	0.88	OK	0
010.60	Total N, Combustion (15%)	0534	16.45	0.1000	16.22	0.2621	0.1205	49	0.90	OK	0
010.60	Total N, Combustion (15%)	0029	16.50	0.0900	16.22	0.2621	0.1205	49	1.07	OK	0
010.60	Total N, Combustion (15%)	0049	16.51	0.5500	16.22	0.2621	0.1205	49	1.11	OK	0
010.60	Total N, Combustion (15%)	0377	16.51	0.1300	16.22	0.2621	0.1205	49	1.11	OK	0
010.60	Total N, Combustion (15%)	0422	16.53	0.0300	16.22	0.2621	0.1205	49	1.18	OK	0
010.60	Total N, Combustion (15%)	0023	16.88	0.0090	16.22	0.2621	0.1205	49	2.53	OK	0
010.60	Total N, Combustion (15%)	0485	16.97	0.1600	16.22	0.2621	0.1205	49	2.88	High	0
010.60	Total N, Combustion (15%)	0307	17.10	0.2000	16.22	0.2621	0.1205	49	3.38	High	0
010.60	Total N, Combustion (15%)	0588	8.860	14.48	16.22	0.2621	0.1205	49	-28.07	Low	1
010.99	Total N, Other (15%)	0220	12.38	0.0500	15.34	0.6933	0.1167	8	-3.91	Low	0
010.99	Total N, Other (15%)	0605	14.60	0.3700	15.34	0.6933	0.1167	8	-0.98	Low	0
010.99	Total N, Other (15%)	0394	15.37	0.1580	15.34	0.6933	0.1167	8	0.05	OK	0
010.99	Total N, Other (15%)	0562	15.47	0.1000	15.34	0.6933	0.1167	8	0.17	OK	0
010.99	Total N, Other (15%)	0513	15.51	0.0300	15.34	0.6933	0.1167	8	0.22	OK	0
010.99	Total N, Other (15%)	0559	15.53	0.0100	15.34	0.6933	0.1167	8	0.25	OK	0
010.99	Total N, Other (15%)	0524	15.74	0.1852	15.34	0.6933	0.1167	8	0.52	OK	0
010.99	Total N, Other (15%)	0521	16.20	0.0000	15.34	0.6933	0.1167	8	1.14	High	0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0619	5.950	0.0200	6.347	0.3479	0.1733	3	-1.14		0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0157	6.490	0.1000	6.347	0.3479	0.1733	3	0.41		0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0444	6.600	0.4000	6.347	0.3479	0.1733	3	0.73		0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0510	5.868	0.2686	6.604	0.2625	0.1892	10	-2.61	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0498	6.400	0.4000	6.604	0.2625	0.1892	10	-0.72	NA	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0356	6.486	0.4080	6.604	0.2625	0.1892	10	-0.42	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0394	6.519	0.0420	6.604	0.2625	0.1892	10	-0.30	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0231	6.535	0.0700	6.604	0.2625	0.1892	10	-0.24	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0609	6.585	0.0300	6.604	0.2625	0.1892	10	-0.07	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0405	6.670	0.1200	6.604	0.2625	0.1892	10	0.23	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0292	6.750	0.0200	6.604	0.2625	0.1892	10	0.52	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0324	6.895	0.8300	6.604	0.2625	0.1892	10	1.03	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0580	6.990	0.0200	6.604	0.2625	0.1892	10	1.37	NA	0
020.40	Total P2O5, Automated (%)	0035	6.410	0.0600				2			0
020.40	Total P2O5, Automated (%)	0626	6.925	0.0500				2			0
020.50	Total P2O5, ICP (%)	0389	5.560	0.0600	6.337	0.4049	0.1284	20	-1.92	NA	0
020.50	Total P2O5, ICP (%)	0444	5.850	0.1000	6.337	0.4049	0.1284	20	-1.20	NA	0
020.50	Total P2O5, ICP (%)	0619	5.860	0.0000	6.337	0.4049	0.1284	20	-1.18	NA	0
020.50	Total P2O5, ICP (%)	0612	5.925	0.5100	6.337	0.4049	0.1284	20	-1.02	NA	0
020.50	Total P2O5, ICP (%)	0255	6.048	0.0740	6.337	0.4049	0.1284	20	-0.71	NA	0
020.50	Total P2O5, ICP (%)	0527	6.106	0.0589	6.337	0.4049	0.1284	20	-0.57	NA	0
020.50	Total P2O5, ICP (%)	0423	6.154	0.0280	6.337	0.4049	0.1284	20	-0.45	NA	0
020.50	Total P2O5, ICP (%)	0472	6.225	0.0300	6.337	0.4049	0.1284	20	-0.28	NA	0
020.50	Total P2O5, ICP (%)	0307	6.250	0.1800	6.337	0.4049	0.1284	20	-0.22	NA	0
020.50	Total P2O5, ICP (%)	0543	6.295	0.3620	6.337	0.4049	0.1284	20	-0.10	NA	0
020.50	Total P2O5, ICP (%)	0451	6.338	0.0110	6.337	0.4049	0.1284	20	0.00	NA	0
020.50	Total P2O5, ICP (%)	0542	6.478	0.1020	6.337	0.4049	0.1284	20	0.35	NA	0
020.50	Total P2O5, ICP (%)	0291	6.495	0.0100	6.337	0.4049	0.1284	20	0.39	NA	0
020.50	Total P2O5, ICP (%)	0368	6.505	0.0398	6.337	0.4049	0.1284	20	0.41	NA	0
020.50	Total P2O5, ICP (%)	0524	6.509	0.1404	6.337	0.4049	0.1284	20	0.42	NA	0
020.50	Total P2O5, ICP (%)	0588	6.590	0.1600	6.337	0.4049	0.1284	20	0.62	NA	0
020.50	Total P2O5, ICP (%)	0234	6.770	0.0200	6.337	0.4049	0.1284	20	1.07	NA	0
020.50	Total P2O5, ICP (%)	0042	6.800	0.4000	6.337	0.4049	0.1284	20	1.14	NA	0
020.50	Total P2O5, ICP (%)	0433	6.875	0.1300	6.337	0.4049	0.1284	20	1.33	NA	0
020.50	Total P2O5, ICP (%)	0523	7.550	0.5000	6.337	0.4049	0.1284	20	2.99	NA	0
020.50	Total P2O5, ICP (%)	0552	5.580	1.060	6.337	0.4049	0.1284	20	-1.87	NA	1
020.99	Total P2O5, Other (%)	0619	5.950	0.0200	6.263	0.1820	0.0650	6	-1.53	NA	0
020.99	Total P2O5, Other (%)	0562	6.225	0.0500	6.263	0.1820	0.0650	6	-0.19	NA	0
020.99	Total P2O5, Other (%)	0587	6.255	0.1300	6.263	0.1820	0.0650	6	-0.04	NA	0
020.99	Total P2O5, Other (%)	0559	6.260	0.0200	6.263	0.1820	0.0650	6	-0.02	NA	0
020.99	Total P2O5, Other (%)	0513	6.405	0.0900	6.263	0.1820	0.0650	6	0.69	NA	0
020.99	Total P2O5, Other (%)	0572	6.444	0.0797	6.263	0.1820	0.0650	6	0.88	NA	0
020.99	Total P2O5, Other (%)	0515	6.453	0.6250	6.263	0.1820	0.0650	6	0.93	NA	1
030.20	Citrate Insoluble P2O5, Spectrophotometric MolybdovanadoP (	0405	0.0350	0.0100				1			0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6%)	0086	6.282	0.1277				2			0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6%)	0177	6.438	0.0101				2			0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0049	5.905	0.1100	6.258	0.2107	0.0775	8	-1.53	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0351	6.050	0.1000	6.258	0.2107	0.0775	8	-0.90	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			#	Magruder PT	Method IA	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	Tests	Z Score	Status	
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0220	6.195	0.0100	6.258	0.2107	0.0775	8	-0.28	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0513	6.255	0.0500	6.258	0.2107	0.0775	8	-0.01	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0055	6.360	0.1200	6.258	0.2107	0.0775	8	0.44	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0405	6.375	0.0500	6.258	0.2107	0.0775	8	0.51	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0073	6.425	0.0300	6.258	0.2107	0.0775	8	0.72	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0485	6.465	0.1500	6.258	0.2107	0.0775	8	0.90	OK	0
041.20	Direct Available P2O5, Spectrophotometric (6%)	0553	6.015	0.2500	6.237	0.2019	0.1600	3	-1.10		0
041.20	Direct Available P2O5, Spectrophotometric (6%)	0027	6.285	0.1700	6.237	0.2019	0.1600	3	0.24		0
041.20	Direct Available P2O5, Spectrophotometric (6%)	0452	6.410	0.0600	6.237	0.2019	0.1600	3	0.86		0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0177	6.094	0.0623	6.266	0.1898	0.1089	7	-0.82	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0609	6.120	0.1800	6.266	0.1898	0.1089	7	-0.70	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0472	6.175	0.0100	6.266	0.1898	0.1089	7	-0.43	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0095	6.195	0.1700	6.266	0.1898	0.1089	7	-0.34	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0055	6.325	0.4900	6.266	0.1898	0.1089	7	0.28	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0394	6.404	0.0400	6.266	0.1898	0.1089	7	0.66	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0354	6.785	0.0100	6.266	0.1898	0.1089	7	2.47	OK	0
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (6%)	0029	6.428	0.0310				1			0
041.50	Direct Available P2O5, ICP (6%)	0624	6.245	0.6940	6.461	0.2070	0.2390	4	-1.04		0
041.50	Direct Available P2O5, ICP (6%)	0605	6.350	0.2000	6.461	0.2070	0.2390	4	-0.53		0
041.50	Direct Available P2O5, ICP (6%)	0037	6.532	0.0520	6.461	0.2070	0.2390	4	0.35		0
041.50	Direct Available P2O5, ICP (6%)	0421	6.715	0.0100	6.461	0.2070	0.2390	4	1.23		0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0136	6.110	0.1400	6.379	0.1487	0.0887	10	-1.68	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0423	6.179	0.1400	6.379	0.1487	0.0887	10	-1.25	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0233	6.315	0.0960	6.379	0.1487	0.0887	10	-0.40	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0377	6.320	0.3200	6.379	0.1487	0.0887	10	-0.37	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0025	6.415	0.0500	6.379	0.1487	0.0887	10	0.23	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0043	6.420	0.0200	6.379	0.1487	0.0887	10	0.26	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0023	6.482	0.0770	6.379	0.1487	0.0887	10	0.64	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0117	6.499	0.0319	6.379	0.1487	0.0887	10	0.76	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0040	6.500	0.0000	6.379	0.1487	0.0887	10	0.76	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6%)	0360	6.500	0.0600	6.379	0.1487	0.0887	10	0.76	OK	0
041.99	Direct Available P2O5, Other (6%)	0584	6.270	0.0600	6.489	0.1663	0.2074	4	-1.31		0
041.99	Direct Available P2O5, Other (6%)	0518	6.450	0.5000	6.489	0.1663	0.2074	4	-0.23		0
041.99	Direct Available P2O5, Other (6%)	0572	6.599	0.1396	6.489	0.1663	0.2074	4	0.67		0
041.99	Direct Available P2O5, Other (6%)	0405	6.635	0.1300	6.489	0.1663	0.2074	4	0.88		0
048.10	Water Soluble P2O5, Gravimetric Quinolinium (%)	0619	4.740	0.2400				2			0
048.10	Water Soluble P2O5, Gravimetric Quinolinium (%)	0444	5.400	0.4000				2			0
048.20	Water Soluble P2O5, Spectrophotometric (%)	0472	4.900	0.0200				2			0
048.20	Water Soluble P2O5, Spectrophotometric (%)	0394	5.076	0.0250				2			0
048.40	Water Soluble P2O5, Automated (%)	0626	4.990	0.0400				1			0
048.50	Water Soluble P2O5, ICP (%)	0619	4.265	0.0900				2			0
048.50	Water Soluble P2O5, ICP (%)	0444	5.300	0.2000				2			0
048.99	Water Soluble P2O5, Other (%)	0619	4.860	0.0000	5.353	0.6801	0.0348	3	-0.72		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
048.99	Water Soluble P2O5, Other (%)	0513	5.070	0.0000	5.353	0.6801	0.0348	3	-0.42		0
048.99	Water Soluble P2O5, Other (%)	0572	6.129	0.0348	5.353	0.6801	0.0348	3	1.14		0
050.00	Soluble K2O, STPB Oxalate (12%)	0049	11.70	0.2400	12.32	0.5010	0.1480	6	-1.10	OK	0
050.00	Soluble K2O, STPB Oxalate (12%)	0405	12.13	0.0000	12.32	0.5010	0.1480	6	-0.33	OK	0
050.00	Soluble K2O, STPB Oxalate (12%)	0444	12.15	0.1000	12.32	0.5010	0.1480	6	-0.30	OK	0
050.00	Soluble K2O, STPB Oxalate (12%)	0619	12.45	0.3000	12.32	0.5010	0.1480	6	0.23	OK	0
050.00	Soluble K2O, STPB Oxalate (12%)	0055	12.46	0.0800	12.32	0.5010	0.1480	6	0.25	OK	0
050.00	Soluble K2O, STPB Oxalate (12%)	0220	13.02	0.0200	12.32	0.5010	0.1480	6	1.25	OK	0
050.30	Soluble K2O, AA (Oxalate) (12%)	0580	11.66	0.6000	12.47	0.8041	0.5703	4	-1.01		0
050.30	Soluble K2O, AA (Oxalate) (12%)	0040	12.05	0.5000	12.47	0.8041	0.5703	4	-0.52		0
050.30	Soluble K2O, AA (Oxalate) (12%)	0356	12.66	0.1110	12.47	0.8041	0.5703	4	0.24		0
050.30	Soluble K2O, AA (Oxalate) (12%)	0073	13.51	1.070	12.47	0.8041	0.5703	4	1.29		0
050.32	Soluble K2O, AA (Citrate-EDTA) (12%)	0472	12.13	0.0700				1			0
050.50	Soluble K2O, ICP (Oxalate) (12%)	0619	11.80	0.2000	12.58	0.6772	0.2043	8	-1.05	OK	0
050.50	Soluble K2O, ICP (Oxalate) (12%)	0106	11.88	0.2500	12.58	0.6772	0.2043	8	-0.95	OK	0
050.50	Soluble K2O, ICP (Oxalate) (12%)	0444	12.20	0.2000	12.58	0.6772	0.2043	8	-0.51	OK	0
050.50	Soluble K2O, ICP (Oxalate) (12%)	0324	12.40	0.4000	12.58	0.6772	0.2043	8	-0.24	OK	0
050.50	Soluble K2O, ICP (Oxalate) (12%)	0521	12.82	0.0000	12.58	0.6772	0.2043	8	0.32	OK	0
050.50	Soluble K2O, ICP (Oxalate) (12%)	0055	13.01	0.1300	12.58	0.6772	0.2043	8	0.57	OK	0
050.50	Soluble K2O, ICP (Oxalate) (12%)	0231	13.18	0.2400	12.58	0.6772	0.2043	8	0.81	OK	0
050.50	Soluble K2O, ICP (Oxalate) (12%)	0292	13.37	0.0100	12.58	0.6772	0.2043	8	1.06	OK	0
050.51	Soluble K2O, ICP (Citrate) (12%)	0368	12.58	0.4829	12.66	0.0787	0.2182	4	-1.02		0
050.51	Soluble K2O, ICP (Citrate) (12%)	0291	12.62	0.0200	12.66	0.0787	0.2182	4	-0.48		0
050.51	Soluble K2O, ICP (Citrate) (12%)	0037	12.68	0.2700	12.66	0.0787	0.2182	4	0.21		0
050.51	Soluble K2O, ICP (Citrate) (12%)	0452	12.76	0.1000	12.66	0.0787	0.2182	4	1.29		0
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	0423	11.85	0.1390	12.45	0.3008	0.2545	12	-1.97	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	0023	12.21	0.0470	12.45	0.3008	0.2545	12	-0.78	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	0233	12.25	0.1700	12.45	0.3008	0.2545	12	-0.67	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	0025	12.25	0.3000	12.45	0.3008	0.2545	12	-0.65	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	0485	12.25	0.9000	12.45	0.3008	0.2545	12	-0.65	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	0117	12.39	0.4039	12.45	0.3008	0.2545	12	-0.20	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	0354	12.55	0.1000	12.45	0.3008	0.2545	12	0.34	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	0543	12.56	0.5250	12.45	0.3008	0.2545	12	0.37	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	0377	12.61	0.5000	12.45	0.3008	0.2545	12	0.54	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	0043	12.64	0.1500	12.45	0.3008	0.2545	12	0.63	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	0360	12.77	0.0800	12.45	0.3008	0.2545	12	1.07	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (12%)	0136	13.02	0.0400	12.45	0.3008	0.2545	12	1.91	OK	0
050.60	Soluble K2O, Flame Photometric (Oxalate) (12%)	0510	11.98	0.0131				2			0
050.60	Soluble K2O, Flame Photometric (Oxalate) (12%)	0609	12.30	0.0100				2			0
050.61	Soluble K2O, Flame Photometric (Citrate) (12%)	0035	12.25	0.2500				1			0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (12%)	0029	12.43	0.0200	12.77	0.2948	0.1100	3	-1.14		0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (12%)	0095	12.88	0.2600	12.77	0.2948	0.1100	3	0.39		0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (12%)	0513	12.99	0.0500	12.77	0.2948	0.1100	3	0.75		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050.99	Soluble K2O, Other (12%)	0451	11.55	0.0700	12.39	0.4603	0.1850	33	-1.84	Low	0
050.99	Soluble K2O, Other (12%)	0307	11.75	0.1000	12.39	0.4603	0.1850	33	-1.40	OK	0
050.99	Soluble K2O, Other (12%)	0605	11.79	0.0700	12.39	0.4603	0.1850	33	-1.32	OK	0
050.99	Soluble K2O, Other (12%)	0255	11.90	0.1720	12.39	0.4603	0.1850	33	-1.08	OK	0
050.99	Soluble K2O, Other (12%)	0552	11.92	0.0800	12.39	0.4603	0.1850	33	-1.03	OK	0
050.99	Soluble K2O, Other (12%)	0177	11.94	0.0791	12.39	0.4603	0.1850	33	-0.99	OK	0
050.99	Soluble K2O, Other (12%)	0394	11.99	0.0420	12.39	0.4603	0.1850	33	-0.88	OK	0
050.99	Soluble K2O, Other (12%)	0563	12.00	0.0000	12.39	0.4603	0.1850	33	-0.86	OK	0
050.99	Soluble K2O, Other (12%)	0433	12.07	0.4100	12.39	0.4603	0.1850	33	-0.71	OK	0
050.99	Soluble K2O, Other (12%)	0534	12.20	0.2000	12.39	0.4603	0.1850	33	-0.42	OK	0
050.99	Soluble K2O, Other (12%)	0562	12.21	0.0900	12.39	0.4603	0.1850	33	-0.41	OK	0
050.99	Soluble K2O, Other (12%)	0584	12.24	0.0700	12.39	0.4603	0.1850	33	-0.34	OK	0
050.99	Soluble K2O, Other (12%)	0559	12.27	0.0100	12.39	0.4603	0.1850	33	-0.28	OK	0
050.99	Soluble K2O, Other (12%)	0527	12.31	0.3670	12.39	0.4603	0.1850	33	-0.19	OK	0
050.99	Soluble K2O, Other (12%)	0626	12.37	0.1000	12.39	0.4603	0.1850	33	-0.05	OK	0
050.99	Soluble K2O, Other (12%)	0553	12.38	0.1300	12.39	0.4603	0.1850	33	-0.04	OK	0
050.99	Soluble K2O, Other (12%)	0624	12.39	0.2520	12.39	0.4603	0.1850	33	0.00	OK	0
050.99	Soluble K2O, Other (12%)	0027	12.40	0.5700	12.39	0.4603	0.1850	33	0.00	OK	0
050.99	Soluble K2O, Other (12%)	0513	12.45	0.0700	12.39	0.4603	0.1850	33	0.11	OK	0
050.99	Soluble K2O, Other (12%)	0498	12.45	0.3000	12.39	0.4603	0.1850	33	0.12	OK	0
050.99	Soluble K2O, Other (12%)	0588	12.45	0.0600	12.39	0.4603	0.1850	33	0.12	OK	0
050.99	Soluble K2O, Other (12%)	0619	12.45	0.3000	12.39	0.4603	0.1850	33	0.12	OK	0
050.99	Soluble K2O, Other (12%)	0612	12.55	0.6500	12.39	0.4603	0.1850	33	0.33	OK	0
050.99	Soluble K2O, Other (12%)	0515	12.56	0.3600	12.39	0.4603	0.1850	33	0.36	OK	0
050.99	Soluble K2O, Other (12%)	0587	12.65	0.1900	12.39	0.4603	0.1850	33	0.55	OK	0
050.99	Soluble K2O, Other (12%)	0389	12.74	0.0100	12.39	0.4603	0.1850	33	0.74	OK	0
050.99	Soluble K2O, Other (12%)	0518	12.85	0.7000	12.39	0.4603	0.1850	33	0.99	OK	0
050.99	Soluble K2O, Other (12%)	0421	12.90	0.0000	12.39	0.4603	0.1850	33	1.10	OK	0
050.99	Soluble K2O, Other (12%)	0042	12.95	0.1000	12.39	0.4603	0.1850	33	1.21	OK	0
050.99	Soluble K2O, Other (12%)	0234	12.97	0.0200	12.39	0.4603	0.1850	33	1.25	OK	0
050.99	Soluble K2O, Other (12%)	0524	13.30	0.2840	12.39	0.4603	0.1850	33	1.96	High	0
050.99	Soluble K2O, Other (12%)	0542	13.52	0.0480	12.39	0.4603	0.1850	33	2.44	High	0
050.99	Soluble K2O, Other (12%)	0572	13.71	0.5527	12.39	0.4603	0.1850	33	2.86	High	0
050.99	Soluble K2O, Other (12%)	0523	12.45	1.700	12.39	0.4603	0.1850	33	0.12	OK	1
060.00	Water (Free), Vacuum Oven (%)	0513	0.1750	0.0100				1			0
060.99	Water (Free), Other (%)	0510	1.187	0.1368				1			0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (%)	0553	1.010	0.0200				1			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0035	1.105	0.0700				2			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0354	1.140	0.0600				2			0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (%)	0423	0.8590	0.0040				2			0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (%)	0095	1.055	0.0100				2			0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0527	0.7917	0.0004	1.076	0.0779	0.0256	6	-3.26	Low	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0472	1.055	0.0100	1.076	0.0779	0.0256	6	-0.25	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0421	1.083	0.0220	1.076	0.0779	0.0256	6	0.07	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0609	1.085	0.0100	1.076	0.0779	0.0256	6	0.10	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0624	1.109	0.0530	1.076	0.0779	0.0256	6	0.37	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0630	1.168	0.0584	1.076	0.0779	0.0256	6	1.04	OK	0
101.99	Acid Soluble Ca, Other (%)	0572	1.070	0.0185	1.124	0.0715	0.0135	3	-0.76		0
101.99	Acid Soluble Ca, Other (%)	0542	1.097	0.0120	1.124	0.0715	0.0135	3	-0.38		0
101.99	Acid Soluble Ca, Other (%)	0552	1.205	0.0100	1.124	0.0715	0.0135	3	1.13		0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.3%)	0580	1.375	0.2100	1.518	0.1163	0.0844	6	-1.09	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.3%)	0553	1.430	0.0000	1.518	0.1163	0.0844	6	-0.67	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.3%)	0626	1.520	0.0400	1.518	0.1163	0.0844	6	0.02	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.3%)	0040	1.545	0.0100	1.518	0.1163	0.0844	6	0.21	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.3%)	0029	1.577	0.0620	1.518	0.1163	0.0844	6	0.45	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.3%)	0485	1.660	0.1000	1.518	0.1163	0.0844	6	1.09	OK	0
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual a	0498	1.500	0.0000				1			0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	0255	1.378	0.0250	1.619	0.0926	0.0599	12	-2.60	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	0354	1.510	0.0800	1.619	0.0926	0.0599	12	-1.17	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	0451	1.566	0.0100	1.619	0.0926	0.0599	12	-0.57	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	0324	1.575	0.1500	1.619	0.0926	0.0599	12	-0.47	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	0360	1.575	0.0100	1.619	0.0926	0.0599	12	-0.47	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	0035	1.615	0.1100	1.619	0.0926	0.0599	12	-0.04	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	0234	1.620	0.0400	1.619	0.0926	0.0599	12	0.02	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	0513	1.660	0.0200	1.619	0.0926	0.0599	12	0.45	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	0049	1.680	0.1000	1.619	0.0926	0.0599	12	0.66	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	0433	1.690	0.0600	1.619	0.0926	0.0599	12	0.77	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	0231	1.695	0.0300	1.619	0.0926	0.0599	12	0.83	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.3%)	0444	2.050	0.1000	1.619	0.0926	0.0599	12	4.66	High	0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1.3%)	0095	1.455	0.0300	1.502	0.0725	0.0225	5	-0.65		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1.3%)	0423	1.468	0.0310	1.502	0.0725	0.0225	5	-0.48		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1.3%)	0405	1.469	0.0115	1.502	0.0725	0.0225	5	-0.46		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1.3%)	0220	1.490	0.0200	1.502	0.0725	0.0225	5	-0.17		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1.3%)	0292	1.630	0.0200	1.502	0.0725	0.0225	5	1.76		0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0521	0.7200	0.0000	1.609	0.1422	0.0473	20	-6.25	Low	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0515	1.452	0.1110	1.609	0.1422	0.0473	20	-1.11	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0106	1.470	0.0010	1.609	0.1422	0.0473	20	-0.98	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0177	1.476	0.0053	1.609	0.1422	0.0473	20	-0.93	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0136	1.520	0.0400	1.609	0.1422	0.0473	20	-0.63	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0055	1.525	0.0100	1.609	0.1422	0.0473	20	-0.59	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0037	1.543	0.1174	1.609	0.1422	0.0473	20	-0.47	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0543	1.555	0.0820	1.609	0.1422	0.0473	20	-0.38	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0624	1.566	0.0100	1.609	0.1422	0.0473	20	-0.30	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0609	1.590	0.0200	1.609	0.1422	0.0473	20	-0.13	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0527	1.597	0.0039	1.609	0.1422	0.0473	20	-0.08	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0394	1.631	0.0105	1.609	0.1422	0.0473	20	0.16	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			#	Magruder PT	Method IA	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	Tests	Z Score	Status	
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0043	1.640	0.0000	1.609	0.1422	0.0473	20	0.22	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0086	1.640	0.1853	1.609	0.1422	0.0473	20	0.22	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0421	1.674	0.0300	1.609	0.1422	0.0473	20	0.46	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0612	1.690	0.0600	1.609	0.1422	0.0473	20	0.57	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0630	1.770	0.1267	1.609	0.1422	0.0473	20	1.14	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0563	1.800	0.0000	1.609	0.1422	0.0473	20	1.34	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0452	1.855	0.0300	1.609	0.1422	0.0473	20	1.73	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.3%)	0472	1.910	0.0200	1.609	0.1422	0.0473	20	2.12	High	0
121.99	Acid Soluble Mg, Other (1.3%)	0515	1.404	0.0290	1.556	0.0789	0.0333	11	-1.93	OK	0
121.99	Acid Soluble Mg, Other (1.3%)	0042	1.474	0.0340	1.556	0.0789	0.0333	11	-1.04	OK	0
121.99	Acid Soluble Mg, Other (1.3%)	0368	1.511	0.0235	1.556	0.0789	0.0333	11	-0.58	OK	0
121.99	Acid Soluble Mg, Other (1.3%)	0552	1.515	0.0100	1.556	0.0789	0.0333	11	-0.52	OK	0
121.99	Acid Soluble Mg, Other (1.3%)	0307	1.525	0.0700	1.556	0.0789	0.0333	11	-0.40	OK	0
121.99	Acid Soluble Mg, Other (1.3%)	0572	1.562	0.0385	1.556	0.0789	0.0333	11	0.07	OK	0
121.99	Acid Soluble Mg, Other (1.3%)	0524	1.584	0.0021	1.556	0.0789	0.0333	11	0.36	OK	0
121.99	Acid Soluble Mg, Other (1.3%)	0542	1.600	0.0550	1.556	0.0789	0.0333	11	0.55	OK	0
121.99	Acid Soluble Mg, Other (1.3%)	0587	1.625	0.0100	1.556	0.0789	0.0333	11	0.87	OK	0
121.99	Acid Soluble Mg, Other (1.3%)	0605	1.625	0.1100	1.556	0.0789	0.0333	11	0.87	OK	0
121.99	Acid Soluble Mg, Other (1.3%)	0027	1.660	0.0200	1.556	0.0789	0.0333	11	1.32	OK	0
121.99	Acid Soluble Mg, Other (1.3%)	0523	1.755	0.2300	1.556	0.0789	0.0333	11	2.52	OK	1
131.00	Water Soluble Mg, AA (%)	0626	0.8400	0.0200				2			0
131.00	Water Soluble Mg, AA (%)	0029	1.497	0.0110				2			0
131.30	Water Soluble Mg, ICP (%)	0619	1.370	0.1200	1.501	0.1033	0.0476	6	-1.13	NA	0
131.30	Water Soluble Mg, ICP (%)	0405	1.455	0.0300	1.501	0.1033	0.0476	6	-0.40	NA	0
131.30	Water Soluble Mg, ICP (%)	0394	1.479	0.0123	1.501	0.1033	0.0476	6	-0.19	NA	0
131.30	Water Soluble Mg, ICP (%)	0117	1.493	0.0557	1.501	0.1033	0.0476	6	-0.07	NA	0
131.30	Water Soluble Mg, ICP (%)	0444	1.600	0.0000	1.501	0.1033	0.0476	6	0.85	NA	0
131.30	Water Soluble Mg, ICP (%)	0027	1.610	0.0200	1.501	0.1033	0.0476	6	0.94	NA	0
131.70	Water Soluble Mg, Titrimetric (EDTA) (%)	0584	1.275	0.1300				2			0
131.70	Water Soluble Mg, Titrimetric (EDTA) (%)	0510	1.884	0.0913				2			0
131.99	Water Soluble Mg, Other (%)	0572	0.7930	0.0099	1.173	0.2583	0.0375	4	-1.47		0
131.99	Water Soluble Mg, Other (%)	0559	1.265	0.0100	1.173	0.2583	0.0375	4	0.36		0
131.99	Water Soluble Mg, Other (%)	0562	1.265	0.0100	1.173	0.2583	0.0375	4	0.36		0
131.99	Water Soluble Mg, Other (%)	0619	1.370	0.1200	1.173	0.2583	0.0375	4	0.76		0
143.00	Elemental S, Gravimetric Sulfur - carbon disulfide soluble sulfur	0405	0.0900	0.0000				1			0
143.99	Elemental S, Other (%)	0255	6.281	0.0020	7.026	0.6712	0.0495	4	-1.11		0
143.99	Elemental S, Other (%)	0368	6.777	0.0261	7.026	0.6712	0.0495	4	-0.37		0
143.99	Elemental S, Other (%)	0291	7.175	0.0100	7.026	0.6712	0.0495	4	0.22		0
143.99	Elemental S, Other (%)	0389	7.870	0.1600	7.026	0.6712	0.0495	4	1.26		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0106	6.750	0.4800	6.920	0.1486	0.2800	3	-1.14		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0027	6.985	0.3100	6.920	0.1486	0.2800	3	0.44		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0405	7.025	0.0500	6.920	0.1486	0.2800	3	0.71		0
145.99	Sulfate S, HCl soluble, Other (%)	0518	6.200	0.2000	6.532	0.3325	0.1750	3	-1.00		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
145.99	Sulfate S, HCl soluble, Other (%)	0619	6.530	0.0000	6.532	0.3325	0.1750	3	-0.01		0
145.99	Sulfate S, HCl soluble, Other (%)	0553	6.865	0.1500	6.532	0.3325	0.1750	3	1.00		0
148.00	Total S, Combustion (6.3%)	0626	6.600	0.0000	6.932	0.1834	0.1519	6	-1.61	OK	0
148.00	Total S, Combustion (6.3%)	0451	6.870	0.2600	6.932	0.1834	0.1519	6	-0.30	OK	0
148.00	Total S, Combustion (6.3%)	0157	6.885	0.2700	6.932	0.1834	0.1519	6	-0.23	OK	0
148.00	Total S, Combustion (6.3%)	0029	7.050	0.0300	6.932	0.1834	0.1519	6	0.58	OK	0
148.00	Total S, Combustion (6.3%)	0025	7.061	0.0090	6.932	0.1834	0.1519	6	0.63	OK	0
148.00	Total S, Combustion (6.3%)	0114	7.068	0.1903	6.932	0.1834	0.1519	6	0.66	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (6.3%)	0584	6.484	0.0470	7.024	0.5863	0.0839	9	-0.85	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (6.3%)	0498	6.550	0.3000	7.024	0.5863	0.0839	9	-0.75	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (6.3%)	0095	6.570	0.0200	7.024	0.5863	0.0839	9	-0.71	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (6.3%)	0580	6.590	0.1400	7.024	0.5863	0.0839	9	-0.68	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (6.3%)	0157	7.085	0.0100	7.024	0.5863	0.0839	9	0.10	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (6.3%)	0405	7.115	0.0500	7.024	0.5863	0.0839	9	0.14	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (6.3%)	0055	7.285	0.0300	7.024	0.5863	0.0839	9	0.41	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (6.3%)	0324	7.635	0.1500	7.024	0.5863	0.0839	9	0.96	High	0
148.01	Total S, Gravimetric - sulfate and elemental (6.3%)	0220	8.225	0.1100	7.024	0.5863	0.0839	9	1.89	High	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0444	5.670	0.1200	6.948	0.6226	0.1091	19	-2.05	Low	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0515	6.209	0.3220	6.948	0.6226	0.1091	19	-1.19	Low	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0543	6.268	0.4620	6.948	0.6226	0.1091	19	-1.09	Low	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0624	6.449	0.2290	6.948	0.6226	0.1091	19	-0.80	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0136	6.580	0.2200	6.948	0.6226	0.1091	19	-0.59	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0619	6.635	0.0300	6.948	0.6226	0.1091	19	-0.50	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0394	6.658	0.0070	6.948	0.6226	0.1091	19	-0.47	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0177	6.773	0.1977	6.948	0.6226	0.1091	19	-0.28	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0037	6.800	0.0600	6.948	0.6226	0.1091	19	-0.24	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0472	6.845	0.1100	6.948	0.6226	0.1091	19	-0.17	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0040	7.000	0.2000	6.948	0.6226	0.1091	19	0.08	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0292	7.160	0.0200	6.948	0.6226	0.1091	19	0.34	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0043	7.185	0.0500	6.948	0.6226	0.1091	19	0.38	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0527	7.203	0.0200	6.948	0.6226	0.1091	19	0.41	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0086	7.210	0.0192	6.948	0.6226	0.1091	19	0.42	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0452	7.590	0.0400	6.948	0.6226	0.1091	19	1.03	High	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0513	7.670	0.1000	6.948	0.6226	0.1091	19	1.16	High	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0421	7.970	0.0200	6.948	0.6226	0.1091	19	1.64	High	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0563	8.750	0.1000	6.948	0.6226	0.1091	19	2.89	High	0
148.07	Total S, ICP, test portion as in 2017.02 (6.3%)	0612	6.800	0.7400	6.948	0.6226	0.1091	19	-0.24	OK	1
148.99	Total S, Other (6.3%)	0521	6.410	0.0000	6.920	0.4789	0.1751	11	-1.06	OK	0
148.99	Total S, Other (6.3%)	0559	6.450	0.1000	6.920	0.4789	0.1751	11	-0.98	OK	0
148.99	Total S, Other (6.3%)	0562	6.500	0.0000	6.920	0.4789	0.1751	11	-0.88	OK	0
148.99	Total S, Other (6.3%)	0354	6.625	0.2700	6.920	0.4789	0.1751	11	-0.62	OK	0
148.99	Total S, Other (6.3%)	0619	6.635	0.0300	6.920	0.4789	0.1751	11	-0.60	OK	0
148.99	Total S, Other (6.3%)	0433	6.945	0.3300	6.920	0.4789	0.1751	11	0.05	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			#	Magruder PT	Method IA	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	Tests	Z Score	Status	
148.99	Total S, Other (6.3%)	0377	7.060	0.6400	6.920	0.4789	0.1751	11	0.29	OK	0
148.99	Total S, Other (6.3%)	0542	7.185	0.1470	6.920	0.4789	0.1751	11	0.55	OK	0
148.99	Total S, Other (6.3%)	0605	7.285	0.0700	6.920	0.4789	0.1751	11	0.76	OK	0
148.99	Total S, Other (6.3%)	0572	7.387	0.1432	6.920	0.4789	0.1751	11	0.98	OK	0
148.99	Total S, Other (6.3%)	0523	7.770	0.1000	6.920	0.4789	0.1751	11	1.77	High	0
148.99	Total S, Other (6.3%)	0422	8.976	1.342	6.920	0.4789	0.1751	11	4.29	High	1
149.04	S - HNO3 soluble, ICP (%)	0423	6.930	0.0590	7.632	0.7677	0.2392	3	-0.92		0
149.04	S - HNO3 soluble, ICP (%)	0231	7.515	0.1500	7.632	0.7677	0.2392	3	-0.15		0
149.04	S - HNO3 soluble, ICP (%)	0524	8.451	0.5085	7.632	0.7677	0.2392	3	1.07		0
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid	0498	0.6000	0.0000				2			0
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid	0534	0.7600	0.0000				2			0
151.30	Acid Soluble As, ICP (ppm)	0524	0.7001	0.0118				2			0
151.30	Acid Soluble As, ICP (ppm)	0523	0.8570	0.1220				2			0
151.30	Acid Soluble As, ICP (ppm)	0255	0.0000	0.0000				2			4
151.30	Acid Soluble As, ICP (ppm)	0605	< 6.2					2			5
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	0220	0.5500	0.1000				1			0
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	0405	< 3					1			5
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0624	0.2075	0.0030	0.5662	0.3385	0.0082	3	-0.86		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0394	0.6111	0.0017	0.5662	0.3385	0.0082	3	0.11		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0563	0.8800	0.0200	0.5662	0.3385	0.0082	3	0.75		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0527	< 0.0001		0.5662	0.3385	0.0082	3			5
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0515	< 0.186		0.5662	0.3385	0.0082	3			5
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0136	< 1		0.5662	0.3385	0.0082	3			5
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0515	5.836	6.202				1			0
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0368	< 0.5					1			5
151.99	Acid Soluble As, Other (ppm)	0220	0.5500	0.1000	0.6661	0.1098	0.0573	3	-1.06		0
151.99	Acid Soluble As, Other (ppm)	0626	0.6800	0.0600	0.6661	0.1098	0.0573	3	0.13		0
151.99	Acid Soluble As, Other (ppm)	0572	0.7683	0.0120	0.6661	0.1098	0.0573	3	0.93		0
165.00	Acid Soluble B, Spectrophotometric (%)	0553	0.0025	0.0010				1			0
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0354	0.0100	0.0000				1			0
165.99	Acid Soluble B, Other (%)	0524	0.0009	0.0001	0.0013	0.0005	0.0009	5	-0.87		0
165.99	Acid Soluble B, Other (%)	0542	0.0010	0.0000	0.0013	0.0005	0.0009	5	-0.58		0
165.99	Acid Soluble B, Other (%)	0563	0.0012	0.0002	0.0013	0.0005	0.0009	5	-0.19		0
165.99	Acid Soluble B, Other (%)	0515	0.0015	0.0013	0.0013	0.0005	0.0009	5	0.29		0
165.99	Acid Soluble B, Other (%)	0624	0.0020	0.0020	0.0013	0.0005	0.0009	5	1.35		0
165.99	Acid Soluble B, Other (%)	0421	0.0000	0.0000	0.0013	0.0005	0.0009	5			4
165.99	Acid Soluble B, Other (%)	0552	0.0000	0.0000	0.0013	0.0005	0.0009	5			4
165.99	Acid Soluble B, Other (%)	0527	< 0.01		0.0013	0.0005	0.0009	5			5
165.99	Acid Soluble B, Other (%)	0572	< 0.0109		0.0013	0.0005	0.0009	5			5
171.99	Water Soluble B, Other (%)	0572	< 0.0109					0			5
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid	0498	0.8500	0.1000				1			0
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid	0534	< 0.5					1			5
181.30	Acid Soluble Cd, ICP (ppm)	0394	0.3570	0.0020	1.033	1.210	1.132	5	-0.49		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
181.30	Acid Soluble Cd, ICP (ppm)	0523	0.4030	0.0580	1.033	1.210	1.132	5	-0.45		0
181.30	Acid Soluble Cd, ICP (ppm)	0377	0.6000	0.0000	1.033	1.210	1.132	5	-0.31		0
181.30	Acid Soluble Cd, ICP (ppm)	0524	0.6186	0.1647	1.033	1.210	1.132	5	-0.30		0
181.30	Acid Soluble Cd, ICP (ppm)	0255	3.188	4.303	1.033	1.210	1.132	5	1.55		0
181.30	Acid Soluble Cd, ICP (ppm)	0626	< 1		1.033	1.210	1.132	5			5
181.30	Acid Soluble Cd, ICP (ppm)	0605	< 1.85		1.033	1.210	1.132	5			5
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	0220	0.5500	0.1000				1			0
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	0405	< 1					1			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0563	0.2850	0.0100	0.5031	0.2356	0.0209	3	-0.75		0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0086	0.4714	0.0456	0.5031	0.2356	0.0209	3	-0.11		0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0624	0.7530	0.0071	0.5031	0.2356	0.0209	3	0.86		0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0527	< 0.0001		0.5031	0.2356	0.0209	3			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0515	< 0.133		0.5031	0.2356	0.0209	3			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0136	< 1		0.5031	0.2356	0.0209	3			5
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0368	< 0.1					0			5
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0515	< 0.19					0			5
181.99	Acid Soluble Cd, Other (ppm)	0572	0.3576	0.0441				2			0
181.99	Acid Soluble Cd, Other (ppm)	0220	0.5000	0.2000				2			0
190.00	Water Soluble Cl, Titrimetric (%)	0553	0.3125	0.0050				1			0
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (	0498	16.75	3.100				1			0
191.30	Acid Soluble Cr, ICP (ppm)	0524	8.598	0.3378	14.49	6.106	1.382	9	-0.89	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0523	10.77	0.6100	14.49	6.106	1.382	9	-0.56	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0377	11.40	2.850	14.49	6.106	1.382	9	-0.47	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0394	11.60	0.4400	14.49	6.106	1.382	9	-0.44	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0630	12.65	0.4410	14.49	6.106	1.382	9	-0.28	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0605	14.02	0.2300	14.49	6.106	1.382	9	-0.07	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0027	14.44	0.7000	14.49	6.106	1.382	9	-0.01	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0626	23.32	3.730	14.49	6.106	1.382	9	1.33	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0035	25.05	3.100	14.49	6.106	1.382	9	1.60	NA	0
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	0220	9.350	1.500				2			0
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	0405	15.00	0.0000				2			0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0515	8.976	0.6290	15.02	5.071	0.4954	7	-1.08	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0624	11.52	0.0513	15.02	5.071	0.4954	7	-0.62	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0563	12.00	0.0000	15.02	5.071	0.4954	7	-0.54	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0037	15.08	1.151	15.02	5.071	0.4954	7	0.01	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0136	17.32	0.5100	15.02	5.071	0.4954	7	0.41	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0086	18.58	0.4951	15.02	5.071	0.4954	7	0.63	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0527	21.66	0.1355	15.02	5.071	0.4954	7	1.18	NA	0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0368	4.850	8.300				2			0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0515	33.92	3.600				2			0
191.99	Acid Soluble Cr, Other (ppm)	0572	7.767	0.1923	12.08	6.384	0.5374	3	-0.67		0
191.99	Acid Soluble Cr, Other (ppm)	0220	9.050	0.5000	12.08	6.384	0.5374	3	-0.47		0
191.99	Acid Soluble Cr, Other (ppm)	0626	19.41	0.9200	12.08	6.384	0.5374	3	1.15		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
202.30	Acid Soluble Co, ICP (ppm)	0523	1.074	0.0810	1.635	0.5982	0.3402	5	-0.82		0
202.30	Acid Soluble Co, ICP (ppm)	0630	1.308	0.5020	1.635	0.5982	0.3402	5	-0.48		0
202.30	Acid Soluble Co, ICP (ppm)	0524	1.562	0.0058	1.635	0.5982	0.3402	5	-0.11		0
202.30	Acid Soluble Co, ICP (ppm)	0377	1.595	0.7900	1.635	0.5982	0.3402	5	-0.06		0
202.30	Acid Soluble Co, ICP (ppm)	0542	2.636	0.3220	1.635	0.5982	0.3402	5	1.46		0
202.30	Acid Soluble Co, ICP (ppm)	0626	< 5		1.635	0.5982	0.3402	5			5
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	0220	0.7000	0.0000				1			0
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	0405	< 1					1			5
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0563	0.8450	0.0300	1.038	0.1917	0.0800	3	-1.01		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0086	1.040	0.1716	1.038	0.1917	0.0800	3	0.01		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0527	1.228	0.0383	1.038	0.1917	0.0800	3	0.99		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0515	< 0.139		1.038	0.1917	0.0800	3			5
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0136	< 2.5		1.038	0.1917	0.0800	3			5
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0368	1.000	0.0000				1			0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0515	< 0.26					1			5
202.99	Acid Soluble Co, Other (ppm)	0220	0.7500	0.1000	9.318	14.59	3.160	3	-0.59		0
202.99	Acid Soluble Co, Other (ppm)	0572	1.044	0.0187	9.318	14.59	3.160	3	-0.57		0
202.99	Acid Soluble Co, Other (ppm)	0255	26.16	9.360	9.318	14.59	3.160	3	1.15		0
202.99	Acid Soluble Co, Other (ppm)	0626	< 5		9.318	14.59	3.160	3			5
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.08%)	0029	0.0729	0.0078	0.0761	0.0027	0.0031	5	-1.20		0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.08%)	0626	0.0735	0.0010	0.0761	0.0027	0.0031	5	-0.98		0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.08%)	0553	0.0780	0.0020	0.0761	0.0027	0.0031	5	0.69		0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.08%)	0040	0.0781	0.0020	0.0761	0.0027	0.0031	5	0.73		0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.08%)	0485	0.0782	0.0028	0.0761	0.0027	0.0031	5	0.76		0
221.03	Acid Soluble Cu, AA, 965.09, test portion 2006.03A-C w/dual ar	0498	0.0790	0.0000				1			0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0619	0.0640	0.0000	0.0779	0.0051	0.0030	16	-2.74	Low	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0552	0.0695	0.0030	0.0779	0.0051	0.0030	16	-1.66	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0444	0.0720	0.0040	0.0779	0.0051	0.0030	16	-1.16	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0255	0.0745	0.0010	0.0779	0.0051	0.0030	16	-0.67	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0354	0.0750	0.0100	0.0779	0.0051	0.0030	16	-0.57	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0324	0.0755	0.0010	0.0779	0.0051	0.0030	16	-0.48	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0513	0.0765	0.0050	0.0779	0.0051	0.0030	16	-0.28	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0231	0.0800	0.0000	0.0779	0.0051	0.0030	16	0.41	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0291	0.0800	0.0000	0.0779	0.0051	0.0030	16	0.41	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0360	0.0810	0.0040	0.0779	0.0051	0.0030	16	0.61	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0234	0.0812	0.0005	0.0779	0.0051	0.0030	16	0.64	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0451	0.0812	0.0003	0.0779	0.0051	0.0030	16	0.64	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0377	0.0813	0.0017	0.0779	0.0051	0.0030	16	0.65	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0035	0.0819	0.0000	0.0779	0.0051	0.0030	16	0.78	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0023	0.0820	0.0002	0.0779	0.0051	0.0030	16	0.80	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0049	0.0842	0.0090	0.0779	0.0051	0.0030	16	1.24	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.08%)	0433	0.8350	0.0300	0.0779	0.0051	0.0030	16	148.94	High	1
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.08%)	0423	0.0665	0.0010	0.0775	0.0066	0.0010	5	-1.66		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.08%)	0405	0.0769	0.0015	0.0775	0.0066	0.0010	5	-0.10		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.08%)	0292	0.0800	0.0000	0.0775	0.0066	0.0010	5	0.38		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.08%)	0220	0.0805	0.0010	0.0775	0.0066	0.0010	5	0.45		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.08%)	0095	0.0837	0.0004	0.0775	0.0066	0.0010	5	0.94		0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0563	0.0740	0.0020	0.0800	0.0044	0.0026	18	-1.37	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0136	0.0745	0.0010	0.0800	0.0044	0.0026	18	-1.25	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0609	0.0745	0.0030	0.0800	0.0044	0.0026	18	-1.25	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0626	0.0745	0.0010	0.0800	0.0044	0.0026	18	-1.25	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0624	0.0774	0.0053	0.0800	0.0044	0.0026	18	-0.61	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0394	0.0783	0.0019	0.0800	0.0044	0.0026	18	-0.41	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0055	0.0800	0.0000	0.0800	0.0044	0.0026	18	-0.01	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0472	0.0800	0.0000	0.0800	0.0044	0.0026	18	-0.01	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0106	0.0803	0.0007	0.0800	0.0044	0.0026	18	0.05	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0086	0.0805	0.0009	0.0800	0.0044	0.0026	18	0.09	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0527	0.0814	0.0017	0.0800	0.0044	0.0026	18	0.29	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0612	0.0815	0.0050	0.0800	0.0044	0.0026	18	0.33	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0037	0.0820	0.0046	0.0800	0.0044	0.0026	18	0.44	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0043	0.0825	0.0010	0.0800	0.0044	0.0026	18	0.55	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0543	0.0830	0.0040	0.0800	0.0044	0.0026	18	0.67	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0630	0.0838	0.0074	0.0800	0.0044	0.0026	18	0.85	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0515	0.0863	0.0015	0.0800	0.0044	0.0026	18	1.40	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.08%)	0452	0.0880	0.0020	0.0800	0.0044	0.0026	18	1.80	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0619	0.0600	0.0000	0.0788	0.0067	0.0018	13	-2.81	Low	0
221.99	Acid Soluble Cu, Other (0.08%)	0368	0.0716	0.0007	0.0788	0.0067	0.0018	13	-1.08	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0559	0.0723	0.0001	0.0788	0.0067	0.0018	13	-0.98	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0562	0.0723	0.0001	0.0788	0.0067	0.0018	13	-0.98	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0524	0.0767	0.0004	0.0788	0.0067	0.0018	13	-0.31	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0523	0.0790	0.0020	0.0788	0.0067	0.0018	13	0.03	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0534	0.0797	0.0005	0.0788	0.0067	0.0018	13	0.13	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0572	0.0813	0.0039	0.0788	0.0067	0.0018	13	0.37	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0542	0.0831	0.0016	0.0788	0.0067	0.0018	13	0.65	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0027	0.0845	0.0010	0.0788	0.0067	0.0018	13	0.86	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0042	0.0850	0.0020	0.0788	0.0067	0.0018	13	0.93	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0587	0.0850	0.0100	0.0788	0.0067	0.0018	13	0.93	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0605	0.0850	0.0100	0.0788	0.0067	0.0018	13	0.93	OK	0
221.99	Acid Soluble Cu, Other (0.08%)	0515	0.0819	0.0235	0.0788	0.0067	0.0018	13	0.46	OK	1
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.32%)	0485	0.2730	0.0020	0.3238	0.0314	0.0044	5	-1.62		0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.32%)	0626	0.3175	0.0050	0.3238	0.0314	0.0044	5	-0.20		0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.32%)	0029	0.3336	0.0004	0.3238	0.0314	0.0044	5	0.31		0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.32%)	0040	0.3400	0.0000	0.3238	0.0314	0.0044	5	0.51		0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.32%)	0553	0.3550	0.0100	0.3238	0.0314	0.0044	5	0.99		0
241.03	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C w/dual ac	0498	0.2300	0.0000				1			0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0360	0.2950	0.0300	0.3593	0.0378	0.0164	16	-1.70	Low	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0234	0.3050	0.0100	0.3593	0.0378	0.0164	16	-1.44	Low	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0513	0.3250	0.0100	0.3593	0.0378	0.0164	16	-0.91	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0255	0.3355	0.0030	0.3593	0.0378	0.0164	16	-0.63	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0324	0.3425	0.0110	0.3593	0.0378	0.0164	16	-0.44	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0049	0.3449	0.0408	0.3593	0.0378	0.0164	16	-0.38	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0619	0.3515	0.0030	0.3593	0.0378	0.0164	16	-0.21	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0035	0.3590	0.0160	0.3593	0.0378	0.0164	16	-0.01	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0231	0.3700	0.0000	0.3593	0.0378	0.0164	16	0.28	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0444	0.3700	0.0200	0.3593	0.0378	0.0164	16	0.28	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0023	0.3725	0.0050	0.3593	0.0378	0.0164	16	0.35	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0377	0.3727	0.0083	0.3593	0.0378	0.0164	16	0.35	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0291	0.3750	0.0100	0.3593	0.0378	0.0164	16	0.42	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0451	0.3902	0.0347	0.3593	0.0378	0.0164	16	0.82	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0552	0.4350	0.0100	0.3593	0.0378	0.0164	16	2.00	High	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0433	0.4450	0.0700	0.3593	0.0378	0.0164	16	2.27	High	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.32%)	0354	0.2005	0.3390	0.3593	0.0378	0.0164	16	-4.20	Low	1
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (0.32%)	0423	0.3240	0.0040	0.3530	0.0225	0.0052	5	-1.29		0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (0.32%)	0405	0.3377	0.0037	0.3530	0.0225	0.0052	5	-0.68		0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (0.32%)	0292	0.3550	0.0100	0.3530	0.0225	0.0052	5	0.09		0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (0.32%)	0095	0.3700	0.0000	0.3530	0.0225	0.0052	5	0.76		0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (0.32%)	0220	0.3785	0.0030	0.3530	0.0225	0.0052	5	1.13		0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0563	0.3000	0.0200	0.3556	0.0275	0.0109	19	-2.03	Low	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0626	0.3225	0.0050	0.3556	0.0275	0.0109	19	-1.21	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0624	0.3235	0.0029	0.3556	0.0275	0.0109	19	-1.17	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0515	0.3275	0.0210	0.3556	0.0275	0.0109	19	-1.02	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0136	0.3300	0.0000	0.3556	0.0275	0.0109	19	-0.93	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0527	0.3450	0.0005	0.3556	0.0275	0.0109	19	-0.39	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0394	0.3464	0.0007	0.3556	0.0275	0.0109	19	-0.34	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0177	0.3472	0.0136	0.3556	0.0275	0.0109	19	-0.31	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0086	0.3530	0.0046	0.3556	0.0275	0.0109	19	-0.10	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0043	0.3579	0.0034	0.3556	0.0275	0.0109	19	0.08	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0037	0.3615	0.0317	0.3556	0.0275	0.0109	19	0.21	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0609	0.3665	0.0050	0.3556	0.0275	0.0109	19	0.40	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0452	0.3700	0.0000	0.3556	0.0275	0.0109	19	0.52	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0630	0.3743	0.0010	0.3556	0.0275	0.0109	19	0.68	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0055	0.3750	0.0100	0.3556	0.0275	0.0109	19	0.70	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0106	0.3753	0.0026	0.3556	0.0275	0.0109	19	0.72	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0543	0.3790	0.0260	0.3556	0.0275	0.0109	19	0.85	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0612	0.3915	0.0290	0.3556	0.0275	0.0109	19	1.31	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.32%)	0472	0.4000	0.0000	0.3556	0.0275	0.0109	19	1.61	High	0
241.99	Acid Soluble Fe, Other (0.32%)	0559	0.2950	0.0100	0.3436	0.0334	0.0154	15	-1.45	Low	0
241.99	Acid Soluble Fe, Other (0.32%)	0515	0.3092	0.0228	0.3436	0.0334	0.0154	15	-1.03	OK	0
241.99	Acid Soluble Fe, Other (0.32%)	0042	0.3135	0.0150	0.3436	0.0334	0.0154	15	-0.90	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
241.99	Acid Soluble Fe, Other (0.32%)	0562	0.3150	0.0500	0.3436	0.0334	0.0154	15	-0.86	OK	0
241.99	Acid Soluble Fe, Other (0.32%)	0605	0.3200	0.0400	0.3436	0.0334	0.0154	15	-0.71	OK	0
241.99	Acid Soluble Fe, Other (0.32%)	0524	0.3283	0.0073	0.3436	0.0334	0.0154	15	-0.46	OK	0
241.99	Acid Soluble Fe, Other (0.32%)	0389	0.3350	0.0100	0.3436	0.0334	0.0154	15	-0.26	OK	0
241.99	Acid Soluble Fe, Other (0.32%)	0368	0.3482	0.0102	0.3436	0.0334	0.0154	15	0.14	OK	0
241.99	Acid Soluble Fe, Other (0.32%)	0619	0.3515	0.0030	0.3436	0.0334	0.0154	15	0.24	OK	0
241.99	Acid Soluble Fe, Other (0.32%)	0587	0.3600	0.0200	0.3436	0.0334	0.0154	15	0.49	OK	0
241.99	Acid Soluble Fe, Other (0.32%)	0572	0.3629	0.0010	0.3436	0.0334	0.0154	15	0.58	OK	0
241.99	Acid Soluble Fe, Other (0.32%)	0027	0.3700	0.0000	0.3436	0.0334	0.0154	15	0.79	OK	0
241.99	Acid Soluble Fe, Other (0.32%)	0523	0.3745	0.0250	0.3436	0.0334	0.0154	15	0.92	OK	0
241.99	Acid Soluble Fe, Other (0.32%)	0542	0.3772	0.0046	0.3436	0.0334	0.0154	15	1.01	OK	0
241.99	Acid Soluble Fe, Other (0.32%)	0518	0.4900	0.0200	0.3436	0.0334	0.0154	15	4.38	High	0
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid	0498	< 0.5					0			5
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid	0534	< 2					0			5
251.30	Acid Soluble Pb, ICP (ppm)	0523	0.3735	0.1110	0.9150	0.6581	0.1599	3	-0.67		0
251.30	Acid Soluble Pb, ICP (ppm)	0394	0.7240	0.0140	0.9150	0.6581	0.1599	3	-0.24		0
251.30	Acid Soluble Pb, ICP (ppm)	0524	1.647	0.3546	0.9150	0.6581	0.1599	3	0.90		0
251.30	Acid Soluble Pb, ICP (ppm)	0255	0.0000	0.0000	0.9150	0.6581	0.1599	3			4
251.30	Acid Soluble Pb, ICP (ppm)	0605	< 5		0.9150	0.6581	0.1599	3			5
251.30	Acid Soluble Pb, ICP (ppm)	0626	< 5		0.9150	0.6581	0.1599	3			5
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	0220	0.5500	0.1000				1			0
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	0405	< 4					1			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0563	0.2300	0.0200	14.71	24.17	0.2191	3	-0.49		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0086	1.287	0.5515	14.71	24.17	0.2191	3	-0.45		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0624	42.62	0.0859	14.71	24.17	0.2191	3	0.94		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0527	< 0.0001		14.71	24.17	0.2191	3			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0515	< 0.216		14.71	24.17	0.2191	3			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0136	< 3		14.71	24.17	0.2191	3			5
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0515	< 0.27					0			5
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0368	< 0.9					0			5
251.99	Acid Soluble Pb, Other (ppm)	0572	0.3280	0.0057				2			0
251.99	Acid Soluble Pb, Other (ppm)	0220	0.6500	0.1000				2			0
251.99	Acid Soluble Pb, Other (ppm)	0626	< 5					2			5
261.00	Acid Soluble Mn, AA, Mn2+ only (0.13%)	0553	0.1465	0.0090				1			0
261.11	Acid Soluble Mn, AA, total Mn (0.13%)	0534	0.1010	0.0000				1			0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (0.13%)	0626	0.1395	0.0030	0.1460	0.0063	0.0058	3	-1.04		0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (0.13%)	0040	0.1465	0.0010	0.1460	0.0063	0.0058	3	0.08		0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (0.13%)	0029	0.1521	0.0135	0.1460	0.0063	0.0058	3	0.96		0
261.14	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C (0.13%)	0292	0.1500	0.0000				1			0
261.15	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C w/dual acid	0498	0.0930	0.0060				1			0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.13%)	0444	0.1200	0.0000	0.1415	0.0182	0.0103	5	-1.03		0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.13%)	0354	0.1350	0.0100	0.1415	0.0182	0.0103	5	-0.31		0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.13%)	0291	0.1400	0.0000	0.1415	0.0182	0.0103	5	-0.07		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			#	Magruder PT	Method IA	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	Tests	Z Score	Status	
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.13%)	0234	0.1423	0.0010	0.1415	0.0182	0.0103	5	0.04		0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.13%)	0433	0.1700	0.0200	0.1415	0.0182	0.0103	5	1.37		0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.13%)	0035	1.440	0.0800	0.1415	0.0182	0.0103	5	62.40		1
261.31	Acid Soluble Mn, ICP, test portion 972.02b (0.13%)	0324	0.1405	0.0010				2			0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (0.13%)	0360	0.1450	0.0100				2			0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.13%)	0552	0.1350	0.0100	0.1450	0.0100	0.0066	7	-0.90	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.13%)	0513	0.1355	0.0050	0.1450	0.0100	0.0066	7	-0.86	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.13%)	0231	0.1400	0.0000	0.1450	0.0100	0.0066	7	-0.45	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.13%)	0023	0.1455	0.0030	0.1450	0.0100	0.0066	7	0.04	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.13%)	0377	0.1499	0.0061	0.1450	0.0100	0.0066	7	0.44	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.13%)	0220	0.1500	0.0000	0.1450	0.0100	0.0066	7	0.45	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.13%)	0049	0.1593	0.0087	0.1450	0.0100	0.0066	7	1.29	OK	0
261.33	Acid Soluble Mn, ICP, test portion organic 965.09 (0.13%)	0405	0.1359	0.0036				1			0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (0.13%)	0423	0.1360	0.0020				2			0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (0.13%)	0095	0.1400	0.0000				2			0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0136	0.1050	0.0100	0.1424	0.0126	0.0062	19	-2.96	Low	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0521	0.1300	0.0000	0.1424	0.0126	0.0062	19	-0.98	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0563	0.1300	0.0000	0.1424	0.0126	0.0062	19	-0.98	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0177	0.1310	0.0097	0.1424	0.0126	0.0062	19	-0.90	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0624	0.1340	0.0035	0.1424	0.0126	0.0062	19	-0.67	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0609	0.1365	0.0050	0.1424	0.0126	0.0062	19	-0.46	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0626	0.1375	0.0010	0.1424	0.0126	0.0062	19	-0.38	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0394	0.1378	0.0052	0.1424	0.0126	0.0062	19	-0.36	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0043	0.1383	0.0003	0.1424	0.0126	0.0062	19	-0.33	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0086	0.1383	0.0039	0.1424	0.0126	0.0062	19	-0.33	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0037	0.1401	0.0130	0.1424	0.0126	0.0062	19	-0.18	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0106	0.1453	0.0078	0.1424	0.0126	0.0062	19	0.23	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0527	0.1494	0.0014	0.1424	0.0126	0.0062	19	0.56	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0452	0.1500	0.0000	0.1424	0.0126	0.0062	19	0.61	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0543	0.1510	0.0080	0.1424	0.0126	0.0062	19	0.69	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0612	0.1510	0.0160	0.1424	0.0126	0.0062	19	0.69	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0055	0.1600	0.0000	0.1424	0.0126	0.0062	19	1.40	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0472	0.1600	0.0000	0.1424	0.0126	0.0062	19	1.40	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0630	0.1623	0.0052	0.1424	0.0126	0.0062	19	1.58	High	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.13%)	0515	0.1462	0.0268	0.1424	0.0126	0.0062	19	0.30	OK	1
261.99	Acid Soluble Mn, Other (0.13%)	0559	0.1225	0.0010	0.1396	0.0114	0.0057	13	-1.50	OK	0
261.99	Acid Soluble Mn, Other (0.13%)	0562	0.1255	0.0050	0.1396	0.0114	0.0057	13	-1.23	OK	0
261.99	Acid Soluble Mn, Other (0.13%)	0255	0.1315	0.0050	0.1396	0.0114	0.0057	13	-0.71	OK	0
261.99	Acid Soluble Mn, Other (0.13%)	0524	0.1327	0.0002	0.1396	0.0114	0.0057	13	-0.60	OK	0
261.99	Acid Soluble Mn, Other (0.13%)	0042	0.1355	0.0030	0.1396	0.0114	0.0057	13	-0.36	OK	0
261.99	Acid Soluble Mn, Other (0.13%)	0368	0.1399	0.0022	0.1396	0.0114	0.0057	13	0.03	OK	0
261.99	Acid Soluble Mn, Other (0.13%)	0389	0.1400	0.0000	0.1396	0.0114	0.0057	13	0.04	OK	0
261.99	Acid Soluble Mn, Other (0.13%)	0542	0.1411	0.0029	0.1396	0.0114	0.0057	13	0.13	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
261.99	Acid Soluble Mn, Other (0.13%)	0572	0.1423	0.0101	0.1396	0.0114	0.0057	13	0.23	OK	0
261.99	Acid Soluble Mn, Other (0.13%)	0587	0.1450	0.0100	0.1396	0.0114	0.0057	13	0.47	OK	0
261.99	Acid Soluble Mn, Other (0.13%)	0027	0.1500	0.0000	0.1396	0.0114	0.0057	13	0.91	OK	0
261.99	Acid Soluble Mn, Other (0.13%)	0523	0.1520	0.0160	0.1396	0.0114	0.0057	13	1.09	OK	0
261.99	Acid Soluble Mn, Other (0.13%)	0605	0.1650	0.0100	0.1396	0.0114	0.0057	13	2.23	High	0
261.99	Acid Soluble Mn, Other (0.13%)	0515	0.1495	0.0303	0.1396	0.0114	0.0057	13	0.87	OK	1
271.00	Water Soluble Mn, AA (%)	0485	0.0922	0.0078	0.1086	0.0272	0.0044	3	-0.60		0
271.00	Water Soluble Mn, AA (%)	0626	0.0935	0.0010	0.1086	0.0272	0.0044	3	-0.55		0
271.00	Water Soluble Mn, AA (%)	0027	0.1400	0.0000	0.1086	0.0272	0.0044	3	1.15		0
271.30	Water Soluble Mn, ICP, Ext. 972.03 (%)	0394	0.0873	0.0014				2			0
271.30	Water Soluble Mn, ICP, Ext. 972.03 (%)	0619	0.1430	0.0040				2			0
271.99	Water Soluble Mn, Other (%)	0619	0.1430	0.0040				1			0
281.00	Acid Soluble Hg, AA (ppm)	0534	< 0.05					0			5
281.00	Acid Soluble Hg, AA (ppm)	0498	< 0.5					0			5
281.30	Acid Soluble Hg, ICP (ppm)	0394	0.0036	0.0000				1			0
281.30	Acid Soluble Hg, ICP (ppm)	0527	< 0.001					1			5
281.30	Acid Soluble Hg, ICP (ppm)	0515	< 0.01					1			5
281.30	Acid Soluble Hg, ICP (ppm)	0563	< 0.05					1			5
281.30	Acid Soluble Hg, ICP (ppm)	0605	< 1.25					1			5
281.30	Acid Soluble Hg, ICP (ppm)	0405	< 2					1			5
281.99	Acid Soluble Hg, Other (ppm)	0524	0.0100	0.0012	0.0283	0.0318	0.0056	3	-0.58		0
281.99	Acid Soluble Hg, Other (ppm)	0626	0.0100	0.0000	0.0283	0.0318	0.0056	3	-0.58		0
281.99	Acid Soluble Hg, Other (ppm)	0220	0.0650	0.0100	0.0283	0.0318	0.0056	3	1.15		0
281.99	Acid Soluble Hg, Other (ppm)	0572	< 0.009		0.0283	0.0318	0.0056	3			5
289.30	Acid Soluble Mo, ICP (110ppm)	0619	102.0	0.0000	125.5	8.832	9.076	15	-2.66	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0377	115.0	0.3000	125.5	8.832	9.076	15	-1.20	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0524	118.3	1.159	125.5	8.832	9.076	15	-0.82	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0234	121.0	4.000	125.5	8.832	9.076	15	-0.51	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0027	121.5	0.8700	125.5	8.832	9.076	15	-0.45	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0049	121.5	19.00	125.5	8.832	9.076	15	-0.45	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0523	124.1	2.660	125.5	8.832	9.076	15	-0.16	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0324	124.5	17.00	125.5	8.832	9.076	15	-0.11	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0444	125.0	30.00	125.5	8.832	9.076	15	-0.06	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0605	127.2	12.99	125.5	8.832	9.076	15	0.19	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0035	130.5	3.000	125.5	8.832	9.076	15	0.57	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0630	132.5	19.00	125.5	8.832	9.076	15	0.79	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0255	133.0	3.800	125.5	8.832	9.076	15	0.85	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0542	137.6	4.200	125.5	8.832	9.076	15	1.37	OK	0
289.30	Acid Soluble Mo, ICP (110ppm)	0433	152.0	16.00	125.5	8.832	9.076	15	3.00	OK	0
289.32	Acid Soluble Mo, ICP, 2006.03 (110ppm)	0405	145.0	4.000				2			0
289.32	Acid Soluble Mo, ICP, 2006.03 (110ppm)	0220	147.5	5.000				2			0
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	0563	83.50	1.000	127.6	14.51	5.281	12	-3.04	Low	0
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	0086	113.2	1.210	127.6	14.51	5.281	12	-1.00	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	0515	114.3	9.400	127.6	14.51	5.281	12	-0.92	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	0626	119.0	4.000	127.6	14.51	5.281	12	-0.59	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	0452	126.3	2.400	127.6	14.51	5.281	12	-0.09	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	0136	127.3	2.300	127.6	14.51	5.281	12	-0.03	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	0394	127.9	17.10	127.6	14.51	5.281	12	0.02	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	0423	132.8	1.300	127.6	14.51	5.281	12	0.35	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	0037	136.8	20.84	127.6	14.51	5.281	12	0.63	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	0527	138.9	2.324	127.6	14.51	5.281	12	0.78	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	0106	140.0	2.000	127.6	14.51	5.281	12	0.85	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (110ppm)	0543	183.0	10.00	127.6	14.51	5.281	12	3.82	High	0
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (110ppm)	0515	91.66	33.89				2			0
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (110ppm)	0368	115.5	1.000				2			0
289.99	Acid Soluble Mo, Other (110ppm)	0619	102.0	0.0000	130.9	25.77	9.592	4	-1.12		0
289.99	Acid Soluble Mo, Other (110ppm)	0220	128.0	6.000	130.9	25.77	9.592	4	-0.11		0
289.99	Acid Soluble Mo, Other (110ppm)	0572	129.0	10.84	130.9	25.77	9.592	4	-0.07		0
289.99	Acid Soluble Mo, Other (110ppm)	0042	164.7	11.94	130.9	25.77	9.592	4	1.31		0
291.30	Acid Soluble Ni, ICP (ppm)	0524	3.016	0.1728	5.283	2.138	0.1718	8	-0.97	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0523	3.877	0.1770	5.283	2.138	0.1718	8	-0.60	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0394	4.206	0.1690	5.283	2.138	0.1718	8	-0.46	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0630	4.549	0.0290	5.283	2.138	0.1718	8	-0.31	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0605	4.580	0.2200	5.283	2.138	0.1718	8	-0.30	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0035	6.120	0.2000	5.283	2.138	0.1718	8	0.36	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0626	7.425	1.050	5.283	2.138	0.1718	8	0.92	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0542	9.342	0.0920	5.283	2.138	0.1718	8	1.74	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0377	1.395	2.790	5.283	2.138	0.1718	8			4
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	0220	3.300	0.4000				2			0
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	0405	5.000	0.0000				2			0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0563	2.850	0.1000	5.900	2.957	0.2627	6	-0.92	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0624	3.525	0.2020	5.900	2.957	0.2627	6	-0.72	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0037	5.525	0.5406	5.900	2.957	0.2627	6	-0.11	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0136	5.955	0.1900	5.900	2.957	0.2627	6	0.02	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0086	7.675	0.4906	5.900	2.957	0.2627	6	0.53	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0527	9.870	0.0529	5.900	2.957	0.2627	6	1.20	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0515	< 0.18		5.900	2.957	0.2627	6			5
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0368	3.650	0.5000				1			0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0515	< 0.26					1			5
291.99	Acid Soluble Ni, Other (ppm)	0572	2.935	0.2777	13.14	17.77	3.367	4	-0.57		0
291.99	Acid Soluble Ni, Other (ppm)	0220	3.250	0.1000	13.14	17.77	3.367	4	-0.56		0
291.99	Acid Soluble Ni, Other (ppm)	0626	6.725	0.1100	13.14	17.77	3.367	4	-0.36		0
291.99	Acid Soluble Ni, Other (ppm)	0255	39.67	12.98	13.14	17.77	3.367	4	1.49		0
301.30	Acid Soluble Se, ICP (ppm)	0524	0.4610	0.0305				2			0
301.30	Acid Soluble Se, ICP (ppm)	0523	0.4780	0.0360				2			0
301.30	Acid Soluble Se, ICP (ppm)	0605	< 1.65					2			5

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	0220	0.8000	0.2000				1			0
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	0405	< 10					1			5
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0394	0.2363	0.0445				2			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0563	0.6750	0.0100				2			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0527	< 0.01					2			5
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0515	< 0.226					2			5
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0515	8.733	5.255				1			0
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0626	< 0.5					1			5
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0368	< 1.6					1			5
301.99	Acid Soluble Se, Other (ppm)	0220	0.8000	0.0000				2			0
301.99	Acid Soluble Se, Other (ppm)	0572	1.170	0.0851				2			0
301.99	Acid Soluble Se, Other (ppm)	0255	0.0000	0.0000				2			4
311.00	Sodium, AA (%)	0553	0.2930	0.0100				1			0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0527	0.2842	0.0075	0.2957	0.0168	0.0081	5	-0.69		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0035	0.2855	0.0170	0.2957	0.0168	0.0081	5	-0.61		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0423	0.2920	0.0020	0.2957	0.0168	0.0081	5	-0.22		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0624	0.2920	0.0040	0.2957	0.0168	0.0081	5	-0.22		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0563	0.3250	0.0100	0.2957	0.0168	0.0081	5	1.75		0
311.99	Sodium, Other (%)	0572	0.2854	0.0043	0.2987	0.0150	0.0066	3	-0.89		0
311.99	Sodium, Other (%)	0542	0.2957	0.0056	0.2987	0.0150	0.0066	3	-0.20		0
311.99	Sodium, Other (%)	0354	0.3150	0.0100	0.2987	0.0150	0.0066	3	1.08		0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.076%)	0553	0.0770	0.0000	0.0798	0.0029	0.0025	5	-0.99		0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.076%)	0485	0.0779	0.0003	0.0798	0.0029	0.0025	5	-0.69		0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.076%)	0040	0.0785	0.0030	0.0798	0.0029	0.0025	5	-0.46		0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.076%)	0626	0.0825	0.0030	0.0798	0.0029	0.0025	5	0.94		0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.076%)	0029	0.0833	0.0037	0.0798	0.0029	0.0025	5	1.20		0
321.03	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C w/dual ac	0498	0.0775	0.0010				1			0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0234	0.0605	0.0004	0.0816	0.0097	0.0048	16	-2.16	Low	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0291	0.0700	0.0000	0.0816	0.0097	0.0048	16	-1.19	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0444	0.0720	0.0040	0.0816	0.0097	0.0048	16	-0.98	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0354	0.0750	0.0100	0.0816	0.0097	0.0048	16	-0.68	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0255	0.0760	0.0000	0.0816	0.0097	0.0048	16	-0.57	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0513	0.0790	0.0020	0.0816	0.0097	0.0048	16	-0.27	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0023	0.0795	0.0004	0.0816	0.0097	0.0048	16	-0.21	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0231	0.0800	0.0000	0.0816	0.0097	0.0048	16	-0.16	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0324	0.0805	0.0050	0.0816	0.0097	0.0048	16	-0.11	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0049	0.0830	0.0020	0.0816	0.0097	0.0048	16	0.14	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0035	0.0850	0.0065	0.0816	0.0097	0.0048	16	0.34	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0377	0.0878	0.0055	0.0816	0.0097	0.0048	16	0.63	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0451	0.0896	0.0019	0.0816	0.0097	0.0048	16	0.82	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0292	0.0900	0.0000	0.0816	0.0097	0.0048	16	0.86	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0360	0.0950	0.0100	0.0816	0.0097	0.0048	16	1.38	High	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0433	0.1350	0.0100	0.0816	0.0097	0.0048	16	5.48	High	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.076%)	0552	0.1050	0.1100	0.0816	0.0097	0.0048	16	2.40	High	1
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (0.076%)	0423	0.0640	0.0020	0.0780	0.0121	0.0020	4	-1.16		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (0.076%)	0405	0.0729	0.0047	0.0780	0.0121	0.0020	4	-0.43		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (0.076%)	0220	0.0835	0.0010	0.0780	0.0121	0.0020	4	0.45		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (0.076%)	0095	0.0918	0.0003	0.0780	0.0121	0.0020	4	1.13		0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0136	0.0680	0.0020	0.0843	0.0085	0.0035	19	-1.93	Low	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0624	0.0745	0.0010	0.0843	0.0085	0.0035	19	-1.16	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0543	0.0750	0.0080	0.0843	0.0085	0.0035	19	-1.10	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0609	0.0775	0.0030	0.0843	0.0085	0.0035	19	-0.81	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0086	0.0798	0.0013	0.0843	0.0085	0.0035	19	-0.54	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0472	0.0800	0.0000	0.0843	0.0085	0.0035	19	-0.51	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0106	0.0810	0.0018	0.0843	0.0085	0.0035	19	-0.39	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0527	0.0812	0.0013	0.0843	0.0085	0.0035	19	-0.37	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0037	0.0820	0.0115	0.0843	0.0085	0.0035	19	-0.28	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0394	0.0832	0.0045	0.0843	0.0085	0.0035	19	-0.14	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0630	0.0833	0.0049	0.0843	0.0085	0.0035	19	-0.13	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0626	0.0860	0.0020	0.0843	0.0085	0.0035	19	0.20	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0452	0.0870	0.0040	0.0843	0.0085	0.0035	19	0.32	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0055	0.0900	0.0080	0.0843	0.0085	0.0035	19	0.67	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0421	0.0900	0.0000	0.0843	0.0085	0.0035	19	0.67	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0515	0.0934	0.0019	0.0843	0.0085	0.0035	19	1.07	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0043	0.0949	0.0045	0.0843	0.0085	0.0035	19	1.24	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0612	0.0950	0.0020	0.0843	0.0085	0.0035	19	1.26	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.076%)	0563	0.1000	0.0000	0.0843	0.0085	0.0035	19	1.85	High	0
321.99	Acid Soluble Zn, Other (0.076%)	0572	0.0755	0.0078	0.0849	0.0096	0.0061	12	-0.98	OK	0
321.99	Acid Soluble Zn, Other (0.076%)	0042	0.0770	0.0000	0.0849	0.0096	0.0061	12	-0.83	OK	0
321.99	Acid Soluble Zn, Other (0.076%)	0542	0.0794	0.0015	0.0849	0.0096	0.0061	12	-0.58	OK	0
321.99	Acid Soluble Zn, Other (0.076%)	0559	0.0798	0.0001	0.0849	0.0096	0.0061	12	-0.54	OK	0
321.99	Acid Soluble Zn, Other (0.076%)	0562	0.0798	0.0002	0.0849	0.0096	0.0061	12	-0.53	OK	0
321.99	Acid Soluble Zn, Other (0.076%)	0027	0.0815	0.0010	0.0849	0.0096	0.0061	12	-0.36	OK	0
321.99	Acid Soluble Zn, Other (0.076%)	0368	0.0817	0.0033	0.0849	0.0096	0.0061	12	-0.34	OK	0
321.99	Acid Soluble Zn, Other (0.076%)	0524	0.0830	0.0004	0.0849	0.0096	0.0061	12	-0.20	OK	0
321.99	Acid Soluble Zn, Other (0.076%)	0523	0.0880	0.0160	0.0849	0.0096	0.0061	12	0.32	OK	0
321.99	Acid Soluble Zn, Other (0.076%)	0605	0.0950	0.0100	0.0849	0.0096	0.0061	12	1.05	OK	0
321.99	Acid Soluble Zn, Other (0.076%)	0587	0.1050	0.0100	0.0849	0.0096	0.0061	12	2.09	High	0
321.99	Acid Soluble Zn, Other (0.076%)	0515	0.1093	0.0217	0.0849	0.0096	0.0061	12	2.53	High	0
321.99	Acid Soluble Zn, Other (0.076%)	0389	0.8400	0.0000	0.0849	0.0096	0.0061	12	78.68	High	2
325.00	Water Soluble Zn, AA (%)	0626	0.0530	0.0020				2			0
325.00	Water Soluble Zn, AA (%)	0485	0.0792	0.0052				2			0
325.30	Water Soluble Zn, ICP (%)	0394	0.0492	0.0009	0.0566	0.0080	0.0013	3	-0.93		0
325.30	Water Soluble Zn, ICP (%)	0626	0.0555	0.0010	0.0566	0.0080	0.0013	3	-0.13		0
325.30	Water Soluble Zn, ICP (%)	0619	0.0650	0.0020	0.0566	0.0080	0.0013	3	1.06		0
325.99	Water Soluble Zn, Other (%)	0619	0.0600	0.0120				2			0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Robust Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
325.99	Water Soluble Zn, Other (%)	0572	0.0684	0.0097				2			0
431.99	Soluble Si in nonliquids, Other (%)	0572	< 0.0066					0			5

Interpreting Z Scores and Flags:

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.

Notes:

Robust statistics not used if < 6 labs used in calculations, in this case Values and Z Scores are grayed out and should be interpreted with extreme caution. IA Status describes where your result is relative to the Assigned Value ± IA. Red indicates Higher or Lower and Green indicates within the IA range about the Robust mean. 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.